

Instructions: This form provides general guidance on information that may be necessary for antidegradation review. The Minnesota Pollution Control Agency (MPCA) reserves the right to request information from the applicant in addition to that provided in this form.

Section 401 of the Clean Water Act requires any applicant for a federal license or permit that authorizes an activity that may result in a discharge to Waters of the United States to obtain certification from the state or tribe in which the discharge originates to ensure compliance with applicable water quality standards. In addition to completing the Joint Application Form, <https://bwsr.state.mn.us/joint-application-form>, applicants whose proposed projects may require an MPCA Individual 401 Water Quality Certification for work in aquatic resources must also provide the information necessary to demonstrate compliance with the Minnesota antidegradation water quality standards (Minn. R. 7050.0265, <https://www.revisor.mn.gov/rules/7050.0265/>). Applicants should review the antidegradation requirements in Minn. R. 7050.0285 (<https://www.revisor.mn.gov/rules/7050.0285/>) prior to completing this form.

The purpose of the antidegradation requirements is to achieve and maintain the highest possible quality in surface waters of the state. To accomplish this purpose, antidegradation requires:

- A. The protection of existing uses and the level of water quality necessary to protect existing uses;
- B. The minimization of degradation of high water quality, and only to extent necessary to accommodate important economic or social development;
- C. The protection of outstanding resource value waters; and
- D. Consideration of thermal discharges.

Applicant information

Applicant name/Project name/USACE ID number: Kellen Welinski / SP 4102-27 TH 14

Date submitted (mm/dd/yyyy): 04/27/2026

1. Environmental Assessment Worksheet (EAW)/Environmental Impact Statement (EIS)

Note: The MPCA cannot make any certification decision until the Environmental Review process is complete.

Is environmental review (Environmental Assessment Worksheet, Environmental Impact Statement, Categorical Exclusion (Catex), etc.) **required** for this project?

☒ Yes ☐ No

If yes, include the date record of decision (ROD) / finding of fact (FOF) was completed and the decision: _____

09/17/2025

For responses for questions 2 through 12, if you are referencing other documents, please attach them and provide an exact citation to where the information can be found. If the project manager cannot find it, the antidegradation may be sent back as incomplete.

2. Analysis of alternatives to project design that avoid or minimize degradation

(This does not include the Preferred Alternative discussed below.)

Describe your analysis of at least two prudent and feasible alternative project designs that would avoid or minimize degradation and avoid or minimize net increases in loading of pollutants or other causes of degradation to surface water (such as wetlands, lakes, stream, etc.). The analysis of each alternative must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. If one of the alternatives is no build, an explanation must be provided why that is not feasible. [Minn. R. 7050.0280, subp. 2](#)

Alt. 1: no build. Leaving pipe as is would minimize impacts, however, would not address the poor condition of the pipe, which could fail in the future.

Alt. 2: replacing with two pipes instead of one longer pipe. This alternative would reduce the length of pipe, but could worsen erosion issues between the two pipes, which is why MnDOT decided it would be more prudent to extend one pipe and place riprap at the outlet.

3. Preferred alternative project design:

Describe the analysis of your preferred alternative project design that avoids or minimizes net increases in loading of pollutants or other causes of degradation. The analysis must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. In addition, the analysis must verify that the preferred alternative is the least degrading prudent and feasible alternative for surface water. If the preferred alternative is not the least degrading alternative, then you must provide an explanation of the constraints. Explanation of least impacts should also include pollutant loading. For example: hard-armoring a stream bank might reduce TSS, but could increase velocity and create downstream erosion or loss of habitat for aquatic organisms. [Minn. R. 7050.0280, subp. 2](#)

The preferred alternative minimizes erosion potential and addresses existing erosion issues. This alternative also minimizes stream impact by grading a new channel for existing OAR. Existing conditions and more design considerations found in Appendix D.1.

4. Water quality parameters of concern

List the water quality parameters of concern for the project. These parameters should relate to the proposed project or activity type. *Examples: Total Suspended Solids (TSS), Dissolved Oxygen (DO), Mercury (Hg), Temperature, PCBs, flow volume, velocity, etc.*

It is not expected that the proposed project will affect the overall water quality following construction. Total suspended solids and turbidity along the project will be controlled through the use of BMPs and stabilization timelines as required by the NPDES permit. The resulting condition and quality of the streams, lakes, and wetlands will be similar to existing.

5. Existing uses and level of water quality necessary to protect uses

Antidegradation requires the protection of existing uses and the protection of the water quality necessary to protect those uses ([Minn. R. 7050.0265, subp. 2](#)). Existing use is defined as *those uses actually attained in the surface water on or after November 8, 1975* ([Minn. R. 7050.0255 subp. 15](#)).

Example 1: A surface water is in pristine condition on November 28, 1975, but development or other impacts have degraded that same water and it is no longer a high quality surface water. The existing use is the pristine water.

Example 2: A stream is highly degraded for several decades until it is restored to a trout stream in 1990. The existing use is the restored trout stream.

In the table below:

Identify all streams, rivers, wetlands and lakes within a mile radius of the project location by Waterbody Identification Number (WID). WIDs, and other information, can be found by using the map at: [EDA: Surface water data](#). Identify the use classification and existing use for **all** surface waters potentially impacted by this project. Include surface waters that are not directly within the project area but may be *potentially impacted even if they are more than one mile away*. Review Minn. R. 7050.0415 – 7050.0430 for the use classification that fits the waters potentially impacted by your project. Use classifications are also located at <https://www.revisor.mn.gov/rules/?id=7050>.

Also, identify the existing water quality of each surface water for the water quality parameters of concern. The methods for determining existing water quality are found in [Minn. R. 7050.0260](#).

Streams and rivers

If the waterbody is a stream/river and not listed in *Beneficial use designations for stream reaches* the beneficial uses are 2Bg, 3, 4A, 4B, 5 and 6.

Lakes and wetlands

To find beneficial use designations for lakes and wetlands, check [Minn. R. 7050.0470](#). Waterbodies described in both documents are arranged by major watershed basins in this document. If the waterbody is a wetland and not listed in Minn. R. 7050.0470, the unlisted default beneficial uses are 2D, 3, 4A, 4B, 5 and 6. If the waterbody is a lake and not listed in Minn. R. 7050.0470 the beneficial uses are 2B, 3, 4A, 4B, 5 and 6.

Exceptions: Water bodies in the Boundary Waters Canoe Area Wilderness and in Voyageurs National Park **that are not listed**, may have different Use Classifications (Beneficial use designations).

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable	Use classification	Existing use (highest quality attained from November 28, 1975 to present)	Existing water quality
Lake Benton (41-0043-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Impaired water for fish bioassessments, mercury in fish tissue, and nutrients.
PCA Site #257 (41-0160-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Not impaired. No existing water quality data.
OAR 1001	2Bg, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
OAR 1002	2Bg, 3, 4A, 4B, 5, 6	Stormwater retention	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.

6. Water quality comparison before and after project

For each surface water listed in Section 5, describe the anticipated water quality after the project is fully complete and operational. If any portion of the surface area of a water resource will be permanently impacted, a Mitigation Plan will be required (see Section 12). If water quality improvements are anticipated, please provide calculations or a detailed explanation of how you came to this conclusion.

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable.	Anticipated Water Quality
Lake Benton (41-0043-00)	No change anticipated.
PCA Site #257 (41-0160-00)	No change anticipated.
OAR 1002	A new, wider channel will be graded farther away from the roadway, which will reduce velocity and increase infiltration. No change anticipated.
OAR 1001	Riprap placement will address erosion issues and prevent the problem worsening. No change anticipated.

7. Impaired waters and Total Maximum Daily Loads (TMDL)

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the impairment for each surface water identified and state whether or not a total maximum daily load study (TMDL) has been completed for the waterbody.

Name of waterbody	Impairment	TMDL completed? (Y/N)
Lake Benton (41-0043-00)	Fish bioassessment, mercury in fish tissue, nutrients.	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

8. Physical alterations of surface waters

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the physical alteration including hydraulic impacts such as volume, inundation and velocity and the extent/volume of the alteration, also state if the alteration will be permanent (longer than one year) or temporary.

Name of waterbody	Physical alteration	Extent of alteration (include units)	Temporary or permanent
Lake Benton (41-0043-00)	None		No impact

9. Indirect impacts

For all surface waters where partial physical alteration of the function or acreage of the surface water will occur, describe the potential indirect impacts to the remaining surface water and the potential indirect impacts to nearby surface waters. For all surface waters where physical alteration will affect the entire function or acreage of the surface water, describe the potential indirect impacts to nearby surface waters. Indirect impacts may include changes in water source chemistry, timing, water quality (including temperature), water volume or velocity, aquatic species health or population, impervious surfaces and chemical runoff (chloride, petroleum products, etc), vegetation or macroinvertebrate (bug) populations, etc.

The project is not expected to adversely affect water quality following construction. The project will use erosion and sediment control BMPs and slope stabilization timelines as required by the NPDES permit. Fill impacts at wetlands have been minimized to the greatest extent possible and unavoidable impacts will be mitigated.

OAR 1001: this is a 2-foot wide, natural, ephemeral stream with in-stream emergent plants and overhanging trees/shrubs.

This stream will be partially filled with riprap to address erosion issues and high outlet velocity from the new culvert. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation is completed.

OAR 1002: this is a 2-foot wide, natural, ephemeral stream with in-stream emergent plants. This stream will be shifted away from the highway due to current clear zone standards. The new ditch will be 8' wide. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation is completed.

10. Loading and degradation to surface waters

For all surface waters where physical alterations are proposed, describe all anticipated net increases in loading at the project site and downstream. Include all potential causes of degradation expected in each surface water when your preferred alternative project design is fully implemented.

Example 1: Filling of a wetland that causes another wetland to backup and inundate, (the inundated wetland can be on or off the project site).

Example 2: A discharge from the project site that increases flow to another surface water on or off the project site.

Example 3: Upsizing a culvert can increase downstream velocity and may increase flooding and erosion or require additional disturbance to the stream to replace downstream culverts or infrastructure being negatively impacted.

There are no increases in loading or other degradation expected upon completion of the project.

11. Comparison of existing and expected economic conditions and social services

Provide a comparison of existing and expected economic conditions and social services when the proposed project (preferred alternative) is fully implemented. Include a description of economic gains or losses attributable to the proposed activity; contribution to social services; prevention/remediation of environmental or public health threats; climate change considerations, trade-offs between environmental media; the value of the water resources; and other relevant environmental, social, and economic impacts of the proposed activity. [Minn. R. 7050.0265, subp. 5\(B\)](#)

Trunk Highway 14 runs East-West in Southwest Minnesota, connecting cities like Mankato and New Ulm to South Dakota. This highway crosses the city of Lake Benton, providing access to houses and businesses. In Lake Benton it also connects to Trunk Highway 75, which runs South-North in West Minnesota. This overall project will provide better pavement condition, and this specific site will ensure drivers safety by addressing a poor condition culvert and by bringing inslopes to current safety standards. Aprons will be placed outside of clear zone due to their large size.

12. Description of the Compensatory Mitigation Plan [Minn. R. 7050.0285, subp. 2 \(A-E\)](#)

The applicant may propose to mitigate the project's permanent wetland impacts through an approved wetland bank if the proposed mitigation is for the same resource quality type surface water ("type-for-type") AND the proposed mitigation is located in the same major watershed (<https://www.pca.state.mn.us/water/watersheds>). The applicant may propose to mitigate other surface water resource types with on-site, project-specific mitigation if the mitigation is of the same resource type as the impacted water resource.

Describe any proposed permanent surface water impacts. Include the name of the surface water and AUID if appropriate, the type of impact, and the extent of the impact.

Permanent surface water impacts consist primarily of OAR fill as documented in the attached Joint Application (Appendix G). The impacts are small – 291 sq ft of temporary impact for OAR 1002 and 28 sq ft of permanent fill for OAR 1001. The impacts are a result of inslope flattening and clear zone requirements as well as riprap placement. While the riprap is a permanent fill impact, this erosion control best management practice will minimize scouring and prevent continuing impacts of scour and erosion on surface water quality.

Describe mitigation proposed for permanent surface water impacts.

No mitigation was required.

For each surface water listed above, describe how the proposed compensatory mitigation will replace existing uses and maintain the current level of water quality at the proposed project site (e.g., wetland types, replacement ratio, water monitoring data if available).

No mitigation was required.

Describe how the compensatory mitigation will be maintained and the monitoring activities that will be conducted to ensure the proposed mitigation is viable over the long-term. Include a timeline for reporting progress and an intervention/remediation plan to be implemented if the mitigation fails.

No mitigation was required.

Applicant signature

Print name: Kellen Welinski

Title: Engineer 2 Graduate

Phone: 320-979-3358

Email: Kellen.Welinski@state.mn.us

Date (mm/dd/yyyy): 06/26/2026

Signature:

Instructions: This form provides general guidance on information that may be necessary for antidegradation review. The Minnesota Pollution Control Agency (MPCA) reserves the right to request information from the applicant in addition to that provided in this form.

Section 401 of the Clean Water Act requires any applicant for a federal license or permit that authorizes an activity that may result in a discharge to Waters of the United States to obtain certification from the state or tribe in which the discharge originates to ensure compliance with applicable water quality standards. In addition to completing the Joint Application Form, <https://bwsr.state.mn.us/joint-application-form>, applicants whose proposed projects may require an MPCA Individual 401 Water Quality Certification for work in aquatic resources must also provide the information necessary to demonstrate compliance with the Minnesota antidegradation water quality standards (Minn. R. 7050.0265, <https://www.revisor.mn.gov/rules/7050.0265/>). Applicants should review the antidegradation requirements in Minn. R. 7050.0285 (<https://www.revisor.mn.gov/rules/7050.0285/>) prior to completing this form.

The purpose of the antidegradation requirements is to achieve and maintain the highest possible quality in surface waters of the state. To accomplish this purpose, antidegradation requires:

- A. The protection of existing uses and the level of water quality necessary to protect existing uses;
- B. The minimization of degradation of high water quality, and only to extent necessary to accommodate important economic or social development;
- C. The protection of outstanding resource value waters; and
- D. Consideration of thermal discharges.

Applicant information

Applicant name/Project name/USACE ID number: Kellen Welinski / SP 4102-27 TH 14

Date submitted (mm/dd/yyyy): 04/27/2026

1. Environmental Assessment Worksheet (EAW)/Environmental Impact Statement (EIS)

Note: The MPCA cannot make any certification decision until the Environmental Review process is complete.

Is environmental review (Environmental Assessment Worksheet, Environmental Impact Statement, Categorical Exclusion (Catex), etc.) **required** for this project?

☒ Yes ☐ No

If yes, include the date record of decision (ROD) / finding of fact (FOF) was completed and the decision: _____

09/17/2025

For responses for questions 2 through 12, if you are referencing other documents, please attach them and provide an exact citation to where the information can be found. If the project manager cannot find it, the antidegradation may be sent back as incomplete.

2. Analysis of alternatives to project design that avoid or minimize degradation

(This does not include the Preferred Alternative discussed below.)

Describe your analysis of at least two prudent and feasible alternative project designs that would avoid or minimize degradation and avoid or minimize net increases in loading of pollutants or other causes of degradation to surface water (such as wetlands, lakes, stream, etc.). The analysis of each alternative must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. If one of the alternatives is no build, an explanation must be provided why that is not feasible. [Minn. R. 7050.0280, subp. 2](#)

Alt. 1: no build. Leaving pipe as is would minimize impacts, however, would not address the poor condition of the pipe, which could fail in the future.

Alt. 2: replacing the culvert in kind, repairing the cattle pass, and placing guardrail back. This alternative was dismissed because of the cost associated with the repair, new guardrail, and future maintenance of assets that aren't needed. Additionally, it would not be the safest option for the travelling public.

3. Preferred alternative project design:

Describe the analysis of your preferred alternative project design that avoids or minimizes net increases in loading of pollutants or other causes of degradation. The analysis must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. In addition, the analysis must verify that the preferred alternative is the least degrading prudent and feasible alternative for surface water. If the preferred alternative is not the least degrading alternative, then you must provide an explanation of the constraints. Explanation of least impacts should also include pollutant loading. For example: hard-armoring a stream bank might reduce TSS, but could increase velocity and create downstream erosion or loss of habitat for aquatic organisms. [Minn. R. 7050.0280, subp. 2](#)

The preferred alternative brings inslopes to current safety standards to allow for the guardrail removal. It also includes the culvert replacement and the cattle pass removal. Because of the inslope flattening, the new culvert will need to be longer and the ditch on the right side will need to be shifted away from the highway. Existing conditions and more design considerations found in Appendix D.2.

4. Water quality parameters of concern

List the water quality parameters of concern for the project. These parameters should relate to the proposed project or activity type. *Examples: Total Suspended Solids (TSS), Dissolved Oxygen (DO), Mercury (Hg), Temperature, PCBs, flow volume, velocity, etc.*

It is not expected that the proposed project will affect the overall water quality following construction. Total suspended solids and turbidity along the project will be controlled through the use of BMPs and stabilization timelines as required by the NPDES permit. The resulting condition and quality of the streams, lakes, and wetlands will be similar to existing.

5. Existing uses and level of water quality necessary to protect uses

Antidegradation requires the protection of existing uses and the protection of the water quality necessary to protect those uses ([Minn. R. 7050.0265, subp. 2](#)). Existing use is defined as *those uses actually attained in the surface water on or after November 8, 1975* ([Minn. R. 7050.0255 subp. 15](#)).

Example 1: A surface water is in pristine condition on November 28, 1975, but development or other impacts have degraded that same water and it is no longer a high quality surface water. The existing use is the pristine water.

Example 2: A stream is highly degraded for several decades until it is restored to a trout stream in 1990. The existing use is the restored trout stream.

In the table below:

Identify all streams, rivers, wetlands and lakes within a mile radius of the project location by Waterbody Identification Number (WID). WIDs, and other information, can be found by using the map at: [EDA: Surface water data](#). Identify the use classification and existing use for **all** surface waters potentially impacted by this project. Include surface waters that are not directly within the project area but may be *potentially impacted even if they are more than one mile away*. Review Minn. R. 7050.0415 – 7050.0430 for the use classification that fits the waters potentially impacted by your project. Use classifications are also located at <https://www.revisor.mn.gov/rules/?id=7050>.

Also, identify the existing water quality of each surface water for the water quality parameters of concern. The methods for determining existing water quality are found in [Minn. R. 7050.0260](#).

Streams and rivers

If the waterbody is a stream/river and not listed in *Beneficial use designations for stream reaches* the beneficial uses are 2Bg, 3, 4A, 4B, 5 and 6.

Lakes and wetlands

To find beneficial use designations for lakes and wetlands, check [Minn. R. 7050.0470](#). Waterbodies described in both documents are arranged by major watershed basins in this document. If the waterbody is a wetland and not listed in Minn. R. 7050.0470, the unlisted default beneficial uses are 2D, 3, 4A, 4B, 5 and 6. If the waterbody is a lake and not listed in Minn. R. 7050.0470 the beneficial uses are 2B, 3, 4A, 4B, 5 and 6.

Exceptions: Water bodies in the Boundary Waters Canoe Area Wilderness and in Voyageurs National Park **that are not listed**, may have different Use Classifications (Beneficial use designations).

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable	Use classification	Existing use (highest quality attained from November 28, 1975 to present)	Existing water quality
Lake Benton (41-0043-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Impaired water for fish bioassessments, mercury in fish tissue, and nutrients.
Wet Ditch 4		Stormwater retention	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wet Ditch 5		Stormwater retention	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
OAR 1	2Bg, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
OAR 1003	2Bg, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 6	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.

6. Water quality comparison before and after project

For each surface water listed in Section 5, describe the anticipated water quality after the project is fully complete and operational. If any portion of the surface area of a water resource will be permanently impacted, a Mitigation Plan will be required (see Section 12). If water quality improvements are anticipated, please provide calculations or a detailed explanation of how you came to this conclusion.

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable.	Anticipated Water Quality
Lake Benton (41-0043-00)	No change anticipated.
Wet Ditch 4	No change anticipated.
Wet Ditch 5	No change anticipated.
OAR 1	OAR will be filled and shifted away from the highway. New ditch will be lined with riprap to address erosion issues. This may improve water quality.
OAR 1003	OAR will be filled and shifted away from the highway. New ditch will be lined with riprap to address erosion issues. This may improve water quality.
Wetland 6	Wetland will be filled by the inslope flattening and by riprap at the culvert outlet. The gentler inslope and riprap should help with erosion issues. Stabilization on the upstream side with riprap will address sediment issues. This may improve water quality.

7. Impaired waters and Total Maximum Daily Loads (TMDL)

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the impairment for each surface water identified and state whether or not a total maximum daily load study (TMDL) has been completed for the waterbody.

Name of waterbody	Impairment	TMDL completed? (Y/N)
Lake Benton (41-0043-00)	Fish bioassessment, mercury in fish tissue, nutrients.	☒ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

8. Physical alterations of surface waters

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the physical alteration including hydraulic impacts such as volume, inundation and velocity and the extent/volume of the alteration, also state if the alteration will be permanent (longer than one year) or temporary.

Name of waterbody	Physical alteration	Extent of alteration (include units)	Temporary or permanent
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Lake Benton (41-0043-00)	None	No impact
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9. Indirect impacts

For all surface waters where partial physical alteration of the function or acreage of the surface water will occur, describe the potential indirect impacts to the remaining surface water and the potential indirect impacts to nearby surface waters. For all surface waters where physical alteration will affect the entire function or acreage of the surface water, describe the potential indirect impacts to nearby surface waters. Indirect impacts may include changes in water source chemistry, timing, water quality (including temperature), water volume or velocity, aquatic species health or population, impervious surfaces and chemical runoff (chloride, petroleum products, etc), vegetation or macroinvertebrate (bug) populations, etc.

The project is not expected to adversely affect water quality following construction. The project will use erosion and sediment control BMPs and slope stabilization timelines as required by the NPDES permit. Fill impacts at wetlands have been minimized to the greatest extent possible and unavoidable impacts will be mitigated.

OAR 1: this is a 3-foot wide, natural, ephemeral stream with in-stream emergent plants. This stream will be filled and shifted away from the highway due to the guardrail removal and current clear zone standards. The new ditch will be 8' wide and lined with riprap. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation is completed.

OAR 1003: this is a 2-foot wide, natural, ephemeral stream with in-stream emergent plants. This stream will be filled and shifted away from the highway due to the guardrail removal and current clear zone standards. The new ditch will be 8' wide and lined with riprap. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation is completed.

Wetland 6: this wetland is a type 2, fresh (wet) meadow. It is a depressional (PEM1B) wetland located on the north side of TH 14. Wetland 6 is located north of TH 14 and is dominated by Reed Canary Grass. Wetland 6 continues outside of the Project. It will be partially filled by the inslope flattening and riprap. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation is completed.

10. Loading and degradation to surface waters

For all surface waters where physical alterations are proposed, describe all anticipated net increases in loading at the project site and downstream. Include all potential causes of degradation expected in each surface water when your preferred alternative project design is fully implemented.

Example 1: Filling of a wetland that causes another wetland to backup and inundate, (the inundated wetland can be on or off the project site).

Example 2: A discharge from the project site that increases flow to another surface water on or off the project site.

Example 3: Upsizing a culvert can increase downstream velocity and may increase flooding and erosion or require additional disturbance to the stream to replace downstream culverts or infrastructure being negatively impacted.

There are no increases in loading or other degradation expected upon completion of the project.

11. Comparison of existing and expected economic conditions and social services

Provide a comparison of existing and expected economic conditions and social services when the proposed project (preferred alternative) is fully implemented. Include a description of economic gains or losses attributable to the proposed activity; contribution to social services; prevention/remediation of environmental or public health threats; climate change considerations, trade-offs between environmental media; the value of the water resources; and other relevant environmental, social, and economic impacts of the proposed activity. [Minn. R. 7050.0265, subp. 5\(B\)](#)

Trunk Highway 14 runs East-West in Southwest Minnesota, connecting cities like Mankato and New Ulm to South Dakota. This highway crosses the city of Lake Benton, providing access to houses and businesses. In Lake Benton it also connects to Trunk Highway 75, which runs South-North in West Minnesota. This overall project will provide better pavement condition, and this specific site will ensure drivers safety by addressing a poor condition culvert and by bringing inslopes to current safety standards. Aprons will be placed outside of clear zone due to their large size.

12. Description of the Compensatory Mitigation Plan [Minn. R. 7050.0285, subp. 2 \(A-E\)](#)

The applicant may propose to mitigate the project's permanent wetland impacts through an approved wetland bank if the proposed mitigation is for the same resource quality type surface water ("type-for-type") AND the proposed mitigation is located in the same major watershed (<https://www.pca.state.mn.us/water/watersheds>). The applicant may propose to mitigate other surface water resource types with on-site, project-specific mitigation if the mitigation is of the same resource type as the impacted water resource.

Describe any proposed permanent surface water impacts. Include the name of the surface water and AUID if appropriate, the type of impact, and the extent of the impact.

Permanent surface water impacts consist primarily of OAR and wetland fill as documented in the attached Joint Application (Appendix G). The impacts are small – 361 sq ft of permanent fill impact for OAR 1, 36 sq ft of permanent fill for OAR 1003, and 0.09 acre of permanent fill impact for Wetland 6. The impacts are a result of inslope flattening and clear zone requirements as well as riprap placement. While the riprap is a permanent fill impact, this erosion control best management practice will minimize scouring and prevent continuing impacts of scour and erosion on surface water quality.

Describe mitigation proposed for permanent surface water impacts.

Mitigation for wetland impacts will take place through the purchase of wetland credits through a state and federally approved wetland bank. Wetland credits will be purchased at a 2:1 ratio to meet USACE requirements. A total of 0.41 ac of credits from bank #1730 for Section 404 impacts and 1.15 ac of credits from banks #1760, #1669, and #1656 for WCA impacts will be used.

For each surface water listed above, describe how the proposed compensatory mitigation will replace existing uses and maintain the current level of water quality at the proposed project site (e.g., wetland types, replacement ratio, water monitoring data if available).

The project will provide compensatory wetland mitigation for all WCA & Section 404 wetland impacts at a 2:1 ratio using existing MnDOT wetland bank credits from the same Bank Service Area.

Describe how the compensatory mitigation will be maintained and the monitoring activities that will be conducted to ensure the proposed mitigation is viable over the long-term. Include a timeline for reporting progress and an intervention/remediation plan to be implemented if the mitigation fails.

The project will provide compensatory wetland mitigation for all WCA & Section 404 wetland impacts at a 2:1 ratio using existing MnDOT wetland bank credits from the same Bank Service Area.

Applicant signature

Print name: Kellen Welinski

Title: Engineer 2 Graduate

Phone: 320-979-3358

Email: Kellen.Welinski@state.mn.us

Date (mm/dd/yyyy): 06/26/2026

Signature:

Instructions: This form provides general guidance on information that may be necessary for antidegradation review. The Minnesota Pollution Control Agency (MPCA) reserves the right to request information from the applicant in addition to that provided in this form.

Section 401 of the Clean Water Act requires any applicant for a federal license or permit that authorizes an activity that may result in a discharge to Waters of the United States to obtain certification from the state or tribe in which the discharge originates to ensure compliance with applicable water quality standards. In addition to completing the Joint Application Form, <https://bwsr.state.mn.us/joint-application-form>, applicants whose proposed projects may require an MPCA Individual 401 Water Quality Certification for work in aquatic resources must also provide the information necessary to demonstrate compliance with the Minnesota antidegradation water quality standards (Minn. R. 7050.0265, <https://www.revisor.mn.gov/rules/7050.0265/>). Applicants should review the antidegradation requirements in Minn. R. 7050.0285 (<https://www.revisor.mn.gov/rules/7050.0285/>) prior to completing this form.

The purpose of the antidegradation requirements is to achieve and maintain the highest possible quality in surface waters of the state. To accomplish this purpose, antidegradation requires:

- A. The protection of existing uses and the level of water quality necessary to protect existing uses;
- B. The minimization of degradation of high water quality, and only to extent necessary to accommodate important economic or social development;
- C. The protection of outstanding resource value waters; and
- D. Consideration of thermal discharges.

Applicant information

Applicant name/Project name/USACE ID number: Kellen Welinski / SP 4102-27 TH 14

Date submitted (mm/dd/yyyy): 04/27/2026

1. Environmental Assessment Worksheet (EAW)/Environmental Impact Statement (EIS)

Note: The MPCA cannot make any certification decision until the Environmental Review process is complete.

Is environmental review (Environmental Assessment Worksheet, Environmental Impact Statement, Categorical Exclusion (Catex), etc.) **required** for this project?

☒ Yes ☐ No

If yes, include the date record of decision (ROD) / finding of fact (FOF) was completed and the decision: _____

09/17/2025

For responses for questions 2 through 12, if you are referencing other documents, please attach them and provide an exact citation to where the information can be found. If the project manager cannot find it, the antidegradation may be sent back as incomplete.

2. Analysis of alternatives to project design that avoid or minimize degradation

(This does not include the Preferred Alternative discussed below.)

Describe your analysis of at least two prudent and feasible alternative project designs that would avoid or minimize degradation and avoid or minimize net increases in loading of pollutants or other causes of degradation to surface water (such as wetlands, lakes, stream, etc.). The analysis of each alternative must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. If one of the alternatives is no build, an explanation must be provided why that is not feasible. [Minn. R. 7050.0280, subp. 2](#)

Alt. 1: no build. Leaving pipe as is would minimize impacts, however, would not address the poor condition of the pipe, which could fail in the future.

Alt. 2: replacing the culvert in kind and placing it back where it currently is with minor ditch cleaning could minimize impacts, however, water would have to travel under a commercial entrance, and we could not meet cover requirements for upsizing that culvert. Minor ditch cleaning also would not provide positive drainage, and it would not help with the existing overtopping issues.

3. Preferred alternative project design:

Describe the analysis of your preferred alternative project design that avoids or minimizes net increases in loading of pollutants or other causes of degradation. The analysis must include a description of how impacts to surface waters are avoided and/or minimized; information on any design considerations and constraints; expected performance, construction, operation, and maintenance costs; and reliability for each alternative. In addition, the analysis must verify that the preferred alternative is the least degrading prudent and feasible alternative for surface water. If the preferred alternative is not the least degrading alternative, then you must provide an explanation of the constraints. Explanation of least impacts should also include pollutant loading. For example: hard-armoring a stream bank might reduce TSS, but could increase velocity and create downstream erosion or loss of habitat for aquatic organisms. [Minn. R. 7050.0280, subp. 2](#)

The preferred alternative brings inslopes to current safety standards, places a new, adequately sized culvert closer to the existing channel outlet, and provides positive drainage through the entire ditch. Existing conditions and more design considerations found in Appendix D.3.

4. Water quality parameters of concern

List the water quality parameters of concern for the project. These parameters should relate to the proposed project or activity type. *Examples: Total Suspended Solids (TSS), Dissolved Oxygen (DO), Mercury (Hg), Temperature, PCBs, flow volume, velocity, etc.*

It is not expected that the proposed project will affect the overall water quality following construction. Total suspended solids and turbidity along the project will be controlled through the use of BMPs and stabilization timelines as required by the NPDES permit. The resulting condition and quality of the streams, lakes, and wetlands will be similar to existing.

5. Existing uses and level of water quality necessary to protect uses

Antidegradation requires the protection of existing uses and the protection of the water quality necessary to protect those uses ([Minn. R. 7050.0265, subp. 2](#)). Existing use is defined as *those uses actually attained in the surface water on or after November 8, 1975* ([Minn. R. 7050.0255 subp. 15](#)).

Example 1: A surface water is in pristine condition on November 28, 1975, but development or other impacts have degraded that same water and it is no longer a high quality surface water. The existing use is the pristine water.

Example 2: A stream is highly degraded for several decades until it is restored to a trout stream in 1990. The existing use is the restored trout stream.

In the table below:

Identify all streams, rivers, wetlands and lakes within a mile radius of the project location by Waterbody Identification Number (WID). WIDs, and other information, can be found by using the map at: [EDA: Surface water data](#). Identify the use classification and existing use for **all** surface waters potentially impacted by this project. Include surface waters that are not directly within the project area but may be *potentially impacted even if they are more than one mile away*. Review Minn. R. 7050.0415 – 7050.0430 for the use classification that fits the waters potentially impacted by your project. Use classifications are also located at <https://www.revisor.mn.gov/rules/?id=7050>.

Also, identify the existing water quality of each surface water for the water quality parameters of concern. The methods for determining existing water quality are found in [Minn. R. 7050.0260](#).

Streams and rivers

If the waterbody is a stream/river and not listed in *Beneficial use designations for stream reaches* the beneficial uses are 2Bg, 3, 4A, 4B, 5 and 6.

Lakes and wetlands

To find beneficial use designations for lakes and wetlands, check [Minn. R. 7050.0470](#). Waterbodies described in both documents are arranged by major watershed basins in this document. If the waterbody is a wetland and not listed in Minn. R. 7050.0470, the unlisted default beneficial uses are 2D, 3, 4A, 4B, 5 and 6. If the waterbody is a lake and not listed in Minn. R. 7050.0470 the beneficial uses are 2B, 3, 4A, 4B, 5 and 6.

Exceptions: Water bodies in the Boundary Waters Canoe Area Wilderness and in Voyageurs National Park **that are not listed**, may have different Use Classifications (Beneficial use designations).

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable	Use classification	Existing use (highest quality attained from November 28, 1975 to present)	Existing water quality
Unnamed Lake (41-0005-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Not impaired. No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
County Ditch 14 (07020006-523)	2Bg	Aquatic consumption, aquatic life, aquatic recreation	Not impaired. No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
North Swan (41-0004-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Not impaired. No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
South Swan (41-0010-00)	2B	Aquatic consumption, aquatic life, aquatic recreation	Not impaired. No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 16	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 17	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 18	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 19	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 20	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.
Wetland 1002	2D, 3, 4A, 4B, 5, 6	Stormwater retention, wildlife habitat	No existing water quality data. Adjacent to roadway, it is likely to receive minor pollutants from road.

6. Water quality comparison before and after project

For each surface water listed in Section 5, describe the anticipated water quality after the project is fully complete and operational. If any portion of the surface area of a water resource will be permanently impacted, a Mitigation Plan will be required (see Section 12). If water quality improvements are anticipated, please provide calculations or a detailed explanation of how you came to this conclusion.

Name of surface water/Waterbody and Waterbody Identification Number (AUID), if applicable.	Anticipated Water Quality
Unnamed Lake (41-0005-00)	No change anticipated.
County Ditch 14 (07020006-523)	No change anticipated.
North Swan (41-0004-00)	No change anticipated.
South Swan (41-0010-00)	No change anticipated.
Wetland 16	Ditch grading will be done through this wetland to restore original grade, provide positive drainage, and help with overtopping issues and water ponding along the highway. This should not alter water quality.
Wetland 17	Ditch grading will be done through this wetland to restore original grade, provide positive drainage, and help with overtopping issues and water ponding along the highway. This should not alter water quality.
Wetland 18	Ditch grading will be done through this wetland to restore original grade, provide positive drainage, and help with overtopping issues and water ponding along the highway. This should not alter water quality.
Wetland 19	Ditch grading will be done through this wetland to restore original grade, provide positive drainage, and help with overtopping issues and water ponding along the highway. This should not alter water quality.
Wetland 20	Riprap will be placed along the roadway inslope in this wetland to help with erosion and slope sliding issues. No change anticipated.
Wetland 1002	No change anticipated.

7. Impaired waters and Total Maximum Daily Loads (TMDL)

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the impairment for each surface water identified and state whether or not a total maximum daily load study (TMDL) has been completed for the waterbody.

Name of waterbody	Impairment	TMDL completed? (Y/N)
		☐ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No

8. Physical alterations of surface waters

Identify ALL surface waters listed in Section 5 that are listed on the Minnesota Impaired Waters List (<https://www.pca.state.mn.us/water/minnesotas-impaired-waters-list>). List the physical alteration including hydraulic impacts such as volume, inundation and velocity and the extent/volume of the alteration, also state if the alteration will be permanent (longer than one year) or temporary.

Name of waterbody	Physical alteration	Extent of alteration (include units)	Temporary or permanent

9. Indirect impacts

For all surface waters where partial physical alteration of the function or acreage of the surface water will occur, describe the potential indirect impacts to the remaining surface water and the potential indirect impacts to nearby surface waters. For all surface waters where physical alteration will affect the entire function or acreage of the surface water, describe the potential indirect impacts to nearby surface waters. Indirect impacts may include changes in water source chemistry, timing, water quality (including temperature), water volume or velocity, aquatic species health or population, impervious surfaces and chemical runoff (chloride, petroleum products, etc), vegetation or macroinvertebrate (bug) populations, etc.

The project is not expected to adversely affect water quality following construction. The project will use erosion and sediment control BMPs and slope stabilization timelines as required by the NPDES permit. Fill impacts at wetlands have been minimized to the greatest extent possible and unavoidable impacts will be mitigated.

Wetland 16: this wetland is a type 3, shallow marsh. It is a depressional wetland feature that consists of a PEM1C, shallow marsh community. Wetland 16 is located south of TH14 and is dominated by Hybrid Cattail. Wetland 16 continues outside of the Project. It will be partially filled on the inslope due to inslope flattening and partially cut for the new ditch and to provide positive drainage. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation and ditch grading are completed.

Wetland 17: this wetland is a type 3, shallow marsh. It is a depressional wetland feature that consists of a PEM1C, shallow marsh community. Wetland 17 is located south of TH14 and is dominated by Hybrid Cattail. It will be partially filled on the inslope due to inslope flattening and partially cut for the new ditch and to provide positive drainage. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation and ditch grading are completed.

Wetland 18: this wetland is a type 3, shallow marsh. It is a depressional wetland feature that consists of a PEM1C, shallow marsh community. Wetland 18 is located south of TH14 and is dominated by Hybrid Cattail. It will be partially filled on the inslope due to inslope flattening and partially cut for the new ditch and to provide positive drainage. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation and ditch grading are completed.

Wetland 19: this wetland is a type 3, shallow marsh. It is a depressional wetland feature that consists of a PEM1C, shallow marsh community. Wetland 19 is located south of TH14 and is dominated by Hybrid Cattail. It will be partially filled on the inslope due to inslope flattening and partially cut for the new ditch and to provide positive drainage. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation and ditch grading are completed.

Wetland 20: this wetland is a type 3, shallow marsh. It is a depressional wetland feature that consists of a PEM1C, shallow marsh community. Wetland 16 is located south of TH14 and is dominated by Hybrid Cattail. Wetland 16 continues outside of the Project. Most of the impact will be temporary for salvaging and installing riprap with some additional permanent fill impact where inslopes are being brought to standards and for placement of the new DNR weir structure. The installed riprap will have compost grouting on top to avoid small animals getting stuck between the rocks and to aid the turf establishment. During construction there may be temporary disturbance to the substrate causing higher than normal TSS. These impacts will be temporary in nature and are not expected to continue after the culvert installation and ditch grading are completed.

10. Loading and degradation to surface waters

For all surface waters where physical alterations are proposed, describe all anticipated net increases in loading at the project site and downstream. Include all potential causes of degradation expected in each surface water when your preferred alternative project design is fully implemented.

Example 1: Filling of a wetland that causes another wetland to backup and inundate, (the inundated wetland can be on or off the project site).

Example 2: A discharge from the project site that increases flow to another surface water on or off the project site.

Example 3: Upsizing a culvert can increase downstream velocity and may increase flooding and erosion or require additional disturbance to the stream to replace downstream culverts or infrastructure being negatively impacted.

There are no increases in loading or other degradation expected upon completion of the project.

11. Comparison of existing and expected economic conditions and social services

Provide a comparison of existing and expected economic conditions and social services when the proposed project (preferred alternative) is fully implemented. Include a description of economic gains or losses attributable to the proposed activity; contribution to social services; prevention/remediation of environmental or public health threats; climate change considerations, trade-offs between environmental media; the value of the water resources; and other relevant environmental, social, and economic impacts of the proposed activity. [Minn. R. 7050.0265, subp. 5\(B\)](#)

Trunk Highway 14 runs East-West in Southwest Minnesota, connecting cities like Mankato and New Ulm to South Dakota. This highway crosses the city of Lake Benton, providing access to houses and businesses. In Lake Benton it also connects to Trunk Highway 75, which runs South-North in West Minnesota. This overall project will provide better pavement condition, and this specific site will ensure drivers safety by addressing a poor condition culvert and by bringing inslopes to current safety standards. Aprons will be placed outside of clear zone due to their large size.

12. Description of the Compensatory Mitigation Plan [Minn. R. 7050.0285, subp. 2 \(A-E\)](#)

The applicant may propose to mitigate the project's permanent wetland impacts through an approved wetland bank if the proposed mitigation is for the same resource quality type surface water ("type-for-type") AND the proposed mitigation is located in the same major watershed (<https://www.pca.state.mn.us/water/watersheds>). The applicant may propose to mitigate other surface water resource types with on-site, project-specific mitigation if the mitigation is of the same resource type as the impacted water resource.

Describe any proposed permanent surface water impacts. Include the name of the surface water and AUID if appropriate, the type of impact, and the extent of the impact.

Permanent surface water impacts consist primarily of wetland fill and cut as documented in the attached Joint Application (Appendix G). The impacts are as follow: 0.35 acre of permanent fill and 0.39 acre of permanent cut at Wetland 16, 0.16 acre of permanent fill and 0.21 acre of permanent cut at Wetland 17, 0.14 acre of permanent fill and 0.14 acre of permanent cut at Wetland 18, 0.19 acre of permanent fill and 0.12 acre of permanent cut at Wetland 19, and 0.15 acre of permanent fill and 0.85 acre of temporary impact at Wetland 20. The impacts are a result of inslope flattening and clear zone requirements as well as riprap placement and ditch grading. While the riprap is a permanent fill impact, this erosion control best management practice will minimize scouring and prevent continuing impacts of scour and erosion on surface water quality.

Describe mitigation proposed for permanent surface water impacts.

Mitigation for wetland impacts will take place through the purchase of wetland credits through a state and federally approved wetland bank. Wetland credits will be purchased at a 2:1 ratio to meet USACE requirements. A total of 0.41 ac of credits from bank #1730 for Section 404 impacts and 1.15 ac of credits from banks #1760, #1669, and #1656 for WCA impacts will be used.

For each surface water listed above, describe how the proposed compensatory mitigation will replace existing uses and maintain the current level of water quality at the proposed project site (e.g., wetland types, replacement ratio, water monitoring data if available).

The project will provide compensatory wetland mitigation for all WCA & Section 404 wetland impacts at a 2:1 ratio using existing MnDOT wetland bank credits from the same Bank Service Area.

Describe how the compensatory mitigation will be maintained and the monitoring activities that will be conducted to ensure the proposed mitigation is viable over the long-term. Include a timeline for reporting progress and an intervention/remediation plan to be implemented if the mitigation fails.

The project will provide compensatory wetland mitigation for all WCA & Section 404 wetland impacts at a 2:1 ratio using existing MnDOT wetland bank credits from the same Bank Service Area.

Applicant signature

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Title: Engineer 2 Graduate

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Signature: