

FINDING OF NO SIGNIFICANT IMPACT

Environmental Assessment for the 860th Avenue Road Improvement Project Wang Township, Renville County, Minnesota Public Assistance Program

Federal Emergency Management Agency, Department Of Homeland Security

The Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) proposes to provide funding to Wang Township (subrecipient), to realign 860th Avenue approximately 1,460 linear feet in length. The subrecipient applied for funding from FEMA's Public Assistance Program (PA) to underwrite the proposed project. The PA Program is authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C. § 5170c. FEMA's PA Program provides disaster recovery funds to repair damage caused by natural or man-made disasters and to help prevent similar future damages.

The proposed project is located along 860th Avenue in sections 21 and 28 in Wang Township, Renville County, Minnesota. Renville County is located in South Central Minnesota.

The Proposed Action will realign 860th Avenue approximately 150 feet from its current location and allow the creek to naturally stabilize itself. The length of the realigned roadway will be approximately 1,460 linear feet, beginning at the east end of the existing Renville County bridge over Hawk Creek, forming a large curve around the severely eroding outer bank of Hawk Creek, and reconnecting with the existing roadway. The existing roadway along the realignment would be removed, and the existing streambank would not be modified.

FEMA prepared the EA pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321–4347 (2000), as implemented by the regulations promulgated by the President's Council on Environmental Quality (40 Code of Federal Regulations [C.F.R.] 30 §§ 1500–1508) and in accordance with FEMA Directive 108-1, *Environmental Planning and Historic Preservation Responsibilities and Program Requirements* and DHS Instruction Manual 023-01-001-01, *Implementation of the National Environmental Policy Act*. The purpose of the EA was to analyze the potential individual and cumulative environmental impacts of the construction of the proposed project and to determine whether to prepare an Environmental Impact Statement or this Finding of No Significant Impact.

The Proposed Action, as described in the EA, would not result in any significant adverse impacts on geology, soils, topography, water resources, floodplains, air quality, biological resources, wetlands, hazardous materials, zoning and land use, traffic and circulation, public services and utilities, environmental justice populations, historic structures, archaeological resources, or tribal and religious sites. Based on a preliminary screening of resources and the project's geographic location, the EA found that the following resources were not present in the project area and did not require a detailed assessment: coastal resources, seismic hazards, sole source aquifers, essential fish habitat, and wild and scenic rivers.

During the construction period, short-term impacts on soils, water resources, floodplain, wetlands, air quality, biological resources, noise, hazardous materials, safety and security, and archeological,

tribal and religious sites are anticipated. All potential short-term impacts require conditions to avoid, minimize, and mitigate impacts. With the implementation of these conditions, none of the potential impacts will be significant. In the long-term, the project will have beneficial effects on several resources. FEMA coordinated with the Minnesota State Historic Preservation Office, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency, US Fish and Wildlife Service, US Army Corps of Engineers, US Environmental Protection Agency, and federally recognized Indian tribes with interests in the area.

PROJECT CONDITIONS

The subrecipient is responsible for compliance with federal, state, and local laws and regulations, including obtaining any necessary permits prior to beginning construction activities, and adhering to any conditions laid out in these permits. Any substantive change to the scope of work would require re-evaluation by FEMA for compliance with NEPA and any other laws or Executive Orders.

The subrecipient must adhere to the following conditions should the Proposed Action be implemented. Failure to comply with FEMA grant conditions may jeopardize federal funding. FEMA requires the following standard conditions for the Proposed Action:

General Project Conditions

1. The subrecipient is responsible for obtaining and complying with all required local, state, and federal permits and approvals.
2. If deviations from the proposed scope of work result in substantial design changes, the need for additional ground disturbance, additional removal of vegetation, or any other unanticipated changes to the physical environment, the subrecipient must contact FEMA so that the revised project scope can be evaluated for compliance with NEPA and other applicable environmental laws.

Water Resources and Water Quality

3. Prior to beginning work, the subrecipient will require the construction contractor to apply for and obtain coverage from MPCA under the NPDES/SDS Construction Stormwater General Permit. The subrecipient and the construction contractor will be co-permittees.
4. During construction, the subrecipient will require the construction contractor to comply with the temporary and permanent erosion and sedimentation controls required by the Construction Stormwater General Permit and included in the project SWPPP.

Air Quality

5. To reduce the emission of criteria pollutants, construction equipment engine idling will be minimized to the extent practicable and engines will be kept properly maintained.
6. Open construction areas will be minimized and watered as needed to minimize particulates such as fugitive dust.

Hazardous Materials

7. The subrecipient will develop a SWPPP that includes procedures for fuel storage and handling that reduces the risk of stormwater contamination during construction. The subrecipient will require the construction contractor to comply with the SWPPP.

Migratory Birds

8. Vegetation removal should be limited to as small an area as practicable. contaminants in other than trace quantities.

Invasive Species

9. The contractors will ensure that any seed and mulch landscaping complies with state regulations regarding prohibited and restricted weed species.

10. Revegetation of disturbed soils will be accomplished using MnDOT/ Minnesota Board of Water and Soil Resources (BWSR) native seed mixes appropriate for the project site.

Safety and Security

11. To minimize risks to safety and human health, construction activities will be performed using qualified personnel properly trained to use the required equipment.

12. All construction activities will be conducted in accordance with the standards specified in the Occupational Safety and Health Administration (OSHA) regulations and Minnesota Department of Labor and Industry (DOLI) construction and safety standards.

Architectural, Tribal, and Religious Sites

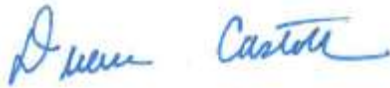
13. The subrecipient will monitor ground disturbance during the construction phase. Should human skeletal remains or historic or archaeological materials be discovered during construction, all ground-disturbing activities on the project site shall cease and the subrecipient will notify the Renville County Sheriff's office (in the case of human remains), the recipient (Minnesota HSEM), and FEMA. FEMA will notify the SHPO and the Office of the State Archaeologist.

14. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.

FINDINGS

Based upon the conditions and information contained in the EA and in accordance with FEMA Directive 108-1, *Environmental Planning and Historic Preservation Responsibilities and Program Requirements*, and Executive Orders 11988 (Floodplain Management), 11990 (Protection of Wetlands), and 12898 (Environmental Justice), FEMA has determined that the Proposed Action will not have any significant impacts on the quality of the natural and human environment. As a result of this FONSI, an Environmental Impact Statement will not be prepared.

APPROVAL



Duane Castaldi
Regional Environmental Officer, FEMA Region V

June 30, 2021

Date

AMANDA C RATLIFF

Digitally signed by AMANDA C
RATLIFF
Date: 2021.06.30 11:43:10 -05'00'

Amanda Ratliff
Public Assistance Branch Chief, FEMA Region V

Date



Final Environmental Assessment

860th Avenue Road Improvement Project

Wang Township, Renville County, MN

June 2021

Prepared by

Bollig Inc.

1700 Technology Drive NE, Suite 124

Willmar, MN 56201

Prepared for

FEMA Region V, Disaster #DR-4442-MN, Project # 114083, PW 886

536 South Clark Street, Sixth Floor

Chicago, IL 60605



FEMA

List of Acronyms, Chemical Formulas, and Abbreviations

ACS	American Community Survey	MPCA	Minnesota Pollution Control Agency
APE	Area of Potential Effect	NAVD	North American Vertical Datum
ATV	All-Terrain Vehicle	NAAQS	National Ambient Air Quality Standards
BMPs	Best Management Practices	NEPA	National Environmental Policy Act
BWSR	Board of Water and Soil Resources	NHPA	National Historic Preservation Act
CAA	Clean Air Act	NO ₂	Nitrogen Dioxide
CBRS	Coastal Barrier Resources System	NO _x	Nitrogen Oxides
CEQ	Council on Environmental Quality	NOAA	National Oceanic and Atmospheric Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	NPDES	National Pollution Discharge Elimination System
C.F.R.	Code of Federal Regulations	NPS	National Park Service
CFS	Cubic Feet per Second	NRCS	Natural Resources Conservation Service
CO	Carbon Monoxide	NRHP	National Register of Historic Places
CWA	Clean Water Act	NWI	National Wetlands Inventory
CZMA	Coastal Zone Management Act	O ₃	Ozone
DNR	Department of Natural Resources	OSHA	Occupational Safety and Health Administration
EA	Environmental Assessment	PA	Public Assistance
EFH	Essential Fish Habitat	Pb	Lead
EJ	Environmental Justice	P.L.	Public Law
EO	Executive Order	PM	Particulate Matter
EPA	Environmental Protection Agency	PNP	Private nonprofit
ESA	Endangered Species Act	RCRA	Resource Conservation and Recovery Act
FEMA	Federal Emergency Management Agency	SDS	State Disposal System
FIRM	Flood Insurance Rate Map	SHPO	State Historic Preservation Office
FONSI	Finding of No Significant Impact	SO ₂	Sulfur Dioxide
HSEM	Homeland Security and Emergency Management	SWCD	Soil and Water Conservation District
IPaC	Information for Planning and Consultation	SWPPP	Stormwater Pollution Prevention Plan
MBTA	Migratory Bird Treaty Act	THPO	Tribal Historic Preservation Office
MDH	Minnesota Department of Health	TMDL	Total Maximum Daily Load
MN	Minnesota	USACE	United States Army Corps of Engineers
Minn. R.	Minnesota Rules	U.S.	United States
MnDOT	Minnesota Department of Transportation	U.S.C.	United States Code
MNOSHA	Minnesota Occupational Safety and Health Administration		

USDA United States Department of
Agriculture
USFWS United States Fish and Wildlife
Service

USGS United States Geological Survey
VOC Volatile Organic Compound

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1 BACKGROUND

1.1 Project Authority

Between March 12 and April 28, 2019, high winds and heavy rains resulted in flooding throughout the state of Minnesota. Effects of the storm in Wang Township, located in Renville County, included significant erosion to the bank of Hawk Creek adjacent to 860th Avenue, jeopardizing the safety of the road. President Trump issued disaster declaration DR-4442-MN for the State of Minnesota on June 12, 2019, which made disaster recovery assistance available through the Federal Emergency Management Agency (FEMA). Wang Township applied for funding from FEMA's Public Assistance (PA) Program to underwrite the proposed project. FEMA's PA grant program provides federal assistance to government organizations and certain private nonprofit (PNP) organizations following a Presidential disaster declaration. Public Assistance is authorized by Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law [P.L.] 93-288), 42 U.S.C. §§ 5121-5207.

This environmental assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969; President's Council on Environmental Quality (CEQ) regulations to implement NEPA (40 Code of Federal Regulations [C.F.R.] Parts 1500 to 1508); U.S. Department of Homeland Security (DHS) Directive No. 023-01, rev. 1, *Implementation of the National Environmental Policy Act* (Oct. 31, 2014); DHS Instruction Manual No. 023-01-001-01, rev. 1, *Implementation of the National Environmental Policy Act* (Nov. 6, 2014); FEMA Directive No. 108-01, *Environmental Planning and Historic Preservation Responsibilities and Program Requirements* (Aug. 22, 2016); and FEMA Instruction No. 108-1-1, *Instruction on Implementation of the Environmental and Historic Preservation Responsibilities and Program Requirements* (Aug. 22, 2016). FEMA is required to consider potential environmental impacts before funding or approving actions and projects. The purpose of this EA is to meet FEMA's responsibilities under NEPA and to analyze the potential environmental impacts of the proposed project. FEMA will use the findings in this EA to determine whether to prepare an environmental impact statement for the proposed project or to issue a finding of no significant impact (FONSI).

In accordance with federal laws and FEMA regulations, the EA process for a proposed federal action must include an evaluation of alternatives and a discussion of the potential environmental impacts. As part of this NEPA review, the requirements of other environmental laws and executive orders are addressed.

1.2 Project Location

The proposed project is located along 860th Avenue in sections 21 and 28 in Wang Township, Renville County, Minnesota. Located in west-central Minnesota (see **Figure 1 of Appendix A**), the township is approximately 36 square miles in size and has a population of approximately 241, based on the 2018 5-year American Community Survey (ACS) estimates (U.S. Census Bureau 2018).

Table 1-1 Existing Road Location and Coordinates

Roadway	Midpoint		Start		End	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
860 th Avenue	44.833427	-95.432259	44.833242	-95.434606	44.832662	-95.429947

The project area includes 1,440 linear feet of 860th Avenue, between 120th and 130th Streets. Renville County bridge number 65556, Hawk Creek, and nearby agricultural and hunting land are also within the project area (see **Figure 2 of Appendix A**). 860th Avenue is a rural local gravel road providing both residential access and access to agricultural land that dominates the township. The road includes a bridge over Hawk Creek. Township officials indicate that much of the traffic using the bridge is large farm equipment and tractor trailers hauling grain or gravel. Due to the bank erosion on Hawk Creek adjacent to the roadway, Township officials have closed 860th Avenue to protect the public.

The next closest bridge, located one mile to the north, is an old timber construction bridge, with load restrictions. The closest bridges that can accommodate heavy loads are located two miles to the north and to the south.

The proposed realignment of 860th Avenue is approximately 1,460 linear feet in length, beginning at the east end of the existing bridge, forming a large curve around the severely eroding outer bank of Hawk Creek and reconnecting with the existing road alignment.

1.3 Purpose and Need

FEMA's PA Grant Program provides disaster recovery funds to repair damage caused by natural or man-made disasters and to help prevent similar future damages. The heavy rains affecting 860th Avenue during the incident period caused slope failure and erosion, resulting in embankment failure along the adjacent portion of Hawk Creek. Due to the threat of further deterioration and the potential for catastrophic failure of the road, 860th Avenue was closed by the Township due to these damages. The purpose of the project is to reduce the risk of future damages and closures from flooding, severe storms, and erosion to 860th Avenue.

The project is needed because of historically unprecedented streambank erosion caused by the flows in Hawk Creek. Though storm intensity and corresponding flows seem to be increasing in recent history, storms during the incident period caused flows in Hawk Creek to increase to the highest level in the available record from 1999 to present, with a peak flow of 3,815 CFS at the nearest gaging station, located 5 miles upstream, as shown in **Figure 3 of Appendix A** (Minnesota Department of Natural Resources 2020a) (See Section 7.3 for references listed by agency and year of publication.). These storm events caused streambank erosion and massive loss of the natural embankment near the 860th Avenue roadway. Approximately 30 horizontal feet of the top of the bank has been lost, along with approximately 10 feet of additional undermining of the bank. As a result of this damage to 860th Avenue, the road remains closed to this date.

Bridge crossings are a significant component of the local road system for Wang Township. While this portion of 860th Avenue remains closed, vehicle traffic, including emergency responders, must make a detour of approximately three miles. In the case of heavy agricultural equipment or tractor-trailers, the detour is approximately five miles. The township supervisor has noticed that some local traffic, along with all-terrain vehicle (ATV) and snowmobile traffic do not seem to be honoring the road closure, putting those individuals at great risk for accidentally driving off the road and plummeting approximately 65 feet into the creek below. The proposed project will restore the transportation network to pre-disaster conditions by creating a safe route of travel along 860th Avenue, which will restore emergency response times, restore the connection to markets for agricultural and other products, and will restore safe access to recreational use of the area.

2 ALTERNATIVE ANALYSIS

NEPA requires FEMA to evaluate alternatives to the proposed project and describe the environmental impacts of each alternative. NEPA also requires an evaluation of the No Action alternative, which is the future condition without the project. This section describes the No Action alternative, the Proposed Action (realigning 860th Avenue and leaving the streambank as-is), and reviews the alternatives that were previously considered but dismissed (stabilizing the streambank, stabilizing the streambank and rerouting the stream channel, and reconstructing the streambank without any additional stabilization).

2.1 Alternative 1 – No Action

Under the No Action alternative, 860th Avenue would remain closed. Storms and high stream flows would continue to damage the embankment, eventually causing the total destruction of the road. Additional erosion could also encroach on adjacent agricultural land and result in loss of production. The risk of losing a vehicle over the edge may increase, depending on the progression of the erosion and whether local and recreational traffic continues to disregard the road closure.

2.2 Action Alternative 2 – Proposed Action – Realign 860th Avenue

The Proposed Action would realign 860th Avenue approximately 150 feet from its current location and allow the creek to naturally stabilize itself. This will restore the function of 860th Avenue, providing local access to residential and agricultural lands without the need for a long detour. The proposed alignment is shown in **Figure 4 of Appendix A**.

Wang Township proposes the realignment of 860th Avenue for approximately 1,460 linear feet in length (realigned length, not existing length), beginning at the east end of the existing Renville County bridge over Hawk Creek, forming a large curve around the severely eroding outer bank of Hawk Creek, and reconnecting with the existing road alignment west of the nearby residential site. No modifications are proposed to the existing bridge. The existing roadway would be removed, and the existing streambank would not be modified. The scope of work for the relocation of 860th Avenue includes:

- Acquire new right of way 66 feet wide along the 1,460-foot-long new alignment and vacate existing road easement.
- Relocate 860th Avenue to create a two-lane rural design with a gravel driving surface 24 feet total width, centered within the new road right of way, with the remainder of the width on each side to be used for roadside ditches to provide drainage.
- Remove approximately 0.31 acres of existing trees and brush along the new alignment, as needed to construct the new roadway.
- Perform grading as required to construct the roadway and associated road ditches, including importing or exporting fill as needed (portions of the existing roadway may be salvaged and used for construction of the new road).

- Remove existing gravel driving surface, disconnect existing roadway from proposed roadway where alignment diverges at each end, and establish turf in the existing gravel area.
- Follow best management practices (BMPs) for erosion and sedimentation control during construction, in accordance with the Minnesota Pollution Control Agency's (MPCA) construction stormwater National Pollution Discharge Elimination System (NPDES) general permit.
- Reestablish appropriate vegetation within and adjacent to the existing roadway to provide erosion prevention, in accordance with the construction stormwater NPDES permit, and to provide a natural vegetative barrier of a row of trees between recreational users (snowmobile and all-terrain vehicle traffic) and the streambank, for safety.
- Seal one existing domestic drinking water well that conflicts with the proposed realignment and install a replacement domestic drinking water well in a more suitable location near the existing location, but outside of the relocated road right of way.

2.3 Alternatives Considered and Eliminated from Further Consideration

Three options had been considered but eliminated from further consideration due to a lack of feasibility.

2.3.1 Stabilize Streambank

This alternative would involve adding streambank stabilization to prevent further erosion and deterioration of the streambank. This would include no work on or to 860th Avenue itself. The stabilization would have to address the stability of the cliff, as well as protection from erosion by the flowing stream. Given the unstable nature of the existing streambank and loose cliff wall, this alternative would include advanced construction methods beyond the level of expertise available locally, but similar construction, in method and scale, has been performed in Minnesota along the Mississippi River in Minneapolis. Construction options for the cliff portion could include cement stabilization of the in-situ soils by drilling down adjacent to the cliff face and injecting cement slurry in an attempt to help solidify the soil and installing long pieces of sheet pile or pilings to physically reinforce the streambank. These methods could be installed between the existing cliff face and the roadway, leaving the natural face of the streambank in place, unless additional collapse would be experienced during construction, which is a real possibility due to the nearby vibration. In the event of additional collapse, the installed reinforcement would have to function more as an exposed retaining wall.

Streambank stabilization closer to the water level to prevent erosion from the water flowing in the creek could be performed using more traditional methods such as installing large diameter rip rap or concrete revetment. This portion of the construction is within the capabilities of local contractors, and the necessary materials are available locally. Similar projects have been employed within the County in other areas along Hawk Creek, though in much smaller scales.

Site access would be needed, which would include heavy equipment traffic on land adjacent to and also within the stream channel. This alternative is shown in **Figure 5 of Appendix A**.

This alternative was deemed infeasible due to the high likelihood of additional streambank failure during construction, and as such, was eliminated from further consideration.

2.3.2 Stabilize Streambank and Realign Stream Channel

This alternative would involve stabilizing the cliff portion of the streambank, as discussed above, along with leaving 860th Avenue in place as-is. However, instead of armoring the existing stream channel against erosion from the flowing creek, this alternative would include altering the alignment of the stream channel to cut off the loop that runs along the cliff face. A possible alignment for the channel is shown in **Figure 6 of Appendix A**. The construction to reroute the stream channel is within the capabilities of local contractors and would require site access similar to the streambank stabilization alternative.

Rerouting the stream channel decreases the susceptibility of the base of the cliff to continued erosion, but does alter the overall morphology of the stream, which can have other erosive effects downstream at other sites due to shortening the overall stream length. In early discussions with the Minnesota Department of Natural Resources (DNR), it was determined that, due to the detrimental effects of altering the stream morphology, this alternative would be unlikely to be permitted due to the significant environmental impacts. As such, this alternative was eliminated from further consideration.

2.3.3 Restore Embankment

This alternative was to simply restore the embankment to pre-disaster condition. The construction of a 60-foot tall vertical wall of soil would be difficult, if not impossible without significant reinforcement. Even if such construction were possible, the likelihood of failure during an upcoming storm would be very high. Therefore, this alternative was eliminated from further consideration.

3 AFFECTED ENVIRONMENT AND CONSEQUENCES

This section describes the natural and human environment potentially affected by the alternatives, evaluates potential impacts, and recommends measures to avoid or reduce those impacts. When possible, quantitative information is provided to establish potential impacts, and the potential impacts are evaluated qualitatively based on the criteria listed in **Table 3-1**. The “study area” generally includes the treatment area and access and staging areas needed for the proposed action. If the study area for a particular resource category is different from the project area, the differences will be described in the appropriate subsection.

Table 3-1 Evaluation Criteria for Potential Impacts

Impact Scale	Criteria
None/Negligible	The resource area would not be affected, or changes or benefits would be either nondetectable or, if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable.
Minor	Changes to the resource would be measurable, although the changes would be small and localized. Impacts or benefits would be within or below regulatory standards, as applicable. Mitigation measures would reduce any potential adverse effects.
Moderate	Changes to the resource would be measurable and have either localized or regional scale impacts/benefits. Impacts would be within or below regulatory standards, but historical conditions would be altered on a short-term basis. Mitigation measures would be necessary, and the measures would reduce any potential adverse effects.
Major	Changes would be readily measurable and would have substantial consequences on a local or regional level. Impacts would exceed regulatory standards. Mitigation measures to offset the adverse effects would be required to reduce impacts, but long-term changes to the resource would be expected.

3.1 Preliminary Screening of Assessment Categories

Based on a preliminary screening of resources and the project’s geographic location, the following resources do not require a detailed assessment.

- *Coastal Barrier Resources System (CBRS)*. The Coastal Barrier Resources Act is not applicable because the project is not within or near a CBRS unit (U.S. Fish and Wildlife Service [USFWS] 2020a).
- *Coastal Zone Management*. The Coastal Zone Management Act (CZMA), 16 U.S.C. § 1451 et seq., enacted in 1972, is not applicable because the project is not near a coast.
- *Seismic Risks*. Executive Order (EO) 12699, Seismic Safety of Federal and Federally Assisted or Regulated New Building Construction does not apply because there is low seismic risk in the project area based on seismic hazard maps developed by the U.S. Geological Survey (USGS) and because the project area contains no buildings.

- *Sole Source Aquifers*. There are no sole-source aquifers regulated by the Safe Drinking Water Act of 1974 in the vicinity of the project area (EPA 2020a).
- *Essential Fish Habitat (EFH)*. The Magnuson-Stevens Fishery Conservation and Management Act does not apply because there are no Habitat Areas of Particular Concern and no EFH Areas identified at the project site according to the NOAA Essential Fish Habitat Mapper (NOAA 2020).
- *Wild and Scenic Rivers*. The Wild and Scenic Rivers Act, 16 U.S.C. § 1271 et seq., is not applicable because there are no federally designated wild and scenic rivers in the project areas based on a review of the National Wild and Scenic Rivers System website maintained by the National Park Service (NPS 2020). The closest federally designated wild and scenic river is the St. Croix River, located along the Minnesota – Wisconsin border, approximately 130 miles east of the project area.

3.2 Physical Environment

3.2.1 Geology, Soils, and Topography

Bedrock geology was characterized using USGS geological maps of the U.S. (USGS 2021a). Underlying bedrock in the project area consists of granitic orthogneiss and migmatite. The bedrock formed during the Mesoarchean to Paleoproterozoic period. Most domestic wells within 2 miles of the project area are relatively shallow, 100 feet in depth or less, and well records generally indicate varying layers of sand and clay (Minnesota Department of Health (MDH) 2021). Consultation with MN DNR indicated that the project crosses a sensitive groundwater area, and that appropriate precautions should be taken to protect groundwater. The domestic well for the rural residence at the eastern end of the project site would be impacted by the road relocation and would require sealing and the installation of a new well, located further away from the realigned road.

Topography in the project area consists of a steep and undercut streambank approximately 60 feet tall at the location of the damage to the road, and a hillside that climbs somewhat uniformly from west to east, from the bridge over the creek, ascending approximately 50 feet over 1200 feet in length along the road, with elevations ranging 985 feet at the creek to 1050 feet NAVD88 at the eastern end of the project site (USGS 2021b).

Soils in the project area were identified using the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2021). The NRCS reports that the soils are generally well-drained loam soils that are typical of moraines, which is consistent with their setting in the topography of the site. These soils are well-drained, with deep depths to hydraulically restrictive features. This is consistent with the profile that is visible along the adjacent streambank. This confirms that the site soils are consistent with a sensitive groundwater area. These properties will form the basis for design of stormwater conveyance and erosion and sediment control features of the proposed construction.

The purpose of the Farmland Protection Policy Act of 1981, 7 U.S.C. §§ 4201 *et seq.*, is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of prime and important farmland to non-agricultural uses. The conversion of prime or unique farmland must be reviewed whenever Federal funding or time is used in the direct or indirect conversion of prime farmland unless an exemption exists. Though a portion of the project area contains approximately 2.2 acres of prime and important farmland that will be directly converted for this project, the NRCS has determined that the project area meets the small acreage exemption. This exemption permits the conversion of small acreages, i.e. 10 acres or less per linear mile or 3 acres where there is a project for an existing bridge or interchange), where a local Land Evaluation and Site Assessment system has been approved by a state conservationist. NRCS established this exemption to encourage improvements to existing linear projects, such as highways. NRCS, Farmland Protection Policy Act Manual, § 523.11.E(1) (Aug. 2012). Correspondence related to the Farmland Conversion Impact Rating and small acreage exemption is included in **Appendix C**.

Alternative 1 – No Action

Under the No Action alternative, there would be no effect on geology. There would be minor to moderate long-term impacts from erosion to streambank soils. Potential soil loss in the area could further undermine the streambank and trigger relatively larger massive loss of streambank, potentially acutely impacting the channel morphology of Hawk Creek and downstream sediment loading. Under the No Action alternative, erosion could change the topography by altering slopes and the stream channel adjacent to the project area.

Action Alternative 2 – Proposed Action

Bedrock depth is well below the project site, and the geology would not be impacted by the Proposed Action.

The Proposed Action would have minor short-term impacts on soils and topography resulting from the excavation of the existing road and placement of fill to construct the relocated road. To the extent practicable, on-site materials would be salvaged and used for fill, gravel roadway construction, and topsoil. Further geotechnical engineering and detailed roadway design are required in order to quantify the amount of material to be salvaged and the amount of material to be imported to or exported from the project site. Grading operations would be required to implement erosion and sediment control, as required by the MPCA Construction Stormwater General Permit. Project conditions to address mitigation of geology, soils, and topography impacts are provided in **Section 6.2**.

3.2.2 Water Resources and Water Quality

Water resources include surface water, groundwater, stormwater, and drinking water (wetlands are evaluated in **Section 3.3.2**). The project area is adjacent to Hawk Creek, which is regulated as a water of the state of Minnesota under state law. Surface waters and wetlands in the project area are shown in **Figure 7 of Appendix A**.

The Clean Water Act (CWA) of 1977, 33 U.S.C. § 1251 *et seq.*, regulates the discharge of pollutants into water, with various sections falling under the jurisdiction of the U.S. Army Corps of Engineers (USACE) and the EPA or as delegated to the state. Section 404 of the CWA establishes USACE permit requirements for discharge of dredged or fill materials into waters of the United States. Section 401 of the CWA is administered by MPCA and provides regulations for the protection of water quality on projects that involve dredge or fill in waters of the United States. Under the NPDES (Section 402 of the CWA), regulation of both point and nonpoint pollutant sources, including stormwater and stormwater runoff, has been delegated to the state and is administered by MPCA.

Hawk Creek is further administered by Renville County by way of the Renville County Water Plan (Renville County 2013) under the legislative authority of Minnesota Statute 103B. The plan outlines county-level priorities for water management within the county and also serves as the comprehensive plan for the Renville County Soil and Water Conservation District (SWCD). The Hawk Creek Watershed Project is also active in improving the water quality and quantity issues in the watershed and is organized through a joint powers agreement among Chippewa, Kandiyohi, and Renville Counties in Minnesota (Hawk Creek Watershed Project 2021).

EPA defines “water quality” as “the condition of a water body as it relates to purposes such as recreation, scenic enjoyment, aquatic habitat, and human health.” Water quality is regulated by both the CWA and Minnesota Administrative Rules (Minn. R. 7050). The portion of Hawk Creek in the project area has listed impairments and EPA-approved Total Maximum Daily Loads (TMDLs) for *E. coli* and Turbidity (MPCA 2017).

Stormwater runoff affects water quality in surface waters, such as Hawk Creek and downstream rivers such as the Minnesota and Mississippi Rivers. Stormwater runoff associated with this project includes runoff during construction and runoff from the site once construction is complete. BMPs are required during construction to prevent erosion and control sediment, and permanent design features prevent erosion and trap sediment long-term. These are important steps to reduce human-caused sediment loading to Hawk Creek and other downstream surface waters and to remain in compliance with the turbidity TMDL.

Groundwater underlying the project area is contained within sand layers, divided by intervening layers of clay. Project soils are well-drained, with the permanent water table generally assumed to be approximately at the elevation of the creek, as evidenced in nearby well drilling bore logs (MDH 2021). Perched groundwater may be present above this level, due to the layered nature of the sand and clay soils, as can be observed by the minor outflows of water at varying elevations along the streambank.

Alternative 1 – No Action

Under the No Action alternative, high flows and associated streambank erosion would continue, causing long-term, moderate adverse impacts on water quality in Hawk Creek as a result of sedimentation from soil erosion. Besides the gradual intensification of the erosion due to channelization and land use changes within the watershed, this is predominantly a natural

process of stream morphology. The sediment would eventually include the existing roadway driving surface materials, some of which were imported to the site when the road was constructed, resulting in an overall slight increase in the total sediment amount compared to just the natural amount. No impact on, or withdrawal of, groundwater is anticipated under the No Action alternative.

Alternative 2 – Proposed Action

Minor short-term impacts on water quality would occur during construction of the Proposed Action. During construction, exposed soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of habitat for aquatic species. Clearing and grading during construction would cause the temporary loss of vegetation and exposure of soil to the elements. To mitigate potential impacts from erosion during construction, the project sponsors and the contractor would be responsible for obtaining coverage under the Construction Stormwater General Permit (NPDES/SDS Permit MNR100001) as co-permittees and for implementing BMPs and permanent erosion prevention measures as required for permit compliance, in accordance with MN Administrative Rules (Minn. R. 7090). Project conditions to address mitigation of surface water quality impacts are provided in **Section 6.2**.

The ongoing movement of the stream channel and associated erosion and sedimentation associated therewith would also continue, as described for the No Action alternative, with the exception that portions of the existing roadway will be removed, and as such will not erode into surface waters. This will result in a slight decrease of the total sediment amount from this source, as compared to the No Action alternative.

The road realignment conflicts with an existing domestic drinking water well. The existing well must be sealed and a new well must be installed, outside of the roadway and in compliance with MDH well siting requirements.

3.2.3 Floodplain Management (Executive Order 11988)

Executive Order (EO) 11988, Floodplain Management, requires federal agencies to minimize occupancy and modification of the floodplain. Specifically, EO 11988 prohibits federal agencies from funding construction in the 100-year floodplain unless there are no practicable alternatives. FEMA's regulations for complying with EO 11988 are promulgated in 44 C.F.R Part 9.

The proposed work connects to the existing bridge over Hawk Creek and ascends out of the river valley, approximately 50 vertical feet above the elevation of the bridge. As noted in the Flood Insurance Rate Map (FIRM) for Renville County, Minnesota and Incorporated Areas (Map number 77129C0250C, effective date September 25, 2009) (see **Figure 7 of Appendix A**) (FEMA 2009), FEMA has not determined a 1-percent-annual-chance Base Flood Elevation at this location on Hawk Creek. Based on the boundary of the floodplain shown on the map and the topography of the area, the approximate 1-percent-annual-chance flood elevation is assumed to be between 990' and 1000' above sea level. The proposed construction is all located above this

elevation, with elevations ranging from approximately 1004' to 1052' above sea level. The proposed work area is determined to be outside the 1-percent-annual-chance (100-year) floodplain, according to the FIRM.

Alternative 1 – No Action

Under the No Action alternative, there would be no construction, and therefore, no direct modification of the floodplain. However, there would be long-term, minor impacts from continued erosion of the streambank. Continued erosion of the streambank would deposit soil, including the existing roadway into the stream channel, affecting the meander of the stream and floodplain.

Action Alternative 2 – Proposed Action

Relocation of 860th Avenue would result in no direct impacts to floodplains. This alternative shares the same long-term, minor impacts from continued erosion of the streambank, but without deposition of the existing roadway soils, since the proposed project would remove the existing roadway.

3.2.4 Air Quality

The Clean Air Act (CAA), 42 U.S.C. § 7401 et seq., requires EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The CAA established two types of national air quality standards. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Current criteria pollutants are carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), lead (Pb), particulate matter (PM), and sulfur dioxide (SO₂).

Federally funded actions in nonattainment and maintenance areas are subject to EPA conformity regulations, 40 C.F.R. Parts 51 and 93. The air conformity analysis process ensures that emissions of air pollutants from planned federally funded activities would not affect the state's ability to achieve the CAA goal of meeting the NAAQS. Section 176(c) of the CAA requires that federally funded projects must not cause any violations of the NAAQS, increase the frequency or severity of NAAQS violations, or delay timely attainment of the NAAQS or any interim milestone. Activities that would cause an exceedance of the NAAQS or cause an area to fall out of attainment status would be considered a significant impact. The emissions from construction activities are subject to air conformity review.

Under the general conformity regulations, a determination for federal actions is required for each criteria pollutant or precursor in nonattainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed *de minimis* rates for that pollutant. The prescribed

annual rates are 50 tons of volatile organic compounds (VOCs) and 100 tons of nitrogen oxides (NO_x) (O₃ precursors) and 100 tons of PM_{2.5}, SO₂, or NO_x (PM_{2.5} and precursors).

An area is classified as nonattainment when it does not meet NAAQS standards. According to EPA's NAAQS county attainment record, Renville County is in attainment for all NAAQS criteria pollutants (EPA 2020b, c).

Alternative 1 – No Action

Construction activities would not occur under the No Action alternative. Detours from the 860th Avenue closure resulting from storm damage would continue and would cause a minor increase in localized emissions. Therefore, short- and long-term impacts on air quality would be minor with increased road closure.

Action Alternative 2 – Proposed Action

The Proposed Action would have short-term impacts on air quality owing to the use of construction equipment with diesel and gasoline engines. During the construction phase, exposed soil could temporarily increase airborne particulate matter into the project area. Emissions from construction equipment could have minor temporary effects on the levels of some pollutants, including CO, VOCs, NO₂, O₃, and PM. Emissions would be temporary and localized, and only minor impacts to air quality in the project area would occur. Project conditions to address mitigation of air quality impacts are provided in **Section 6.2**.

Long-term negligible impacts on air quality are anticipated and an air permit would not be required for the Proposed Action. The Proposed Action would not increase traffic capacity and would reduce emissions from road closure-related detours in the long-term.

3.3 Biological Environment

3.3.1 Terrestrial and Aquatic Environment

Land use in Renville County is dominated by row crop agriculture. The project area is located mostly within the riparian area of Hawk Creek. The project site is too steep to support traditional farming practices that dominate the rest of the township and consists of land primarily used for hunting. As such, the project area does not show evidence of cultivation.

The project area is now dominated by grasses and weedy species, forbs, and small shrubs including cedar, with deciduous trees along the top of the streambank cliff. Terrestrial wildlife in the project area may include raccoon (*Procyon lotor*), white-tailed deer (*Odocoileus virginianus*), and various species of squirrels. Reviews of the project area indicate the occurrence of a bald eagle nest 0.68 miles away from the project site (see **Section 3.3.4** for an evaluation of migratory birds).

Aquatic habitat in the project area includes Hawk Creek. Creek habitat consists primarily of a silty, sandy, and rocky streambed, with varying water depth and speed as the creek makes its

way around numerous bends. The streambed and streambank also feature fallen trees that provide habitat and locally vary the in-stream water velocity. The riparian area of the natural floodplain varies considerably in width and vegetative cover in the miles upstream and downstream of the project site, due to varying topography and also due to the irregular orientation of the creek relative to the otherwise rectangular parcels and farm fields in the area. The portion of the Creek adjacent to and downstream of the project site is primarily the natural stream channel, which generally provides higher quality habitat, while much of the watershed upstream of the project site consists of altered, channelized geometry, which generally provides lower quality habitat.

The portion of Hawk Creek in and adjacent to the project area is impaired for turbidity, which affects the use designation for aquatic life. MN DNR reviews of the project area indicate prior finding of four mussels that are state-listed as threatened or of special concern, approximately 4.5 miles downstream of the project site (see **Section 3.3.3** for an evaluation of threatened and endangered species). According to MPCA biological monitoring, the portion of Hawk Creek in and adjacent to the project area has fish and macroinvertebrate index of biological integrity scores that meet standards, which is indicative that the quantity and diversity of aquatic life is generally acceptable, when compared to similar waterbodies in similar ecoregions of the state, but turbidity, approximately half of which is from channel erosion, is identified as an aquatic life stressor. Altered hydrology within the watershed is identified as a significant trigger for increased erosion (MPCA 2017a).

Alternative 1 – No Action

Under the No Action alternative, high flows and associated streambank erosion would continue, causing long-term, moderate adverse impacts on water quality in Hawk Creek as a result of sedimentation from soil erosion. Besides the gradual intensification of the erosion due to channelization and land use changes within the watershed, this is predominantly a natural process of stream morphology and may not be hazardous to aquatic wildlife, so long as the rate of erosion does not exceed the ability of aquatic wildlife to cope with this periodic sediment loading. The sediment would eventually include the existing roadway driving surface materials, some of which were imported to the site when the road was constructed, resulting in an overall slight increase in the total sediment amount compared to just the natural amount. The erosion would also result in the introduction of fallen trees into the stream channel, diversifying the in-stream habitat, which may have a slight positive impact to some aquatic species. As with the streambank erosion, this is a natural process that has been intensified by increases in streamflow.

Alternative 2 – Proposed Action

Minor short-term impacts on water quality would occur during construction of the Proposed Action. During construction, exposed soil is highly vulnerable to erosion by wind and water. Eroded soil endangers water resources by reducing water quality and causing the siltation of habitat for aquatic species. Clearing and grading during construction would cause the temporary

loss of vegetation and exposure of soil to the elements. To mitigate potential impacts from erosion during construction, the project sponsors and the contractor would be responsible for obtaining coverage under the Construction Stormwater General Permit (NPDES/SDS Permit MNR100001) as co-permittees and for implementing BMPs and permanent erosion prevention measures as required for permit compliance, in accordance with MN Administrative Rules (Minn. R. 7090). Project conditions to address mitigation of surface water quality impacts are provided in **Section 6.2**.

The ongoing movement of the stream channel and associated erosion and sedimentation would also continue, as described for the No Action alternative, with the exception that portions of the existing roadway will be removed, and as such will not erode into surface waters. This will result in a slight decrease of the total sediment amount from this source, as compared to the No Action alternative.

Approximately one acre of vegetation, including grasses and some trees, will be cleared for the proposed construction. Seed and mulch landscaping would be planted on either side of the relocated road in accordance with Minnesota Department of Transportation (MnDOT) BMP standards, which may include native seed mixes that include plant species beneficial to native pollinators. Project conditions to address mitigation of terrestrial and aquatic habitat impacts are provided in **Section 6.2**.

3.3.2 Wetlands (Executive Order 11990)

Executive Order (EO) 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. FEMA regulation 44 C.F.R. Part 9, *Floodplain Management and Protection of Wetlands*, sets forth the policy, procedures, and responsibilities to implement and enforce EO 11990. EO 11990 prohibits FEMA from funding activities in a wetland unless no practicable alternatives are available. The NEPA compliance process requires federal agencies to consider direct and indirect impacts on wetlands which may result from federally funded actions.

USACE and EPA define wetlands as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (40 C.F.R. § 122.2).

The National Wetlands Inventory (NWI) was reviewed to identify potential wetlands in or near the project area (USFWS 2020b). The NWI classifies Hawk Creek as a Riverine System, which includes both wetlands and deepwater habitats contained within a channel. Under federal regulations, because of a lack of vegetation, Hawk Creek does not fit the criteria as a wetland. There are some areas within and adjacent to the channel near the project area that are classified as wetlands within the Palustrine system, however these are located on the opposite (west) bank of the Creek. Therefore, measures necessary to protect the Creek itself from sedimentation during construction should be sufficient to also be protective of wetlands, without specific mitigation measures uniquely related to wetlands.

The upland areas within the project area, due to topography and soil type, do not meet the inundation or saturation frequency condition to support wetland vegetative species and therefore are not wetlands and are not identified as wetlands in the NWI.

Alternative 1 – No Action

Under the No Action alternative, there would be no project-related short- or long-term impacts on wetlands.

Alternative 2 – Proposed Action

Temporary erosion prevention and sediment control BMPs during construction of the Proposed Action, as well as permanent erosion prevention elements of the project construction that are required as related to protection of Hawk Creek, which is not a wetland, will automatically provide protection of wetlands that may be adjacent to the creek. No impacts to wetlands are foreseen, and therefore no specific mitigation measures are proposed with respect to wetlands.

3.3.3 Threatened and Endangered Species

The Endangered Species Act (ESA) of 1973, 16 U.S.C. § 1531 - 1544, provides a framework for the conservation of endangered and threatened species and their habitats. Federal agencies are required to ensure that actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of any listed species (including plant species) or result in the destruction or adverse modification of designated critical habitats for such species.

In July 2020, via the Information for Planning and Consultation (IPaC) tool, FEMA obtained a list of species with the potential to occur in the project vicinity. There was no federally designated critical habitat within the project area. The IPaC tool identified the potential for two listed species to occur in or near the project area: Northern long-eared bat (*Myotis septentrionalis*) and Prairie bush-clover (*Lespedeza leptostachya*).

Minnesota DNR maintains and annually updates a listing of townships in the state that contain known Northern long-eared bat roost trees and hibernacula (Minnesota Department of Natural Resources 2020b). The current listing contains no such instances in Renville County nor the other counties nearest to the project area.

FEMA consultation with the USFWS regarding the Northern long-eared bat indicates that while the project may affect the Northern long-eared bat, any take that may occur as a result of the project is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 C.F.R. § 17.40(o) and that FEMA's responsibilities for the project under ESA Section 7(a)(2) with respect to the Northern long-eared bat are concluded. Correspondence is included in **Appendix C**.

The habitat for the prairie bush-clover is dry to mesic prairies with gravelly soils and includes Renville County. It is native to tallgrass prairies. The project location is at the extreme extent of the identified range, as Wang Township is located in the far northwestern corner of Renville County, and the neighboring counties of Kandiyohi and Chippewa are not identified in range.

maps (USFWS 2020c). FEMA reviews of Natural Heritage Information System data indicate no known occurrences of federally listed species in the project area.

Consultation with Minnesota DNR and FEMA reviews of Natural Heritage Information System data has indicated the presence of four species of state-listed mussels about 4.5 miles downstream, including the following:

- Elktoe mussel (*Alasmidonta marginata*) – MN Threatened
- Mucket mussel (*Actinonaias ligamentina*) – MN Threatened
- Black sandshell (*Ligumia recta*) – MN species of special concern
- Spike mussel (*Elliptio dilatata*) – MN Threatened

Minnesota DNR consultation further recommended avoiding or minimizing in-stream work and using stringent erosion control to help protect mussels. See **Appendix C**.

Alternative 1 – No Action

The No Action alternative would not directly impact state or federally listed threatened or endangered species because there would be no construction. Also, available evidence indicates that apart from the downstream mussel sightings, no listed species are expected to occur in the project vicinity.

Alternative 2 – Proposed Action

Northern long-eared bats tend to roost in trees near water; although unlikely, there is the potential that tree removal included in the Proposed Action could affect some bat habitat. In July 2020, FEMA submitted an online Northern long-eared bat 4(d) determination key and received verification from USFWS that any take of the bats that may occur as a result of the Proposed Action is not prohibited under the ESA Section 4(d) rule adopted for the species.

Correspondence between USFWS and FEMA is provided in **Appendix C**.

Though occurrence is unlikely at the extreme extent of the identified range, if present, prairie bush-clover would be able to be moved away from project activities and re-planted.

Project conditions to address mitigation of impacts on threatened and endangered species are provided in **Section 6.2**.

3.3.4 Migratory Birds

A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. The Migratory Bird Treaty Act (MBTA) of 1918, as amended, 16 U.S.C. §§ 703–712, protects migratory birds and their nests, eggs, and body parts from harm, sale, or other injurious actions. All native birds, including common species such as American robin (*Turdus migratorius*) and American crow (*Corvus brachyrhynchos*) are protected by the MBTA. The project area would support migratory birds.

The Bald and Golden Eagle Protection Act, 16 U.S.C. § 668, prohibits the take, possession, sale, or other harmful action of any golden (*Aquila chrysaetos*) or bald eagle (*Haliaeetus leucocephalus*),

alive or dead, including any part, nest, or egg (16 U.S.C. § 668(a)). A search of IPaC in January 2021 identified the bald eagle as possibly being present in the project area, the Natural Heritage Information System review identified a bald eagle nest that is 0.68 miles away from the project area.

Alternative 1 – No Action

The No Action alternative would not directly impact migratory birds because there would be no construction.

Alternative 2 – Proposed Action

Road relocation would have minor long-term impacts from the removal of approximately 0.31 acres of scattered trees, and removal other vegetation along the relocated road alignment that could serve as habitat for migratory birds. Seed and mulch landscaping would be planted on either side of the relocated road in accordance with MnDOT BMP standards.

Project conditions to address mitigation of impacts on migratory birds are provided in **Section 6.2**.

3.3.5 Invasive Species

EO 13112, Invasive Species, requires federal agencies to prevent the introduction of invasive species and provide for their control to minimize the economic, ecological, and human health impacts caused by invasive species. The State of Minnesota has also established laws related to the control or eradication of noxious weeds under MN Statutes Chapter 18, the Noxious Weed Law and related to the sale and control of seeds in general under MN Statutes Chapter 21, the Minnesota Seed Law.

Many roadside turf establishment seed mixes commonly used throughout Minnesota for decades have included large portions of non-native grass species, but the current trend is toward greater use of native seed mixes to both enhance the long-term performance of the vegetation and also to provide better wildlife habitat, particularly for pollinators. Consultation with MN DNR and EPA both have included recommendations to use native, pollinator-friendly seed mixtures for permanent vegetation in the project area.

Alternative 1 – No Action

The No Action alternative would have no project-related impacts because construction would not occur. However, there could be minor long-term, adverse impacts on the area as any existing invasive plant species would continue to persist in the project area.

Action Alternative 2 – Proposed Action

The Proposed Action could have minor short-term impacts from the potential spread of invasive weeds caused by construction activities. Construction activities could result in the transport of

invasive weed species both into and outside of the project area as both cuttings and seeds attached to vehicles.

Revegetation of disturbed areas of the project site using native, pollinator-friendly seed mixes would have moderate, long-term, beneficial effects by providing enhanced habitat and by replacing areas of nonnative vegetation.

Project conditions to address the mitigation of the spread of invasive species are provided in **Section 6.2**.

3.4 Hazardous Materials

Hazardous materials are any items or agents (biological, chemical, radiological, or physical) that have the potential to cause harm to humans, animals, or the environment either by itself or through interaction with other factors. Sites within or adjacent to the project area, regulated by federal hazardous materials laws such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, and the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §§ 6901 *et seq.*, were identified using the EPA Envirofacts and NEPAAssist websites (EPA 2020d, EPA 2020e).

Envirofacts and NEPAAssist identified no regulated sites within a 0.5-mile radius of the project area. NEPAAssist did not identify any sites in the project area or vicinity listed in the toxic release inventory, water dischargers (NPDES), EPA Brownfields Program, or Superfund (National Priorities List) facilities databases (EPA 2020d, 2020e).

A similar search was also conducted using the MPCA What's in My Neighborhood mapping tool (MPCA 2020). The only facility identified within a 0.5-mile radius of the project area is an animal feedlot located approximately 0.5 miles northeast of the project area. This site will neither affect nor be affected by any of the project alternatives.

Alternative 1 – No Action

Because there would be no construction under the No Action alternative, there would be no impacts related to hazardous materials.

Action Alternative 2 – Proposed Action

The Proposed Action would not involve the addition of any hazardous materials or chemicals to the site. Construction equipment used for the project would have small quantities of gasoline and diesel fuel, but no releases are anticipated from these machines as they would be kept in good working order in accordance with state and local ordinances.

See **Section 6.2** for project conditions related to hazardous materials.

3.5 Socioeconomics

3.5.1 Zoning and Land Use

Renville County is responsible for the development and enforcement of the land use ordinance (Renville County 2019a), the official zoning maps (Renville County 2019b), and the master land use plan titled *Renville County Comprehensive Plan* (Renville County 2010). The land use ordinance and zoning maps specify the permitted land uses within the project area, while the comprehensive plan guides potential future development for zoned areas. These documents were used to evaluate the project's consistency with local zoning and land use.

The county zoning map shows that the project area is currently zoned for agricultural uses and is mostly within the Shoreland zoning district (Renville County 2019b). Placement and design of roads in Shoreland district areas is regulated in chapter 6, section 5.F, which primarily addresses erosion control, visual screening, and avoiding adverse impacts related to proximity to bluff areas. The alternatives, as considered herein, are all permissible per the ordinance.

Alternative 1 – No Action

The No Action alternative would have a negligible impact on existing zoning for properties within the project area, and there would be no immediate changes to existing land uses. Over time, the continued meandering of Hawk Creek may result in loss of crop land and creation of new riparian areas. This movement of the stream would also result in shifting boundaries of the Shoreland zoning district.

Action Alternative 2 – Proposed Action

The Proposed Action would have negligible short and long-term impacts on land use as there is no conflict with any of the existing land uses or zoning in the project area. The Proposed Action would mostly swap undeveloped, non-cultivated land with the realigned road, with the existing road area being converted to undeveloped, non-cultivated land. A small portion of cultivated land would be taken out of production at the eastern terminus of the realignment, and it is unlikely that the existing roadway area adjacent to this would be cultivated, due to its small size and peculiar shape that is not conducive to operation of large modern agricultural equipment.

3.5.2 Noise

The Noise Control Act of 1972 defines “noise” as an undesirable sound. Noise is regulated at the federal level by the Noise Control Act of 1972, 42 U.S.C. § 4901, et seq.. Noise standards developed by EPA (1974) provide a basis for state and local governments' judgments in setting local noise standards. Neither Wang Township nor Renville County have in place any noise ordinance relating to construction.

Alternative 1 – No Action

The No Action alternative would not change ambient noise levels in the project area. The continued closure of the road would continue to reroute traffic noises to other routes, but that noise would likely not exceed local ordinance thresholds. There would be no short- or long-term changes in noise levels.

Action Alternative 2 – Proposed Action

The Proposed Action would cause short-term changes in the ambient noise levels in the area associated with construction activities. Short-term impacts related to construction activities would include trucks hauling materials to the site and the operation of equipment such as excavators for road building activities. Minor traffic noise would also be expected from construction vehicles and haul trucks arriving and departing from the project area. Reopening the road following construction would return traffic noise levels to pre-disaster conditions.

3.5.3 Public Services and Utilities

Wang Township is served by the Renville County Sheriff's Office and the neighboring municipal fire departments. No police, fire, public schools, or township facilities are located within or adjacent to the project area. The hospital closest to the project site, Avera Granite Falls Health Center is 8 miles southwest in Granite Falls.

The project site is currently closed to traffic. The minimum detour for emergency vehicles is approximately 3 miles.

Wang Township provides road maintenance services to the project site and bordering areas. Minnesota Valley Cooperative Light and Power Association provides electricity services to the project area, and existing distribution lines are present along the length of the project area, serving the farmstead at the eastern end of the project site. Streambank erosion caused by the storm has necessitated the relocation of electric distribution lines. The already-relocated lines are likely safe from further damage for the foreseeable future. Sacred Heart Telephone Company provides telephone service to the farmstead at the eastern end of the project site, with the telephone line coming from the east, outside of the construction area.

Alternative 1 – No Action

The No Action alternative would have a minor impact on public services in the project area. The ongoing road closure would continue to require detours and could cause delays for emergency vehicles from increased travel distances on detour routes. Traffic on detoured routes is not expected to rise to a level that would impact emergency vehicle travel times.

Action Alternative 2 – Proposed Action

The Proposed Action may have a minor short-term impact on electric service, as the existing electric service may need to be relocated to accommodate road construction.

The Proposed Action would provide minor long-term benefits to public services by reducing the potential for future road closures due to flooding, which would provide a more reliable route for emergency vehicle access, in addition to eliminating the current road closure.

3.5.4 Traffic and Circulation

Traffic count data is not available for 860th Avenue. Typical users of the road would be rural residents, farm workers, and those operating trucks and agricultural machinery in support of farming operations throughout the township. The current road closure results in a detour of a minimum of 3 miles for passenger cars, and a minimum of 5 miles for heavier vehicles.

Recreational users of the road corridor include ATV riders and snowmobilers. Minnesota is home to an extensive network of snowmobile trails, many of which are managed, maintained, and groomed by local snowmobile clubs. One such trail, managed by the Cross Country Trail Blazers club, travels through the area, covering approximately 120 miles within northwestern Renville, southeastern Chippewa, and southwestern Kandiyohi Counties. A portion of this trail uses the 860th Avenue road right of way, along the entire length of the project area.

The current damaged condition of the road presents a significant hazard to recreational users of the road corridor, as there is no physical barrier to prevent someone from accidentally driving their ATV or snowmobile off the cliff, plummeting to the creek below. Such an accident would very likely result in death or permanent serious injury.

Alternative 1 – No Action

The No Action alternative would have both minor short- and long-term negative impacts on traffic and circulation in the area. The road would remain closed, and would eventually become completely impassible, even for any traffic that would ignore the closure.

The very real possibility of a serious accident or death of a recreational user would remain and likely worsen as erosion continues.

Action Alternative 2 – Proposed Action

The Proposed Action would have minor short- and long-term positive impacts on traffic and circulation in the area. The road would reopen to traffic, which would eliminate the detour. No long-term changes in local traffic are anticipated as a result of the proposed action. The construction would also allow for correction of the recreational safety hazards that are currently present in the damaged area, by installing a row of trees as vegetative barriers between recreational users and the cliff.

The Proposed Action would have minor long-term impacts on the snowmobile trail, in that its alignment will be adjusted to match the realigned road. These updates will need to be coordinated with the local snowmobile club and with the MN DNR, who maintains paper and electronic maps of the trail system.

3.5.5 Environmental Justice (Executive Order 12898)

EO 12898, Federal Actions to Address Environmental Justice (EJ) in Minority and Low-Income Populations, requires agencies to identify and address disproportionately high and adverse human health or environmental effects their activities may have on minority or low-income populations. EJSCREEN, a screening and mapping tool developed by EPA, was used to identify low-income and minority populations in the project area based on the 2013–2017 ACS developed by the U.S. Census Bureau (EPA 2021).

Minority or low-income populations in a project area can be identified by meeting either one or both of the following criteria:

- The affected area (e.g., census block group) contains 50 percent or more minority persons or 25 percent or more low-income persons.
- The percentage of minority or low-income persons in an affected area (e.g., census block group) is more than 10 percent greater than the average of the surrounding county.

The project area is located within a single census block group (ID# 271297903001) in Renville County. According to the ACS, the total population of the block group was approximately 1,222 persons in 2017. About 7 percent of the population in the census block group is minority. Low-income residents make up 31 percent of the population of the census block group based on EPA EJScreen data. The minority population in the census block makes up less than 50 percent of the population, but the low-income population is more than 25 percent. Therefore, this census block is considered to be low-income due to the number of low-income residents.

Alternative 1 – No Action

Under the No Action alternative, the closure of 860th Avenue would continue. 860th Avenue provides a key component of local access to several rural residences and farm sites. However, with the low population density, these individuals comprise a small share of the population of the census block, and it is not possible to know, based on screening tools alone, whether or not those actually affected are minority or low-income individuals and whether or not the no action alternative would therefore disproportionately negatively affect EJ populations.

Action Alternative 2 – Proposed Action

The Proposed Action would not have any disproportionately high and adverse effects on EJ populations. Minor short-term construction-related effects would include noise, traffic, and air quality impacts. Construction activity would be limited to such a small area that it would not impact EJ population dwellings. EJ populations would benefit from improved access and restored recreational opportunities. No business or residential displacement or relocations are proposed, and no long-term impacts from traffic, noise, or air quality on EJ populations are anticipated.

3.5.6 Safety and Security

The Occupational Safety and Health Act, 29 U.S.C. §§ 651 – 678, requires safe and healthful conditions for working men and women by setting and enforcing standards and providing training, outreach, and education and compliance assistance. The act created the Occupational Safety and Health Administration (OSHA) which established construction standards under 29 C.F.R. Part 1926. Similarly, the State of Minnesota has adopted construction safety standards, as found in MN Statutes Chapter 182 Occupational Safety and Health and in Minn. R.5207, Standards for Construction. These Minnesota safety standards are administered by the Minnesota Occupational Safety and Health Administration (MNOSHA), within the Minnesota Department of Labor and Industry. The construction and safety standards set forth general rules for the safe use, operation, and maintenance of equipment, and for safe work practices pertaining to all employers and employees performing construction operations.

Safety risks currently at the project area include increasingly frequent storms and the unstable and failing Hawk Creek streambank cliff.

Alternative 1 – No Action

Under the No Action alternative, construction activity would not occur. Hazardous conditions and damages would continue at the site, which would have a long-term major impact on safety of any motorist or recreational user ignoring the road closure.

Action Alternative 2 – Proposed Action

Standard construction-related safety risks would occur for construction workers at the project site. During construction, site safety from the equipment would be ensured by the contractors performing the work following standard industry safety practices. If all safety protocols are followed there would be a negligible impact on safety and security during construction. See **Section 6.2** for project conditions related to safety and security.

Post-construction, mitigation measures from the project would reduce natural hazard impacts to 860th Avenue, reducing safety risks to the public using the road, including motorists and recreational users by moving the road away from the cliff, removing the existing roadway, and by installing a row of trees as a vegetative buffer between recreational users and the cliff.

3.6 Historic and Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, 16 U.S.C. § 470 *et seq.*, requires that federal agencies consider the potential effects on cultural resources of actions it proposes to fund. Cultural resources are defined as prehistoric or historic archaeology sites, historic standing structures, historic districts, objects, artifacts, cultural properties of historic or traditional significance—referred to as Traditional Cultural Properties—that may have religious or cultural significance to federally-recognized Indian Tribes (Tribes), or any other physical evidence of human activity considered important to a culture, subculture, or community for scientific, traditional, religious, or other reasons.

Cultural resources listed, eligible for listing, or potentially eligible for listing on the National Register of Historic Places (NRHP) are subject to protection from adverse impacts resulting from a federally funded undertaking. To be considered eligible, a cultural resource must meet one or more of the criteria regarding the resource's significance, as well as demonstrate integrity of features or other characteristics that are related to that significance. Eligibility criteria for listing a property in the NRHP are detailed in 36 C.F.R. Part 60. Sites not yet evaluated may be considered potentially eligible for inclusion in the NRHP and are afforded the same regulatory consideration as nominated properties. In Minnesota, the State Historic Preservation Office (SHPO) is a division of the Minnesota Department of Administration. The SHPO maintains records of known historic properties in the state.

Pursuant to 36 C.F.R. § 800.4(a)(1), the Area of Potential Effects (APE) is defined as the geographic area(s) within which the undertaking may directly or indirectly affect cultural resources. Within the APE, impacts on cultural resources are evaluated for both historic structures (aboveground cultural resources) and archaeology (belowground cultural resources).

In addition to the NHPA, FEMA must also comply with other federal laws that relate to historic and cultural resources:

- American Indian Religious Freedom Act of 1978, 42 U.S.C. § 1996, which provides for the protection and preservation of American Indian sites, possessions, and ceremonial and traditional rites.
- Archaeological Resources Protection Act of 1979, 16 U.S.C. §§ 470aa–470 mm, which provides for the protection of archaeological resources on public lands and Indian lands.
- Native American Graves Protection and Repatriation Act, 25 U.S.C. §§ 3001–3013, in cases where Native American cultural items are found on federal and tribal lands.

In November 2019, the subrecipient's archaeological consultant completed a Phase 1 Archaeological Survey of the project site. The survey did not reveal any historic or prehistoric resources and no additional survey was recommended (see Nienow Cultural Consultants LLC Phase 1 Archaeological Survey in **Appendix B**).

On July 13, 2020, FEMA initiated consultation with the SHPO to confirm the finding that no historic properties would be affected if the project were implemented. The SHPO concurred with the finding of No Effect on August 24, 2020 (see correspondence in **Appendix C**).

On July 13, 2020, FEMA initiated consultation with Tribal Historic Preservation Offices (THPOs) of nine potentially affected Tribes. To date, no response from any THPO has been received. Pursuant to 36 C.F.R. § 800.4(d)(1)(i), having received no response within 30 days from the THPO or any consulting parties, FEMA's Section 106 responsibilities have been fulfilled and FEMA will proceed with the captioned undertaking. See **Appendix D**.

See **Section 6.2** for project conditions related to historic and cultural resources.

3.6.1 Historic Structures

The project area contains no structures, historic or otherwise. The only structures near the project area are located at a farm site at the eastern terminus of the road relocation. The farm site is visually screened from the project site by a dense windbreak of trees.

Alternative 1 – No Action

The No Action alternative would have no effect on structures, historic or otherwise.

Action Alternative 2 – Proposed Action

Consultation with SHPO indicated that no historic properties will be affected by the proposed action.

3.6.2 Archaeological Resources

The 2019 Phase I Survey of the project site did not recover any prehistoric or historic archaeological materials and did not recommend additional archaeological survey of the site.

Alternative 1 – No Action

The No Action alternative would have no effect on known archaeological resources as no construction or ground disturbance activities would occur and such resources are not expected to be present.

Action Alternative 2 – Proposed Action

The Proposed Action would have no effect on any known archaeological sites. The following project conditions, included in **Section 6.2**, would provide additional protection to unknown archaeological sites:

- The subrecipient will monitor ground disturbance during the construction phase. Should human skeletal remains or historic or archaeological materials be discovered during construction, all ground-disturbing activities on the project site shall cease and the subrecipient will notify the Renville County Sheriff's office (in the case of human remains), the recipient (Minnesota Homeland Security and Emergency Management (HSEM)), and FEMA. FEMA will notify the SHPO and the Office of the State Archaeologist.
- All borrow or fill material must come from pre-existing stockpiles or commercially procured material from a pre-existing source. If this is not the case, the subrecipient shall inform FEMA of the fill source so required agency consultations can be completed and FEMA approval will be required prior to beginning ground disturbing activities.

3.6.3 Tribal Coordination and Religious Sites

EO 13175, Consultation and Coordination with Indian Tribal Governments, directs federal agencies, "to establish regular and meaningful consultation and collaboration with tribal officials

in the development of federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes....”

Requests for information on the presence or absence of known archaeological and Indian religious sites within the proposed project area were submitted to federally recognized tribal nations with potential interests in the project. On July 13, 2020, FEMA initiated consultation with the following tribal nations:

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboiné and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

FEMA sent a letter to each tribe with details about the project location and proposed activity and requested comments from each tribal government within 30 days of the date of the letter. To date, no tribal responses have been received. Correspondence with the tribal nations is provided in **Appendix D**.

Alternative 1 – No Action

The No Action alternative would have no effect on known archaeological or Indian religious sites as no construction or ground disturbance activities would occur.

Action Alternative 2 – Proposed Action

The Proposed Action would have no effect on known archaeological or Indian religious sites. If any human or archaeological remains are encountered during project construction, work will stop immediately and the Renville County Sheriff’s Office, Minnesota HSEM, FEMA and SHPO will be notified.

See **Section 6.2** for project conditions related to tribal and religious sites.

3.7 Comparison of Alternatives

Table 3-2 Comparison of Alternatives

No Action Impacts	Proposed Action Impacts	Mitigation
Geology, Soils, and Topography		
<ul style="list-style-type: none"> • Minor to moderate long-term impacts from continued soil erosion. • No impacts to geology 	<ul style="list-style-type: none"> • Minor short-term impacts from excavation and site preparation. • No impacts to geology 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 3 and 4.
Water Resources and Water Quality		
<ul style="list-style-type: none"> • Moderate long-term impacts from sedimentation and soil erosion. • No impact on groundwater. 	<ul style="list-style-type: none"> • Moderate long-term impacts from sedimentation and soil erosion. • Minor short-term impact on water quality during construction caused by excavators and other heavy equipment for fill and excavation. • Minor long-term benefit from removing existing roadway materials, thereby reducing stream sedimentation. • Minor long-term groundwater benefit from relocating existing well. 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 3 and 4.
Floodplain Management		
<ul style="list-style-type: none"> • Minor long-term impacts from continued streambank erosion. 	<ul style="list-style-type: none"> • Minor long-term impacts from continued streambank erosion. 	<ul style="list-style-type: none"> • None
Air Quality		
<ul style="list-style-type: none"> • Minor short and long-term impacts from continued emissions from detouring vehicles. 	<ul style="list-style-type: none"> • Minor short-term impacts from construction equipment emissions and exposed soils. • Negligible long-term impact. 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 5 and 6.
Terrestrial and Aquatic Environment		
<ul style="list-style-type: none"> • Minor long-term impacts from continued streambank erosion. 	<ul style="list-style-type: none"> • Minor long-term impacts from continued streambank erosion. • Minor short-term impacts from soil disturbance and removal of vegetation during construction. 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 3, 4, 8, 9, and 10.

No Action Impacts	Proposed Action Impacts	Mitigation
Wetlands		
<ul style="list-style-type: none"> No project-related short or long-term impacts. 	<ul style="list-style-type: none"> No project-related short or long-term impacts. 	<ul style="list-style-type: none"> None
Threatened and Endangered Species		
<ul style="list-style-type: none"> Minor long-term impacts to state-listed mussels from continued streambank erosion. 	<ul style="list-style-type: none"> Minor long-term impacts to state-listed mussels from continued streambank erosion. 	<ul style="list-style-type: none"> See Section 6.2, Conditions 3 and 4.
Migratory Birds		
<ul style="list-style-type: none"> No direct short- or long-term impacts. 	<ul style="list-style-type: none"> Minor long-term impacts due removal of approximately 0.31 acres of scattered trees that may serve as migratory bird habitat. 	<ul style="list-style-type: none"> See Section 6.2, Condition 8.
Invasive Species		
<ul style="list-style-type: none"> Minor long-term impact as invasive species persist in the area. 	<ul style="list-style-type: none"> Minor short-term impact from the potential spread of invasive weeds from construction equipment and vehicles. Long-term benefits as invasive species would be replaced by native species. 	<ul style="list-style-type: none"> See Section 6.2, Conditions 9 and 10.
Hazardous Materials		
<ul style="list-style-type: none"> No impact 	<ul style="list-style-type: none"> Potential minor short-term impact to workers and to the environment due to the use of fuels during construction. 	<ul style="list-style-type: none"> See Section 6.2, Conditions 7, 11, and 12.
Zoning and Land Use		
<ul style="list-style-type: none"> Negligible impact on zoning and land use. Continued meandering of Hawk Creek may alter riparian areas. 	<ul style="list-style-type: none"> Negligible impact on zoning and land use. Continued meandering of Hawk Creek may alter riparian areas. A small amount of cultivated land would be taken out of production. 	<ul style="list-style-type: none"> None
Noise		
<ul style="list-style-type: none"> Negligible impact. 	<ul style="list-style-type: none"> Minor short-term impacts associated with construction. Negligible long-term impact. 	<ul style="list-style-type: none"> None

No Action Impacts	Proposed Action Impacts	Mitigation
Public Services and Utilities		
<ul style="list-style-type: none"> • Minor short and long-term impact to public services resources due to continued detour. • Minor long-term impact on utilities if exposed to erosion. 	<ul style="list-style-type: none"> • Minor short-term impact on public services from construction detours and the operation of construction equipment to and from the site. • Minor long-term benefits from elimination of detour. • Minor short-term impact on utilities that may require relocation due to construction. 	<ul style="list-style-type: none"> • None
Traffic and Circulation		
<ul style="list-style-type: none"> • Minor short-term and long-term impact on traffic levels on alternative routes due to road closure and detour. 	<ul style="list-style-type: none"> • Minor short-term impact from construction detours, and the operation of construction vehicles and equipment to and from the site. • Minor long-term benefit from reopening the road. • Minor short-term impacts to recreational users during construction. • Minor long-term impact to snowmobile trail due to adjusted alignment • Long-term safety benefit to recreational users. 	<ul style="list-style-type: none"> • None
Environmental Justice		
<ul style="list-style-type: none"> • Minor effect, unknown if it is disproportionately adverse. 	<ul style="list-style-type: none"> • Negligible effect, not disproportionate or adverse. 	<ul style="list-style-type: none"> • None
Safety and Security		
<ul style="list-style-type: none"> • Long-term moderate impact from hazardous conditions. • No construction-related safety impacts. 	<ul style="list-style-type: none"> • Negligible short-term impact as long as all construction safety measures are followed. • Moderate long-term benefit to safety. 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 11 and 12.
Historic Structures		
<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • None
Archaeological Resources		

No Action Impacts	Proposed Action Impacts	Mitigation
<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 13 and 14.
Tribal and Religious Sites		
<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • No Effect 	<ul style="list-style-type: none"> • See Section 6.2, Conditions 13 and 14.

4 CUMULATIVE IMPACTS

This section evaluates the potential cumulative impacts associated with the implementation of the Proposed Action. Cumulative impacts are defined in CEQ regulations for implementing NEPA (40 C.F.R. § 1508.7) as:

“The impacts of a proposed action when combined with impacts of past, present, or reasonably foreseeable future actions undertaken by any agency or person.”

CEQ regulations require an assessment of cumulative effects during the decision-making process for federal projects. Cumulative impacts can result from individually minor but collectively significant actions.

In addition to the proposed realignment of 860th Avenue, three other relocations are expected, as a direct result of the project: realignment of the portion of the state grant-in-aid snowmobile trail that parallels the road, relocation of electrical service to one house, and sealing the existing domestic drinking water well and replacing it with a new well on the property, outside of the relocated roadway. As these three relocations will occur immediately prior to, during, or immediately following the proposed construction, they are considered in this assessment along with the impacts of the project work itself, as they are not truly separable from the project as a whole. The snowmobile trail relocation, including signage and updating trail maps, will be accomplished by others, after completion of the road construction project, though the actual construction of the relocated portion of the trail will be accomplished as a result of the road relocation. The relocation of the electric service will be accomplished by the electric utility either prior to, during, or after road construction, depending on the nature of the utility conflict. The well sealing and installation will occur as a part of the construction project, prior to commencing road construction work near the existing well.

There are no other past, present, or reasonably foreseeable future actions related to the proposed project.

5 PUBLIC PARTICIPATION

This EA is available for agency and public review and comment for a period of 30 days. The public information process includes a public notice with information about the Proposed Action in the *Advocate Tribune* of Granite Falls and the *Renville County Register* of Olivia. This EA is available on FEMA's website at <https://www.fema.gov/emergency-managers/practitioners/environmental-historic/region/5>. The EA is also available on the Renville County website at <https://www.renvillecountymn.com/newslist.php>.

A hard copy of this EA is available for review at:

Wang Township Hall
86730 150th Street
Sacred Heart, MN 56285

This EA reflects the evaluation and assessment of the federal government, the decision-maker for the federal action; however, FEMA will take into consideration any substantive comments received during the public review period to inform the final decision regarding grant approval and project implementation. The public is invited to submit written comments by emailing fema-r5-environmental@fema.dhs.gov or via mail to:

Duane Castaldi, Regional Environmental Officer
Attn: Wang Township 860th Avenue Road Improvement Project EA Comments
FEMA Region V
536 South Clark Street, 6th Floor
Chicago, IL 60605

If FEMA receives no substantive comments from the public and/or agency reviewers, this EA will be adopted as final, and FEMA will issue a FONSI. If FEMA receives substantive comments, it will evaluate and address those comments as part of the FONSI documentation and may consider whether changes to the grant or project implementation are appropriate.

Subrecipient Outreach

Wang Township has discussed the damages to the road and this proposed project at several of their township board meetings in 2019, which are open to the public:

June 26th, 2019 at 7:00PM – Wang Township invited engineering consultant Bollig Inc. to attend the Township board meeting to provide information about the FEMA process and possible project alternatives.

July 15th, 2019 at 7:00PM – Wang Township awarded the 860th Avenue Road Improvement Project to Bollig Inc.

September 16th, 2019 at 7:00PM – Bollig Inc. attended the Township board meeting to review discussions with the DNR about possible repairs and improvements. Robert Lerohl, the property owner adjacent to the project area was in attendance. Robert provided his feedback about a

possible road realignment and that he would be willing to sell the required portion of his property to the Township for this purpose.

October 16th, 2019 at 9:30am – Wang Township held a meeting that included FEMA and Bollig to review the 860th Avenue Road Improvement Project. FEMA had a number of questions to ask about the project damages and the site. The end of the meeting included a visit to the project site.

The September 16th meeting was the only meeting attended by members of the public. After the onsite meeting with FEMA on October 16th, all project discussions between FEMA, Bollig and the Township were handled over telephone conferences.

6 MITIGATION MEASURES AND PERMITS

6.1 Permits

The subrecipient will require the construction contractor to obtain coverage under the MPCA Construction Stormwater General Permit, which will include the subrecipient and the construction contractor as co-permittees. The Stormwater Pollution Prevention Plan (SWPPP) required by this permit will be prepared as part of the construction project plans and specifications. See **Appendix E** for copies of the permits.

Table 6-1 summarizes the necessary permits to implement the Proposed Action and their status.

Table 6-1: Permit Summary

Issuing Agency	Resource	Permit Title	Applicable Regulation/Law	Status
MPCA	Soils (Erosion)	Construction Stormwater General Permit	Minn. R. 7090	Not complete. To be obtained by construction contractor following project award and prior to commencing construction.

6.2 Project Conditions

The subrecipient is responsible for compliance with federal, state, and local laws and regulations, including obtaining any necessary permits prior to beginning construction activities, and adhering to any conditions laid out in these permits. Any substantive change to the scope of work will require re-evaluation by FEMA for compliance with NEPA and any other laws or EOs. Failure to comply with FEMA grant conditions may jeopardize federal funding.

General Project Conditions

1. The subrecipient is responsible for obtaining and complying with all required local, state, and federal permits and approvals.
2. If deviations from the proposed scope of work result in substantial design changes, the need for additional ground disturbance, additional removal of vegetation, or any other unanticipated changes to the physical environment, the subrecipient must contact FEMA so that the revised project scope can be evaluated for compliance with NEPA and other applicable environmental laws.

The following conditions address mitigation of impacts to **Water Resources** and **Water Quality**, and **Soils**:

3. Prior to beginning work, the subrecipient will require the construction contractor to apply for and obtain coverage from MPCA under the NPDES/SDS Construction

Stormwater General Permit. The subrecipient and the construction contractor will be co-permittees.

4. During construction, the subrecipient will require the construction contractor to comply with the temporary and permanent erosion and sedimentation controls required by the Construction Stormwater General Permit and included in the project SWPPP.

Air Quality

5. To reduce the emission of criteria pollutants, construction equipment engine idling will be minimized to the extent practicable and engines will be kept properly maintained.
6. Open construction areas will be minimized and watered as needed to minimize particulates such as fugitive dust.

Hazardous Materials

7. The subrecipient will develop a SWPPP that includes procedures for fuel storage and handling that reduces the risk of stormwater contamination during construction. The subrecipient will require the construction contractor to comply with the SWPPP.

Migratory Birds

8. Vegetation removal should be limited to as small of an area as practicable.

Invasive Species

9. The contractors will ensure that any seed and mulch landscaping complies with state regulations regarding prohibited and restricted weed species.
10. Revegetation of disturbed soils will be accomplished using MnDOT/ Minnesota Board of Water and Soil Resources (BWSR) native seed mixes appropriate for the project site.

Safety and Security

11. To minimize risks to safety and human health, construction activities will be performed using qualified personnel properly trained to use the required equipment.
12. All construction activities will be conducted in accordance with the standards specified in the Occupational Safety and Health Administration (OSHA) regulations and Minnesota Department of Labor and Industry (DOLI) construction and safety standards.

Archeological, Tribal, and Religious Sites

13. The subrecipient will monitor ground disturbance during the construction phase. Should human skeletal remains or historic or archaeological materials be discovered during construction, all ground-disturbing activities on the project site shall cease and the subrecipient will notify the Renville County Sheriff's office (in the case of human remains), the recipient (Minnesota HSEM), and FEMA. FEMA will notify the SHPO and the Office of the State Archaeologist.

14. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.

7 CONSULTATIONS AND REFERENCES

The following agencies were consulted during the preparation of this EA:

7.1 Federal, State, and Local Agencies

- Minnesota State Historic Preservation Office (SHPO)
- Natural Resources Conservation Service (NRCS)
- U.S. Fish and Wildlife Service, Minnesota-Wisconsin Ecological Services Field Office
- U.S. Environmental Protection Agency Region V, NEPA Implementation Section
- Minnesota Pollution Control Agency (MPCA)
- Minnesota Department of Natural Resources (DNR), Environmental Assessment Ecologist
- U.S. Army Corps of Engineers, St. Paul District
- Minnesota Board of Water and Soil Resources (BWSR)

7.2 Tribal Nations

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Skakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

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8 LIST OF PREPARERS

Federal Emergency Management Agency

Reviewers	Experience and Expertise	Role in Preparation
Duane Castaldi	Regional Environmental Officer	Project Monitor
Maureen Cunningham	Regional Counsel	Legal Review
Karie Roach	Environmental Protection Specialist	Technical Monitor
Nicholas Dorochoff	Deputy REO	Region V Staff
Irene Henry	Environmental Protection Specialist	Environmental & Historic Preservation
Brian Miller	Program Delivery Manager	Public Assistance

Bollig Inc

Preparers	Experience and Expertise	Role in Preparation
Josh Johnson, P.E.	Project Engineer	Project Management
Scott Kuhlman, P.E.	Project Engineer	Technical Lead

APPENDICES

- Appendix A Maps and Figures**
- Appendix B Archaeological Survey**
- Appendix C Agency Correspondence**
- Appendix D Tribal Nation Consultation**
- Appendix E Permits**
- Appendix F Public Notice**
- Appendix G Public Comments**

Appendix A

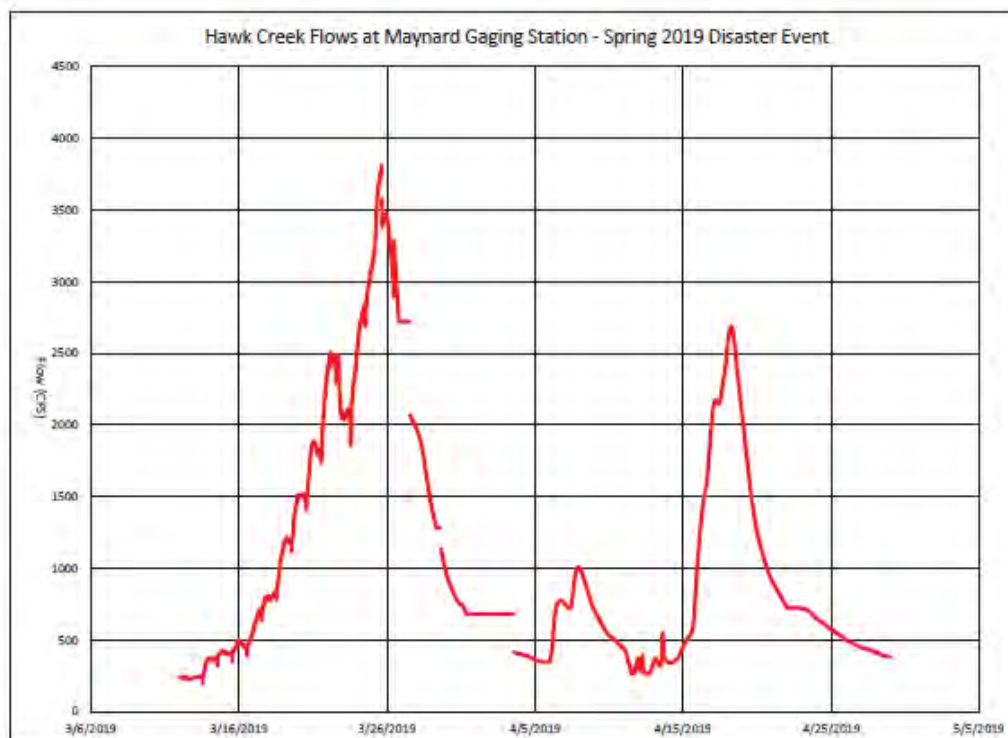
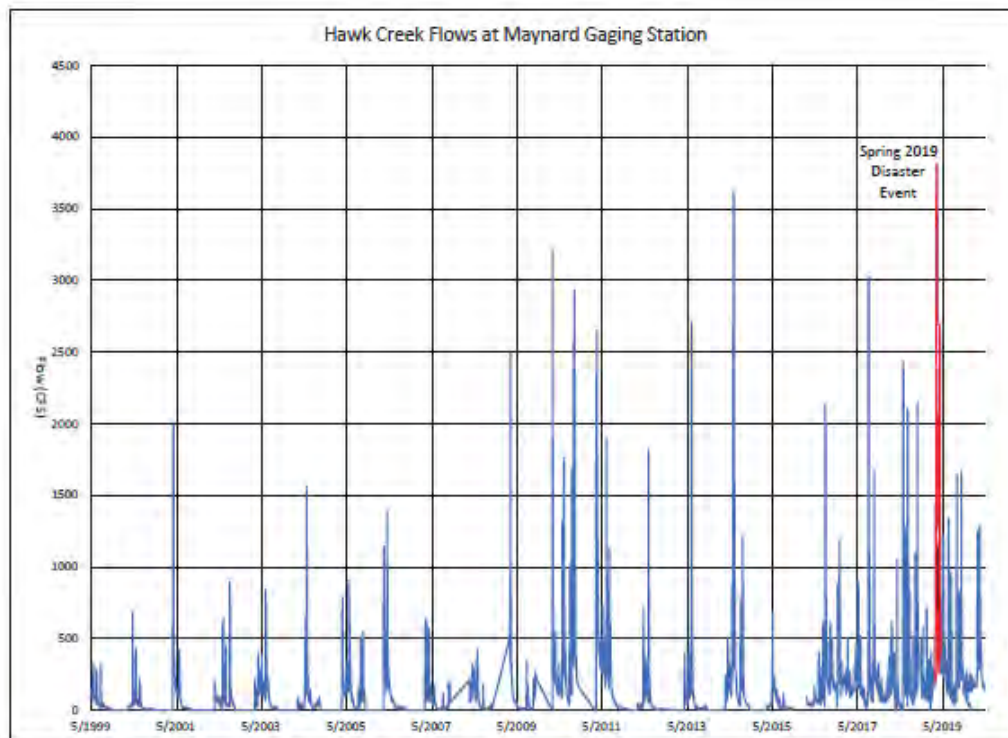
Maps and Figures

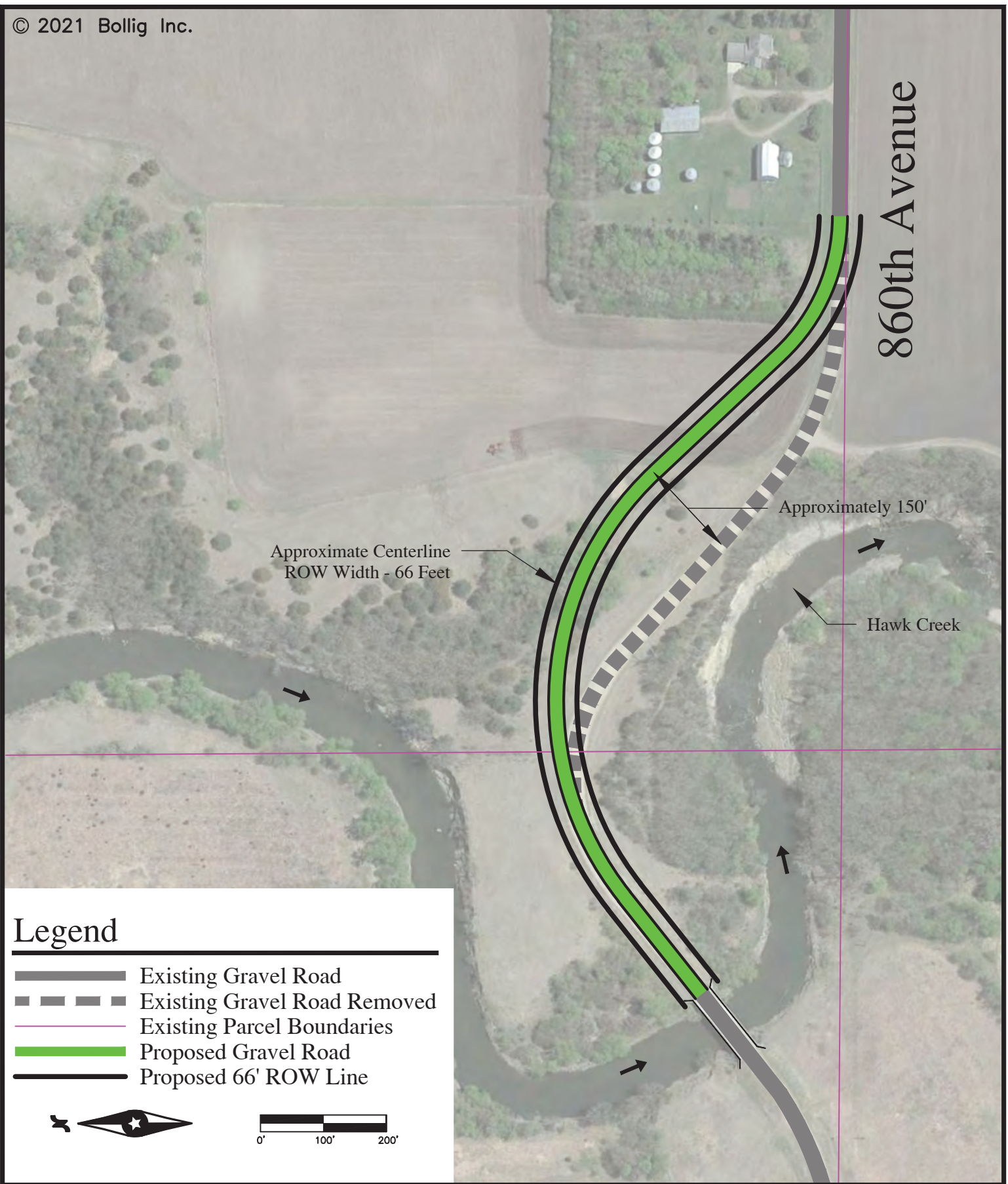




Legend

- Existing Gravel Road
 - Existing Parcel Boundaries
- 0' 100' 200'





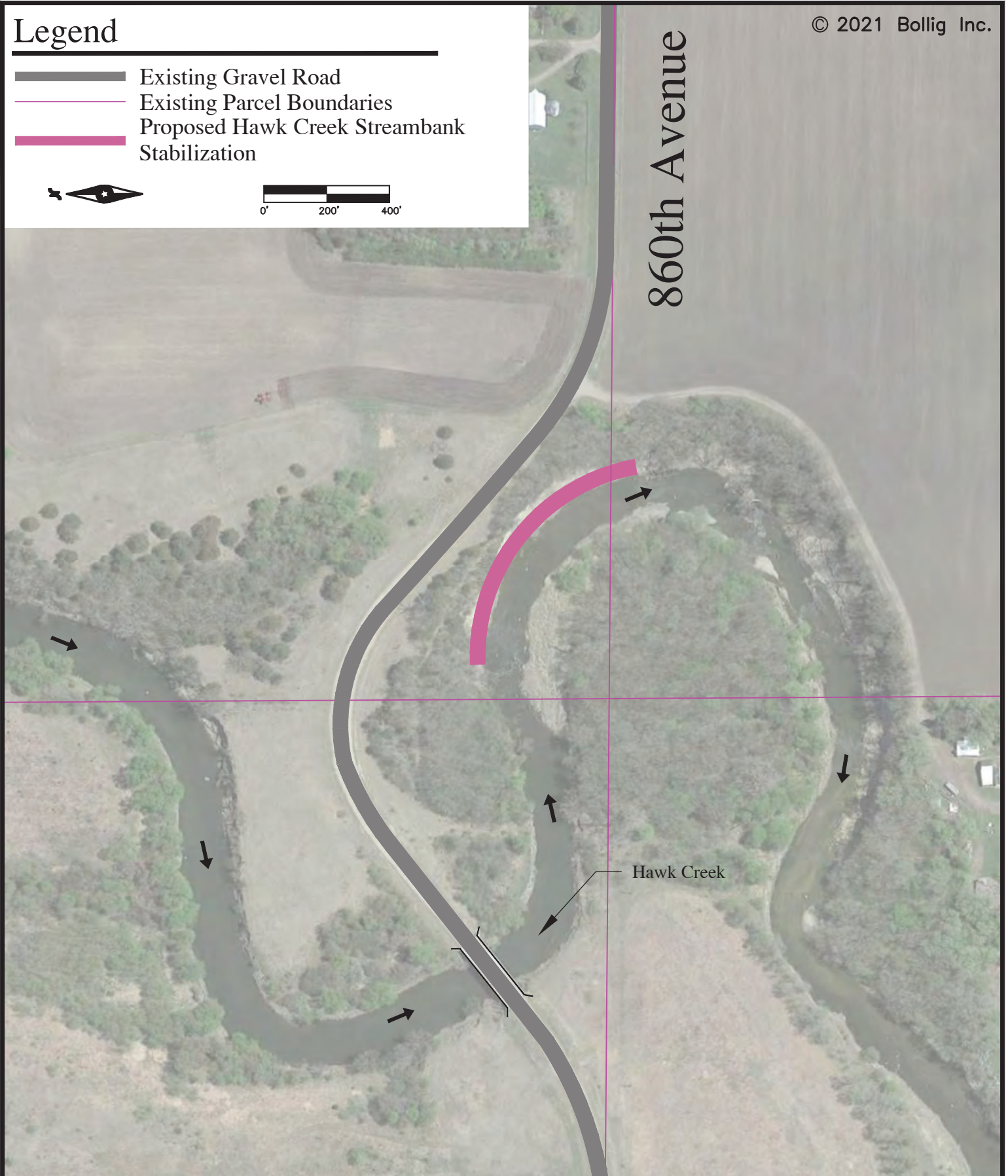
Legend

- Existing Gravel Road
- Existing Parcel Boundaries
- Proposed Hawk Creek Streambank Stabilization



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860th Avenue



Legend

- Existing Gravel Road
- Existing Parcel Boundaries
- Proposed Hawk Creek Alignment
- Proposed Hawk Creek Streambank Stabilization



860th Avenue


Hawk Creek

Figure 7 - Surface Waters and Wetlands



February 3, 2021

Wetlands

	Estuarine and Marine Deepwater		Freshwater Emergent Wetland		Lake
	Estuarine and Marine Wetland		Freshwater Forested/Shrub Wetland		Other
			Freshwater Pond		Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix B

Archaeological Survey



Nienow Cultural Consultants LLC
200 Plato Blvd East
St. Paul, MN 55107

November 18, 2019

Chris Giese
Wang Township Chairman
86730 150th Street
Sacred Heart, MN 56285

RE: Results of 860th Avenue Wang Township Phase I Archaeological Survey.

Dear Mr. Giese:

In November 2019, Wang Township, via Bollig-Engineering, contracted with Nienow Cultural Consultants, LLC (NCC) to complete a Phase I Archaeological survey for the relocation of a portion of 860th Avenue immediately adjacent to Hawk Creek in Wang Township, Renville County, Minnesota (Figures 1 & 2). The project area is located within Section 21, Township 116N, Range 38W, approximately one-half mile west of the intersections of 860th Avenue and 130th Street near Sacred Heart, Minnesota. The project falls within Minnesota Archaeological Region 2n – Prairie Lake North. The project area consists of uplands on both sides of a gully with a plowed field to the east. All aspects of the project were overseen by Jeremy L. Nienow, Ph.D., RPA who has a 2019 license to complete Phase I Archaeological Survey within the state of Minnesota (19-040). Bollig-Engineering provided a project area map (Figure 2) and assistance with landowner communication.

The research design for this project consisted of identifying any archaeological sites within the project area. Prior to archaeological survey, NCC conducted a literature review at both the Minnesota Office of the State Archaeologist (OSA) and the Minnesota State Historic Preservation Office (SHPO). This review identified no previously documented sites within the project area, however, one known site was reported approximately 1.5 miles north/northwest. The site, 21RN22 is located on a terrace overlooking an abandoned oxbow channel of Hawk Creek. Additionally, the site is listed as a Pre-Contact (9500BP-1650AD) lithic find spot consisting of one utilized flake of Knife River Flint. This information, and existing field conditions, were used to direct the methodological approaches used within the project area.

Survey work was completed on November 13, 2019 and was conducted by Jeremy L. Nienow, Ph.D., RPA with survey assistance from John Strot (John's Archaeological Consulting). Additional map production and digital research was completed by Laura Koski, MSc. (Zooarchaeo Consulting LLC). The survey focused on areas where anticipated direct ground disturbance for the

road re-alignment would take place. All survey work was completed using standard methods laid out by both the OSA and SHPO archaeology manuals. Methods for this project included initial surface survey over the entire project area, followed by 5-meter interval surface survey within the plowed field and six shovel tests on uplands and slight slopes on each side of the gully.

Surface survey was completed over the entire project area. A large agricultural trash midden consisting of late 19th through mid-20th century materials, as well as large rocks, was noted along the east side of the gully (Figure 3). A 15x15ft depression was also noted on the western gully edge and visible on LiDAR (Figures 4 & 5). This had the potential to be a basement/dugout for a historic building, so the location was flagged for a shovel test. The 1900 and 1916 Wang Township plat maps do show a building at this location. Aerial photography from 1938 and 1950, as well as historic topographic maps, also do not show anything at this location. Surface survey in the field showed excellent surface visibility (90% or better) (Figure 6). No prehistoric cultural materials were identified during surface survey.

A series of six shovel tests were placed within the project area, three on each side of the gully, and placed in locations with the least slope and greatest potential for cultural materials (Figures 4 & 7). These shovel tests were spaced approximately 15 meters apart and were typically dug 60cm below ground surface. Each test was documented in terms of soils color, texture, and stratigraphy via notes and photography. The typical soil profile for the project area had Very Dark Brown 10YR 2/2 sandy silty loam down to 30cm with Light Brown 10YR 6/4 clay like silt below this. No historic or prehistoric artifacts were documented or recovered during shovel testing, including next to the 15x15ft depression.

To summarize, in November 2019, Wang Township, via Bollig-Engineering contracted with Nienow Cultural Consultants, LLC to complete a Phase I archaeological survey for the re-alignment of a gravel road near Sacred Heart, Renville County, Minnesota. All aspects of the project were overseen by Jeremy L. Nienow, Ph.D., RPA. Archaeological survey included both close interval surface survey and standard interval shovel testing. A total of six shovel tests were completed within the project area on each side of the gully and in areas with less than 30% surface visibility. Although modern and historic agricultural trash materials were identified along the east side of the gully, no historic or prehistoric materials were recovered in plowed field areas or in shovel tests. *No archaeological sites were recorded during the survey and Nienow Cultural Consultants does not recommend an additional archaeological survey at this time.*

With any project there is the chance of unanticipated discovery. Should archaeological materials surface during any future construction, it is advised a professional archaeologist be consulted. Minnesota Statute 307.08 protects unplatted cemeteries (including burial mounds) and issues guidelines for dealing with unexpected finds. Should human remains be encountered during earth moving activity, all work must stop and local law enforcement must be called. If you have any additional questions or future project work, please do not hesitate to contact us.

Sincerely,

A handwritten signature in cursive script, reading "Jeremy L. Nienow". The signature is written in dark ink on a light background.

Jeremy L. Nienow, Ph.D., RPA
Principal and Owner
Nienow Cultural Consultants LLC

Attachments: Figures 1-7

Enclosed: Jump drive with all project photographs and project documentation.

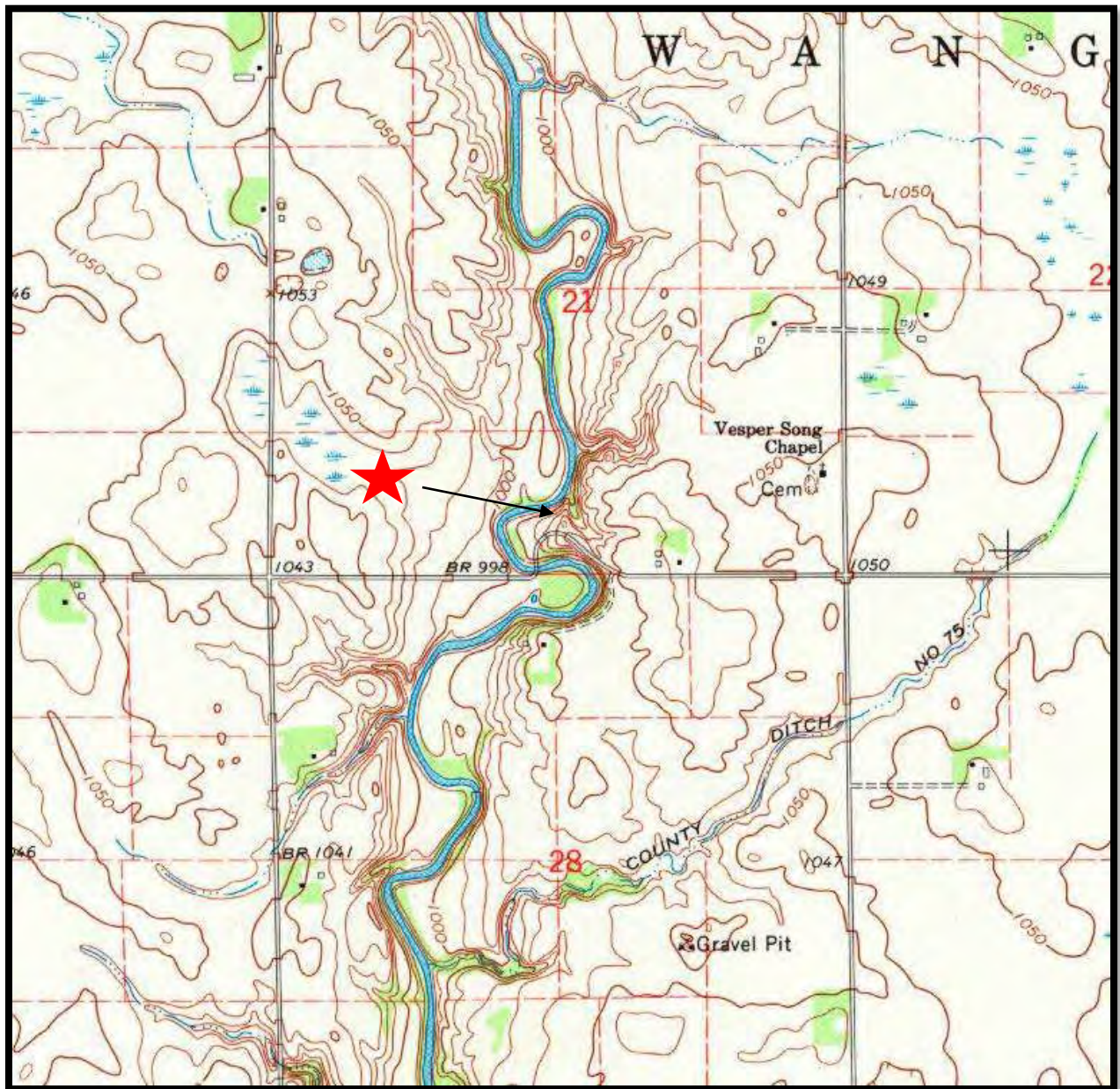


Figure 1: Location of Project Area in Renville County, Minnesota.



Figure 2: Project Area and Proposed Ground Disturbance Areas (provided by client).



Figure 3: Photograph of Existing Agricultural Trash Pile on East Side of Gully in Project Area.

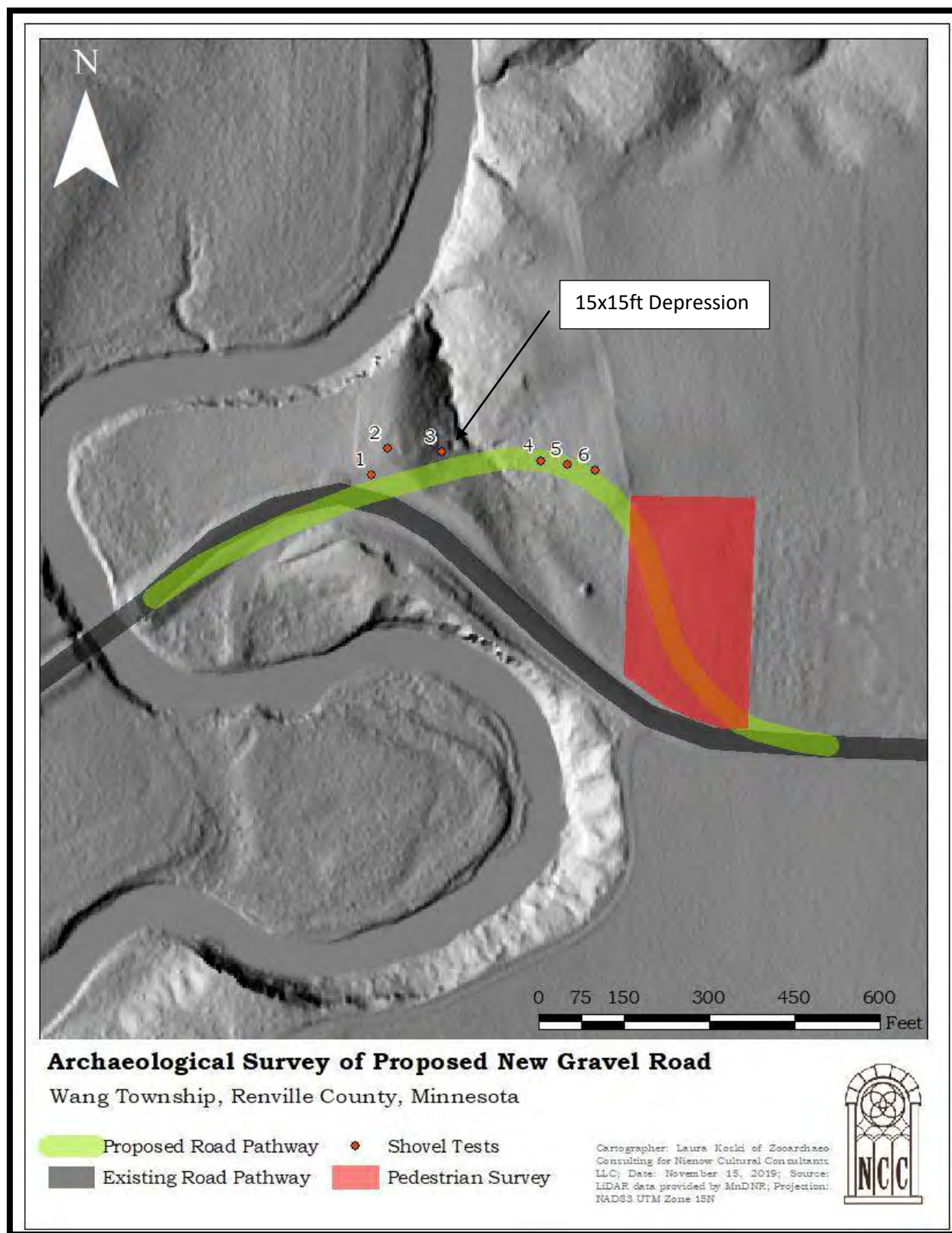


Figure 4: Project Area LiDAR Based Map Showing Shovel Tests and Depression.



Figure 5: Photograph (Facing North) of Shovel Test Next to Depression (Right Side of Photograph).



Figure 6: Photography (Facing North/Northeast) of Field Surface Survey Conditions.



Figure 7: Photograph Example of Completed Shovel Test.

Appendix C

Agency Correspondence



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Minnesota-Wisconsin Ecological Services Field Office
4101 American Blvd E
Bloomington, MN 55425-1665
Phone: (952) 252-0092 Fax: (952) 646-2873
<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>



In Reply Refer To:

September 23, 2020

Consultation Code: 03E19000-2020-TA-1798

Event Code: 03E19000-2020-E-06671

Project Name: Wang Township Road Relocation

Subject: Verification letter for the 'Wang Township Road Relocation' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Karie Roach:

The U.S. Fish and Wildlife Service (Service) received on July 17, 2020 your effects determination for the 'Wang Township Road Relocation' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"^[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Prairie Bush-clover, *Lespedeza leptostachya* (Threatened)

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

Wang Township Road Relocation

2. Description

The following description was provided for the project 'Wang Township Road Relocation':

Relocation of roadway north of existing road

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/44.833306491435295N95.43328505146008W>

**Determination Key Result**

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?
Yes
2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")
No
3. Will your activity purposefully **Take** northern long-eared bats?
No
4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?
Automatically answered
No
5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

7. Will the action involve Tree Removal?

Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

0.31

2. If known, estimated acres of forest conversion from April 1 to October 31

0.31

3. If known, estimated acres of forest conversion from June 1 to July 31

0.31

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 7/13/20			
Name Of Project Wang Township Road Relocation		Federal Agency Involved FEMA			
Proposed Land Use Roadway		County And State Renville County, Minnesota			
PART II (To be completed by NRCS)		Date Request Received By NRCS			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %			Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly		2.2			
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		2.2	0.0	0.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide And Local Important Farmland					
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value					
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		0	0	0	0
PART VI (To be completed by Federal Agency) Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))		Maximum Points			
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS		160	0	0	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	0	0	0
Total Site Assessment (From Part VI above or a local site assessment)		160	0	0	0
TOTAL POINTS (Total of above 2 lines)		260	0	0	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Reason For Selection:					



Natural Resources Conservation Service
110 2nd Street S, Suite 128
Waite Park, MN 56387
Phone Number (320)345-6503

July 20, 2020

Karie Roach
Environmental/Historic Preservation Advisor
Federal Emergency Management Agency
Wilmar, MN

Dear Karie,

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of prime and important farmland to non-agricultural uses. The FPPA requires federal agencies involved in projects that may convert farmland to determine whether the proposed conversion is consistent with the FPPA.

Upon review of the proposed road relocation project in Renville County (Wang Township). I have determined that an **AD-1006 FPPA form is not required** for the following reasons;

- Because the area was determined to meet the small acreage exemption. This exemption is listed in The Farmland Protection Policy Act of 1981; 440-V-CPM – Amend. 12 – August 2012; Part 523.11.E(1).

Other agencies may have federal, state, or local wetland, cultural resources, water quality or threatened and endangered species jurisdiction in the proposed project and should be consulted.

If you should have any questions or need further assistance, please feel free to contact me.

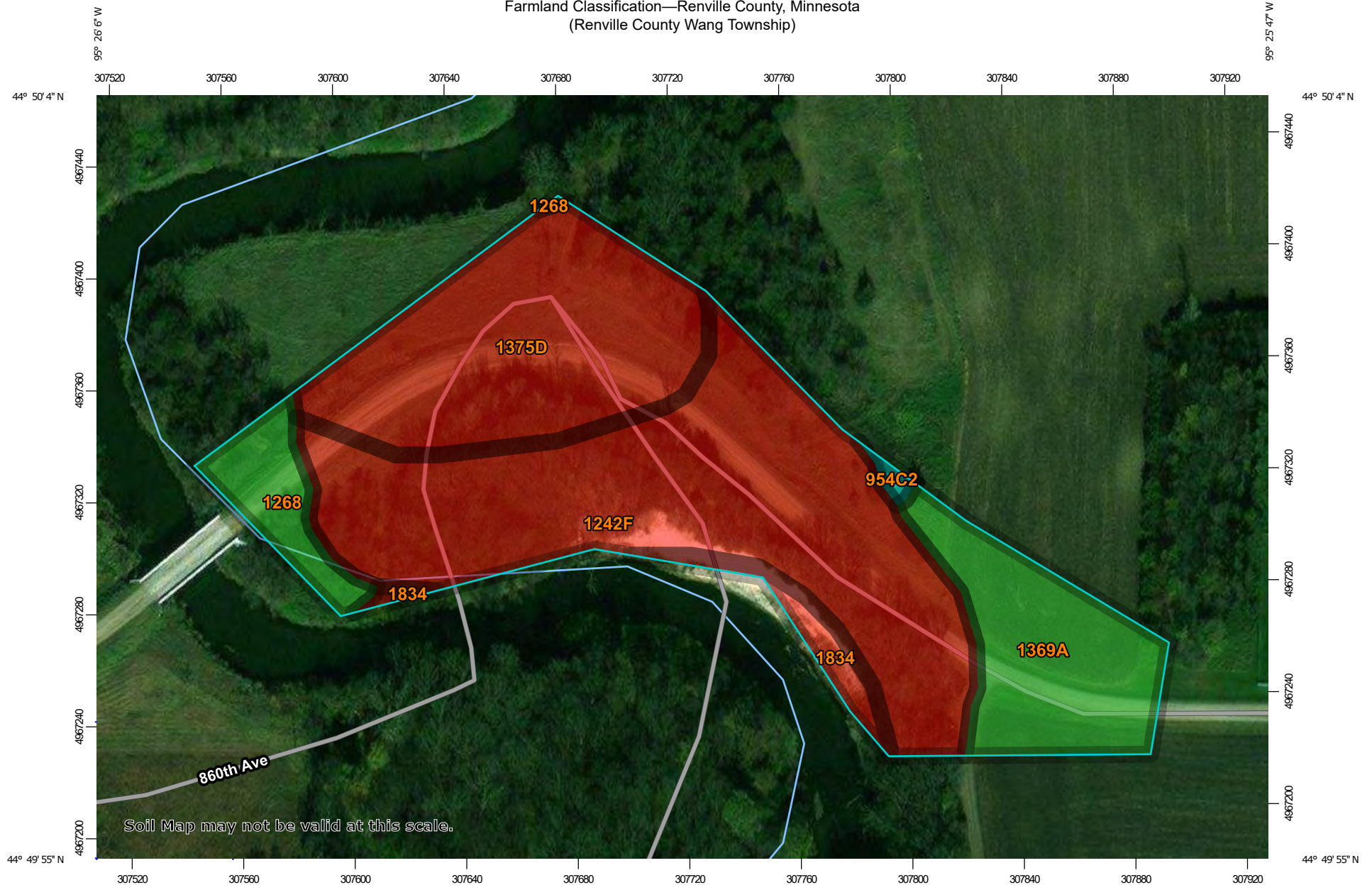
Sincerely,

Brandon DeFoe

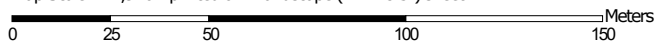
Resource Soil Scientist
Natural Resource Conservation Service
110 2nd Street S, Suite 128
Waite Park, MN 56387
Phone: (320)345-6503
Cell: (320)241-1529
Email: Brandon.DeFoe@mn.usda.gov



Farmland Classification—Renville County, Minnesota (Renville County Wang Township)



Map Scale: 1:1,920 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

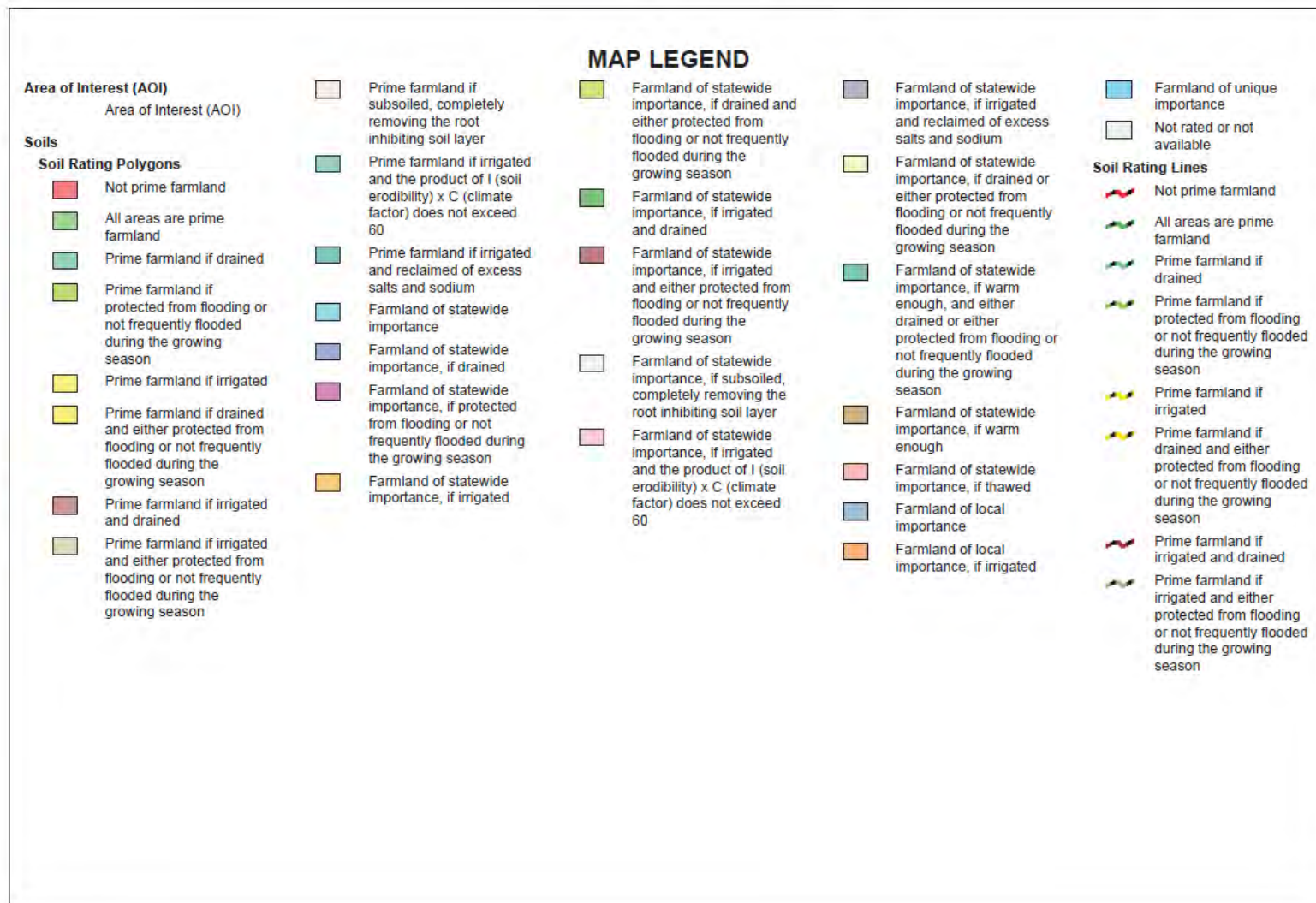


**Natural Resources
Conservation Service**




































Web Soil Survey
National Cooperative Soil Survey

7/17/2020
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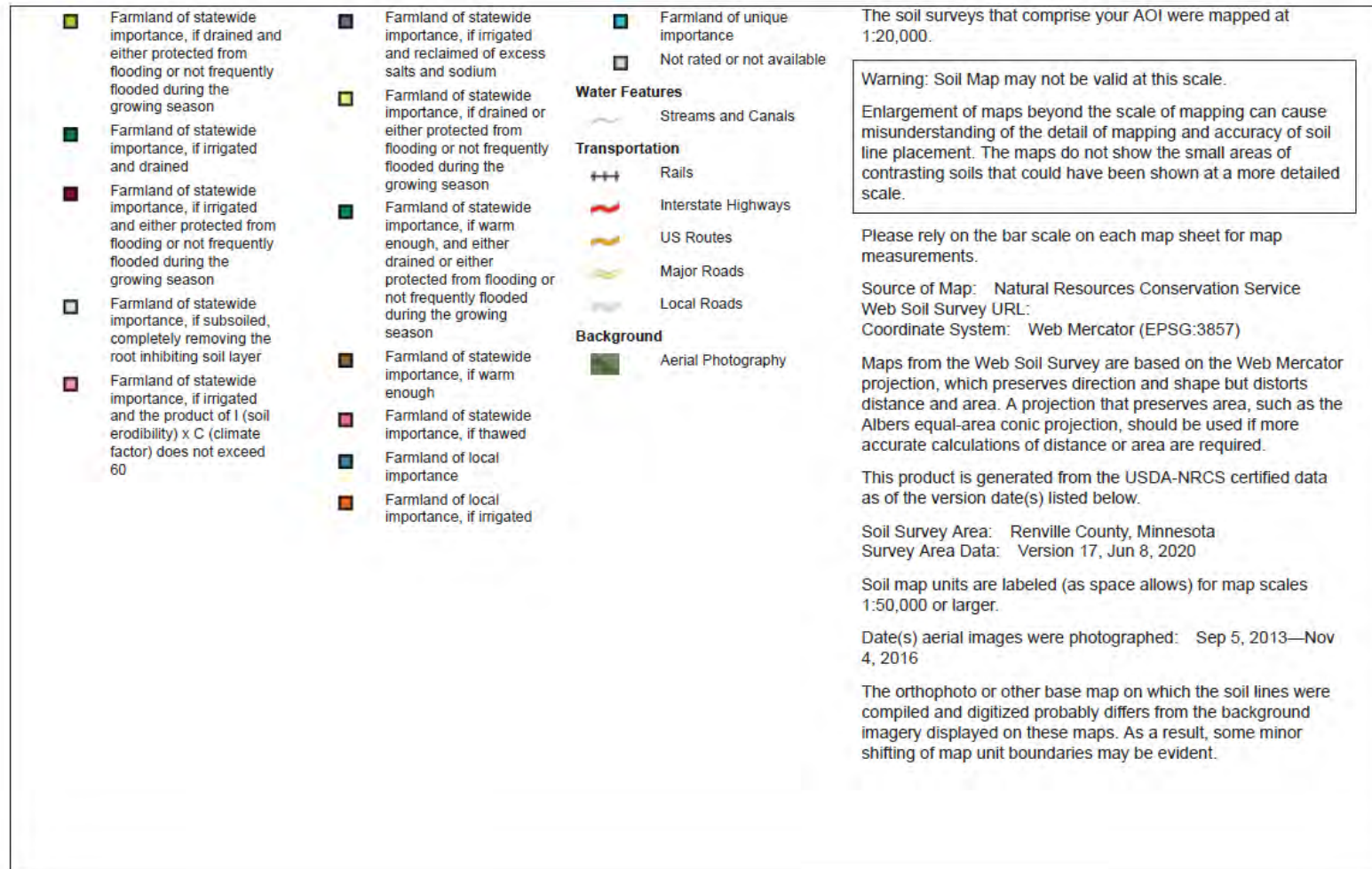
Farmland Classification—Renville County, Minnesota
(Renville County Wang Township)



Farmland Classification—Renville County, Minnesota
(Renville County Wang Township)

	Prime farmland if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium		Farmland of unique importance		Prime farmland if subsoiled, completely removing the root inhibiting soil layer
	Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if irrigated and drained		Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season		Not rated or not available		Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
	Prime farmland if irrigated and reclaimed of excess salts and sodium		Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season		Soil Rating Points		Prime farmland if irrigated and reclaimed of excess salts and sodium
	Farmland of statewide importance		Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer		Farmland of statewide importance, if warm enough		Not prime farmland		Farmland of statewide importance
	Farmland of statewide importance, if drained		Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60		Farmland of statewide importance, if thawed		All areas are prime farmland		Farmland of statewide importance, if drained
	Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season				Farmland of local importance		Prime farmland if drained		Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
	Farmland of statewide importance, if irrigated				Farmland of local importance, if irrigated		Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		Farmland of statewide importance, if irrigated
							Prime farmland if irrigated and drained		
							Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season		

Farmland Classification—Renville County, Minnesota
(Renville County Wang Township)



Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
954C2	Storden-Ves complex, 6 to 10 percent slopes, moderately eroded	Farmland of statewide importance	0.0	0.5%
1242F	Swanlake-Terril complex, 18 to 50 percent slopes	Not prime farmland	3.5	47.2%
1268	Hanlon loam, 1 to 3 percent slopes, rarely flooded	All areas are prime farmland	0.4	5.8%
1369A	Crooksford silt loam, 1 to 3 percent slopes	All areas are prime farmland	1.2	15.8%
1375D	Storden-Ves complex, 10 to 16 percent slopes, moderately eroded	Not prime farmland	2.1	27.7%
1834	Coland clay loam, 0 to 2 percent slopes, frequently flooded	Not prime farmland	0.2	3.1%
Totals for Area of Interest			7.5	100.0%

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

From: [Boettcher, Joanne \(DNR\)](#)
To: [Castaldi, Duane](#); [Roach, Karie](#); [Dorochoff, Nicholas](#)
Cc: [Jenzen, Ethan \(DNR\)](#); [Mackenthun, Scott \(DNR\)](#); [Worland, Michael \(DNR\)](#); [Hall, Anne \(DNR\)](#); [Netland, Cory \(DNR\)](#)
Subject: RE: DNR comments on Renville 860th Ave Road Improvement
Date: Monday, November 2, 2020 4:58:42 PM
Attachments: [image002.png](#)
[image003.png](#)

My apologies, Duane, for my confusion. The proposed alignment was moved sufficiently away from the bluff to align with recommendations provided in early coordination work. (I misunderstood the comments provided by the Area Hydro.) Please disregard this note – crossed out below.

From: Boettcher, Joanne (DNR)
Sent: Monday, November 2, 2020 3:59 PM
To: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>; Karie <karie.roach@fema.dhs.gov>; Nicholas <Nicholas.Dorochoff@fema.dhs.gov>
Cc: Jenzen, Ethan (DNR) <ethan.jenzen@state.mn.us>; Mackenthun, Scott (DNR) <scott.mackenthun@state.mn.us>; Worland, Michael (DNR) <michael.worland@state.mn.us>; Hall, Anne (DNR) <anne.hall@state.mn.us>; Netland, Cory (DNR) <cory.netland@state.mn.us>
Subject: DNR comments on Renville 860th Ave Road Improvement

Hello Duane,

Thank you for the opportunity to provide comments on this project. As the DNR Area Hydrologist (Ethan Jenzen) has already communicated in early coordination work, moving the road altogether away from any risk of continued erosion of this steep bluff is likely the most environmentally friendly and in the long-term, the most practical option. ~~I did not see this alternative considered within your document.~~ We agree with elimination of the last three alternatives, however.

Regarding the proposed alignment, we offer the following comments:

- NHIS review identifies instances of rare species, communities, and features and required and/or recommended avoidance strategies. NHIS reviews are currently taking about two months to complete and are valid for one year. Depending on the results of that review, additional early coordination review could be warranted. The project should submit an NHIS review request using the form at the bottom of the [NHIS webpage](#).
- Any work within the ordinary high water level, dewatering, water appropriations or other work that impacts public waters or ground water (and meets thresholds) will require a [Water Permit](#).
- The project crosses the Hawk Creek's 100 year floodplain. Ensure any local floodplain requirements are met.
- The project crosses a sensitive groundwater area. Take appropriate precautions to

project groundwater.

- Mussels have been identified near the project location. We recommend avoiding or minimizing in-stream work and using stringent erosion control to help protect mussels.
- We recommend the use of wildlife friendly erosion control and invasive species prevention best practices (see attachment).
- We recommend revegetation using native seed mixes. Several native seed mix specifications are available on the [BWSR website seed mix webpage](#).
- As a minor note, please improve the project locating information. The provided lat/long does not align with the project location, and the provided map is oriented East up. Providing shapefiles of impacted areas and project components with review requests in the future would be helpful.

Thank you and let me know if you need anything else.

Joanne Boettcher
Regional Environmental Assessment Ecologist
MNDNR – Mankato
(507) 389-8813



From: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Sent: Friday, October 2, 2020 10:13 AM
To: Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Cc: Roach, Karie <karie.roach@fema.dhs.gov>; Dorochoff, Nicholas <Nicholas.Dorochoff@fema.dhs.gov>
Subject: FEMA NEPA Scoping Document -- Renville County, Minnesota

Good Morning.

Minnesota Homeland Security and Emergency Management and Wang Township have requested funding from the Federal Emergency Management Agency (FEMA) to support a Public Assistance (PA) project.

The attached scoping document sets forth the draft purpose and need as well as areas of environmental review and study associated with the proposed project. The information is provided here in accord with the Council on Environmental Quality's regulations for complying with the National Environmental Policy Act to advise other agencies of FEMA's intent to prepare an Environmental Assessment for this project, note areas of expected environmental concern, and solicit any early comment regarding the project.

This e-mail is being distributed to agency partners not previously consulted with on this proposed project and those agencies are identified at the end of the e-mail.

FEMA looks forward to any comments you may have on this project as we prepare the Environmental Assessment. We would appreciate a response by e-mail by November 2, 2020. If you have questions, please contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Thanks

Duane Castaldi

Regional Environmental Officer | FEMA Region V | Department of Homeland Security

Office: 312.408.5549 | Mobile: 312.576.0067

duane.castaldi@fema.dhs.gov | Pronouns: he / him

Federal Emergency Management Agency

[fema.gov](https://www.fema.gov)



Scoping Document October 2, 2020 Distribution List

Minnesota Department of Natural Resources

Minnesota Pollution Control Agency

Minnesota Board of Water and Soil Resources

United States Army Corps of Engineers, St. Paul Regulatory District

United States Environmental Protection Agency, Region V

Standard Erosion Control and Invasive Species Prevention Best Practices

Take precautions when working near waterbodies to prevent sedimentation and erosion:

- Erodible surfaces should not be left exposed for greater than one day. For example, work should not commence late in the week if it will be left unfinished over a weekend.
- Work should not commence if rain is predicted.
- All wheeled or tracked construction equipment should be restricted to work areas above the stream bank.
- Fill material should not be stockpiled in the floodplain.
- Backfill placed below Ordinary High Water (OHW) should consist of clean granular material free of fines, silts, soils, and mud.
- Use [Best Practices for DNR General Public Waters Work Permit GP 2004-0001: Species Protection](#). Refer to pages: 3, 11, 14, 16, 25, 33, and 34 as relevant to a particular project.
- Vegetative “grout” should be incorporated with any installed rip rap (see page 33 of above link).
- [Native species planting/seeding](#) should be used.
- DNR Public Waters Work Permit may be required. Permit requirements must be followed.

Use wildlife friendly erosion control:

- Biodegradable netting should be used, preferably natural materials with short degradation periods.
- Erosion control blankets should be limited to bio-netting or natural netting types due to the risk of entanglement and death of small animals. [2018 MnDOT Standards Specifications for Construction](#) identify acceptable materials in Category 3N or 4N mulches.
- Do not use products that require UV-light to degrade (also called “photodegradable”), as they do not degrade properly when covered/shaded.
- Do not use products containing plastic mesh netting or other plastic components.
- Do not use mulch products that contain synthetic (plastic) fiber additives near waterbodies.
- See [Wildlife Friendly Erosion Control](#) for more information.

Take active steps to prevent invasive species introduction and spread:

- Clean all equipment (including but not limited to: vehicles, clothing, and gear) at a site prior to moving to another site. All soil, aggregate material, mulch, vegetation, seeds, animals, etc. need to be removed using a hand tool, brush, compressed air, pressure washer, or otherwise.
- If equipment is not cleaned before arriving to a work site, then clean the equipment in the parking or staging area, ensuring no material is deposited at the new site. Material cleaned from equipment should be disposed of legally.
- All equipment (including but not limited to: waders, tracked vehicles, barges, boats, turbidity curtain, sheet pile, and pumps) used for work in an “infested water” must be adequately decontaminated. See [Watercraft Decontamination Manual](#) for more information.
- See [Come Clean, Leave Clean](#) for more detailed guidance. This guidance is required for those working on DNR lands as part of grant or contract or are working under a permit, your grant, contract, or permit.

Referenced Links

https://files.dnr.state.mn.us/waters/watermgmt_section/pwpermits/gp_2004_0001_chapter1.pdf

<https://bwsr.state.mn.us/seed-mixes>

<https://files.dnr.state.mn.us/eco/nongame/wildlife-friendly-erosion-control.pdf>

<http://www.dot.state.mn.us/pre-letting/spec/2018/2018-spec-book-final.pdf>

<https://www.dnr.state.mn.us/invasives/dnrlands.html>

<https://www.dnr.state.mn.us/invasives/dnrlands.html>

https://files.dnr.state.mn.us/natural_resources/invasives/mndnr_ais_decontamination_handbook.pdf

From: [Dapo, Jack](#)
To: [Roach, Karie](#)
Cc: [Dorochoff, Nicholas](#); [Castaldi, Duane](#)
Subject: RE: DNR comments on Renville 860th Ave Road Improvement
Date: Wednesday, November 4, 2020 9:21:03 AM
Attachments: [image001.png](#)
[image003.png](#)
[image005.png](#)
[Project 114083.pdf](#)

Hi Karie,

I took a look at the project location and provided a few screenshots. There are no occurrences within over a half mile radius. The closest occurrence is a bald eagle nest that is 0.68 miles away. There were four species of mussels found about 4.5 miles downstream. All occurrences of mussels are of state listed species. There are no known occurrences of federally listed species. This is just a preliminary review. If you need this information formatted differently just let me know. I think the NHIS report shares the same information but I haven't seen many examples from Minnesota, so I'm not sure if they include anything else that may be useful.

Alasmodonta marginata = Elktoe mussel – MN Threatened

Actinonaias ligamentina = Mucket mussel – MN Threatened

Ligumia recta = Black sandshell – MN species of special concern

Elliptio dilatata = Spike mussel – MN Threatened

Thanks,

Jack Dapo
Environmental Protection Specialist | Mitigation Division | FEMA Region 5
Office: (312) 408-5372 | Mobile: (202) 717-0219
jack.dapo@fema.dhs.gov

Federal Emergency Management Agency
[fema.gov](https://www.fema.gov)

From: Roach, Karie <karie.roach@fema.dhs.gov>
Sent: Tuesday, November 3, 2020 9:18 AM
To: Dapo, Jack <jack.dapo@fema.dhs.gov>
Cc: Dorochoff, Nicholas <Nicholas.Dorochoff@fema.dhs.gov>; Castaldi, Duane <Duane.Castaldi@fema.dhs.gov>
Subject: RE: DNR comments on Renville 860th Ave Road Improvement

Thanks Jack! The project is #114083 and the coordinates are 44.83268, -95.43169 to 44.83316, -95.43234. If you need more information, please let me know. Karie

From: [Dapo, Jack](#)
To: [Roach, Karie](#)
Subject: FEMA NHIS Species Review - Renville 860th Ave Road Improvement
Date: Friday, January 22, 2021 10:51:44 AM
Attachments: [image002.png](#)

Hi Karie,

There are no occurrences within a half mile radius.

The closest occurrence is a bald eagle nest that is outside the 660 foot buffer zone recommended for construction projects.

There were four species of mussels found about several miles downstream. All occurrences of mussels are of state listed species. There are no known occurrences of federally listed species within the project boundary.

Copyright 2017, State of Minnesota, Department of Natural Resources (DNR). Rare Features Data included here were provided by the Division of Ecological and Water Resources, Minnesota DNR, and were current as of November 4, 2020. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

Jack Dapo
Environmental Protection Specialist | Mitigation Division | FEMA Region 5
Office: (312) 408-5372 | Mobile: (202) 717-0219
jack.dapo@fema.dhs.gov

Federal Emergency Management Agency
[fema.gov](https://www.fema.gov)





FEMA

July 13, 2020

Sarah Beimers, Environmental Review Program Manager
Minnesota State Historic Preservation Office
Administration Building, Suite 203
50 Sherburne Avenue
Saint Paul, MN 55155

Re: 860th Avenue Realignment, Wang Township, Renville County
44.833241, -95.434638 to 44.832683, -95.4529881
DR-4442-MN, PW 886 [114083]

Dear Ms. Beimers:

Pursuant to the Section 106 of the National Historic Preservation Act, I am writing this letter to initiate and conclude consultation regarding the captioned Public Assistance Grant Program project.

In accordance with 36 CFR §800.11, I am enclosing documentation regarding this undertaking and its effect on historic properties. The documentation provides the justification for FEMA's finding of no historic properties affected; the purpose of this communication is to seek concurrence in that finding.

Due to workplace restrictions in response to COVID-19, we are using email to deliver this Section 106 consultation. We understand the impacts COVID-19 has had on your operations and we did receive your March 27th tolling notification. We understand you may need more than 30 days and will wait for your reply. Because our reliance on digital communications must continue until our offices reopen, we would appreciate a response by email from your office. For your convenience, we have included a response area below. If you have questions, do not hesitate to contact me at duane.castaldi@fema.dhs.gov or 312-408-5549.

Sincerely,

A handwritten signature in blue ink that reads "Duane Castaldi".

Duane Castaldi
Regional Environmental Officer
FEMA Region V

Enclosures

+++++++You may email this page to duane.castaldi@fema.dhs.gov++++++

Re: 860th Avenue Realignment, Wang Township, Renville County
44.833241, -95.434638 to 44.832683, -95.4529881
DR-4442-MN, PW 886 [114083]

- ☐ Under the authority of the National Historic Preservation Act of 1966, as amended, the Minnesota State Historic Preservation Office *concurs* with FEMA's finding that the captioned undertaking will result in *no historic properties affected*.
- ☐ Under the authority of the National Historic Preservation Act of 1966, as amended, the Minnesota State Historic Preservation Office *objects* to FEMA's finding that the captioned undertaking will result in *no historic properties affected* for the reasons provided below.

Minnesota State Historic Preservation Office

Date



FEMA

July 13, 2020

Project Summary

860th Avenue Realignment, Wang Township, Renville County

DR-4442-MN, PW 886 - 114083

44.833241, -95.434638 to 44.832683, -95.429881

T116N R38W S21

**Description of
Undertaking and
APE:**

In response to severe storms, straight-line winds, and flooding between March 12, 2019 and April 28, 2019, the President declared disaster DR-4442-MN on June 12, 2019. This declaration made Public Assistance (PA) available to state and eligible local governments and certain private nonprofit organizations on a cost-sharing basis for emergency work and repair or replacement of damaged facilities. This declaration also made Hazard Mitigation Grant Program assistance requested by the Governor available for hazard mitigation measures statewide.

During the incident period, flooding and abnormally high velocity in Hawk Creek resulted in significant erosion of the outer bank and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). The applicant proposes to use federal funds authorized under the Stafford Act to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. For additional project information and specifications, see Attachments.

As defined in 36 CFR §800.16(d), the area of potential effects (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties if any such properties exist. Based on this definition and the nature and scope of the undertaking, FEMA has determined that the APE is limited to the areas within which all construction and ground disturbing activity would be confined and the viewshed of the proposed project. No potential for effects outside of the viewshed of the proposed project exists. The APE is denoted on Maps 3-5.

Steps Taken to
Identify Historic
Properties:

Archaeology

A search of the Minnesota Historical Society's archaeological inventory conducted on May 1, 2020 indicated that there are no previously recorded archeological sites in the same quarter section as the project location, or the quarter sections surrounding them. A Phase I Archaeological Survey of the proposed route was completed in November of 2019 (See Wang Hazard Mitigation Proposal; Exhibit 6). The survey did not reveal any historic or prehistoric resources and no additional survey was recommended (Nienow Cultural Consultants LLC 2019).

Standing Structures

FEMA-qualified staff consulted the National Register of Historic Places (NRHP) database and the Minnesota State Historic Preservation Office (SHPO) Historic Inventory and identified Bridge 1098/65556 carrying 860th Avenue over Hawk Creek within the same quarter section of the project location. Based upon the Minnesota Structure Inventory Report for the bridge, it was constructed in 1996. The bridge is located outside of the APE and therefore is not subject to review. As a result, FEMA-qualified staff has determined that no previously identified resources listed in or determined eligible for listing in the NRHP exist within the APE for this undertaking.

Determination
of Eligibility:

Based on the information provided here, and in the absence of any evidence to the contrary, FEMA has determined that *no properties eligible for listing on the National Register of Historic Places exist in the APE* for this undertaking.

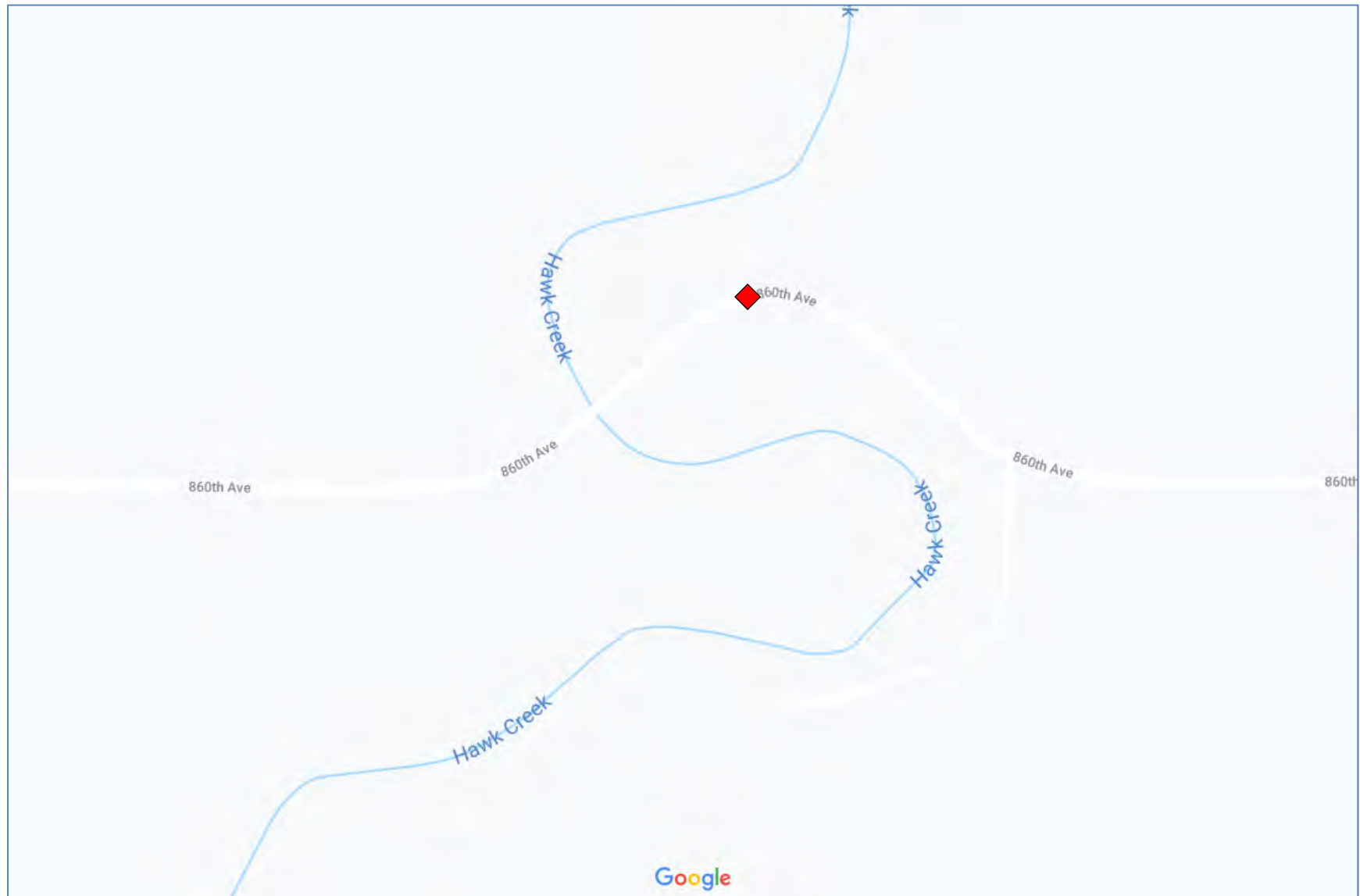
Finding:

Based on the information provided here, and in the absence of any information to the contrary, FEMA finds that this undertaking will result in *no historic properties affected*.

Undertaking location marked in red.
USGS Map “Minnesota Fall, MN 2019” 1:24000, enlarged to show detail



Undertaking location marked in red (Google Maps).



Proposed realignment for 860th Avenue (GoogleEarth).



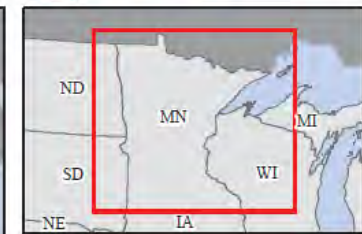
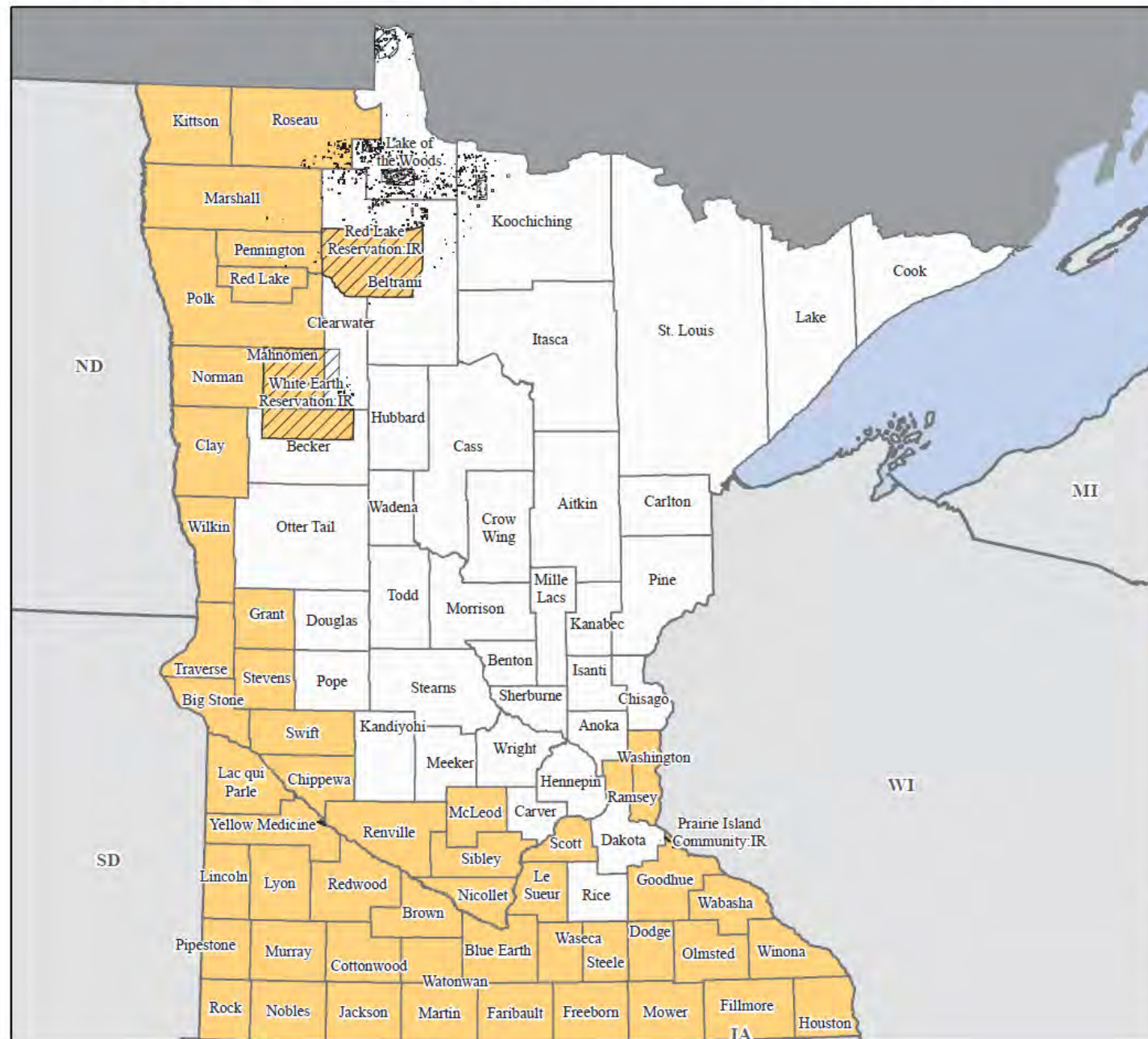
Proposed realignment for 860th Avenue, approximate APE in yellow (GoogleEarth).



FEMA-4442-DR, Minnesota Disaster Declaration as of 06/12/2019



FEMA



Data Layer/Map Description:
The types of assistance that have been designated for selected areas in the State of Minnesota.

All designated areas in the State of Minnesota are eligible to apply for assistance under the Hazard Mitigation Grant Program.

Indian Reservations

Designated Counties

No Designation

Public Assistance



0 20 40 60 80
Miles

Data Sources:

FEMA, ESRI;

Initial Declaration: 06/12/2019

Disaster Federal Registry Notice:

06/12/2019

Datum: North American 1983

Projection: Lambert Conformal Conic

MapID 0bf9e5fadef0613190952hqprod

Hazard Mitigation Proposal

860th Avenue Road Improvement

Wang Township, Minnesota

November 25, 2019



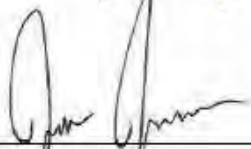
Hazard Mitigation Proposals
860th Avenue Road Improvement
November 25, 2019

Prepared for:
Wang Township, MN

Prepared by:
Bollig Inc
Engineering & Environmental
1700 Technology Drive NE, Suite 124
Willmar, MN 56201
p: 320.235.2555
f: 320.222.3067
www.bollig-engineering.com

**REPORT
CERTIFICATION**

I hereby certify that this report was prepared by me or under my direct supervision and that I am a duly licensed professional engineer under the laws of the state of Minnesota.



Josh Johnson, P.E.
License No. 53843

11/25/2019
Date

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A. INTRODUCTION

This report is being prepared as a result of the Presidential Disaster Declaration DR-4442-MN. Funding is being sought through the Federal Emergency Management Agency (FEMA) Section 404-Hazard Mitigation Grant Program (HMGP). The declaration on June 12, 2019 was the result of severe winter storms, straight-line winds and flooding from March 12 to April 28 for 51 counties and 4 four tribal nations as shown in Exhibit 1. HMGP is a cost share program with 75 percent federal and 25 percent local share.

HMGP funds are being sought for damages to 860th Avenue due to flooding and abnormally high flows in Hawk Creek during the spring of 2019. The Creek's outer bank has been washed out and has begun undermining the roadway owned by Wang Township.

Work elements in this report are **Permanent Work in Category D: Roads and bridges**.

B. PROJECT

1. Location

The damaged township road is located on 860th Avenue between 120th Street and 130th Street in Wang Township, Renville County. The damaged area is specifically located along 860th Avenue in Sections 21 and 28, Township 116 North, Range 38 West, Wang Township, Renville County, Minnesota. Wang Township is located in the very northwest corner of Renville County. The damaged area is where 860th Avenue borders Hawk Creek. A map of the project area can be found in Exhibit 2.

TABLE 1						
Location and Coordinates						
Roadway	Midpoint		Start		End	
	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
860 th Avenue	44.500070	-95.25566	44.495806	-95.255214	44.500144	-95.260150

C. DAMAGE DESCRIPTION, SCOPE OF WORK, COST ESTIMATE

1. **Damage Description** – From March 12 through April 28, Hawk Creek experienced high water levels and excessive flows resulting in significant damage to its banks. Where 860th Avenue runs parallel to Hawk Creek and approximately 800 feet from the bridge crossing, significant erosion of the outer bank has occurred. It is estimated that the top of the bank has eroded closer to the road approximately 29 feet or more. It was also observed that significant undermining is occurring approximately halfway up the 66-foot bank. The extent of the undermining cannot be measured due to safety concerns but is estimated at 10 feet or more.

Along with the bank erosion, many established trees have been undermined and have slid down the slope as partially shown in Figures 1 and 2.



Figure 1 - Hawk Creek outer bank with visible undermining and groundwater permeating through the bank.

The sheer magnitude of the outer bank cliff along with the undermining and proximity to the road pose significant safety concerns. Much of the bank stability that was provided by the established tree roots has been destroyed. Drone photos show the presence of groundwater seeping out of the bank in numerous locations adding to concerns of bank failure.



Figure 2 – Downstream bank erosion and tree debris

Due to imminent safety concerns, Wang Township closed the one mile portion of 860th Avenue between 120th Street and 130th Street. Unfortunately, the bridge constructed in 1996 will remain out of service (Figures 3 & 4) through harvest and until the safety concerns along 860th Avenue can be mitigated. Wang Township has indicated that much of the traffic using the bridge is tractor trailers carrying grain or gravel and large farm equipment. Renville County has stated they do not want to abandon this bridge. The next closest bridge crossing is one mile to the north on County Road 11; however, this bridge has load restrictions due to its timber beam construction and old age. The closest bridge to be used for heavy loads is located two miles south.



Figure 3 – 860th Avenue bridge crossing Hawk Creek



Figure 4 – 860th Avenue bridge crossing Hawk Creek

2. Alternatives and Cost Estimates

The following alternatives were considered and reviewed with Wang Township and the land owner adjacent to where the damage has occurred. Also, Area Hydrologist Ethan Jenszen with the Minnesota Department of Natural Resources (DNR) was contacted and met at the Bollig Inc office August 5 and September 11 to review alternatives and brainstorm other possible ideas. Below is a summary of each alternative and cost estimate.

- a. **Do Nothing** – This proposed option would leave everything the way it currently is. 860th Avenue would remain closed, with the public and residents needing to find alternate routes for crossing Hawk Creek.



Figure 5 – Road closed sign on 860th Avenue

Hawk Creek will continue to erode the outer bank, and safety issues will remain paramount, eventually the existing roadway will likely be washed into the creek.

The existing 860th Avenue bridge constructed in 1996 would remain in place, however, it would not provide value to residents or the general public.

Signs have been posted at both ends of the road stating the road has been closed (Figure 5); however, this has not deterred all local traffic from traveling down the road. With the current condition of the stream bank and road, there is no telling when a failure could take place. When a failure eventually does occur, the height of the bank could cause severe injury or even death if a vehicle or person were to go over the bank. Without firsthand knowledge of the danger, the creek bank is not easily seen (Figure 6) and the general public could easily misinterpret the road as being safe to travel on.



Figure 6 – Hawk Creek outer bank as seen by motorists traveling on 860th Avenue

Estimated Project Cost – The estimated project cost to do nothing would be the continued costs to maintain road closure signage. Eventually, the township may need to remove the roadway and bridge to prevent unauthorized roadway usage.

- b. **Repair to Pre-Existing Conditions** – This proposed option would restore the Hawk Creek bank to its pre-existing condition before it was washed away. It is estimated that in the area of 860th Avenue, the bank has eroded 29 feet closer to the road. The roadway sits approximately 66 feet above the waterline and the length of bank impacting the roadway is approximately 270 feet long.

Estimated Project Cost – Restoring the bank to pre-disaster condition would take significant construction efforts. With no access to the water level in the damaged area, a new temporary haul road would have to be established and fill material brought in from the opposite bank. Additionally, a temporary measure would need to be installed to hold the bank, while it is being brought back to pre-existing conditions. This option is not feasible unless the bank can be significantly stabilized as it is restored. For this reason, a cost estimate for this alternative was not prepared.

- c. **Repair to Pre-Existing Conditions and Stabilize Hawk Creek Bank**

This proposed option would re-establish the Hawk Creek bank to pre-disaster conditions and use riprap to stabilize the bank as it is being reconstructed as shown in Exhibit 3. We do not believe this is a practical alternative and would not recommend it. However, there is merit and discussing how it might occur to give the reader a sense of the magnitude of this option.

First, a temporary haul road would need to be constructed from the opposite bank. Material would then need to be hauled down the temporary

construction road, dumped and brought to the opposite stream bank one excavator or one payload loader at a time. Because the stream bank was originally near vertical, riprap would need to be installed significantly high up the slope to provide a stable bank for fill material.

Estimated Project Cost

Attempts to re-establish a near vertical slope 66 feet high are impractical if even do-able. However, a relative cost opinion was prepared to give the reader a sense of magnitude for this alternative as shown in Table 2. This estimate would require significant additional investigation with a geotechnical engineering firm to even determine if it was buildable and to establish a better opinion of cost.

TABLE 2 Relative Cost Opinion – unsure if this is even technically feasible					
Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	Mobilization	LS	1	\$106,000	\$106,000
Temporary Construction Road					
	Clear and Grub	LS	1	\$30,000	\$30,000
	New Haul Road	LF	800	\$200	\$160,000
	Erosion Control & Restoration	LS	1	\$25,000	\$25,000
Establish Pre-Existing Condition					
	Common Embankment & Bank Stabilization	CY	19,000	\$50	\$950,000
	Topsoil Borrow (LV)	CY	150	\$45	\$6,750
	Erosion Control & Restoration	LS	1	\$50,000	\$50,000
Riprap Stabilization					
	Class V Riprap Stabilization	LF	450	\$2,550	\$1,148,000
SUBTOTAL CONSTRUCTION COSTS					\$2,500,000
SUBTOTAL CONTINGENCY (30%)					\$750,000
SUBTOTAL NON-CONSTRUCTION COST (20%)					\$500,000
TOTAL PROJECT COST					\$3,750,000

- d. **Repair to Pre-Existing Conditions and Reroute Hawk Creek** – This proposed option would complete the oxbow in Hawk Creek (Exhibit 4) and move the stream away from the eroding bank. However, Ethan Jenzen with DNR indicated that the DNR would not allow this mitigation step because it would increase the stream velocity and further exacerbate flooding conditions downstream.

Estimated Project Cost – Because this alternative would likely not be permissible by DNR, a cost estimate was not prepared.

- e. **New Road Alignment** – This proposed option would move the Township road away from the Hawk Creek bank approximately 100 feet (Exhibit 5) and allow the creek to naturally stabilize itself. The topography in the area has some significant elevation changes and will require some significant earthwork to make a drivable roadway.

Estimated Project Cost – The estimated project costs are summarized in Table 3.

TABLE 3 Estimated Project Cost					
Item	Description	Unit	Estimated Quantity	Unit Price	Total Price
	Mobilization	LS	1	\$35,000	\$35,000
Remove Existing Road					
	Sign and Misc. Removals	LS	1	\$5,000	\$5,000
	Common Excavation	CY	2,600	\$15	\$39,000
	Topsoil Borrow (LV)	CY	1,300	\$45	\$59,000
	Turf Establishment, Trees & Restoration	ACRE	2.0	\$12,000	\$24,000
New Township Road					
	Clear and Grub Trees	LS	1	\$15,000	\$15,000
	Common Excavation (P)	CY	15,000	\$15	\$225,000
	Common Embankment (P)	CY	15,000	\$15	\$225,000
	Aggregate Base, Class 5	CY	700	\$38	\$27,000
	Select Granular	CY	700	\$20	\$14,000
	Shoulder Base, Class 1	CY	200	\$45	\$9,000
	Topsoil Borrow (LV)	CY	450	\$45	\$20,000
	Drill New Private Well & Cap Existing	LS	1	\$10,000	\$10,000
	Turf Establishment and Restoration	ACRE	3.0	\$7,000	\$21,000
	Install Signs	LS	1	\$5,000	\$5,000
	Traffic Control	LS	1	\$2,000	\$2,000
	Erosion Control	LS	1	\$10,000	\$10,000
SUBTOTAL CONSTRUCTION COSTS					\$746,000
SUBTOTAL CONTINGENCY (10%)					\$75,000
NON-CONSTRUCTION COST					
Basic Engineering Services					
	Study and Report Phase				\$30,000
	Preliminary Design Phase				\$34,000
	Final Design Phase				\$48,000
	Bidding & Negotiating Phase				\$9,000
	Construction Phase				\$13,000
	Post-Construction Phase				\$5,000
RPR Services					\$20,000
Additional Engineering Services					
	Detailed Construction Staking				\$5,000
Owner Soft Costs					
	Administration				\$20,000
	Land Purchase				\$17,000
	ROW Boundary Survey & Attorney				\$13,000
	Geotechnical Investigation & Testing				\$4,600
	Archaeological Investigation				\$1,600
SUBTOTAL NON-CONSTRUCTION COST					\$220,200
TOTAL PROJECT COST					\$1,041,200

D. RECOMMENDATION & IMPLEMENTATION SCHEDULE

1. Recommendation

The recommended option would be the New Road Alignment option, relocating 860th Avenue approximately 100 feet north as shown in Exhibit 5. This option would best serve the public by mitigating safety concerns to those traveling along the roadway. Eventually, Hawk Creek will naturally stabilize itself. The estimated total project cost is \$1,041,200 as shown in Table 3.

The township has already begun initial steps to get the project moving forward. Along with this Hazard Mitigation Report and initial Cost Estimates, the township has hired a certified Archeologist to perform a Phase I Archaeological Survey (Exhibit 6) of the proposed road route. The Archaeological Survey did not reveal any historic or prehistoric materials and no additional surveys are recommended.

Wang Township has been proactive in negotiating most of the additional right-of-way that would need to be purchased in order to re-align the roadway. The property owners to the northeast have agreed to sell the approximately 1.5 acres of their property for \$8,500 dollars. The sale of this property will move forward with the approval of this project.

2. Cost Benefit Analysis

The estimated benefit of 860th Avenue is summarized in Table 4 below. The benefit to the public can be estimated by taking the investment of public funds to build one mile of township road and to construct the Renville County bridge over Hawk Creek. The estimated average replacement value for one mile of gravel township road is \$300 per linear foot (LF). The estimated replacement value of a County bridge is \$150 per square foot (SF) of bridge deck. The bridge deck is 35.3 feet wide by 120.1 feet long as shown in Exhibit 7. The total replacement cost of this bridge is \$636,000. The County built bridge was constructed in 1996 and is still in good condition. With the road remaining closed, the investment Wang Township made in the road and Renville County made on the bridge will not provide any value to the public.

The cost to benefit ratio for this particular project is a 2.1. Meaning, if funds were awarded for the proposed project, the benefit to the public would be 2.1 times the cost of the project.

TABLE 4 Benefit				
Description	Unit	Unit Price	Estimated Quantity	Unit Cost
Replacement Cost of 1 mile of Township Road	LF	\$300	5280	\$1,584,000
Replacement Cost of New Bridge	SF	\$150	4240	\$636,000
Total Benefit				\$2,222,000

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$2,222,000}{\$1,041,200} = 2.1$$

3. Implementation Schedule

TABLE 5 Project Schedule	
FEMA Scoping Meeting	September 29, 2019
FEMA Hazard Mitigation Site Inspection	October 16, 2019
Submit Proposed Hazard Mitigation to FEMA	November 25, 2019
Approval from FEMA to pay for recommended improvements	January 2020
Prepare Plans & Specs	Jan-Mar 2020
Advertisement for Bids	April 2020
Construction Start	May 2020
Construction Complete	August 2020



BOLLIGinc
 engineering & environmental
 Willmar, Minnesota
 PH: 320.235.2555 FAX: 320.235.1986
 www.bollig-engineering.com

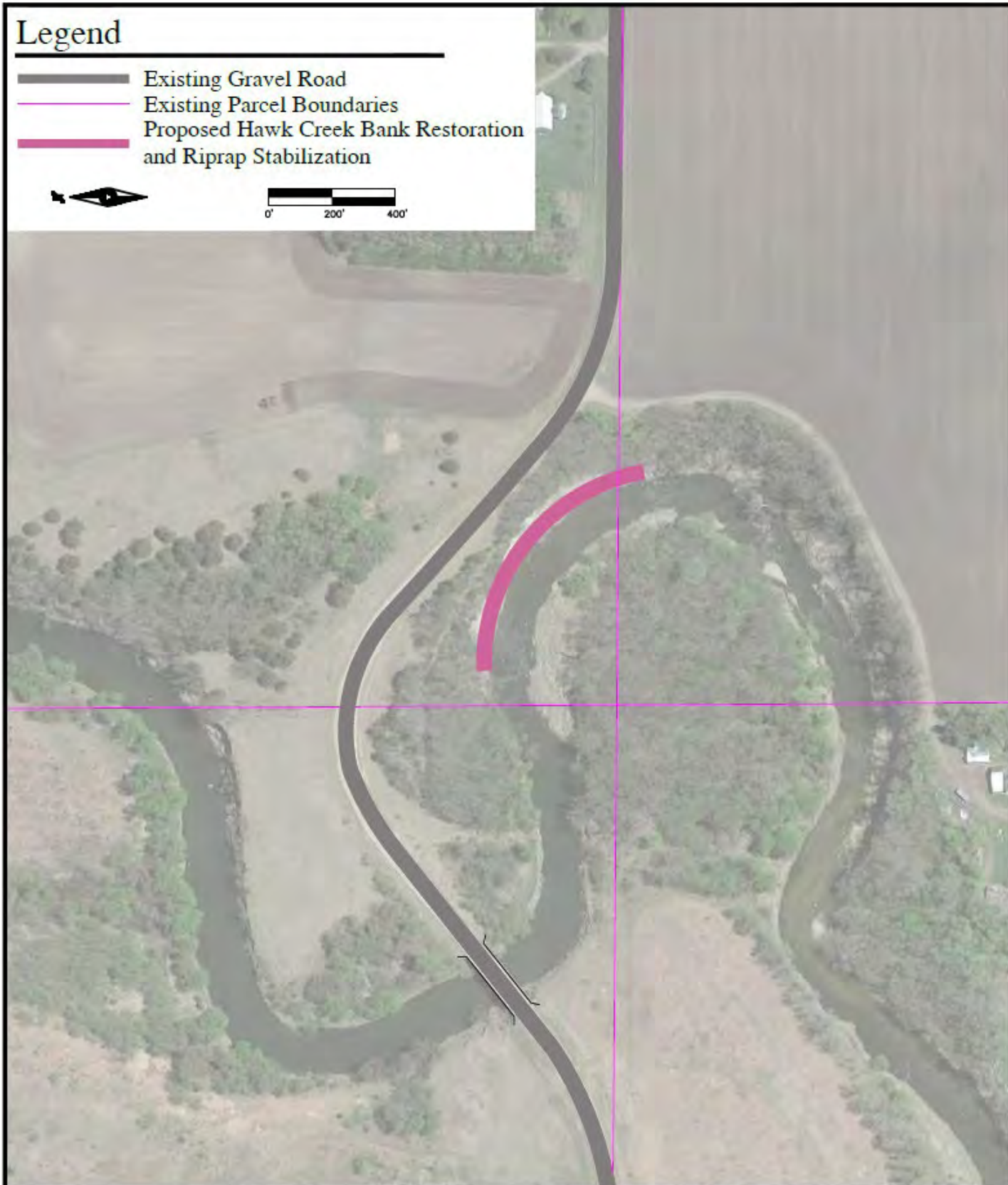
Prepared for:

Wang
 Township

Project
 Location
 Exhibit 2

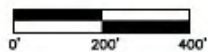
Legend

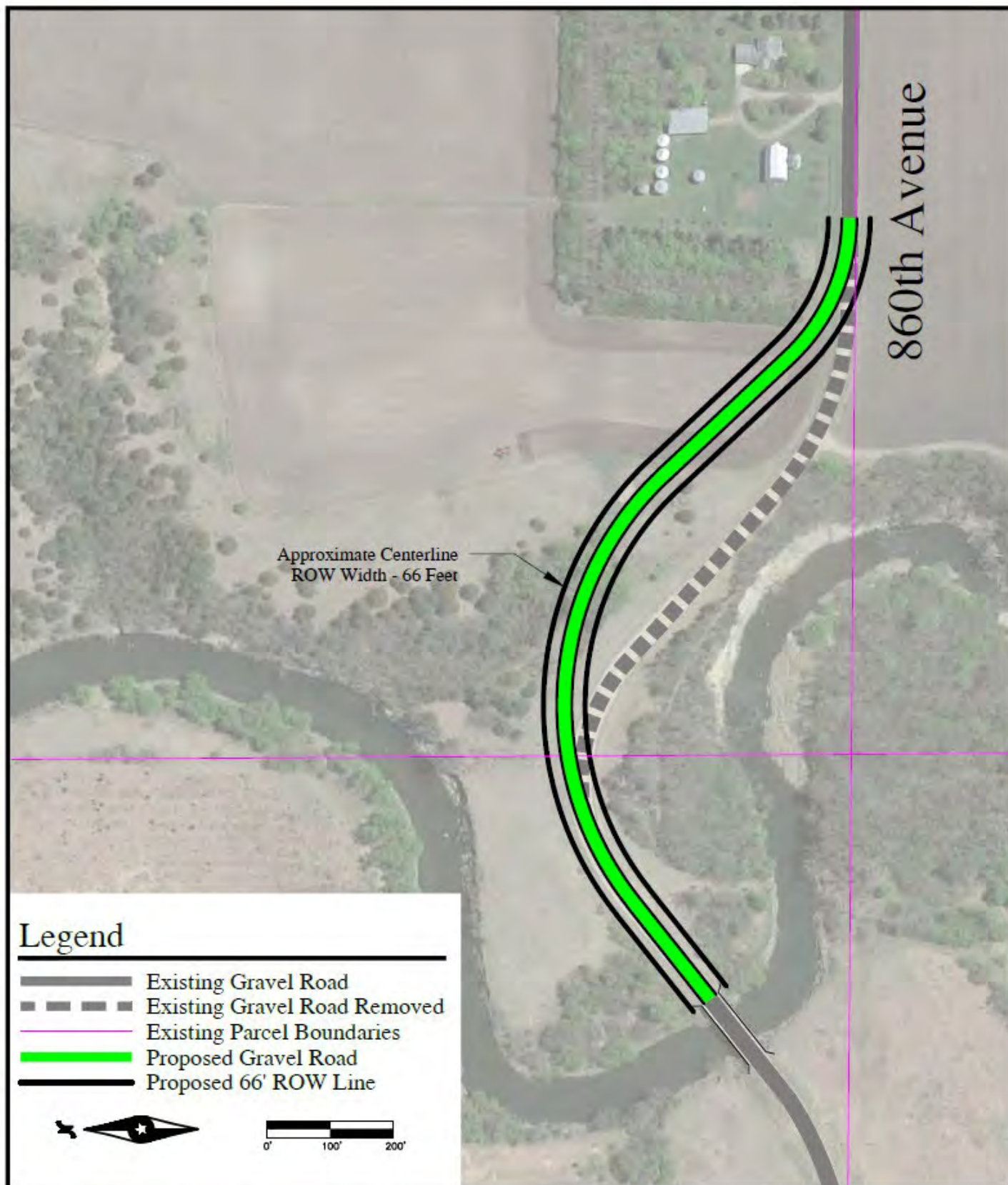
- Existing Gravel Road
- Existing Parcel Boundaries
- Proposed Hawk Creek Bank Restoration and Riprap Stabilization



Legend

- Existing Gravel Road
- Existing Parcel Boundaries
- Proposed Hawk Creek Alignment







Nienow Cultural Consultants LLC
200 Plato Blvd East
St. Paul, MN 55107

November 18, 2019

Chris Giese
Wang Township Chairman
86730 150th Street
Sacred Heart, MN 56285

RE: Results of 860th Avenue Wang Township Phase I Archaeological Survey.

Dear Mr. Giese:

In November 2019, Wang Township, via Bollig-Engineering, contracted with Nienow Cultural Consultants, LLC (NCC) to complete a Phase I Archaeological survey for the relocation of a portion of 860th Avenue immediately adjacent to Hawk Creek in Wang Township, Renville County, Minnesota (Figures 1 & 2). The project area is located within Section 21, Township 116N, Range 38W, approximately one-half mile west of the intersections of 860th Avenue and 130th Street near Sacred Heart, Minnesota. The project falls within Minnesota Archaeological Region 2n – Prairie Lake North. The project area consists of uplands on both sides of a gully with a plowed field to the east. All aspects of the project were overseen by Jeremy L. Nienow, Ph.D., RPA who has a 2019 license to complete Phase I Archaeological Survey within the state of Minnesota (19-040). Bollig-Engineering provided a project area map (Figure 2) and assistance with landowner communication.

The research design for this project consisted of identifying any archaeological sites within the project area. Prior to archaeological survey, NCC conducted a literature review at both the Minnesota Office of the State Archaeologist (OSA) and the Minnesota State Historic Preservation Office (SHPO). This review identified no previously documented sites within the project area, however, one known site was reported approximately 1.5 miles north/northwest. The site, 21RN22 is located on a terrace overlooking an abandoned oxbow channel of Hawk Creek. Additionally, the site is listed as a Pre-Contact (9500BP-1650AD) lithic find spot consisting of one utilized flake of Knife River Flint. This information, and existing field conditions, were used to direct the methodological approaches used within the project area.

Survey work was completed on November 13, 2019 and was conducted by Jeremy L. Nienow, Ph.D., RPA with survey assistance from John Strot (John's Archaeological Consulting). Additional map production and digital research was completed by Laura Koski, MSc. (Zooarchaeo Consulting LLC). The survey focused on areas where anticipated direct ground disturbance for the

road re-alignment would take place. All survey work was completed using standard methods laid out by both the OSA and SHPO archaeology manuals. Methods for this project included initial surface survey over the entire project area, followed by 5-meter interval surface survey within the plowed field and six shovel tests on uplands and slight slopes on each side of the gully.

Surface survey was completed over the entire project area. A large agricultural trash midden consisting of late 19th through mid-20th century materials, as well as large rocks, was noted along the east side of the gully (Figure 3). A 15x15ft depression was also noted on the western gully edge and visible on LiDAR (Figures 4 & 5). This had the potential to be a basement/dugout for a historic building, so the location was flagged for a shovel test. The 1900 and 1916 Wang Township plat maps do show a building at this location. Aerial photography from 1938 and 1950, as well as historic topographic maps, also do not show anything at this location. Surface survey in the field showed excellent surface visibility (90% or better) (Figure 6). No prehistoric cultural materials were identified during surface survey.

A series of six shovel tests were placed within the project area, three on each side of the gully, and placed in locations with the least slope and greatest potential for cultural materials (Figures 4 & 7). These shovel tests were spaced approximately 15 meters apart and were typically dug 60cm below ground surface. Each test was documented in terms of soils color, texture, and stratigraphy via notes and photography. The typical soil profile for the project area had Very Dark Brown 10YR 2/2 sandy silty loam down to 30cm with Light Brown 10YR 6/4 clay like silt below this. No historic or prehistoric artifacts were documented or recovered during shovel testing, including next to the 15x15ft depression.

To summarize, in November 2019, Wang Township, via Bollig-Engineering contracted with Nienow Cultural Consultants, LLC to complete a Phase I archaeological survey for the re-alignment of a gravel road near Sacred Heart, Renville County, Minnesota. All aspects of the project were overseen by Jeremy L. Nienow, Ph.D., RPA. Archaeological survey included both close interval surface survey and standard interval shovel testing. A total of six shovel tests were completed within the project area on each side of the gully and in areas with less than 30% surface visibility. Although modern and historic agricultural trash materials were identified along the east side of the gully, no historic or prehistoric materials were recovered in plowed field areas or in shovel tests. *No archaeological sites were recorded during the survey and Nienow Cultural Consultants does not recommend an additional archaeological survey at this time.*

With any project there is the chance of unanticipated discovery. Should archaeological materials surface during any future construction, it is advised a professional archaeologist be consulted. Minnesota Statute 307.08 protects unplatted cemeteries (including burial mounds) and issues guidelines for dealing with unexpected finds. Should human remains be encountered during earth moving activity, all work must stop and local law enforcement must be called. If you have any additional questions or future project work, please do not hesitate to contact us.

Sincerely,

A handwritten signature in black ink, reading "Jeremy L. Nienow". The signature is written in a cursive style with a large, stylized "J" and "N".

Jeremy L. Nienow, Ph.D., RPA
Principal and Owner
Nienow Cultural Consultants LLC

Attachments: Figures 1-7

Enclosed: Jump drive with all project photographs and project documentation.

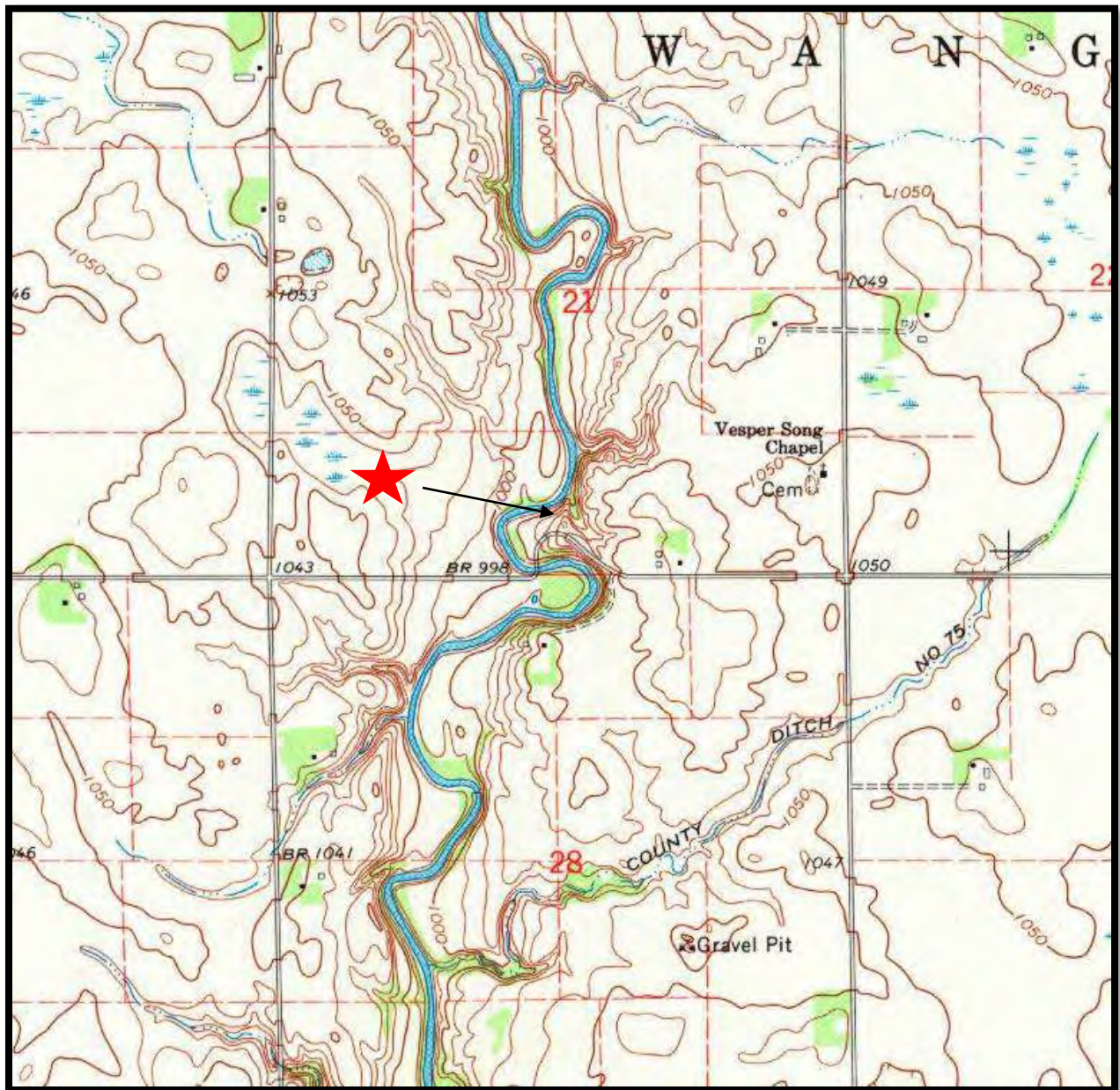


Figure 1: Location of Project Area in Renville County, Minnesota.



Figure 2: Project Area and Proposed Ground Disturbance Areas (provided by client).



Figure 3: Photograph of Existing Agricultural Trash Pile on East Side of Gully in Project Area.

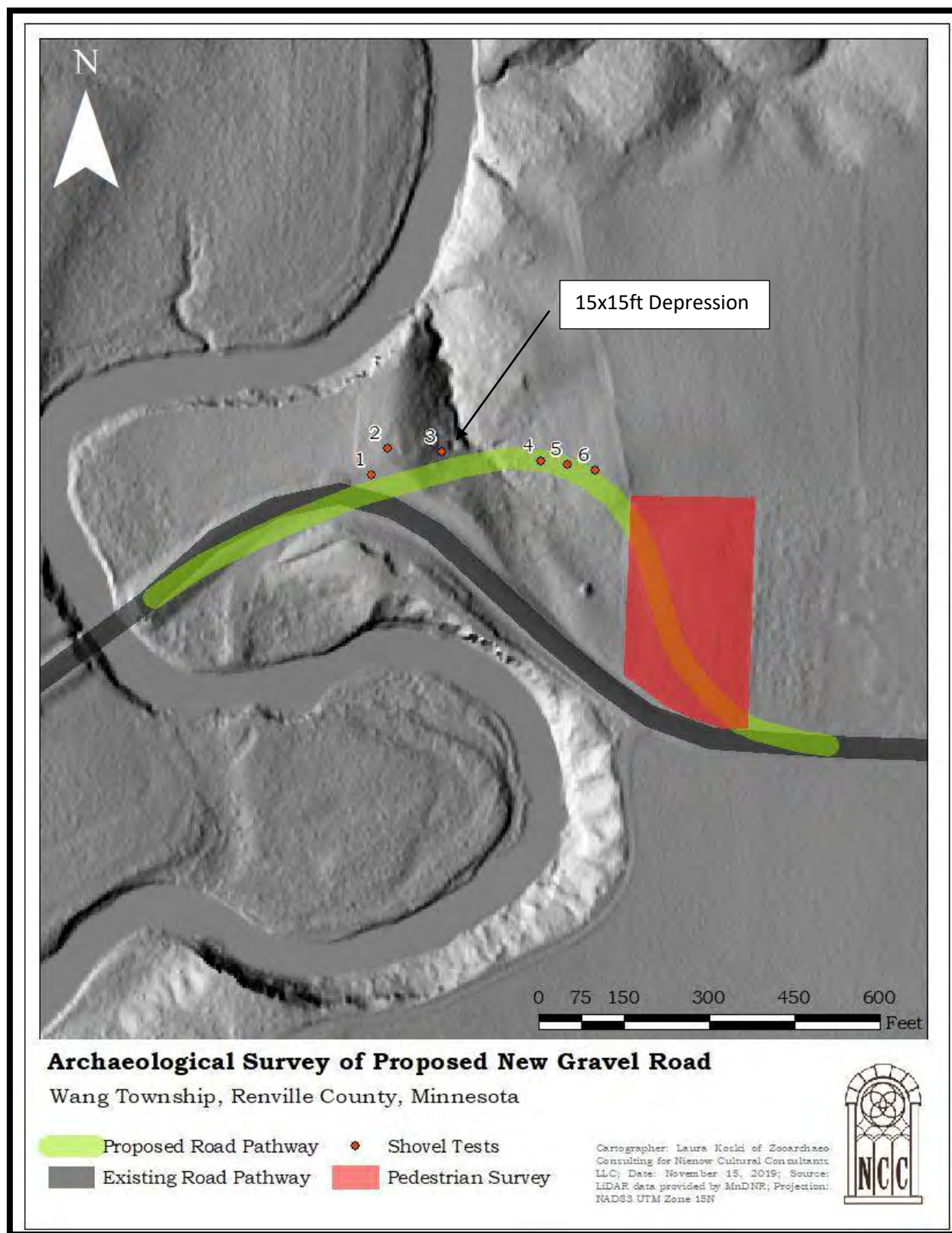


Figure 4: Project Area LiDAR Based Map Showing Shovel Tests and Depression.



Figure 5: Photograph (Facing North) of Shovel Test Next to Depression (Right Side of Photograph).



Figure 6: Photography (Facing North/Northeast) of Field Surface Survey Conditions.



Figure 7: Photograph Example of Completed Shovel Test.

MINNESOTA STRUCTURE INVENTORY REPORT

Bridge ID: 65556

860TH AVE over HAWK CREEK

Date: 06/25/2019

+ GENERAL +		+ ROADWAY ON BRIDGE +		+ INSPECTION +	
Agency Br. No.	Crew	Road Name	TWNS 35	Deficient Status	ADEQ
District	8 Maint. Area	Functional Class.	RURAL LOCAL	Sufficiency Rating	100.0
County	65 - RENVILLE	ADT (YEAR)	31 (1971)	Last Routine Insp Date	11-13-2017
City		HCA DT		Routine Insp Frequency	24
Township	WANG	National Highway System	N	Inspector Name	RENVILLE COUNTY
Desc. Loc.	0.5 MI W OF JCT CR 60	Route Sys/Nbr	TWNS 35	Status	A-OPEN
Sect., Twp., Range	21 - 116N - 38W	Ref. Point (TIS)	002+00 450	+ NBI CONDITION RATINGS +	
Latitude	44d 49m 59.25s	Detour Length	3 mi.	Deck	8
Longitude	95d 26m 05.22s	Lanes	2 Lanes ON Bridge	Superstructure	8
Custodian	TOWNSHIP	Control Section (TH Only)		Substructure	8
Owner	TOWNSHIP	Function	MAINLINE	Channel	8
Insp Responsibility	RENVILLE COUNTY	Type	2 WAY TRAF	Culvert	N
Year Built	1996	Bridge Match ID	1	+ NBI APPRAISAL RATINGS +	
Date Opened to Traffic		Roadway Key	1-ON	Structure Evaluation	8
MN Year Remodeled		+ RDWY DIMENSIONS ON BRIDGE +		Deck Geometry	8
FHWA Year Reconstructed		If Divided	NB-EB SB-WB	Underclearances	N
Bridge Plan Location	COUNTY	Roadway Width	32.0 ft	Waterway Adequacy	7
Potential ABC	N/A	Vertical Clearance		Approach Alignment	7
+ STRUCTURE +		Max. Vert. Clear.		+ SAFETY FEATURES +	
Service On	HIGHWAY	Horizontal Clear.		Bridge Railing	1-MEETS STANDARDS
Service Under	STREAM	Appr. Surface Width	28.0 ft	GR Transition	N-NOT REQUIRED
Main Span Type	PRESTR BM SPAN	Bridge Roadway Width	32.0 ft	Appr. Guardrail	N-NOT REQUIRED
Main Span Detail		Median Width on Bridge	NA	GR Termini	N-NOT REQUIRED
Appr. Span Type		+ MISC. BRIDGE DATA +		+ SPECIAL INSPECTIONS +	
Appr. Span Detail		Structure Flared	NO	Frac. Critical	N
Skew		Parallel Structure	NONE	Underwater	N
Culvert Type		Field Conn. ID		Pinned Asbly.	N
Barrel Length		Cantilever ID		+ WATERWAY +	
Number of Spans		Foundations		Drainage Area	466.0 sq mi
MAIN: 1 APPR: 0 TOTAL: 1		Abut.	CONC - FTG PILE	Waterway Opening	1280 sq ft
Main Span Length	118.5 ft.	Pier	N/A	Navigation Control	NO PRMT REQD
Structure Length	120.1 ft	Historic Status	NOT ELIGIBLE	Pier Protection	
Deck Width	35.3 ft	On - Off System	OFF	Nav. Vert./Horz. Clr.	
Deck Material	C-I-P CONCRETE	+ PAINT +		Nav. Vert. Lift Bridge Clear.	
Wear Surf Type	MONOLITHIC CONC	Year Painted		MN Scour Code	I-LOW RISK
Wear Surf Install Year		Painted Area		Scour Evaluation Year	1998
Wear Course/Fill Depth		Primer Type		+ CAPACITY RATINGS +	
Deck Membrane	NONE	Finish Type		Design Load	HS 25
Deck Rebars	EPOXY COATED REBAR	+ BRIDGE SIGNS +		Operating Rating	HS 52.70
Deck Rebars Install Year	1996	Posted Load	NOT REQUIRED	Inventory Rating	HS 24.50
Structure Area	4,240 sq ft	Traffic	NOT REQUIRED	Posting	
Roadway Area	3,843 sq ft	Horizontal	NOT REQUIRED	Rating Date	07-18-2016
Sidewalk Width - L/R		Vertical	NOT APPLICABLE	Overweight Permit Codes	
Curb Height - L/R				A: 1 B: 1 C: 1	
Rail Codes - L/R	22 22				

06/25/2019

Crew:

MINNESOTA BRIDGE INSPECTION REPORT

Insp Responsibility: RENVILLE COUNTY

BRIDGE 65556 860TH AVE OVER HAWK CREEK**INSP. DATE: 11-13-2017**

County: RENVILLE

Location: 0.5 MI W OF JCT CR 60

Length: 120.1 ft

City:

Route: TWNS 35 Ref Pt (TIS) 002+00.450

Deck Width: 35.3 ft

Township: WANG

Control Section: Maint. Area

Rdwy. Area 3,843 sq ft

Section: 21 Township: 116N Range: 38W

Local Agency Bridge Nbr:

Paint Area

Main Span Type: PRESTR BM SPAN

Culvert: N/A

NBI Deck: 8 Super: 8 Sub: 8 Chan: 8 Culy: N Open, Posted, Closed: OPEN

Appraisal Ratings - Approach: 7 Waterway: 7

MN Scour Code: (LOW RISK

Def. Stat: ADEQ Suff. Rate: 100.0

Required Bridge Signs - Load Posting: NOT REQUIRED

Traffic: NOT REQUIRED

Horizontal: NOT REQUIRED

Vertical: NOT APPLICABLE

ELEM NBR	ELEMENT NAME	INSP DATE	QUANTITY	QTY CS 1	QTY CS 2	QTY CS 3	QTY CS 4
800	CRITICAL DEFS OR SAFETY HAZARDS	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0
Notes: NO CRITICAL FINDINGS OBSERVED DURING THE LAST INSPECTION							
12	REINFORCED CONCRETE DECK	11-13-2017	4,240 SF	4,240	0	0	0
		11-13-2015	4,240 SF	4,240	0	0	0
Notes: Top of Concrete Deck with Uncoated Rebar Notes: 2016-17 GOOD CONDITION-2017							
510	WEARING SURFACE	11-13-2017	3,843 SF	3,843	0	0	0
		11-13-2015	3,843 SF	3,843	0	0	0
Notes: Top of Concrete Deck with Uncoated Rebar Notes: GOOD CONDITION- 2013-17							
331	REINFORCED CONC BRIDGE RAILING	11-13-2017	239 LF	239	0	0	0
		11-13-2015	239 LF	239	0	0	0
Notes: HAS GRAFFI ON IT BUT WAS PAINTED OVER SOME OF IT SOME NOT, 2007-MORE GRAFFI ON THE EAST RAILING END2009- MORE GRAFFI ON BOTH SIDES- 2011-15 HAS BEEN PAINTED OVER HAS MORE GRAFFI ON THE EAST RAILING, HAVE TRIED TO PAINT OVER- 2017							
215	REINFORCED CONCRETE ABUTMENT	11-13-2017	109 LF	105	0	4	0
		11-13-2015	109 LF	105	0	4	0
Notes: [2016] Migrator added 40 LF to abutment quantity to account for wingwalls (CS1:40 CS2:0 CS3:0 CS4:0) PLACED SOME CEMENT AND SEALER IN CRACKED AREA -WATCH TO SEE IF HOLDS CONCRETE CRACKS AND SOME SPALLING SOUTHEAST AND SOUTHWEST CORNERS FIX SOON. 2005-SEALER ON CONCRETE IS HOLDING BUT CONCRETE IS CRACKING 2013- SE LARGE CRACK IS GETTING LARGER, IT HAS COMPLETELY CRACKED 2015-17 CONTINUE TO MONITOR 2017- SEEMS TO BE HOLDING CONTINUE TO MONITOR Wingwall notes: GOOD CONDITION- 2013-17							
109	PRESTRESSED CONC GIRDER OR BEAM	11-13-2017	600 LF	600	0	0	0
		11-13-2015	600 LF	600	0	0	0
Notes: GOOD CONDITION- 2013-17							
310	ELASTOMERIC EXPANSION BEARING	11-13-2017	10 EA	10	0	0	0
		11-13-2015	10 EA	10	0	0	0
Notes: GOOD CONDITION- 2013-17							
883	CONCRETE SHEAR CRACKING	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0
Notes: Use this element to monitor the presence of shear cracking on concrete elements. Pay particular attention to the prestressed concrete beams.							
891	OTHER BRIDGE SIGNING	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0
Notes: GOOD CONDITION- 2013-17							
892	SLOPES & SLOPE PROTECTION	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0

Notes: LARGE WASHOUT NW CORNER, RIPRAP HAS SLID INTO CREEK, NEEDS ATTENTION, HAVE TALKED TO THE TOWNSHIP MAINTENCE AND THERE WERE GOING TO TALK TO TOWNSHIP OFFICERS ABOUT IT- 2013, LOOKS LIKE SOME RIPRAP WAS PLACED
CONTINUE TO MONITOR-2015-17

894	DECK & APPROACH DRAINAGE	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0

Notes: 2013-17 OK

900	PROTECTED SPECIES	11-13-2017	1 EA	1	0	0	0
		11-13-2015	1 EA	1	0	0	0

Notes: Use this element to track the presence of protected species living on this structure.

General: INSPECTED BY STEVE CHANDLER- BUILT IN 1996- 2011-17 TREES NEED TO BE CUT ALL CORNER

Notes:

*****You may email this page to duane.castaldi@fema.dhs.gov *****

Re: 860th Avenue Realignment, Wang Township, Renville County
44.833241, -95.434638 to 44.832683, -95.4529881
DR-4442-MN, PW 886 [114083]



Under the authority of the National Historic Preservation Act of 1966, as amended, the Minnesota State Historic Preservation Office *concurs* with FEMA's finding that the captioned undertaking will result in *no historic properties affected*.



Under the authority of the National Historic Preservation Act of 1966, as amended, the Minnesota State Historic Preservation Office *objects* to FEMA's finding that the captioned undertaking will result in *no historic properties affected* for the reasons provided below.

Sarah J. Baumgardner

Minnesota State Historic Preservation Office

8/24/2020

Date



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

October 19, 2020

REPLY TO THE ATTENTION OF:

Mail Code RM-19J

Duane Castaldi
Federal Emergency Management Administration
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

Re: Project Scoping for the Relocation of 860th Avenue, Wang Township, Renville County, Minnesota

Dear Mr. Castaldi:

The U.S. Environmental Protection Agency (EPA) has reviewed the referenced project scoping document, which was prepared by the Federal Emergency Management Agency (FEMA). We are providing comments pursuant to our authorities under the National Environmental Policy Act (NEPA), Council on Environmental Quality regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

FEMA proposes to realign 860th Avenue for approximately 1,460 linear-feet in length, beginning at the east end of the existing Renville County bridge over Hawk Creek, forming a large curve around the severely eroding outer bank of Hawk Creek, and reconnecting with the existing road alignment west of the nearby residential site. This alternative includes no modifications to the existing bridge. The existing roadway would be removed, and the existing streambank would not be modified. Two alternatives have been provided:

- Alternative 1 – No Action Alternative. Under the No Action alternative, 860th Avenue would remain closed. Storms and high stream flows would continue to damage the embankment, causing the eventual destruction of the road. Additional erosion could also encroach on adjacent agricultural land and result in loss of production; and:
- Alternative 2 – Proposed Action. The Proposed Action would realign 860th Avenue approximately 150 feet from its current location and allow the creek to naturally stabilize itself. This will restore the function of 860th Avenue, providing local access to residential and agricultural lands without the need for a long detour. The proposed action consists of the following components:
 - Acquire new right of way 66 feet wide along the 1,460-foot-long new alignment and vacate the existing road easement;
 - Relocate 860th Avenue to create a two-lane rural design with a gravel driving surface 24 feet in width with roadside ditches to provide drainage;
 - Remove approximately 0.31 acres of existing trees and brush along the new alignment as needed to construct the new roadway;

- Perform grading as required to construct the roadway and associated road ditches,
- including importing or exporting fill as needed (portions of the existing roadway may be salvaged and used for construction of the new road);
- Remove existing gravel driving surface, disconnect existing roadway from proposed roadway where alignment diverges at each end, and establish turf in the existing gravel area;
- Follow best management practices (BMPs) for erosion and sedimentation control during construction, in accordance with the Minnesota Pollution Control Agency's (MPCA) construction stormwater NPDES general permit; and
- Reestablish appropriate vegetation within and adjacent to the existing roadway to provide erosion prevention, in accordance with the construction stormwater NPDES permit, and to provide a natural barrier between recreational users (snowmobile and all-terrain vehicle traffic) and the streambank, for safety.

Based on our review of the scoping document, we have comments pertaining to air quality strategies, flood management and resiliency, erosion control, benefit-cost analyses, pollinators and native plant species, and consultation records, as stated below.

Air Quality Strategies

We recommend FEMA consider implementing air quality best management practices (BMPs) during the construction phase of this proposed project. Several recommendations are included in an enclosure entitled, *U.S. Environmental Protection Agency Construction Emission Control Checklist*.

Flood Management and Resiliency

The National Climate Assessment finds that, in the Midwest, extreme heat, heavy downpours, and flooding will affect infrastructure, health, air and water quality, and more.¹ Storm events are occurring with greater frequency and intensity. The National Climate Assessment further concludes that, in the Midwest, extreme heat, heavy downpours, and flooding will affect infrastructure. To help ensure the health and safety of the public, we recommend FEMA account for increased storm intensity by ensuring the new road bed is constructed at or above the 500-year flood elevation line.

Erosion Control

The root issue is lateral erosion at the cut bank of Hawk Creek. We understand stream bank stabilization on the outside bend (cut bank) of Hawk Creek is not being proposed as part of this proposed project, due to cost. Without appropriate action, lateral erosion will continue, and the proposed roadway may need to be realigned again in the future. In the forthcoming draft environmental assessment (EA), we recommend FEMA describe the erosion control options that were considered for this proposed project, including cost information and interim measures.

Benefit-Cost Analyses

We understand an adjacent farm and associated farmland is at risk of being damaged -- both physically (from erosion) and economically (from the loss of land, reduced crop production, and crop loss from future flood events.) The EA should clarify whether or not Alternative 2 will

¹ U.S. Global Change Research Program, 2017 Climate Science Special Report: Fourth National Climate Assessment, Volume 1, available at: <https://www.globalchange.gov/browse/reports>

result in similar erosional and economic issues to the farmland. If the cost of mitigating physical and economic damage to the farm and farmland is greater than cost of stream bank mitigation, FEMA should note that in the EA, and determine if previously-dismissed alternatives that were dismissed solely based on cost, should be reconsidered.

Pollinators and Native Plant Species

Pollinators are critical contributors to our nation's economy, food system, and environmental health. Vegetation within the project area can provide vital habitat for pollinators, providing food, shelter, and connections to other patches of habitat. After the current road bed is demolished, we recommend FEMA consider planting native species and pollinator-friendly plants in the former road bed's footprint.

Consultation Records

EPA recommends attaching to the EA inter-agency consultation documents regarding historic resources (Minnesota State Historic Preservation Office), wetlands and streams (U.S. Army Corps of Engineers), and Federal and state threatened and endangered species (U.S. Fish and Wildlife Service and the Minnesota Department of Natural Resources, respectively).

We are available to discuss these comments at your convenience. Please feel free to contact Mike Sedlacek of my staff at 312-886-1765, or by email at sedlacek.michael@epa.gov.

Sincerely,

Kenneth A. Westlake
Deputy Director, Tribal and Multimedia Programs Office
Office of the Regional Administrator

Encl: U.S. Environmental Protection Agency Construction Emission Control Checklist

U.S. Environmental Protection Agency **Construction Emission Control Checklist**

Diesel emissions and fugitive dust from project construction may pose environmental and human health risks and should be minimized. In 2002, EPA classified diesel emissions as a likely human carcinogen, and in 2012 the International Agency for Research on Cancer concluded that diesel exhaust is carcinogenic to humans. Acute exposures can lead to other health problems, such as eye and nose irritation, headaches, nausea, asthma, and other respiratory system issues. Longer term exposure may worsen heart and lung disease.² We recommend FEMA consider the following protective measures and commit to applicable measures in the EA

Mobile and Stationary Source Diesel Controls

Purchase or solicit bids that require the use of vehicles that are equipped with zero-emission technologies or the most advanced emission control systems available. Commit to the best available emissions control technologies for project equipment in order to meet the following standards.

- On-Highway Vehicles: On-highway vehicles should meet, or exceed, the EPA exhaust emissions standards for model year 2010 and newer heavy-duty, on-highway compression-ignition engines (e.g., long-haul trucks, refuse haulers, shuttle buses, etc.).³
- Non-road Vehicles and Equipment: Non-road vehicles and equipment should meet, or exceed, the EPA Tier 4 exhaust emissions standards for heavy-duty, non-road compression-ignition engines (e.g., construction equipment, non-road trucks, etc.).⁴
- Low Emission Equipment Exemptions: The equipment specifications outlined above should be met unless: 1) a piece of specialized equipment is not available for purchase or lease within the United States; or 2) the relevant project contractor has been awarded funds to retrofit existing equipment, or purchase/lease new equipment, but the funds are not yet available.

Consider requiring the following best practices through the construction contracting or oversight process:

- Establish and enforce a clear anti-idling policy for the construction site.
- Use onsite renewable electricity generation and/or grid-based electricity rather than diesel-powered generators or other equipment.
- Use electric starting aids such as block heaters with older vehicles to warm the engine.
- Regularly maintain diesel engines to keep exhaust emissions low. Follow the manufacturer's recommended maintenance schedule and procedures. Smoke color can signal the need for maintenance (e.g., blue/black smoke indicates that an engine requires servicing or tuning).
- Where possible, retrofit older-tier or Tier 0 nonroad engines with an exhaust filtration device before it enters the construction site to capture diesel particulate matter.
- Replace the engines of older vehicles and/or equipment with diesel- or alternatively-fueled engines certified to meet newer, more stringent emissions standards (e.g., plug-in hybrid-electric vehicles, battery-electric vehicles, fuel cell electric vehicles, advanced technology locomotives, etc.), or with zero emissions electric systems. Retire older vehicles, given the significant contribution of vehicle emissions to the poor air quality conditions. Implement programs to encourage the voluntary removal from use and the marketplace of pre-2010 model year on-highway vehicles (e.g., scrappage rebates) and replace them with newer vehicles that meet or exceed the latest EPA exhaust emissions standards, or with zero emissions electric vehicles and/or equipment.

² Carcinogenicity of diesel-engine and gasoline-engine exhausts and some nitroarenes. *The Lancet*. June 15, 2012

³ <http://www.epa.gov/otaq/standards/heavy-duty/hdci-exhaust.htm>

⁴ <http://www.epa.gov/otaq/standards/nonroad/nonroadci.htm>

Fugitive Dust Source Controls

- Stabilize open storage piles and disturbed areas by covering and/or applying water or chemical/organic dust palliative, where appropriate. This applies to both inactive and active sites, during workdays, weekends, holidays, and windy conditions.
- Install wind fencing and phase grading operations where appropriate, and operate water trucks for stabilization of surfaces under windy conditions.
- When hauling material and operating non-earthmoving equipment, prevent spillage and limit speeds to 15 miles per hour (mph). Limit speed of earth-moving equipment to 10 mph.

Occupational Health

- Reduce exposure through work practices and training, such as maintaining filtration devices and training diesel-equipment operators to perform routine inspections.
- Position the exhaust pipe so that diesel fumes are directed away from the operator and nearby workers, reducing the fume concentration to which personnel are exposed.
- Use enclosed, climate-controlled cabs pressurized and equipped with high-efficiency particulate air (HEPA) filters to reduce the operators' exposure to diesel fumes. Pressurization ensures that air moves from inside to outside. HEPA filters ensure that any incoming air is filtered first.
- Use respirators, which are only an interim measure to control exposure to diesel emissions. In most cases, an N95 respirator is adequate. Workers must be trained and fit-tested before they wear respirators. Depending on the type of work being conducted, and if oil is present, concentrations of particulates present will determine the efficiency and type of mask and respirator. Personnel familiar with the selection, care, and use of respirators must perform the fit testing. Respirators must bear a NIOSH approval number.

NEPA Documentation

- Per Executive Order 13045 on Children's Health⁵, EPA recommends the lead agency and project proponent pay particular attention to worksite proximity to places where children live, learn, and play, such as homes, schools, and playgrounds. Construction emission reduction measures should be strictly implemented near these locations in order to be protective of children's health. Specify how impacts to sensitive receptors, such as children, elderly, and the infirm will be minimized. For example, locate construction equipment and staging zones away from sensitive receptors and fresh air intakes to buildings

⁵ Children may be more highly exposed to contaminants because they generally eat more food, drink more water, and have higher inhalation rates relative to their size. Also, children's normal activities, such as putting their hands in their mouths or playing on the ground, can result in higher exposures to contaminants as compared with adults. Children may be more vulnerable to the toxic effects of contaminants because their bodies and systems are not fully developed and their growing organs are more easily harmed. EPA views childhood as a sequence of life stages, from conception through fetal development, infancy, and adolescence.

Appendix D

Tribal Nation Consultation



U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Noah White, Tribal Historic Preservation Officer
Prairie Island Indian Community
5636 Sturgeon Lake Road
Welch, Minnesota 55089

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Mr. White:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Prairie Island Indian Community or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Prairie Island Indian Community and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Prairie Island Indian Community to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Prairie Island Indian Community or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

Due to workplace restrictions in response to COVID-19, we are using email to provide this notice. Because our reliance on digital communications must continue until our offices reopen, we would appreciate a response by email from your office within thirty (30) days of your receipt of this documentation. For your convenience, we have included a response area below. If FEMA receives no response from your office within thirty (30) days, we will move forward with the project without comment from Prairie Island Indian Community.

If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: Noah.White@piic.org

++++++You may email this page to duane.castaldi@fema.dhs.gov ++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Prairie Island Indian Community has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Prairie Island Indian Community has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Prairie Island Indian Community

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Misty Frazier, Interim Director
Santee Sioux Tribe
52946 Highway 12, Suite 2
Niobara, Nebraska 68760

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Ms. Frazier:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Santee Sioux Tribe or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Santee Sioux Tribe and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Santee Sioux Tribe to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Santee Sioux Tribe or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

Due to workplace restrictions in response to COVID-19, we are using email to provide this notice. Because our reliance on digital communications must continue until our offices reopen, we would appreciate a response by email from your office within thirty (30) days of your receipt of this documentation. For your convenience, we have included a response area below. If FEMA receives no response from your office within thirty (30) days, we will move forward with the project without comment from Santee Sioux Tribe.

If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: ssn.thpo@gmail.com

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Santee Sioux Tribe has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Santee Sioux Tribe has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Santee Sioux Tribe

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Leonard Wabasha, Director of Cultural Resources
Shakopee Mdewakanton Sioux Community of Minnesota
2330 Sioux Trail NW
Prior Lake, Minnesota 55372-9077

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Mr. Wabasha:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Shakopee Mdewakanton Sioux Community of Minnesota or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Shakopee Mdewakanton Sioux Community of Minnesota and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

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In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Shakopee Mdewakanton Sioux Community of Minnesota to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Shakopee Mdewakanton Sioux Community of Minnesota or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

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If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: leonard.wabasha@shakopeedakota.org

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Shakopee Mdewakanton Sioux Community of Minnesota has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Shakopee Mdewakanton Sioux Community of Minnesota has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Shakopee Mdewakanton Sioux Community of
Minnesota

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Dianne Desrosiers, Tribal Historic Preservation Officer
Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
P.O. Box 907
205 Oak St. E, Suite 121
Sisseton, South Dakota 57262

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Ms. Desrosiers:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

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In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

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If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: dianned@swo-nsn.gov

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Sisseton-Wahpeton Oyate of the Lake Traverse
Reservation, South Dakota

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Dr. Erich Longie, Tribal Historic Preservation Officer
Spirit Lake Tribe of Fort Totten
P.O. Box 76
Fort Totten, North Dakota 58335

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Dr. Longie:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Spirit Lake Tribe of Fort Totten or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Spirit Lake Tribe of Fort Totten and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Spirit Lake Tribe of Fort Totten to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Spirit Lake Tribe of Fort Totten or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

Due to workplace restrictions in response to COVID-19, we are using email to provide this notice. Because our reliance on digital communications must continue until our offices reopen, we would appreciate a response by email from your office within thirty (30) days of your receipt of this documentation. For your convenience, we have included a response area below. If FEMA receives no response from your office within thirty (30) days, we will move forward with the project without comment from Spirit Lake Tribe of Fort Totten.

If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: thpo@gondtc.com

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Spirit Lake Tribe of Fort Totten has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Spirit Lake Tribe of Fort Totten has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Spirit Lake Tribe of Fort Totten

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





FEMA

1.

July 13, 2020

Samantha Odegard, Tribal Historic Preservation Officer
Upper Sioux Community of Minnesota
5722 Travers Lane
P.O.Box 147
Granite Falls, Minnesota 56241-0147

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Ms. Odegard:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Upper Sioux Community of Minnesota or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Upper Sioux Community of Minnesota and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Upper Sioux Community of Minnesota to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Upper Sioux Community of Minnesota or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

Due to workplace restrictions in response to COVID-19, we are using email to provide this notice. Because our reliance on digital communications must continue until our offices reopen, we would appreciate a response by email from your office within thirty (30) days of your receipt of this documentation. For your convenience, we have included a response area below. If FEMA receives no response from your office within thirty (30) days, we will move forward with the project without comment from Upper Sioux Community of Minnesota.

If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: samanthao@uppersiouxcommunity-nsn.gov

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Upper Sioux Community of Minnesota has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Upper Sioux Community of Minnesota has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Upper Sioux Community of Minnesota

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Cheyenne St. John, Tribal Historic Preservation Officer
Lower Sioux Indian Community of Minnesota
PO Box 308, 39527 Res. Hwy 1
Morton, Minnesota 56270

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Ms. St. John:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Lower Sioux Indian Community of Minnesota or other Tribes have interests in the areas potentially affected by this undertaking.

As a result of a severe winter storm, straight-line winds, and flooding affecting areas of the State of Minnesota, President Trump signed the 4442-DR-MN Disaster Declaration on June 12, 2019. Under this declaration, Renville County, among others, is eligible for FEMA's Public Assistance (PA) Program funding. FEMA notified Tribes thought to have interests in the declared counties on June 26, 2019. FEMA invited comments on the potential impacts PA projects may have on lands traditionally used by or sacred to the Lower Sioux Indian Community of Minnesota and other Native American groups. FEMA received one response noting that no areas of interest existed in the declared counties.

The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Lower Sioux Indian Community of Minnesota to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Lower Sioux Indian Community of Minnesota or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboine and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

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If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: cheyanne.stjohn@lowersioux.com

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Lower Sioux Indian Community of Minnesota has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Lower Sioux Indian Community of Minnesota has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Lower Sioux Indian Community of Minnesota

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

FEMA

1.

July 13, 2020

Dyan Youpee, Tribal Historic Preservation Officer
Fort Peck Assiniboiné and Sioux Tribes
P.O. Box 1027
Poplar, Montana 59255

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Ms. Youpee:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Fort Peck Assiniboiné and Sioux Tribes or other Tribes have interests in the areas potentially affected by this undertaking.

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The disaster event resulted in significant damage to the outer bank of Hawk Creek and the undermining of 860th Avenue, between 120th Street and 130th Street, in Wang Township, Renville County (44.833230, -95.431970). Wang Township is proposing to realign a portion of 860th Avenue, located within Section 21, Township 116N, and Range 38W, approximately 100 feet north of the affected area to best serve public safety concerns and prevent the potential for reoccurring damages.

Construction of the new 66-foot wide gravel-surfaced road section will include clearing and grubbing of trees, excavation, grading, and the construction of an embankment. The roadway and shoulder will consist of Class 5 aggregate base, granular material, Class 1 shoulder base, and topsoil. The undertaking will also involve the drilling of a new well, three acres of turf establishment and restoration, and the installation of new road signage. An additional 1.5 acres of the property located at 12712 860th Avenue will be obtained to accommodate the new right-of-way. The old roadway will be excavated and removed. The original alignment will be returned to its original state by placing topsoil, establishing turf, and planting trees. The eroded creek bank will be allowed to naturally stabilize. The project location is noted on the enclosed map.

In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Fort Peck Assiniboiné and Sioux Tribes to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Fort Peck Assiniboiné and Sioux Tribes or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
- Fort Peck Assiniboiné and Sioux Tribes
- Lower Sioux Community of Minnesota
- Prairie Island Indian Community
- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
- Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota
- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

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If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: d.youpee@fortpecktribes.net

++++++You may email this page to duane.castaldi@fema.dhs.gov ++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Fort Peck Assiniboine and Sioux Tribes has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Fort Peck Assiniboine and Sioux Tribes has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Fort Peck Assiniboine and Sioux Tribes

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail





U.S. Department of Homeland Security
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

I.

July 13, 2020

Garrie Kills A Hundred, Tribal Historic Preservation Officer
Flandreau Santee Sioux Tribe of South Dakota
P.O. Box 283
Flandreau, South Dakota 57028

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

Dear Mr. Kills A Hundred:

The Federal Emergency Management Agency (FEMA) recognizes the special and unique legal relationship that exists between the federal government and federally-recognized American Indian Tribes (Tribes). FEMA also recognizes that Tribes may attach religious and cultural significance to historic properties located on aboriginal, ancestral, or ceded lands that are not contiguous with reservation lands. For this reason, FEMA consults with Tribes regarding the possible effects of FEMA-funded undertakings on cultural properties of historic or traditional significance, sometimes referred to as Traditional Cultural Properties (TCPs). The purpose of this communication is to provide information regarding the captioned FEMA-funded project and to invite comment on whether the Flandreau Santee Sioux Tribe of South Dakota or other Tribes have interests in the areas potentially affected by this undertaking.

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In accordance with the National Historic Preservation Act and other legislation, FEMA determined that this project constitutes a federally-assisted undertaking, requiring review under Section 106 of the National Historic Preservation Act of 1966, as amended. In accord with 36 CFR 800.2(c)(2)(ii), FEMA is providing this opportunity for the Flandreau Santee Sioux Tribe of South Dakota to identify concerns about historic properties that may be affected by this undertaking.

We invite your comments on the potential impacts this undertaking may have on lands traditionally used by or sacred to the Flandreau Santee Sioux Tribe of South Dakota or other Native American groups. We understand the sensitive nature of much of the information regarding TCPs and assure you in advance that any information you provide will be considered privileged and confidential. In order to safeguard TCPs of interest to Native Americans, we are contacting the following Tribes to request information regarding their interest in this undertaking.

- Flandreau Santee Tribe of South Dakota
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- Santee Sioux Tribe
- Shakopee Mdewakanton Sioux Community of Minnesota
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- Spirit Lake Tribe of Fort Totten
- Upper Sioux Community of Minnesota

Receiving notice of your interest to join the consultation regarding this undertaking or notice of Tribes other than those listed above that may have an interest in this undertaking would improve FEMA's efforts to protect resources that may exist in the areas noted on the enclosures. A response form has been provided for your convenience.

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If you require a paper copy by US Mail, we can do so once our offices reopen – just include a request for paper copy in your response and we will place a copy in the mail at that time. If you have any questions or comments, please do not hesitate to contact me at 312-408-5549 or at duane.castaldi@fema.dhs.gov.

Sincerely,



Duane Castaldi
Regional Environmental Officer
FEMA Region V

enclosures

sent by email to: garrie.killsahundred@fsst.org

+++++++You may email this page to duane.castaldi@fema.dhs.gov +++++++

Re: Realignment of 860th Avenue, Wang Township, Renville County, MN
(FEMA DR-4442-MN Project 886 - 114083)

- ☐ The Flandreau Santee Sioux Tribe of South Dakota has no interest in the area potentially affected by the captioned undertaking.
- ☐ The Flandreau Santee Sioux Tribe of South Dakota has an interest in the area potentially affected by the captioned undertaking. Contact information is provided below.
- ☐ The Tribal Nations noted below may have an interest in the area potentially affected by this undertaking.

Flandreau Santee Sioux Tribe of South Dakota

Date

Undertaking location marked in red.

USGS Map "Minnesota Fall, MN 2019" 1:24000, enlarged to show detail



Appendix E

Permits



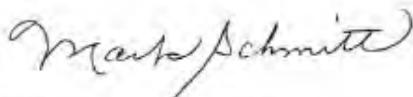
AUTHORIZATION TO DISCHARGE
STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)/
STATE DISPOSAL SYSTEM (SDS) PROGRAM
MNR100001

Permittee : Multiple
General Permit Name: Construction Stormwater General Permit
Issuance date: August 1, 2018
Expiration date: July 31, 2023

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes Permittees seeking coverage under this general permit to discharge stormwater associated with construction activity to waters of the state of Minnesota.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This permit is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

Signature: 

This document has been electronically signed.

Mark Schmitt
Division Director
Municipal Division

for the Minnesota Pollution Control Agency

Permit application:
Submit via the MPCA Online eServices Portal at
<https://rsp.pca.state.mn.us/>

Questions on this permit?
Contact eServices at
651-757-2728 or 1-844-828-0942

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1.1	Permit Coverage. [Minn. R. 7090]
1.2	This permit is required for construction activity that results in land disturbance of equal to or greater than one (1) acre or if a project is part of a common plan of development or sale that ultimately will disturb greater than one (1) acre, and authorizes, subject to the terms and conditions of this permit, the discharge of stormwater associated with construction activity. [Minn. R. 7090]
1.3	Construction activity covered by this permit cannot commence until coverage under this permit is effective as described in item 3.3 through 3.4 or, if applicable, until the Minnesota Pollution Control Agency (MPCA) has issued an individual National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) construction stormwater permit for the project. [Minn. R. 7090]
1.4	This permit covers all areas of the State of Minnesota except land wholly within the boundaries of a federally recognized Indian Reservation owned by a tribe or a tribal member or land held in trust by the federal government for a tribe or tribal member. [Minn. R. 7090]
1.5	Coverage under this permit is not required when all stormwater from construction activity is routed directly to and treated by a "treatment works," as defined in Minn. Stat. Sect. 115.01, subd. 21, operated under an individual NPDES/SDS permit with a Total Suspended Solids (TSS) effluent limit. [Minn. R. 7090]
1.6	This permit covers ongoing projects covered under any previous construction stormwater permit that are not complete on the issuance date of this permit. Permittees must either remain in compliance with the previous permit and terminate coverage within 18 months of the issuance date of this permit or comply with this permit, including updating the Stormwater Pollution Prevention Plan (SWPPP), within the 18-month period. Permittees of previously permitted projects are not required to incorporate any additional requirements regarding the permanent stormwater treatment system included in this reissued permit. [Minn. R. 7090]
1.7	Coverage for projects that extend beyond the expiration date of this permit remains effective for a grace period covering project completion and Notice of Termination (NOT) submittal. If Permittees cannot complete projects during the grace period, the MPCA will extend coverage under the next permit and permittees must comply with the requirements of the new permit including updating the SWPPP. Permittees are not required to follow changes to the permanent stormwater treatment section of the next permit. [Minn. R. 7090]
2.1	Prohibitions and Limitations of Coverage. [Minn. R. 7090]
2.2	The owner must develop a complete and accurate SWPPP that complies with item 5.2 prior to submitting the application for coverage and starting construction activity. Failure to prepare a SWPPP prior to submitting the application may result in permit revocation. [Minn. R. 7090]
2.3	This permit prohibits discharges of any material other than stormwater treated in compliance with this permit and discharges from dewatering or basin draining activities in accordance with Section 10. Prohibited discharges include, but are not limited to, wastewater from washout of concrete, stucco, paint, form release oils, curing compounds and other construction materials, fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance, soaps or solvents used in vehicle and equipment washing and maintenance, and other hazardous substances or wastes. [Minn. R. 7090]
2.4	This permit does not authorize stormwater discharges related to the placement of fill into waters of the state requiring local, state or federal authorizations (such as U.S. Army Corps of Engineers Section 404 permits, Minnesota Department of Natural Resources (DNR) Public Waters Work permits or local governmental unit (LGU) Wetland Conservation Act replacement plans or determinations). [Minn. R. 7090]
2.5	This permit does not authorize stormwater discharges associated with industrial activity except for construction activity. Permittees must obtain coverage for discharges associated with industrial activity under a separate NPDES/SDS permit once day-to-day operational activities commence even if construction is ongoing. [Minn. R. 7090]
2.6	This permit does not authorize discharges from non-point source agricultural and silvicultural activities excluded from NPDES permit requirements under 40 CFR pt. 122.3(e). [Minn. R. 7090]
2.7	This permit does not authorize stormwater discharges to Prohibited, Restricted, Special or Impaired waters unless permittees follow the additional stormwater requirements in Section 23. [Minn. R. 7090]
2.8	This permit does not replace or satisfy any environmental review requirements including those under the

	Minnesota Environmental Policy Act or the National Environmental Policy Act. The owner must verify completion of any environmental review required by law, including any required Environmental Assessment Work Sheets or Environmental Impact Statements, Federal environmental review, or other required review prior to applying for coverage under this permit. If any part of your common plan of development or sale requires environmental review, coverage under this permit cannot be obtained until such environmental review is complete. [Minn. R. 7090]
2.9	This permit does not replace or satisfy any review requirements for discharges adversely impacting State or Federally designated endangered or threatened species or a designated critical habitat. The owner must comply with the National Historic Preservation Act and conduct all required review and coordination related to historic preservation, including significant anthropological sites and any burial sites, with the Minnesota Historic Preservation Officer. [Minn. R. 7090]
2.10	This permit does not authorize discharges to wetlands unless the permittee complies with the requirements in Section 22. [Minn. R. 7090]
3.1	Application and Coverage Effective Date. [Minn. R. 7090]
3.2	The owner and operator must submit a complete and accurate on-line application with the appropriate fee to the MPCA for each project that disturbs one (1) or more acres of land or for a common plan of development or sale that will ultimately disturb one (1) or more acres. [Minn. R. 7090]
3.3	For projects or common plans of development or sale that disturb less than 50 acres or do not discharge stormwater within 1 mile (aerial radius measurement) of a special or impaired water, permittees do not need to submit the SWPPP with the application. Permit coverage for these projects is effective upon application and completing the payment process. [Minn. R. 7090]
3.4	For certain projects or common plans of development or sale disturbing 50 acres or more, the complete SWPPP must be included with the application and submitted at least 30 days before the start of construction activity. This applies if there is a discharge point on the project within one mile (aerial radius measurement) of, and flows to, a special water listed in item 23.3 through 23.6 or an impaired water as described in item 23.7. Permit coverage for these projects is effective upon submitting the application and complete SWPPP, completing the payment process and receiving a determination from the MPCA that the review of the SWPPP is complete. The determination may take longer than 30 days if the SWPPP is incomplete. If the MPCA fails to contact the permittees within 30 days of application receipt, coverage is effective 30 days after completing the payment process. [Minn. R. 7090]
3.5	The application requires listing all persons meeting the definition of owner and operator as permittees. The owner is responsible for compliance with all terms and conditions of this permit. The operator is responsible for compliance with Sections 3, 4, 6-22, 24 and applicable requirements for construction activity in Section 23. [Minn. R. 7090]
3.6	Permittees will receive coverage notification in a manner determined by the MPCA. [Minn. R. 7090]
3.7	For construction projects where the owner or operator changes (e.g., an original developer sells portions of the property to various homebuilders or sells the entire site to a new owner), the current owner and the new owner or operator must submit a complete permit modification form provided by the MPCA. The current owner and the new owner or operator must submit the form prior to the new owner or operator commencing construction activity or no later than 30 days after taking ownership of the property. [Minn. R. 7090]
3.8	For construction projects where the owner or operator changes, the current owner must provide a SWPPP to the new owner and operator that specifically addresses the remaining construction activity. The new owner or operator can implement the original SWPPP, modify the SWPPP, or develop a new SWPPP. Permittees must ensure their activities do not render another party's erosion prevention and sediment control BMPs ineffective. [Minn. R. 7090]
4.1	Termination of Coverage. [Minn. R. 7090]
4.2	Permittees must submit a NOT within 30 days after all termination conditions listed in Section 13 are complete. [Minn. R. 7090]
4.3	Permittees must submit a NOT within 30 days after selling or otherwise legally transferring the entire site, including permit responsibility for roads (e.g., street sweeping) and stormwater infrastructure final clean out, or transferring portions of a site to another party. The permittees' coverage under this permit

	terminates at midnight on the submission date of the NOT. [Minn. R. 7090]
4.4	<p>Permittees may terminate permit coverage prior to completion of all construction activity if they meet all of the following conditions:</p> <ul style="list-style-type: none"> a. construction activity has ceased for at least 90 days; and b. at least 90 percent (by area) of all originally proposed construction activity has been completed and permanent cover has been established on those areas; and c. on areas where construction activity is not complete, permanent cover has been established; and d. the site complies with item 13.3 through 13.7. <p>After permit coverage is terminated under this item, any subsequent development on the remaining portions of the site will require permit coverage if the subsequent development itself or as part of the remaining common plan of development or sale will result in land disturbing activities of one (1) or more acres in size. [Minn. R. 7090]</p>
4.5	Permittees may terminate coverage upon MPCA approval after submitting information documenting the owner cancelled the project. [Minn. R. 7090]
5.1	Stormwater Pollution Prevention Plan (SWPPP) Content. [Minn. R. 7090]
5.2	The owner must develop a SWPPP. The SWPPP must include items 5.3 through 5.26. [Minn. R. 7090]
5.3	The SWPPP must incorporate specific Best Management Practices (BMP) used to comply with the requirements of this permit. [Minn. R. 7090]
5.4	The SWPPP must include a narrative describing the timing for installation of all erosion prevention and sediment control BMPs and a description of the permanent stormwater treatment systems. [Minn. R. 7090]
5.5	The SWPPP must include the location and type of all temporary and permanent erosion prevention and sediment control BMPs along with procedures used to establish additional temporary BMPs as necessary for the site conditions during construction. Standard details and/or specifications for BMPs must be included in the final plans and specifications for the project. [Minn. R. 7090]
5.6	The SWPPP must include the calculations and other information used for the design of temporary sediment basins and any of the permanent stormwater treatment systems required in Section 15. [Minn. R. 7090]
5.7	The SWPPP must include estimated quantities anticipated at the start of the project for the life of the project for all erosion prevention and sediment control BMPs (e.g., linear feet of silt fence or square feet of erosion control blanket). [Minn. R. 7090]
5.8	The SWPPP must include the number of acres of impervious surface for both pre- and post-construction. [Minn. R. 7090]
5.9	The SWPPP must include a site map with existing and final grades, including drainage area boundaries, directions of flow and all discharge points where stormwater is leaving the site or entering a surface water. The site map must indicate the areas of steep slopes. The site map must also include impervious surfaces, soil types and locations of potential pollutant-generating activities as identified in Section 12. [Minn. R. 7090]
5.10	The SWPPP must include a map of all surface waters, existing wetlands, and stormwater ponds or basins that can be identified on maps such as United States Geological Survey 7.5 minute quadrangle maps, the National Wetland Inventory map or equivalent maps and are within one mile (aerial radius measurement) from the project boundaries that will receive stormwater from the construction site, during or after construction. The SWPPP must identify if the surface waters are special or impaired waters. [Minn. R. 7090]
5.11	The SWPPP must include a site map showing construction activity areas that are adjacent to and drain to Public Waters for which the DNR has promulgated "work in water restrictions" during specified fish spawning time frames. [Minn. R. 7090]
5.12	Permittees must identify locations of 50' buffer zones as required in item 9.17 and 100' permanent buffer zones as required in item 23.11, on plan sheets in the SWPPP. [Minn. R. 7090]
5.13	If permittees determine compliance with the following requirements is infeasible, they must document the

	determination in the SWPPP: a. temporary sediment basins as described in Section 14; and b. for linear projects, if the permanent stormwater treatment system cannot be constructed within the right-of-way, a reasonable attempt must be made to obtain additional right-of-way (item 15.9); and c. buffer zones as described in item 9.17 and item 23.11. [Minn. R. 7090]
5.14	If permittees determine that a temporary sediment basin is infeasible as described in item 14.10, the SWPPP must describe the alternative BMPs used. [Minn. R. 7090]
5.15	Where systems cannot meet the full volume reduction requirement on site, (e.g., the site has infiltration prohibitions, see item 16.14 through item 16.21) the permittee must document the reasons in the SWPPP. [Minn. R. 7090]
5.16	The SWPPP must include any stormwater mitigation measures proposed to be part of the final project in any environmental review document, endangered species review, archeological or other required local, state or federal review conducted for the project. For purposes of this permit, mitigation measures means actions necessary to avoid, minimize, or mitigate for impacts related to erosion prevention, sediment control, the permanent stormwater treatment system, pollution prevention management measures and discharges associated with the project's construction activity. [Minn. R. 7090]
5.17	The SWPPP must describe the methods used for permanent cover of all exposed soil areas. [Minn. R. 7090]
5.18	Permittees must identify the locations of areas where construction will be phased to minimize the duration of exposed soil areas in the SWPPP. [Minn. R. 7090]
5.19	For projects with a discharge point on the project within one (1) mile (aerial radius measurement) of and which flows to an impaired water, permittees must identify the impaired water(s), and any United States Environmental Protection Agency (USEPA)-approved Total Maximum Daily Load (TMDL) for the pollutant(s) or stressor(s) described in item 23.7. Permittees' identification must include those TMDLs approved at any time prior to permit application submittal and are still in effect. [Minn. R. 7090]
5.20	Permittees must document in the SWPPP, all trained individuals identified in item 21.2. Documentation must include: a. names of personnel required to be trained; and b. dates of training and name of instructor(s) and entity providing training; and c. content of training course. If permittees do not know the names of the individuals at the time of application, the permittees must ensure they document training before construction activity commences. [Minn. R. 7090]
5.21	The SWPPP must identify a person knowledgeable and experienced in the application of erosion prevention and sediment control BMPs who will coordinate with all contractors, subcontractors, and operators on-site to oversee the implementation of the SWPPP. [Minn. R. 7090]
5.22	The SWPPP must describe any specific chemicals and chemical treatment systems used for enhancing the sedimentation process and how it achieves compliance with item 9.18. [Minn. R. 7090]
5.23	The SWPPP must identify the person(s), organizations, or entities responsible for long-term operation and maintenance of permanent stormwater treatment systems. [Minn. R. 7090]
5.24	The SWPPP must describe methods to minimize soil compaction and preserve topsoil. Minimizing soil compaction is not required where the function of a specific area dictates compaction. [Minn. R. 7090]
5.25	The SWPPP must include any site assessments for groundwater or soil contamination required in item 16.15. [Minn. R. 7090]
5.26	The SWPPP must account for the following factors in designing temporary erosion prevention and sediment control BMPs: a. the expected amount, frequency, intensity, and duration of precipitation; and b. the nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces, slopes, and site drainage features; and c. the stormwater volume, velocity, and peak flowrates to minimize discharge of pollutants in stormwater

	and to minimize channel and streambank erosion and scour in the immediate vicinity of discharge points; and d. the range of soil particle sizes expected to be present. [Minn. R. 7090]
6.1	SWPPP Amendments. [Minn. R. 7090]
6.2	One of the individuals described in item 21.2.a or item 21.2.b or another qualified individual must complete all SWPPP changes. Changes involving the use of a less stringent BMP must include a justification describing how the replacement BMP is effective for the site characteristics. [Minn. R. 7090]
6.3	Permittees must amend the SWPPP to include additional or modified BMPs as necessary to correct problems identified or address situations whenever there is a change in design, construction, operation, maintenance, weather or seasonal conditions having a significant effect on the discharge of pollutants to surface waters or groundwater. [Minn. R. 7090]
6.4	Permittees must amend the SWPPP to include additional or modified BMPs as necessary to correct problems identified or address situations whenever inspections or investigations by the site owner or operator, USEPA or MPCA officials indicate the SWPPP is not effective in eliminating or significantly minimizing the discharge of pollutants to surface waters or groundwater or the discharges are causing water quality standard exceedances (e.g., nuisance conditions as defined in Minn. R. 7050.0210, subp. 2) or the SWPPP is not consistent with the objectives of a USEPA approved TMDL. [Minn. R. 7050.0210]
7.1	BMP Selection and Installation. [Minn. R. 7090]
7.2	Permittees must select, install, and maintain the BMPs identified in the SWPPP and in this permit in an appropriate and functional manner and in accordance with relevant manufacturer specifications and accepted engineering practices. [Minn. R. 7090]
8.1	Erosion Prevention Practices. [Minn. R. 7090]
8.2	Before work begins, permittees must delineate the location of areas not to be disturbed. [Minn. R. 7090]
8.3	Permittees must minimize the need for disturbance of portions of the project with steep slopes. When steep slopes must be disturbed, permittees must use techniques such as phasing and stabilization practices designed for steep slopes (e.g., slope draining and terracing). [Minn. R. 7090]
8.4	Permittees must stabilize all exposed soil areas, including stockpiles. Stabilization must be initiated immediately to limit soil erosion when construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. Stabilization must be completed no later than 14 calendar days after the construction activity has ceased. Stabilization is not required on constructed base components of roads, parking lots and similar surfaces. Stabilization is not required on temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) but permittees must provide sediment controls at the base of the stockpile. [Minn. R. 7090]
8.5	For Public Waters that the Minnesota DNR has promulgated "work in water restrictions" during specified fish spawning time frames, permittees must complete stabilization of all exposed soil areas within 200 feet of the water's edge, and that drain to these waters, within 24 hours during the restriction period. [Minn. R. 7090]
8.6	Permittees must stabilize the normal wetted perimeter of the last 200 linear feet of temporary or permanent drainage ditches or swales that drain water from the site within 24 hours after connecting to a surface water or property edge. Permittees must complete stabilization of remaining portions of temporary or permanent ditches or swales within 14 calendar days after connecting to a surface water or property edge and construction in that portion of the ditch temporarily or permanently ceases. [Minn. R. 7090]
8.7	Temporary or permanent ditches or swales being used as a sediment containment system during construction (with properly designed rock-ditch checks, bio rolls, silt dikes, etc.) do not need to be stabilized. Permittees must stabilize these areas within 24 hours after their use as a sediment containment system ceases. [Minn. R. 7090]
8.8	Permittees must not use mulch, hydromulch, tackifier, polyacrylamide or similar erosion prevention practices within any portion of the normal wetted perimeter of a temporary or permanent drainage ditch or swale section with a continuous slope of greater than 2 percent. [Minn. R. 7090]
8.9	Permittees must provide temporary or permanent energy dissipation at all pipe outlets within 24 hours

	after connection to a surface water or permanent stormwater treatment system. [Minn. R. 7090]
8.10	Permittees must not disturb more land (i.e., phasing) than can be effectively inspected and maintained in accordance with Section 11. [Minn. R. 7090]
9.1	Sediment Control Practices. [Minn. R. 7090]
9.2	Permittees must establish sediment control BMPs on all downgradient perimeters of the site and downgradient areas of the site that drain to any surface water, including curb and gutter systems. Permittees must locate sediment control practices upgradient of any buffer zones. Permittees must install sediment control practices before any upgradient land-disturbing activities begin and must keep the sediment control practices in place until they establish permanent cover. [Minn. R. 7090]
9.3	If downgradient sediment controls are overloaded, based on frequent failure or excessive maintenance requirements, permittees must install additional upgradient sediment control practices or redundant BMPs to eliminate the overloading and amend the SWPPP to identify these additional practices as required in item 6.3. [Minn. R. 7090]
9.4	Temporary or permanent drainage ditches and sediment basins designed as part of a sediment containment system (e.g., ditches with rock-check dams) require sediment control practices only as appropriate for site conditions. [Minn. R. 7090]
9.5	A floating silt curtain placed in the water is not a sediment control BMP to satisfy item 9.2 except when working on a shoreline or below the waterline. Immediately after the short term construction activity (e.g., installation of rip rap along the shoreline) in that area is complete, permittees must install an upland perimeter control practice if exposed soils still drain to a surface water. [Minn. R. 7090]
9.6	Permittees must re-install all sediment control practices adjusted or removed to accommodate short-term activities such as clearing or grubbing, or passage of vehicles, immediately after the short-term activity is completed. Permittees must re-install sediment control practices before the next precipitation event even if the short-term activity is not complete. [Minn. R. 7090]
9.7	Permittees must protect all storm drain inlets using appropriate BMPs during construction until they establish permanent cover on all areas with potential for discharging to the inlet. [Minn. R. 7090]
9.8	Permittees may remove inlet protection for a particular inlet if a specific safety concern (e.g. street flooding/freezing) is identified by the permittees or the jurisdictional authority (e.g., city/county/township/Minnesota Department of Transportation engineer). Permittees must document the need for removal in the SWPPP. [Minn. R. 7090]
9.9	Permittees must provide silt fence or other effective sediment controls at the base of stockpiles on the downgradient perimeter. [Minn. R. 7090]
9.10	Permittees must locate stockpiles outside of natural buffers or surface waters, including stormwater conveyances such as curb and gutter systems unless there is a bypass in place for the stormwater. [Minn. R. 7090]
9.11	Permittees must install a vehicle tracking BMP to minimize the track out of sediment from the construction site or onto paved roads within the site. [Minn. R. 7090]
9.12	Permittees must use street sweeping if vehicle tracking BMPs are not adequate to prevent sediment tracking onto the street. [Minn. R. 7090]
9.13	Permittees must install temporary sediment basins as required in Section 14. [Minn. R. 7090]
9.14	In any areas of the site where final vegetative stabilization will occur, permittees must restrict vehicle and equipment use to minimize soil compaction. [Minn. R. 7090]
9.15	Permittees must preserve topsoil on the site, unless infeasible. [Minn. R. 7090]
9.16	Permittees must direct discharges from BMPs to vegetated areas unless infeasible. [Minn. R. 7090]
9.17	Permittees must preserve a 50 foot natural buffer or, if a buffer is infeasible on the site, provide redundant (double) perimeter sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water. Permittees must install perimeter sediment controls at least 5 feet apart unless limited by lack of available space. Natural buffers are not required adjacent to road ditches, judicial ditches, county ditches, stormwater conveyance channels, storm drain inlets, and sediment basins. If preserving the buffer is infeasible, permittees must document the reasons in the SWPPP. Sheet piling is a redundant perimeter control if installed in a manner that retains all

	stormwater. [Minn. R. 7090]
9.18	Permittees must use polymers, flocculants, or other sedimentation treatment chemicals in accordance with accepted engineering practices, dosing specifications and sediment removal design specifications provided by the manufacturer or supplier. The permittees must use conventional erosion and sediment controls prior to chemical addition and must direct treated stormwater to a sediment control system for filtration or settlement of the floc prior to discharge. [Minn. R. 7090]
10.1	Dewatering and Basin Draining. [Minn. R. 7090]
10.2	Permittees must discharge turbid or sediment-laden waters related to dewatering or basin draining (e.g., pumped discharges, trench/ditch cuts for drainage) to a temporary or permanent sediment basin on the project site unless infeasible. Permittees may dewater to surface waters if they visually check to ensure adequate treatment has been obtained and nuisance conditions (see Minn. R. 7050.0210, subp. 2) will not result from the discharge. If permittees cannot discharge the water to a sedimentation basin prior to entering a surface water, permittees must treat it with appropriate BMPs such that the discharge does not adversely affect the surface water or downstream properties. [Minn. R. 7050.0210]
10.3	If permittees must discharge water containing oil or grease, they must use an oil-water separator or suitable filtration device (e.g., cartridge filters, absorbents pads) prior to discharge. [Minn. R. 7090]
10.4	Permittees must discharge all water from dewatering or basin-draining activities in a manner that does not cause erosion or scour in the immediate vicinity of discharge points or inundation of wetlands in the immediate vicinity of discharge points that causes significant adverse impact to the wetland. [Minn. R. 7090]
10.5	If permittees use filters with backwash water, they must haul the backwash water away for disposal, return the backwash water to the beginning of the treatment process, or incorporate the backwash water into the site in a manner that does not cause erosion. [Minn. R. 7090]
11.1	Inspections and Maintenance. [Minn. R. 7090]
11.2	Permittees must ensure a trained person, as identified in item 21.2.b, will inspect the entire construction site at least once every seven (7) days during active construction and within 24 hours after a rainfall event greater than 1/2 inch in 24 hours. [Minn. R. 7090]
11.3	Permittees must inspect and maintain all permanent stormwater treatment BMPs. [Minn. R. 7090]
11.4	Permittees must inspect all erosion prevention and sediment control BMPs and Pollution Prevention Management Measures to ensure integrity and effectiveness. Permittees must repair, replace or supplement all nonfunctional BMPs with functional BMPs by the end of the next business day after discovery unless another time frame is specified in item 11.5 or 11.6. Permittees may take additional time if field conditions prevent access to the area. [Minn. R. 7090]
11.5	During each inspection, permittees must inspect surface waters, including drainage ditches and conveyance systems but not curb and gutter systems, for evidence of erosion and sediment deposition. Permittees must remove all deltas and sediment deposited in surface waters, including drainage ways, catch basins, and other drainage systems and restabilize the areas where sediment removal results in exposed soil. Permittees must complete removal and stabilization within seven (7) calendar days of discovery unless precluded by legal, regulatory, or physical access constraints. Permittees must use all reasonable efforts to obtain access. If precluded, removal and stabilization must take place within seven (7) days of obtaining access. Permittees are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work in surface waters. [Minn. R. 7090]
11.6	Permittees must inspect construction site vehicle exit locations, streets and curb and gutter systems within and adjacent to the project for sedimentation from erosion or tracked sediment from vehicles. Permittees must remove sediment from all paved surfaces within one (1) calendar day of discovery or, if applicable, within a shorter time to avoid a safety hazard to users of public streets. [Minn. R. 7090]
11.7	Permittees must repair, replace or supplement all perimeter control devices when they become nonfunctional or the sediment reaches 1/2 of the height of the device. [Minn. R. 7090]
11.8	Permittees must drain temporary and permanent sedimentation basins and remove the sediment when the depth of sediment collected in the basin reaches 1/2 the storage volume. [Minn. R. 7090]
11.9	Permittees must ensure that at least one individual present on the site (or available to the project site in

	three (3) calendar days) is trained in the job duties described in item 21.2.b. [Minn. R. 7090]
11.10	<p>Permittees may adjust the inspection schedule described in item 11.2 as follows:</p> <ul style="list-style-type: none"> a. inspections of areas with permanent cover can be reduced to once per month, even if construction activity continues on other portions of the site; or b. where sites have permanent cover on all exposed soil and no construction activity is occurring anywhere on the site, inspections can be reduced to once per month and, after 12 months, may be suspended completely until construction activity resumes. The MPCA may require inspections to resume if conditions warrant; or c. where construction activity has been suspended due to frozen ground conditions, inspections may be suspended. Inspections must resume within 24 hours of runoff occurring, or upon resuming construction, whichever comes first. [Minn. R. 7090]
11.11	<p>Permittees must record all inspections and maintenance activities within 24 hours of being conducted and these records must be retained with the SWPPP. These records must include:</p> <ul style="list-style-type: none"> a. date and time of inspections; and b. name of persons conducting inspections; and c. accurate findings of inspections, including the specific location where corrective actions are needed; and d. corrective actions taken (including dates, times, and party completing maintenance activities); and e. date of all rainfall events greater than 1/2 inches in 24 hours, and the amount of rainfall for each event. Permittees must obtain rainfall amounts by either a properly maintained rain gauge installed onsite, a weather station that is within one (1) mile of your location, or a weather reporting system that provides site specific rainfall data from radar summaries; and f. if permittees observe a discharge during the inspection, they must record and should photograph and describe the location of the discharge (i.e., color, odor, settled or suspended solids, oil sheen, and other obvious indicators of pollutants); and g. any amendments to the SWPPP proposed as a result of the inspection must be documented as required in Section 6 within seven (7) calendar days. [Minn. R. 7090]
12.1	Pollution Prevention Management Measures. [Minn. R. 7090]
12.2	Permittees must place building products and landscape materials under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. Permittees are not required to cover or protect products which are either not a source of contamination to stormwater or are designed to be exposed to stormwater. [Minn. R. 7090]
12.3	Permittees must place pesticides, fertilizers and treatment chemicals under cover (e.g., plastic sheeting or temporary roofs) or protect them by similarly effective means designed to minimize contact with stormwater. [Minn. R. 7090]
12.4	Permittees must store hazardous materials and toxic waste, (including oil, diesel fuel, gasoline, hydraulic fluids, paint solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids) in sealed containers to prevent spills, leaks or other discharge. Storage and disposal of hazardous waste materials must be in compliance with Minn. R. ch. 7045 including secondary containment as applicable. [Minn. R. 7090]
12.5	Permittees must properly store, collect and dispose solid waste in compliance with Minn. R. ch. 7035. [Minn. R. 7035]
12.6	Permittees must position portable toilets so they are secure and will not tip or be knocked over. Permittees must properly dispose sanitary waste in accordance with Minn. R. ch. 7041. [Minn. R. 7041]
12.7	Permittees must take reasonable steps 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. Permittees must ensure adequate supplies are available at all times to clean up discharged materials and that an appropriate disposal method is available for recovered spilled materials. Permittees must report and clean up spills immediately as required by Minn. Stat. 115.061, using dry clean up measures where possible. [Minn. Stat. 115.061]
12.8	Permittees must limit vehicle exterior washing and equipment to a defined area of the site. Permittees must contain runoff from the washing area in a sediment basin or other similarly effective controls and

	must dispose waste from the washing activity properly. Permittees must properly use and store soaps, detergents, or solvents. [Minn. R. 7090]
12.9	Permittees must provide effective containment for all liquid and solid wastes generated by washout operations (e.g., concrete, stucco, paint, form release oils, curing compounds and other construction materials) related to the construction activity. Permittees must prevent liquid and solid washout wastes from contacting the ground and must design the containment so it does not result in runoff from the washout operations or areas. Permittees must properly dispose liquid and solid wastes in compliance with MPCA rules. Permittees must install a sign indicating the location of the washout facility. [Minn. R. 7035, Minn. R. 7090]
13.1	Permit Termination Conditions. [Minn. R. 7090]
13.2	Permittees must complete all construction activity and must install permanent cover over all areas prior to submitting the NOT. Vegetative cover must consist of a uniform perennial vegetation with a density of 70 percent of its expected final growth. Vegetation is not required where the function of a specific area dictates no vegetation, such as impervious surfaces or the base of a sand filter. [Minn. R. 7090]
13.3	Permittees must clean the permanent stormwater treatment system of any accumulated sediment and must ensure the system meets all applicable requirements in Section 15 through 19 and is operating as designed. [Minn. R. 7090]
13.4	Permittees must remove all sediment from conveyance systems prior to submitting the NOT. [Minn. R. 7090]
13.5	Permittees must remove all temporary synthetic erosion prevention and sediment control BMPs prior to submitting the NOT. Permittees may leave BMPs designed to decompose on-site in place. [Minn. R. 7090]
13.6	For residential construction only, permit coverage terminates on individual lots if the structures are finished and temporary erosion prevention and downgradient perimeter control is complete, the residence sells to the homeowner, and the permittee distributes the MPCA's "Homeowner Fact Sheet" to the homeowner. [Minn. R. 7090]
13.7	For construction projects on agricultural land (e.g., pipelines across cropland), permittees must return the disturbed land to its preconstruction agricultural use prior to submitting the NOT. [Minn. R. 7090]
14.1	Temporary Sediment Basins. [Minn. R. 7090]
14.2	Where ten (10) or more acres of disturbed soil drain to a common location, permittees must provide a temporary sediment basin to provide treatment of the runoff before it leaves the construction site or enters surface waters. Permittees may convert a temporary sediment basin to a permanent basin after construction is complete. The temporary basin is no longer required when permanent cover has reduced the acreage of disturbed soil to less than ten (10) acres draining to a common location. [Minn. R. 7090]
14.3	The temporary basin must provide live storage for a calculated volume of runoff from a two (2)-year, 24-hour storm from each acre drained to the basin or 1,800 cubic feet of live storage per acre drained, whichever is greater. [Minn. R. 7090]
14.4	Where permittees have not calculated the two (2)-year, 24-hour storm runoff amount, the temporary basin must provide 3,600 cubic feet of live storage per acre of the basins' drainage area. [Minn. R. 7090]
14.5	Permittees must design basin outlets to prevent short-circuiting and the discharge of floating debris. [Minn. R. 7090]
14.6	Permittees must design the outlet structure to withdraw water from the surface to minimize the discharge of pollutants. Permittees may temporarily suspend the use of a surface withdrawal mechanism during frozen conditions. The basin must include a stabilized emergency overflow to prevent failure of pond integrity. [Minn. R. 7090]
14.7	Permittees must provide energy dissipation for the basin outlet within 24 hours after connection to a surface water. [Minn. R. 7090]
14.8	Permittees must locate temporary basins outside of surface waters and any buffer zone required in item 23.11. [Minn. R. 7090]
14.9	Permittees must construct the temporary basins prior to disturbing 10 or more acres of soil draining to a common location. [Minn. R. 7090]
14.10	Where a temporary sediment basin meeting the requirements of item 14.3 through 14.9 is infeasible,

	<p>permittees must install effective sediment controls such as smaller sediment basins and/or sediment traps, silt fences, vegetative buffer strips or any appropriate combination of measures as dictated by individual site conditions. In determining whether installing a sediment basin is infeasible, permittees must consider public safety and may consider factors such as site soils, slope, and available area on-site. Permittees must document this determination of infeasibility in the SWPPP. [Minn. R. 7090]</p>
15.1	<p>Permanent Stormwater Treatment System. [Minn. R. 7090]</p>
15.2	<p>Permittees must design the project so all stormwater discharged from the project during and after construction activities does not cause a violation of state water quality standards, including nuisance conditions, erosion in receiving channels or on downslope properties, or a significant adverse impact to wetlands caused by inundation or decrease of flow. [Minn. R. 7090]</p>
15.3	<p>Permittees must design and construct a permanent stormwater treatment system to treat the water quality volume if the project's ultimate development replaces vegetation and/or other pervious surfaces creating a net increase of one (1) or more acres of cumulative impervious surface. [Minn. R. 7090]</p>
15.4	<p>Permittees must calculate the water quality volume as one (1) inch times the net increase of impervious surfaces created by the project. [Minn. R. 7090]</p>
15.5	<p>Permittees must first consider volume reduction practices on-site (e.g., infiltration or other) when designing the permanent stormwater treatment system. If this permit prohibits infiltration as described in item 16.14 through item 16.21, permittees may consider a wet sedimentation basin, filtration basin or regional pond. This permit does not consider wet sedimentation basins and filtration systems to be volume reduction practices. [Minn. R. 7090]</p>
15.6	<p>For projects where the full volume reduction requirement cannot be met on-site, (e.g., the site has infiltration prohibitions), permittees must document the reasons in the SWPPP. [Minn. R. 7090]</p>
15.7	<p>Permittees must discharge the water quality volume to a permanent stormwater treatment system prior to discharge to a surface water. For purposes of this item, surface waters do not include man-made drainage systems that convey stormwater to a permanent stormwater treatment system. [Minn. R. 7090]</p>
15.8	<p>Where the proximity to bedrock precludes the installation of any of the permanent stormwater treatment practices required by Sections 15 through 19, permittees must install other treatment such as grassed swales, smaller ponds, or grit chambers, prior to the discharge of stormwater to surface waters. [Minn. R. 7090]</p>
15.9	<p>For linear projects where permittees cannot treat the entire water quality volume within the existing right-of-way, permittees must make a reasonable attempt to obtain additional right-of-way, easement or other permission for stormwater treatment during the project planning process. Documentation of these attempts must be in the SWPPP. Permittees must still consider volume reduction practices first as described in item 15.5. If permittees cannot obtain additional right-of-way, easement or other permission, they must maximize the treatment of the water quality volume prior to discharge to surface waters. [Minn. R. 7090]</p>
16.1	<p>Infiltration Systems. [Minn. R. 7090]</p>
16.2	<p>Infiltration options include, but are not limited to: infiltration basins, infiltration trenches, rainwater gardens, bioretention areas without underdrains, swales with impermeable check dams, and natural depressions. If permittees utilize an infiltration system to meet the requirements of this permit, they must incorporate the design parameters in item 16.3 through item 16.21. Permittees must follow the infiltration prohibition in item 16.14 anytime an infiltration system is designed, including those not required by this permit. [Minn. R. 7090]</p>
16.3	<p>Permittees must design infiltration systems such that pre-existing hydrologic conditions of wetlands in the vicinity are not impacted (e.g., inundation or breaching a perched water table supporting a wetland). [Minn. R. 7090]</p>
16.4	<p>Permittees must not excavate infiltration systems to final grade, or within three (3) feet of final grade, until the contributing drainage area has been constructed and fully stabilized unless they provide rigorous erosion prevention and sediment controls (e.g., diversion berms) to keep sediment and runoff completely away from the infiltration area. [Minn. R. 7090]</p>
16.5	<p>When excavating an infiltration system to within three (3) feet of final grade, permittees must stake off and mark the area so heavy construction vehicles or equipment do not compact the soil in the infiltration</p>

	area. [Minn. R. 7090]
16.6	Permittees must use a pretreatment device such as a vegetated filter strip, forebay, or water quality inlet (e.g., grit chamber) to remove solids, floating materials, and oil and grease from the runoff, to the maximum extent practicable, before the system routes stormwater to the infiltration system. [Minn. R. 7090]
16.7	Permittees must design infiltration systems to provide a water quality volume (calculated as an instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase of impervious surfaces created by the project. [Minn. R. 7090]
16.8	Permittees must design the infiltration system to discharge all stormwater (including stormwater in excess of the water quality volume) routed to the system through the uppermost soil surface or engineered media surface within 48 hours. Permittees must route additional flows that cannot infiltrate within 48 hours to bypass the system through a stabilized discharge point. [Minn. R. 7090]
16.9	Permittees must provide a means to visually verify the infiltration system is discharging through the soil surface or filter media surface within 48 hours or less. [Minn. R. 7090]
16.10	Permittees must provide at least one soil boring, test pit or infiltrometer test in the location of the infiltration practice for determining infiltration rates. [Minn. R. 7090]
16.11	For design purposes, permittees must divide field measured infiltration rates by 2 as a safety factor or permittees can use soil-boring results with the infiltration rate chart in the Minnesota Stormwater Manual to determine design infiltration rates. When soil borings indicate type A soils, permittees should perform field measurements to verify the rate is not above 8.3 inches per hour. This permit prohibits infiltration if the field measured infiltration rate is above 8.3 inches per hour. [Minn. R. 7090]
16.12	Permittees must employ appropriate on-site testing ensure a minimum of three (3) feet of separation from the seasonally saturated soils (or from bedrock) and the bottom of the proposed infiltration system. [Minn. R. 7090]
16.13	Permittees must design a maintenance access, typically eight (8) feet wide, for the infiltration system. [Minn. R. 7090]
16.14	This permit prohibits permittees from constructing infiltration systems that receive runoff from vehicle fueling and maintenance areas including construction of infiltration systems not required by this permit. [Minn. R. 7090]
16.15	<p>This permit prohibits permittees from constructing infiltration systems where infiltrating stormwater may mobilize high levels of contaminants in soil or groundwater. Permittees must either complete the MPCA's contamination screening checklist or conduct their own assessment to determine the suitability for infiltration. Permittees must retain the checklist or assessment with the SWPPP.</p> <p>For more information and to access the MPCA's "contamination screening checklist" see the Minnesota Stormwater Manual. [Minn. R. 7090]</p>
16.16	This permit prohibits permittees from constructing infiltration systems in areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless they amend soils to slow the infiltration rate below 8.3 inches per hour. [Minn. R. 7090]
16.17	This permit prohibits permittees from constructing infiltration systems in areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock. [Minn. R. 7090]
16.18	This permit prohibits permittees from constructing infiltration systems in areas of predominately Hydrologic Soil Group type D soils (clay). [Minn. R. 7090]
16.19	<p>This permit prohibits permittees from constructing infiltration systems within a Drinking Water Supply Management Area (DWSMA) as defined in Minn. R. 4720.5100, subp. 13, if the system will be located:</p> <ul style="list-style-type: none"> a. in an Emergency Response Area (ERA) within a DWSMA classified as having high or very high vulnerability as defined by the Minnesota Department of Health; or b. in an ERA within a DWSMA classified as moderate vulnerability unless a regulated MS4 Permittee performed or approved a higher level of engineering review sufficient to provide a functioning treatment

	<p>system and to prevent adverse impacts to groundwater; or</p> <p>c. outside of an ERA within a DWSMA classified as having high or very high vulnerability, unless a regulated MS4 Permittee performed or approved a higher level of engineering review sufficient to provide a functioning treatment system and to prevent adverse impacts to groundwater.</p> <p>See "higher level of engineering review" in the Minnesota Stormwater Manual for more information. [Minn. R. 7090]</p>
16.20	This permit prohibits permittees from constructing infiltration systems in areas within 1,000 feet upgradient or 100 feet downgradient of active karst features. [Minn. R. 7090]
16.21	This permit prohibits permittees from constructing infiltration systems in areas that receive runoff from the following industrial facilities not authorized to infiltrate stormwater under the NPDES stormwater permit for industrial activities: automobile salvage yards; scrap recycling and waste recycling facilities; hazardous waste treatment, storage, or disposal facilities; or air transportation facilities that conduct deicing activities. [Minn. R. 7090]
17.1	Filtration Systems. [Minn. R. 7090]
17.2	Filtration options include, but are not limited to: sand filters with underdrains, biofiltration areas, swales using underdrains with impermeable check dams and underground sand filters. If permittees utilize a filtration system to meet the permanent stormwater treatment requirements of this permit, they must comply with items 17.3 through 17.11. [Minn. R. 7090]
17.3	Permittees must not install filter media until they construct and fully stabilize the contributing drainage area unless they provide rigorous erosion prevention and sediment controls (e.g., diversion berms) to keep sediment and runoff completely away from the filtration area. [Minn. R. 7090]
17.4	Permittees must design filtration systems to remove at least 80 percent of TSS. [Minn. R. 7090]
17.5	Permittees must use a pretreatment device such as a vegetated filter strip, small sedimentation basin, water quality inlet, forebay or hydrodynamic separator to remove settleable solids, floating materials, and oils and grease from the runoff, to the maximum extent practicable, before runoff enters the filtration system. [Minn. R. 7090]
17.6	Permittees must design filtration systems to treat a water quality volume (calculated as an instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase of impervious surfaces created by the project. [Minn. R. 7090]
17.7	Permittees must design the filtration system to discharge all stormwater (including stormwater in excess of the water quality volume) routed to the system through the uppermost soil surface or engineered media surface within 48 hours. Additional flows that the system cannot filter within 48 hours must bypass the system or discharge through an emergency overflow. [Minn. R. 7090]
17.8	Permittees must design the filtration system to provide a means to visually verify the system is discharging through the soil surface or filter media within 48 hours. [Minn. R. 7090]
17.9	Permittees must employ appropriate on-site testing to ensure a minimum of three (3) feet of separation between the seasonally saturated soils (or from bedrock) and the bottom of the proposed filtration system. [Minn. R. 7090]
17.10	Permittees must ensure that filtration systems with less than three (3) feet of separation between seasonally saturated soils or from bedrock are constructed with an impermeable liner. [Minn. R. 7090]
17.11	The permittees must design a maintenance access, typically eight (8) feet wide, for the filtration system. [Minn. R. 7090]
18.1	Wet Sedimentation Basin. [Minn. R. 7090]
18.2	Permittees using a wet sedimentation basin to meet the permanent stormwater treatment requirements of this permit must incorporate the design parameters in item 18.3 through 18.10. [Minn. R. 7090]
18.3	Permittees must design the basin to have a permanent volume of 1,800 cubic feet of storage below the outlet pipe for each acre that drains to the basin. The basin's permanent volume must reach a minimum depth of at least three (3) feet and must have no depth greater than 10 feet. Permittees must configure the basin to minimize scour or resuspension of solids. [Minn. R. 7090]
18.4	Permittees must design the basin to provide live storage for a water quality volume (calculated as an

	instantaneous volume) of one (1) inch of runoff, or one (1) inch minus the volume of stormwater treated by another system on the site, from the net increase in impervious surfaces created by the project. [Minn. R. 7090]
18.5	Permittees must design basin outlets so the water quality volume discharges at no more than 5.66 cubic feet per second (cfs) per acre of surface area of the basin. [Minn. R. 7090]
18.6	Permittees must design basin outlets to prevent short-circuiting and the discharge of floating debris. Basin outlets must have energy dissipation. [Minn. R. 7090]
18.7	Permittees must design the basin to include a stabilized emergency overflow to accommodate storm events in excess of the basin's hydraulic design. [Minn. R. 7090]
18.8	Permittees must design a maintenance access, typically eight (8) feet wide, for the basin. [Minn. R. 7090]
18.9	Permittees must locate basins outside of surface waters and any buffer zone required in item 23.11. Permittees must design basins to avoid draining water from wetlands unless the impact to the wetland complies with the requirements of Section 22. [Minn. R. 7090]
18.10	Permittees must design basins using an impermeable liner if located within active karst terrain. [Minn. R. 7090]
19.1	Regional Wet Sedimentation Basins. [Minn. R. 7090]
19.2	When the entire water quality volume cannot be retained onsite, permittees can use or create regional wet sedimentation basins provided they are constructed basins, not a natural wetland or water body, (wetlands used as regional basins must be mitigated for, see Section 22). The owner must ensure the regional basin conforms to all requirements for a wet sedimentation basin as described in items 18.3 through 18.10 and must be large enough to account for the entire area that drains to the regional basin. Permittees must verify that the regional basin will discharge at no more than 5.66 cfs per acre of surface area of the basin and must provide a live storage volume of one inch times all the impervious area draining to the basin. Permittees cannot significantly degrade waterways between the project and the regional basin. The owner must obtain written authorization from the applicable LGU or private entity that owns and maintains the regional basin. [Minn. R. 7090]
20.1	SWPPP Availability. [Minn. R. 7090]
20.2	Permittees must keep the SWPPP, including all changes to it, and inspections and maintenance records at the site during normal working hours by permittees who have operational control of that portion of the site. [Minn. R. 7090]
21.1	Training Requirements. [Minn. R. 7090]
21.2	Permittees must ensure all of the following individuals receive training and the content and extent of the training is commensurate with the individual's job duties and responsibilities with regard to activities covered under this permit: a. Individuals preparing the SWPPP for the project. b. Individuals overseeing implementation of, revising and/or amending the SWPPP and individuals performing inspections for the project. One of these individuals must be available for an onsite inspection within 72 hours upon request by the MPCA. c. Individuals performing or supervising the installation, maintenance and repair of BMPs. [Minn. R. 7090]
21.3	Permittees must ensure individuals identified in Section 21 receive training from local, state, federal agencies, professional organizations, or other entities with expertise in erosion prevention, sediment control, permanent stormwater treatment and the Minnesota NPDES/SDS Construction Stormwater permit. Permittees must ensure these individuals attend a refresher-training course every three (3) years. [Minn. R. 7090]
22.1	Requirements for Discharges to Wetlands. [Minn. R. 7050.0186]
22.2	If the project has any discharges with the potential for significant adverse impacts to a wetland, (e.g., conversion of a natural wetland to a stormwater pond) permittees must demonstrate that the wetland mitigative sequence has been followed in accordance with items 22.3 or 22.4. [Minn. R. 7050.0186]
22.3	If the potential adverse impacts to a wetland on a specific project site are addressed by permits or other approvals from an official statewide program (U.S. Army Corps of Engineers 404 program, Minnesota

	Department of Natural Resources, or the State of Minnesota Wetland Conservation Act) that are issued specifically for the project and project site, permittees may use the permit or other determination issued by these agencies to show the potential adverse impacts are addressed. For purposes of this permit, de minimus actions are determinations by the permitting agency that address the project impacts, whereas a non-jurisdictional determination does not address project impacts. [Minn. R. 7090]
22.4	<p>If there are impacts from the project not addressed in one of the permits or other determinations discussed in item 22.3 (e.g., permanent inundation or flooding of the wetland, significant degradation of water quality, excavation, filling, draining), permittees must minimize all adverse impacts to wetlands by utilizing appropriate measures. Permittees must use measures based on the nature of the wetland, its vegetative community types and the established hydrology. These measures include in order of preference:</p> <ul style="list-style-type: none"> a. avoid all significant adverse impacts to wetlands from the project and post-project discharge; b. minimize any unavoidable impacts from the project and post-project discharge; c. provide compensatory mitigation when the permittees determine(s) that there is no reasonable and practicable alternative to having a significant adverse impact on a wetland. For compensatory mitigation, wetland restoration or creation must be of the same type, size and whenever reasonable and practicable in the same watershed as the impacted wetland. [Minn. R. 7050.0186]
23.1	Additional Requirements for Discharges to Special (Prohibited, Restricted, Other) and Impaired Waters. [Minn. R. 7090]
23.2	The BMPs identified for each special or impaired water are required for those areas of the project draining to a discharge point on the project that is within one mile (aerial radius measurement) of special or impaired water and flows to that special or impaired water. [Minn. R. 7090]
23.3	<p>Discharges to the following special waters identified as Prohibited in Minn. R. 7050.0035 Subp. 3 must incorporate the BMPs outlined in items 23.9, 23.10, 23.11, 23.13 and 23.14:</p> <ul style="list-style-type: none"> a. Boundary Waters Canoe Area Wilderness; Voyageurs National Park; Kettle River from the site of the former dam at Sandstone to its confluence with the Saint Croix River; Rum River from Ogechie Lake spillway to the northernmost confluence with Lake Onamia. b. Those portions of Lake Superior North of latitude 47 degrees, 57 minutes, 13 seconds, East of Hat Point, South of the Minnesota-Ontario boundary, and West of the Minnesota-Michigan boundary; c. Scientific and Natural Areas identified as in Minn. R. 7050.0335 Subp. 3: Boot Lake, Anoka County; Kettle River in sections 15, 22, 23, T 41 N, R 20, Pine County; Pennington Bog, Beltrami County; Purvis Lake-Ober Foundation, Saint Louis County; waters within the borders of Itasca Wilderness Sanctuary, Clearwater County; Wolsfeld Woods, Hennepin County; Green Water Lake, Becker County; Blackdog Preserve, Dakota County; Prairie Bush Clover, Jackson County; Black Lake Bog, Pine County; Pembina Trail Preserve, Polk County; and Falls Creek, Washington County. [Minn. R. 7050.0335, Subp. 3]
23.4	<p>Discharges to the following special waters identified as Restricted must incorporate the BMPs outlined in items 23.9, 23.10 and 23.11:</p> <ul style="list-style-type: none"> a. Lake Superior, except those portions identified as prohibited in item 23.3.b; b. Mississippi River in those portions from Lake Itasca to the southerly boundary of Morrison County that are included in the Mississippi Headwaters Board comprehensive plan dated February 12, 1981; c. Scenic or Recreational River Segments: Saint Croix River, entire length; Cannon River from northern city limits of Faribault to its confluence with the Mississippi River; North Fork of the Crow River from Lake Koronis outlet to the Meeker-Wright county line; Kettle River from north Pine County line to the site of the former dam at Sandstone; Minnesota River from Lac que Parle dam to Redwood County State Aid Highway 11; Mississippi River from County State Aid Highway 7 bridge in Saint Cloud to northwestern city limits of Anoka; and Rum River from State Highway 27 bridge in Onamia to Madison and Rice streets in Anoka; d. Lake Trout Lakes identified in Minn. R. 7050.0335 including lake trout lakes inside the boundaries of the Boundary Waters Canoe Area Wilderness and Voyageurs National Park; e. Calcareous Fens listed in Minn. R. 7050.0335, Subp. 1. [Minn. R. 7050.0335, Subp. 1]
23.5	Discharges to the Trout Lakes (other special water) identified in Minn. R. 6264.0050, subp. 2 must incorporate the BMPs outlined in items 23.9, 23.10 and 23.11. [Minn. R. 6264.0050, Subp. 2]

23.6	Discharges to the Trout Streams (other special water) listed in Minn. R. 6264.0050, subp. 4 must incorporate the BMPs outlined in items 23.9, 23.10, 23.11 and 23.12. [Minn. R. 6264.0050, Subp. 4]
23.7	Discharges to impaired waters or a water with an USEPA approved TMDL for any of the impairments listed in this item must incorporate the BMPs outlined in items 23.9 and 23.10. Impaired waters are waters identified as impaired under section 303 (d) of the federal Clean Water Act for phosphorus (nutrient eutrophication biological indicators), turbidity, TSS, dissolved oxygen or aquatic biota (fish bioassessment, aquatic plant bioassessment and aquatic macroinvertebrate bioassessment). Terms used for the pollutants or stressors in this item are subject to change. The MPCA will list terminology changes on its construction stormwater website. [Minn. R. 7090]
23.8	Where the additional BMPs in this Section conflict with requirements elsewhere in this permit, items 23.9 through 23.14 take precedence. [Minn. R. 7090]
23.9	Permittees must immediately initiate stabilization of exposed soil areas, as described in item 8.4, and complete the stabilization within seven (7) calendar days after the construction activity in that portion of the site temporarily or permanently ceases. [Minn. R. 7090]
23.10	Permittees must provide a temporary sediment basin as described in Section 14 for common drainage locations that serve an area with five (5) or more acres disturbed at one time. [Minn. R. 7090]
23.11	Permittees must include an undisturbed buffer zone of not less than 100 linear feet from a special water (not including tributaries) and must maintain this buffer zone at all times, both during construction and as a permanent feature post construction, except where a water crossing or other encroachment is necessary to complete the project. Permittees must fully document the circumstance and reasons the buffer encroachment is necessary in the SWPPP and include restoration activities. This permit allows replacement of existing impervious surface within the buffer. Permittees must minimize all potential water quality, scenic and other environmental impacts of these exceptions by the use of additional or redundant (double) BMPs and must document this in the SWPPP for the project. [Minn. R. 7090]
23.12	<p>Permittees must design the permanent stormwater treatment system so the discharge from the project minimizes any increase in the temperature of trout streams resulting from the one (1) and two (2) year 24-hour precipitation events. This includes all tributaries of designated trout streams located within the same Public Land Survey System (PLSS) Section. Permittees must incorporate one or more of the following measures, in order of preference:</p> <ul style="list-style-type: none"> a. Provide stormwater infiltration or other volume reduction practices as described in item 15.4 and 15.5, to reduce runoff. Infiltration systems must discharge all stormwater routed to the system within 24 hours. b. Provide stormwater filtration as described in Section 17. Filtration systems must discharge all stormwater routed to the system within 24 hours. c. Minimize the discharge from connected impervious surfaces by discharging to vegetated areas, or grass swales, and through the use of other non-structural controls. d. If ponding is used, the design must include an appropriate combination of measures such as shading, vegetated swale discharges or constructed wetland treatment cells that limit temperature increases. The pond must be designed as a dry pond and should draw down in 24 hours or less. e. Other methods that minimize any increase in the temperature of the trout stream. [Minn. R. 7090]
23.13	Permittees must conduct routine site inspections once every three (3) days as described in item 11.2 for projects that discharge to prohibited waters. [Minn. R. 7090]
23.14	If discharges to prohibited waters cannot provide volume reduction equal to one (1) inch times the net increase of impervious surfaces as required in item 15.4 and 15.5, permittees must develop a permanent stormwater treatment system design that will result in no net increase of TSS or phosphorus to the prohibited water. Permittees must keep the plan in the SWPPP for the project. [Minn. R. 7090]
24.1	General Provisions. [Minn. R. 7090]
24.2	If the MPCA determines that an individual permit would more appropriately regulate the construction activity, the MPCA may require an individual permit to continue the construction activity. Coverage under this general permit will remain in effect until the MPCA issues an individual permit. [Minn. R. 7001.0210, Subp. 6]
24.3	If the permittee cannot meet the terms and conditions of this general permit, an owner may request an individual permit, in accordance with Minn. R. 7001.0210 subp. 6. [Minn. R. 7001.0210, Subp. 6]

24.4	Any interested person may petition the MPCA to require an individual NPDES/SDS permit in accordance with 40 CFR 122.28(b)(3). [40 CFR 122.29(b)(3)]
24.5	Permittees must make the SWPPP, including all inspection reports, maintenance records, training records and other information required by this permit, available to federal, state, and local officials within three (3) days upon request for the duration of the permit and for three (3) years following the NOT. [Minn. R. 7090]
24.6	Permittees may not assign or transfer this permit except when the transfer occurs in accordance with the applicable requirements of item 3.7 and 3.8. [Minn. R. 7090]
24.7	Nothing in this permit must be construed to relieve the permittees from civil or criminal penalties for noncompliance with the terms and conditions provided herein. Nothing in this permit must be construed to preclude the initiation of any legal action or relieve the permittees from any responsibilities, liabilities, or penalties to which the permittees is/are or may be subject to under Section 311 of the Clean Water Act and Minn. Stat. Sect. 115 and 116, as amended. Permittees are not liable for permit requirements for activities occurring on those portions of a site where the permit has been transferred to another party as required in item 3.7 or the permittees have submitted the NOT as required in Section 4. [Minn. R. 7090]
24.8	The provisions of this permit are severable. If any provision of this permit or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit must not be affected thereby. [Minn. R. 7090]
24.9	The permittees must comply with the provisions of Minn. R. 7001.0150, subp. 3 and Minn. R. 7001.1090, subp. 1(A), 1(B), 1(C), 1(H), 1(I), 1(J), 1(K), and 1(L). [Minn. R. 7090]
24.10	The permittees must allow access as provided in 40 CFR 122.41(i) and Minn. Stat. Sect. 115.04. The permittees must allow representatives of the MPCA or any member, employee or agent thereof, when authorized by it, upon presentation of credentials, to enter upon any property, public or private, for the purpose of obtaining information or examination of records or conducting surveys or investigations. [40 CFR 122.41(i)]
24.11	For the purposes of Minn. R. 7090 and other documents that reference specific sections of this permit, "Stormwater Discharge Design Requirements" corresponds to Sections 5, 6 and 14 through 21; "Construction Activity Requirements" corresponds to Sections 7 through 13; and "Appendix A" corresponds to Sections 22 and 23. [Minn. R. 7090]
25.1	Definitions. [Minn. R. 7090]
25.2	"Active karst" means a terrain having distinctive landforms and hydrology created primarily from the dissolution of soluble rocks within 50 feet of the land surface. [Minn. R. 7090]
25.3	"Aerial radius measurement" means the shortest straight line distance measurement between the point of stormwater discharge from a project construction site to the nearest edge of the water body receiving the stormwater. This measurement does not follow the meander flow path. [Minn. R. 7090]
25.4	"Best Management Practices (BMPs)" means the most effective and practicable means of erosion prevention and sediment control, and water quality management practices that are the most effective and practicable means of to control, prevent, and minimize degradation of surface water, including avoidance of impacts, construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, pollution prevention through good housekeeping, and other management practices published by state or designated area-wide planning agencies. [Minn. R. 7090]
25.5	"Common Plan of Development or Sale" means one proposed plan for a contiguous area where multiple separate and distinct land-disturbing activities may be taking place at different times, on different schedules, but under one proposed plan. One plan is broadly defined to include design, permit application, advertisement or physical demarcation indicating that land-disturbing activities may occur. [Minn. R. 7090]
25.6	"Construction Activity" means activities including clearing, grading, and excavating, that result in land disturbance of equal to or greater than one acre, including the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one acre. This includes a disturbance to the land that results in a change in the topography, existing soil cover, both vegetative and nonvegetative, or the existing soil topography that may result in accelerated stormwater runoff that may lead to soil erosion and movement of sediment. Construction activity does not include a disturbance to the land of less than five acres for the

	purpose of routine maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Routine maintenance does not include activities such as repairs, replacement and other types of non-routine maintenance. Pavement rehabilitation that does not disturb the underlying soils (e.g., mill and overlay projects) is not construction activity. [Minn. R. 7090]
25.7	"Dewatering" means the removal of surface or ground water to dry and/or solidify a construction site to enable construction activity. Dewatering may require a Minnesota Department of Natural Resources water appropriation permit and, if dewatering water is contaminated, discharge of such water may require an individual MPCA NPDES/SDS permit. [Minn. R. 7090]
25.8	"Energy Dissipation" means methods employed at pipe outlets to prevent erosion caused by the rapid discharge of water scouring soils. [Minn. R. 7090]
25.9	"Erosion Prevention" means measures employed to prevent erosion such as soil stabilization practices, permanent cover or construction phasing. [Minn. R. 7090]
25.10	"General Contractor" means the party who signs the construction contract with the owner to construct the entire project described in the final plans and specifications. Where the construction project involves more than one contractor, the general contractor is the party responsible for managing the entire project on behalf of the owner. In some cases, the owner is the general contractor. In these cases, the owner signs the permit application as the operator and becomes the sole permittee. [Minn. R. 7090]
25.11	"Groundwater" means the water contained below the surface of the earth in the saturated zone including, without limitation, all waters whether under confined, unconfined, or perched conditions, in near surface unconsolidated sediment or regolith, or in rock formations deeper underground. [Minn. R. 7060]
25.12	"Homeowner Fact Sheet" means an MPCA fact sheet available on the MPCA Construction Stormwater website for permittees to give to homeowners at the time of sale. [Minn. R. 7090]
25.13	"Infeasible" means not technologically possible or not economically practicable and achievable in light of the best industry practices. [Minn. R. 7090]
25.14	<p>"Initiated immediately" means taking an action to commence soil stabilization as soon as practicable, but no later than the end of the work day, following the day when the land-disturbing activities temporarily or permanently cease, if the permittees know that construction work on that portion of the site will be temporarily ceased for 14 or more additional calendar days or 7 calendar days where item 23.9 applies. Permittees can initiate stabilization by:</p> <ul style="list-style-type: none"> a. prepping the soil for vegetative or non-vegetative stabilization; or b. applying mulch or other non-vegetative product to the exposed soil area; or c. seeding or planting the exposed area; or d. starting any of the activities in a - c on a portion of the area to be stabilized, but not on the entire area; or e. finalizing arrangements to have stabilization product fully installed in compliance with the applicable deadline for completing stabilization. [Minn. R. 7090]
25.15	"Impervious Surface" means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include rooftops, sidewalks, driveways, parking lots, and concrete, asphalt, or gravel roads. Bridges over surface waters are considered impervious surfaces. [Minn. R. 7090]
25.16	"National Pollutant Discharge Elimination System (NPDES)" means the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act, as amended (33 U.S.C. 1251 et seq. Section 1342 and 40 CFR parts 122, 123, 124 and 450). [Minn. R. 7090]
25.17	"Natural Buffer" means an area of undisturbed cover surrounding surface waters within which construction activities are restricted. Natural buffer includes the vegetation, exposed rock, or barren ground that exists prior to commencement of earth-disturbing activities. [Minn. R. 7090]
25.18	"Normal Wetted Perimeter" means the area of a conveyance, such as a ditch or channel, that is in contact with water during flow events that are expected to occur from a two-year, 24-hour storm event. [Minn. R. 7090]
25.19	"Notice of Termination (NOT)" means the form (electronic or paper) required for terminating coverage under the Construction General permit. [Minn. R. 7090]

25.20	"Operator" means the person (usually the general contractor), firm, governmental agency, or other entity designated by the owner who has day to day operational control and/or the ability to modify project plans and specifications related to the SWPPP. The permit application must list the operator as a permittee. Subcontractors hired by and under supervision of the general contractor are not operators. [Minn. R. 7090]
25.21	"Owner" means the person, firm, governmental agency, or other entity possessing the title of the land on which the construction activities will occur or, if the construction activity is for a lease, easement, or mineral rights license holder, the party or individual identified as the lease, easement or mineral rights license holder; or the contracting government agency responsible for the construction activity. [Minn. R. 7090]
25.22	"Permanent Cover" means surface types that will prevent soil failure under erosive conditions. Examples include: gravel, concrete, perennial cover, or other landscaped material that will permanently arrest soil erosion. Permittees must establish a uniform perennial vegetative cover (i.e., evenly distributed, without large bare areas) with a density of 70 percent of the native background vegetative cover on all areas not covered by permanent structures, or equivalent permanent stabilization measures. Permanent cover does not include temporary BMPs such as wood fiber blanket, mulch, and rolled erosion control products. [Minn. R. 7090]
25.23	"Permittees" means the persons, firm, governmental agency, or other entity identified as the owner and operator on the application submitted to the MPCA and are responsible for compliance with the terms and conditions of this permit. [Minn. R. 7090]
25.24	"Project(s)" means all construction activity planned and/or conducted under a particular permit. The project occurs on the site or sites described in the permit application, the SWPPP and in the associated plans, specifications and contract documents. [Minn. R. 7090]
25.25	"Public Waters" means all water basins and watercourses described in Minn. Stat. Sect. 103G.005 subp. 15. [Minn. R. 7090]
25.26	"Redoximorphic Features" means a color pattern in soil, formed by oxidation and reduction process of iron and/or manganese in seasonally saturated soil. [Minn. R. 7090]
25.27	"Section" includes all item numbers of the same whole number. For example, "Section 3" of the permit refers to items 3.1 through 3.8. [Minn. R. 7090]
25.28	"Seasonally Saturated Soil" means the highest seasonal elevation in the soil in a reduced chemical state because of soil voids filled with water causing anaerobic conditions. Seasonally saturated soil is evidenced by the presence of redoximorphic features or other information determined by scientifically established methods or empirical field measurements. [Minn. R. 7090]
25.29	"Sediment Control" means methods employed to prevent suspended sediment in stormwater from leaving the site (e.g. silt fences, compost logs and storm drain inlet protection). [Minn. R. 7090]
25.30	"Stabilize", "Stabilized", "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 seeding, agricultural crop seeding or other seeding alone is not stabilization. Mulch materials must achieve approximately 90 percent ground coverage (typically 2 ton/acre). [Minn. R. 7090]
25.31	"Stormwater" means precipitation runoff, stormwater runoff, snowmelt runoff, and any other surface runoff and drainage. [Minn. R. 7090]
25.32	"Steep Slopes" means slopes that are 1:3 (V:H) (33.3 percent) or steeper in grade. [Minn. R. 7090]
25.33	"Storm Water Pollution Prevention Plan (SWPPP)" means a plan for stormwater discharge that includes all required content under in Section 5 that describes the erosion prevention, sediment control and waste control BMPs and permanent stormwater treatment systems. [Minn. R. 7090]
25.34	"Surface Water or Waters" means all streams, lakes, ponds, marshes, wetlands, reservoirs, springs, rivers, drainage systems, waterways, watercourses, and irrigation systems whether natural or artificial, public or private, except that surface waters do not include stormwater treatment systems constructed from upland. This permit does not consider stormwater treatment systems constructed in wetlands and mitigated in accordance with Section 22 as surface waters. [Minn. R. 7090]
25.35	"Waters of the State" (as defined in Minn. Stat. Sect. 115.01, subp. 22) means all streams, lakes, ponds,

	marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portion thereof. [Minn. Stat. 115.01, Subp. 22]
25.36	"Water Quality Volume" means one (1) inch of runoff from the net increase in impervious surfaces created by the project (calculated as an instantaneous volume). [Minn. R. 7090]
25.37	<p>"Wetlands" (as defined in Minn. R. 7050.0186, subp. 1a.B.) means those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Constructed wetlands designed for wastewater treatment are not waters of the state. Wetlands must have the following attributes:</p> <ul style="list-style-type: none">a. a predominance of hydric soils; andb. inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in a saturated soil condition; andc. under normal circumstances support a prevalence of such vegetation. [Minn. R. 7050.0186, Subp. 1a.B]