IEPA Log No.: **C-0021-19**
CoE appl. #: **CEMVR-OD-P-2017-1353**

Public Notice Beginning Date: **October 9, 2019**
Public Notice Ending Date: **October 30, 2019**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification for Discharge of Dredged or Fill Material

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Union Pacific Railroad Company – 1400 Douglas Street Omaha, NE 68179

Discharge Location: Near Clinton, Iowa in Sections 12 and 13 of Township 81-North, Range 6-East and Sections 7 & 8 of Township 81-North, Range 7-East and extends to Sections 4 and 5 of Township 21-North, Range 3-East of the 4th P.M in Whiteside County, Illinois.

Name of Receiving Water: Mississippi River

Project Description: Proposed replacement of the existing railroad bridge across the Mississippi River located between Clinton, Iowa and East Clinton, Illinois.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge dredged or fill material into the waters of the State associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please contact Francisco J. Hererra at email francisco.herrera@illinois.gov or phone no. 217/782-3362.

FJH:C-0021-19_401 PN and FS_17Jan19.docx

Fact Sheet for Antidegradation Assessment
For Union Pacific Railroad Company
IEPA Log No. C-0021-19
COE Log No. CEMVR-OD-P-2017-1353
Contact: Angie Sutton 217/782-3362
Public Notice Start Date: October 9, 2019

Patrick Prososki ("Applicant") has applied for a 401 Water Quality Certification for impacts associated with the construction of a new railroad bridge to replace the existing bridge, in response to an "Order to Alter" issued by the U.S. Coast Guard. The proposed project crosses the Mississippi River between Clinton, Iowa and East Clinton, Illinois (milepost 134.8 to 138.5). The project site is located in Township 21N, Range 3E, Sections 4 and 5, in Whiteside County, Illinois. The "Order to Alter" identifies a need to increase the horizontal opening for navigational purposes. Horizontal and vertical clearance for the replacement bridge will be 375 feet by 65 feet, respectively. Because the existing bridge will need to remain open for freight and commerce movement, the proposed replacement bridge will be constructed approximately 300 feet south of the existing bridge. Once the new bridge is constructed, new mainline tracks on each side of the Mississippi River will be connected. The existing bridge, piers and approaches will be removed, and areas restored once the new bridge is open. The proposed activity also includes impacts to the Fulton Levee which results in permanent and temporary construction to embankments, bridge construction, levee access and trail construction, roadway construction, track construction, bridge removal and track removal. Once the existing rail bridge is removed, the existing closure structure will be removed and backfilled with levee embankment material. The proposed project will have temporary (construction and bridge dripline) and permanent (new pier and embankment construction) impacts to associated wetlands and waterbodies. Permanent impacts will be mitigated at a ratio of 2:1 for Palustrine Forested (PFO) wetlands and 1.5:1 for Palustrine Emergent (PEM) wetlands for a total of 4.575 mitigation acres.

Information used in this review was obtained from the application documents dated May 16, 2019 and January 17, 2019.

Identification and Characterization of the Affected Water Body.

The Mississippi River has 13,710 cfs of flow during critical 7Q10 low-flow conditions. The Mississippi River is classified as General Use Water**.** The Mississippi River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating in that document. The Mississippi River, Waterbody Segment IL_M-02, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as mercury and polychlorinated biphenyls and primary contact use with potential cause given as fecal coliform. Aquatic life and aesthetic quality uses are fully supported. A wetland survey was conducted on May 8, 2018 for the project area and identified 70.92 acres of aquatic resources. The resources delineated include four streams comprising a total of 35.27 acres (2919 linear feet) and 14 wetlands comprising a total of 35.65 acres. Stream S01 (Mississippi River), Stream S02 and S03 (branches of the Mississippi River) and Stream S04 (Cattail Slough) are natural perennial watercourses that flow north to south across the survey area beneath the existing bridge. All four are classified by the Cowardin classification system as L1UBHh (Lacustrine, Limnetic, Unconsolidated Bottom, Permanently Flooded, Diked/Impounded). The 14 identified wetlands consist of 13.28 acres of

Palustrine Emergent (PEM) wetland and 22.37 acres Palustrine Forested (PFO). The survey included Wetland W15, W16 and W17 that are identified within the mitigation survey area.

Wetland	Wetland Surface Area (Acres)	Wetland Type (PFO/PEM)	Wetland Location in Survey Area
W01	0.51	PFO	Middle section adjacent to S01
W02	3.50	PEM/PFO complex	Middle section adjacent to S02
W03	0.07	PEM	Middle section adjacent to S02
W04	5.77	PEM/PFO complex	Middle section on island between S02 and S03
W05	10.57	PEM/PFO complex	Middle section adjacent to S03 and S04
W06	0.84	PEM/PFO complex	Middle section on eastern bank of S04
W07	8.32	PEM/PFO complex	Eastern section
W11	0.13	PEM	Western section
W12	0.21	PEM	Middle of survey area
W13	0.48	PFO	Middle of survey area
W14	0.58	PFO	Middle of survey area
W15	0.32	PEM farmed wetland	Southeast section
W16	2.87	PEM/PFO complex	Southeast section
W17	1.48	PFO	Southeast section

Dominant species, wetland delineation and soil characterization information can be found in section 4 of the 401 Water Quality Certification Application dated January 17, 2019.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The pollutant load increases that would occur from this project include some increases in total suspended solids. These increases, a normal and unavoidable result of construction of the replacement rail bridge, may occur as a result of placement of temporary causeways, pier construction and dredging. 3646 cubic yards (CY) of clean material from upland areas and 3200 CY of steel and concrete will make up the total 6846 CY of fill material expected as a result of this project. Permanent stream and wetland impacts include installation of new bridge support piers across the Mississippi River and fill for the railroad embankment expansion and installation. Cofferdams will be installed to surround each pier location within the Mississippi River and Cattail Slough. Once sealed, water will be pumped out of the cofferdam and if necessary, tested and treated prior to discharge. When the pier is constructed, the cofferdam will

be removed, and the pier cap will be constructed on the top of the pier wall. In wetlands and land within the floodway, pier construction will consist of pouring concrete pilings into steel casings which will have been driven through overburden to or near the bedrock. Spoils from advancing the casings may be excavated and hauled to an approved waste site. Once the shafts are in place, they will be filled with rebar and concrete. The rest of the pier structure will be formed and poured above the river level. Removal of the existing swing bridge will remove 0.341 acres of permanent fill within the Mississippi River and Cattail Slough. Other abandoned structures and the existing railroad embankment on Little Rock Island and the Upper Mississippi River National Wildlife and Fish Refuge will be removed and areas regraded to match the adjacent grade. Temporary impacts will include vegetation clearing, placing temporary fill on islands in the Mississippi River, construction of a marine trestle and rock causeway for construction access and barge staging in the river for workspace. Dredging is required for barge access in shallower areas and expected to yield approximately 30,000 CY of dredge material.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in total suspended solids would be local and temporary and although existing riverbed habitat would be disturbed by construction activities, once structures are removed, wetland and river areas will revegetate and recover naturally. Dredging will be done by mechanical dredging methods and erosion control measures will be installed to minimize any temporary increase in suspended solids and prevent further stream impacts. Dredged materials will be stockpiled in upland areas in Illinois for future project use if it is determined to be clean, otherwise, it may be disposed of at an appropriate landfill. Historically, dredged material from the navigation channel of the river has been determined to be clean sand and because of this, it is expected that most dredged material from this project will also be clean and suitable for use or discharge to an upland site with no risk of environmental contamination. No wetland mitigation banks or in-lieu fee programs with available credits and service areas are available in Whiteside County and no watershed mitigation programs were identified that were suitable for permittee-responsible mitigation. For these reasons the applicant proposes onsite mitigation on an adjacent parcel that has portions of jurisdictional waters. The parcel was purchased by Union Pacific for use as temporary soil storage. The mitigation ratio is proposed at a 2:1 ratio for permanent impacts to 0.435 acres of PFO wetland and 1.5:1 ratio for permanent impacts to 2.470 acres of PEM wetland for a total of 4.575 acres of onsite wetlands created. Following construction, all temporary impacts will be removed from waterbodies within the project area and allowed to restore to pre-construction conditions. The existing piers for the existing bridge will be removed and the streams and wetlands will be restored.

Purpose and Social & Economic Benefits of the Proposed Activity.

This project will provide improved navigation in the Mississippi River in areas near the bridge and allow for more efficient railway operation and improved traffic flow. The existing swing bridge opens multiple times a day for periods of 22.2 minutes on average. This results in an average of 5 hours that the bridge is open, at times causing delays of up to 30 minutes per bridge opening. When trains are delayed, traffic on nearby Illinois Route 84 must stop for longer time spans at the crossing. Replacing the swing bridge with a fixed high-span bridge will allow river

traffic to proceed uninterrupted and train delays will be reduced or eliminated. Vehicle traffic will also have shorter wait times at the crossing due to rail traffic now crossing the Mississippi River uninterrupted. While river traffic waits for the bridge to open, they wait nearby as their propellers churn sediments up from the riverbed. River traffic improvement may also benefit water quality to an extent by removing the need for barges and river boats to sit nearby and idle.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

The Applicant has provided the alternatives and chosen the Preferred Alternative based on navigational safety, environmental impacts, stakeholder impacts, capital costs, rail operations, acquisition of properties and future maintenance. Alternative considered were developed based on alignments and span. These options include a No Build Alternative that was not chosen due to it not serving the purpose and need of the project. The additional six alternatives evaluated and detailed in the 401 Water Quality Certification Application dated January 17, 2019, Attachment F are Alignment One (Low, Mid and High) options and Alignment Two (Mid and High) options.

Preferred Alternative-Alignment One High

The Preferred Alternative chosen is the Alignment One High option. This option crosses the river at a low steel elevation high enough to allow the use of a fixed span for the navigation channel crossing at 636.5 feet with a span of 310 feet. The bridge would be on a structure until the Illinois shore. This is the Preferred Alternative based on its operational ability, navigation safety, lower maintenance requirements and capital costs, fewer land acquisitions and lower environmental impacts. By remaining within the same corridor as the current bridge, Alignment One High keeps disruption of resources and communities to a minimum. This option also uses a fixed bridge rather than movable bridge. This allows for better navigation by reducing the need for wait times when the bridge is being moved. This option also allows for better long-term reliability and maintenance costs compared to moveable bridges.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

An EcoCAT endangered species consultation submitted on November 27, 2018 to the Illinois Department of Natural Resources is in “Under Review” status pending a cultural MOA between Iowa and Illinois, and ITA/ITP for listed species. Consultation termination is expected for this project.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this assessment was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all technically and economically reasonable measures to avoid or

minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity would benefit the navigational channel of the Mississippi River by removing the existing swing bridge (deemed an unreasonable obstruction by the U.S. Coast Guard) and replacing it with a bridge that allows for freight crossing without delays while at the same time, keeping the existing bridge open so as not to disrupt current freight and commerce movement. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.