

**Illinois Environmental Protection Agency
Bureau of Water, Permit Section
(IEPA)**

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

Public Notice Beginning Date:

Wednesday, March 16, 2022

Public Notice Ending Date:

Wednesday, March 30, 2022

Agency Log No.:C-0267-21

Federal Permit Information: Federal permit/license no. CEMVR-RD-2021-1590 is under the jurisdiction of Rock Island District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: Iowa Department of Transportation, Marc Solberg - 800 Lincoln Way, Ames, IL 61021

Discharge Location: In Section 32 of Township 18-North and Range 1-West of the West 4th Principal Meridian in Rock Island County. Additional project location information includes the following: Interstate 74 crossing Mississippi River, Moline, IL 61265

Name of Receiving Water: Mississippi River

Project Description: demolition of the existing eastbound and westbound I-74 bridges that span the Mississippi River between Moline IL and Bettendorf IA

Construction Schedule: Beginning May 2022 and ending Nov 2023

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as "any other appropriate requirement of State [or tribal] law". Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period.

The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

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 see the contact information below.

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Post Document. No. C-0267-21-03162022-PublicNoticeAndFactSheet.pdf

The Illinois Department of Transportation (IDOT) has applied for a 401 Water Quality Certification for impacts associated with demolition of the existing eastbound and westbound I-74 bridges that cross the Mississippi River from Moline, Illinois to Bettendorf, Iowa. The project will consist of removing all elements of the existing suspension bridges, approach spans, substructures and all but one set of bridge piers.

The demolition of the old bridges will occur as two separate projects, IM-074-1(210)5--13-82 and IM-074-1(214)5--13-82. Project (210) will consist of the removal of the existing bridges between the Bettendorf anchorage structures located on the Iowa shoreline and the Moline anchorage structure located in the middle of the river. Under Project (210), removal will include the bridge superstructures (north of the Moline anchorage), the Bettendorf anchorages, the Moline anchorage, and Piers A, B, C, and D. Project (214) will provide for the removal of the bridges from Piers E, which are located just south of the Moline anchorage structure, to Piers L, which are located along the Illinois shoreline. Under Project (214), removal will include the remaining bridge superstructures (south of the Moline anchorage) and Piers E, F, G, H, J, and L. Piers A, B, C, D and the Moline anchorages will be removed down to bedrock. Piers E, F, G, H, J, and L will be removed to at least one foot below the existing mud line. The Pier K structures will remain in place in order to avoid disturbance to sensitive mussel habitat. Following demolition of the bridges, the Pier K structures will be equipped with navigational lighting.

Because of the levee on the Iowa side, the navigation channel and Sylvan Slough exist within the project corridor, the removal process for each of the two projects (210 and 214) will be restricted in certain areas in order to avoid and minimize environmental impacts along the corridor.

Project (210) will have the following allowances and/or requirements:

- The contractor will be allowed to utilize explosives to demolish bridge sections.
- The contractor will be allowed to drop bridge spans into the Mississippi River.
- After detonation and dropping of a span into the river, the contractor will be required to promptly clear the channel and conduct a sweep for smaller debris within 24 hours.
- After non-navigational spans are detonated and dropped into the river the contractor will be required to clear the channel and conduct a sweep for smaller debris within 24 hours.
- Any objects placed or accidentally dropped in the river which may cause a navigational obstruction will be required to be marked with lighted buoys or orange flags until they are removed.
- The contractor will use conventional removal techniques on Piers A, B, C, D, and the Moline anchorage structure to remove the top portions of the structures and then will use drilled explosives to blast the bases of the structures down to specified elevations. Conventional removal methods will be required on the Bettendorf anchorage structures due to the proximity to the existing levee.

Project (214) will have the following allowances and/or requirements:

- Explosive use will be prohibited, however expansive demolition agents will be allowed and required for this project.
- The six bridge spans between Piers E and L will not be allowed to be dropped into the river.
- Piers E, F, G, J, and L will be removed down to the normal pool level using conventional techniques and will require removal using expansive demolition agents to remove the piers

down to specified elevations. Pier H is located on land and will be removed entirely by conventional removal techniques.

The navigation channel of the Mississippi River will be maintained and remain open to river traffic during most demolition activity. Temporary access in the river may include a combination of barges, temporary slips, temporary supports, and temporary cofferdams. The use of elevated earthen/sand/rock work platforms will not be used for removal of the bridges. Dredging may be necessary to facilitate barge access but will be limited to the minimum amount required for access. Dredged material will be disposed of by the contractor at an offsite location where no material will be placed into waters of the U.S unless properly permitted.

The proposed project will result in 0.92 acres temporary wetland impacts, and 7.17 acres (180 linear feet) of the Mississippi River. Wetland impacts are made up of 0.89 acres of emergent wetland and 0.03 acres of forested wetland. No mitigation is being proposed for this project.

Information used in this review was obtained from the application documents dated September 7, 2021, November 23, 2021, November 29, 2021, and December 10, 2021.

Identification and Characterization of the Affected Water Body.

The Mississippi River has 14,030 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 2018 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 (PCBs), and Primary Contact Use with a potential cause given as fecal coliform. Aquatic life, Aesthetic Quality, and Public and Food Processing Water Supply uses are fully supported. This segment of the Mississippi River is not subject to enhanced dissolved oxygen standards.

The Iowa DOT investigated one wetland site within the project area on August 25, 2015 and September 14, 2021. The site is an island that is situated underneath the existing I-74 bridges between Pier H and Pier J. The entire island was determined to be a wetland. Wetland sample point SP 1 was determined to have dominant vegetation that included silver maple (*Acer saccharinum*), green ash (*Fraxinus Pennsylvania*), slippery elm (*Ulmus rubra*), purple loosestrife (*Lythrum salicaria*), and bur cucumber (*Sicyos angulatus*). The area underneath the existing bridges was determined to be emergent wetland. The wetland transitions to forested wetland beyond the project limits. Within the project area underneath the bridges, the site has an FQI of 5.4 and a mean C of 2.2. Methodology presented in *Plants of Chicago Region* (Swink and Wilhelm, 1994) proposes that an area with a native mean C greater than 3.5 or a native FQI greater than 35 suggests a sufficient floristic quality to be of at least marginal natural area quality. Results of the wetland delineation indicate that the wetland is degraded.

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

The proposed project will generate pollutant loads during demolition of the existing bridges. Approximately 180 linear feet of the Mississippi River, measuring parallel to the banks, will be impacted during demolition of the existing bridges and an additional 100 linear feet may be impacted by dredging for contractor access. Demolition related impacts within the river will amount to approximately 7.17 acres (Illinois bank to Iowa bank). An additional 5.00 acres may be impacted by dredging.

During demolition, increases in suspended solids will occur as the result of barge access to the project area, demolition material disturbing the river bottom, and during subsequent removal of the demolition material from the river bottom. As previously noted, Project (214) plans will include provisions to minimize impact to the river. Any increase in suspended solids that occurs will be confined to the area near the existing bridges. Aquatic life uses in the portion of the river that will be disturbed during construction may be negatively impacted, but in time, they should recover and support approximately the same community structure as is now found in the existing channel.

Fate and Effect of Parameters Proposed for Increased Loading.

Appropriate erosion control methods will be implemented to minimize erosion and sedimentation. BMPs may include a combination of silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, revetment on exposed banks, erosion mats, and mulching. To minimize the surface water impacts during construction Special Provisions for Environmental Protection and for Mussel Conservation will be incorporated into project plans and implemented during construction. The Special Provisions very clearly describe the work zone requirements and/or limitations that the contractor(s) must follow during demolition of the existing bridges.

Due to the establishment of a “Mussel Conservation Area” underneath the bridges between the existing lateral dam and the Illinois shoreline (not including the island), the contractor will be required to capture all bridge demolition material within this area. The contractor will also be prohibited from accessing Sylvan Slough downstream from the existing bridges.

Additional BMPs will include the use of the appropriate combination of barges, temporary slips, temporary supports, and temporary cofferdams within the waterway for bridge construction facilitation. Elevated platforms consisting of earth, sand or rock will not be permitted for use during construction. The river will be cleared of all temporary equipment/materials once the project is completed. There will be designated staging areas located away from drainage and surface waters for washing, repair and maintenance of equipment. BMPs will also be employed in order to effectively drain and treat stormwater runoff during construction.

Any dredging necessary will be limited to the minimum quantity required for barge access. Dredged material will be disposed of by the contractor at an approved off-site location and no dredged material will be placed back in the river.

A mussel relocation project was completed in October 2021 to collect and relocate 90% of all mussels ≥ 1 inch in length from discrete locations within the project area. Collected mussels were relocated to areas of equal or better habitat, with a small percentage having been relocated to the base of Pier K. This area will have a 5-meter buffer marked around it and access during demolition will be prohibited. Pier K will not be removed during bridge demolition activities. Based on the scope of the project and the conservation measures that the Iowa DOT will implement, the anticipated take levels are not likely to result in jeopardization of federally protected mussel species, nor will the anticipated take levels reduce the likelihood of survival or recovery of the Illinois-threatened or endangered species. Compliance with the USFWS Biological Opinion and the IDNR Incidental take Authorization shall minimize and mitigate the anticipated taking of federally and state listed mussels.

A total of 0.92 acres of temporary wetland impacts are expected. The wetlands impacted consist of 0.89 acres of emergent wetland and 0.03 acres of forested wetland. Because the impacts to these wetlands are expected to be temporary impacts, there is no mitigation proposed.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed project is to demolish the two existing I-74 bridges. The new dual I-74 bridges are nearing completion, and once they are open to traffic, the existing bridges will be taken out of service. The existing bridges are functionally obsolete and structurally deficient for vehicular traffic and retaining one or both of the bridges for non-roadway reuse is not feasible. Therefore, demolition of the existing bridges is necessary.

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

The Applicant considered the following alternatives:

Alternative 1 - Retain and reuse existing bridge(s).

This alternative would provide for retaining one or both existing bridges and using them for vehicle or bicycle/pedestrian traffic. As previously noted, the existing bridges are functionally obsolete and structurally deficient, and do not contribute to the safety, capacity, operational, and travel reliability concerns in the corridor. This alternative would require a local jurisdiction to assume future ownership and financial responsibility of the structure(s). Depending on whether one or both structures are retained, this alternative would result in fewer or no impacts to wetlands and the Mississippi River and would have fewer or no impacts to the sensitive mussel habitat between the existing lateral dam and the Illinois shoreline. This alternative would have fewer or no impact to the navigation channel. Alternative 1 was not selected as the Preferred Alternative as it is not feasible due to the age of the bridges, their functional and structural deficiencies and their high life-cycle/maintenance costs. In addition, a local jurisdiction has not been willing to assume long-term ownership and financial responsibility for the structure(s). Retaining the existing bridges with the new I-74 bridges in place would also create backwater conditions (upstream of the I-74 bridges) that would exceed state and FEMA no-rise criteria.

Alternative 2 - Demolish existing bridges; use conventional demolition techniques.

This alternative would provide for the demolition of both bridges using conventional demolition techniques. The bridges would be demolished using a combination of explosives and barge-mounted heavy machinery. The contractor would also be allowed to drop the bridge superstructures and portions of the piers into the river and remove them in a timely manner. This alternative would result in temporary impacts to approximately 0.92 acre of wetlands and 10.08 acres of the Mississippi River and would likely have significant impacts to sensitive mussel habitat located between the lateral dam and the Illinois shoreline. This alternative would also have a minimal impact to the navigation channel (i.e. closures of the navigation channel would be short duration). Alternative 2 was not selected as the Preferred Alternative as it is not feasible due to its resulting in significant impacts to sensitive mussel habitat located between the lateral dam and the Illinois shoreline.

Alternative 3 – Demolish existing bridges; capture all demolition material.

This alternative would provide for demolition of both existing bridges; however, the contractor would be required to employ a catch system to ensure that a minimal amount of demolition material would enter the river. It is anticipated that the contractor would use barges underneath the existing bridges to capture demolition material, and these barges would likely be anchored underneath the bridges for extended periods of time. This alternative would result in small temporary impacts to wetlands and the river during removal of the piers and would have minimal impact to sensitive mussel habitat located between the lateral dam and the Illinois shoreline. Alternative 3 could potentially have significant impacts to the navigation channel (i.e., lengthy closures of the navigation channel) and would also significantly lengthen the time it would take to demolish the bridges likely making it a significantly more expensive alternative (based on staging and length of contract). Alternative 3 was not chosen as the Preferred Alternative as it is not feasible due to the resulting greater impacts to navigation along the river. Disruption to navigation channel would be expected to be significantly greater with Alternative 3 compared to Alternative 2. In

addition, this alternative is less preferable due to the length of project and the higher costs associated with this alternative.

Preferred Alternative.

The preferred alternative was determined to be a combination of both Alternative 2 and Alternative 3. Conventional demolition techniques will be used in the area between the Iowa shoreline and Pier E. Utilization of explosives will be allowed for demolition of sections of the bridge and spans of the bridge will be dropped into the Mississippi River. A combination of barge-mounted machinery and explosives will be utilized for removal of the piers. Impacts to the river and sensitive mussel habitat between Pier E and the Illinois shoreline will be minimized with provisions included in the demolition plans. Containment systems like catch barges will be required for use by the contractor to prevent demolition material from falling into the river. Additionally, the contractor will be required to employ the use of expansive demolition agents rather than explosives and will be allowed to use a combination of both barge-mounted machinery and expansive demolition agents to remove the piers. The Pier K structures will not be removed in order to avoid disturbance to sensitive mussel habitat. This alternative will result in minimal impacts to the Mississippi River and in particular, the sensitive mussel habitat. Navigation channel impacts will be minimal, resulting in only minor disruptions to navigation along the waterway.

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

A formal Section 7 consultation was initiated on May 5, 2016 with the submittal of a Biological Assessment and it was determined that there are several federally endangered and state threatened, or endangered species present in or near the project site. The consult reviewed federal, Iowa State and Illinois State endangered and threatened species. The following species were identified:

- Higgins eye pearl mussel (*Lampsilis higginsii*) – Federally Endangered; Iowa Endangered Illinois Endangered
- Sheepnose (*Plethobasus cyphus*) - Federally Endangered; Iowa Endangered; Illinois Endangered
- Spectaclecase (*Cumberlandia monodonta*) – Federally Endangered; Iowa Endangered; Illinois Endangered
- Pistolgrip (*Tritogonia verrucosa*) – Iowa Endangered
- Creeper (*Stropitus undulates*) – Iowa Threatened
- Butterfly (*Ellipsaria lineolate*) – Iowa Threatened; Illinois Threatened

On July 18, 2016 the USFWS issued a Biological Opinion (BO), including an incidental take statement for the project. The BO required the following implemented measures:

- Mussel removal from the construction areas to approved relocation areas
- Retention of Pier K to preserve endangered mussel habitat
- Development and implementation of an appropriate erosion and sediment control plan
- Development and implementation of a spill control/remediation plan

In cooperation with USFWS, the Iowa Department of Natural Resources, and the Illinois Department of Natural Resources (Illinois DNR), the Iowa DOT has implemented mitigation measures that include, performance of a comprehensive mussel study of Pool 15, performance of a mussel density study, conducting a mussel education and outreach program, and will stock host fish used by mussel larvae in the Mississippi River post-construction. A long-term monitoring plan has also been implemented.

Three amendments have been issued by the USFWS to the July 18, 2016 BO. Amendment #1, issued April 18, 2017, included additional incidental take of the spectaclecase mussel that were discovered in an area that they were not thought to occur and were not considered in the original BO. Amendment #2 was

issued April 8, 2020 to include expansion of the project area and additional take of the higgins eye mussel that would result from the construction of a roll-off pier on the bank of the Mississippi River upstream of the I-74 Bridge. Amendment #3 was issued on September 7, 2021 to include updated information on demolition of the existing bridges, additional conservation measures, and updated incidental take totals for the three Federally-listed mussel species. The project will not result in the destruction or adverse impacts to federally designated critical habitat but will have an impact on federally designated essential habitat.

Re-initiation of formal consultation will be required if the amount or extent of incidental take is exceeded or if an additional listed species is identified during project activities.

Illinois DNR also issued an Incidental Take authorization for the proposed project, effective July 15, 2016. Additional coordination with the Illinois DNR will be required to determine if the original authorization remains valid for the bridge demolition. Preliminary results of the relocation efforts underneath the existing I-74 bridges revealed that no additional state- or federally-listed species were identified.

The Iowa DOT has determined, under the delegated authority provided by the Federal Highway Administration, that the project will adversely affect a federally or state listed species. The project will not result in the destruction or adverse modification of federally designated critical habitat but will have an impact on federally designated essential habitat.

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 area by removal of a structurally deficient crossing that is functionally obsolete. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.