

Environmental Assessment

Highway F Project, Ditch 5, 6, 7, 9, and 10 Crossings

May 15, 2019

Applicant: Portage County Drainage District

Proposal: Replace five culverts in district drains

Location: The culverts and bridges are located at Highway F as it crosses Ditch 5 (North Branch Tenmile Creek), 6 (South Branch Tenmile Creek), 7, 9, and 10 (Tenmile Creek) of the Portage County Drainage District. The project is located in Sections 2, 3, 10, 11, 14, 15, 22, 23, 26, 27, 34, and 35, T21N, R7E, in the Town of Grant, Portage County, Wisconsin.

1. Nature and Purpose of the Proposed Action

The Portage County Drainage District (PCDD) filed an application through their consultant, Resource Engineering Associates, Inc., with the Department of Agriculture, Trade, and Consumer Protection (DATCP) on April 26, 2019, seeking approval for a construction project in the following district drains: Ditch 5, 6, 7, 9, and 10.

Portage County has developed highway improvement plans for resurfacing Highway F from State Highway 73 to County Highway W, including the replacement of existing culverts at five district drains. Table A lists the size and types of existing and replacement culverts at each district drain. The replacement culverts are designed to allow proper drainage from land in the drainage district and to allow passage of coldwater fish at baseflow conditions.

Table A

Location	Existing width & length	Existing type/shape	Proposed width & length	Proposed type/shape
Ditch #9	66" x 47'	round CMP culvert	77" x 52" x 64'	polycoated steel arch pipe
Ditch #5	114" x 77" x 46'	arch metal pipe	117" x 79" x 64'	polycoated steel arch pipe round polycoated steel culvert
Ditch #10	60" x 56'	round CMP culvert	60" x 64'	polycoated steel arch pipe
Ditch #6 (pipes 8 & 9 side by side)	76" x 54" x 46'	arch metal pipe	81" x 59" x 64'	polycoated steel arch pipe
Ditch #6 (pipes 8 & 9 side by side)	72" x 46'	round CMP culvert	81" x 59" x 64'	polycoated steel arch pipe round polycoated steel culvert
Ditch #7	72" x 47'	round CMP culvert	72" x 64'	polycoated steel arch pipe

Although Portage County is responsible for the proposed highway project, the PCDD has the responsibility under s. ATCP 48.34, Wis. Admin. Code, to obtain DATCP approval before authorizing any person to install or modify any structure in a district drain. Because the proposed action involves a cold water fishery in district drains with navigable stream history, DATCP is required to prepare an environmental assessment (EA) under s. ATCP 48.38(5)(d). Likewise, the EA will determine if an environmental impact statement (EIS) is warranted under s. ATCP 3.02(3)(b).

2. Foreseeable Environmental Effects of the Proposed Action

- a. Immediate effects: Due to the increase in size and extended length of the replacement culverts, the proposed action will result in filling a total of 2,100 square-feet of aquatic bed and riparian emergent wetlands between the five drain crossings. The DNR has issued a general permit to the Portage County Highway Department for this action.
- b. Long-term effects: The replacement culverts will be buried at a depth of approximately one-half to one foot below the existing streambed. This design will allow the culvert to silt in, creating a natural streambed that promotes the passage of fish and other aquatic organisms.
- c. Direct effects: The proposed action will involve excavation of the existing streambed along the full width of the road crossing.
- d. Indirect effects: Due to excavation of the existing streambed and filling of riparian emergent wetlands, some amount of sedimentation will most likely occur downstream of the project site. However, the Department of Natural Resources (DNR) general permit covering this activity prohibits culvert replacement work between September 15 and May 15th to minimize impacts to fish and other aquatic organisms during sensitive time periods such as spawning, winter dormancy, and migration. Improved fish passage at the culvert crossings is intended to enhance the cold water fishery in all streams / ditches, both upstream and downstream of the project sites.
- e. Cumulative effects: Overall, the positive benefits of ensuring fish passage in the North and South Branch of Tenmile Creek (Ditch 5 and 6), Tenmile Creek (Ditch 10), Ditch 7, and Ditch 9 outweigh the relatively small area of wetland fill and fairly minor sedimentation downstream of the project site due to construction activities.

3. Persons, Groups, and Agencies Affected by the Activity

Because of the proposed action: 1) area residents and other individuals utilizing Highway F will benefit from a safer roadway, 2) agricultural and other landowners that are currently benefiting from drainage will continue to receive those benefits, and 3) anglers will benefit from enhancements to the cold water fishery.

4. Significant Economic and Social Effects of the Proposed Action

By maintaining drainage, farmers will continue to receive the economic benefits of having additional acreage available for production agriculture. The proposed action assures that the benefits received by each landowner will continue to be in line with assessments made by the Portage County Drainage Board to cover the costs of maintaining drains in the Portage County Drainage District.

Maintaining safe transportation services and drainage infrastructure are necessary to help support the local farming community.

5. Controversial Issues Associated with the Proposed Action

A number of parties discussed designs for the replacement culverts to meet the needs of various interests, including fish passage and habitat. Parties to the discussion, including the DNR, agreed to a design intended to enhance the cold water fishery. This process directly addressed an issue that otherwise might have been controversial.

The proposed action is not expected to raise controversial issues.

6. Possible Alternatives to the Proposed Action

- a. Take no action: The existing bridge structures are in need of improvements. Taking no action would not improve the current structural conditions, and failure of the structures would result in road closure and loss of service.
- b. Design differently: Any culvert design must meet structural standards, DNR permitting requirements, and applicable drainage performance standards under s. ATCP 48, subchapter IV.

7. Possible Measures to Mitigate Adverse Environmental Effects

Overall, the proposed action is anticipated to have positive environmental effects. Any adverse environmental effects will be of a secondary and minor nature. The county is responsible for complying with the terms and conditions of the permit obtained from the DNR, which includes a number of construction best management practices. In other words, permit compliance should mitigate any adverse environmental effects.

Also, both the DNR and the county drainage board can take direct action to mitigate adverse environmental effects through their respective inspection authorities. The DNR can minimize adverse effects by verifying compliance with the conditions specified in Portage County's general permit. On the other hand, the county drainage board can minimize adverse environmental effects such as risk of flooding downstream or backing up water upstream by verifying: 1) that district drains are maintained in compliance with ATCP 48, 2) that landowners are complying with applicable requirements under ATCP 48, and 3) whether the district drainage system is operating effectively to achieve the goals which have been specified for the drainage district pursuant to s. 88.63, Wis. Stats., and s. ATCP 48.36(1)(f).

8. Final Determination

This assessment finds that the reconstruction of the existing roadway and culvert replacements planned at the intersections of Highway F and the North and South Branch of Tenmile Creek (Ditch 5 and 6), Tenmile Creek (Ditch 10), Ditch 7, and Ditch 9 in Portage County will have no significant environmental impact and are not major actions significantly affecting the quality of the human environment. No environmental impact statement is necessary under s. 1.11(2), Wis. Stats., and s. ATCP 3.03.

Date 5/15/19 By Chris Clayton
Chris Clayton, Drainage Program Manager
Land and Water Resources Bureau
Agricultural Resource Management Division

The decision indicating that this document is in compliance with s. 1.11, Stats., is not final until certified by the Administrator of the Agricultural Resource Management Division.

Date 5/15/19 By Sara Z Walling
Sara Walling, Administrator
Agricultural Resource Management Division