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

2520 West Iles, 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:	**Public Notice Ending Date:**
Monday, December 29, 2025	Monday, January 19, 2026

Agency Log No.: C-0355-25

Federal Permit Information: Federal permit/license no. LRL-2020-0054 is under the jurisdiction of Louisville District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: Kentucky Transportation Cabinet (KYTC) / Illinois Department of Transportation (IDOT), District 9, Carrie Nelsen, P.E. - 2801 Murphysboro Rd, Carbondale, IL 62901

Discharge Location: In Section 31 of Township 17-South and Range 1-East of the West 3rd Principal Meridian in Alexander County. Additional project location information includes the following: US 51 over Ohio River Bridge, Cairo, IL and Wickliffe, KY, IL 62914

Name of Receiving Water: Ohio River

Project Name/Description: US 51 Ohio river Bridge Replacement (Cairo, IL to Witliffe, KY) - proposed replacement of the US 51 bridge over the Ohio River between Wickliffe, Ballard County, Kentucky and Cairo, Alexander County, Illinois

Construction Schedule: Beginning Dec 2025 and ending Dec 2032

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-0355-25-12292025-PublicNoticeAndFactSheet.pdf

401 Water Quality Certification Fact Sheet for US 51 Bridge over Ohio River

IEPA Log No. C-0355-25

Contact: Angie Sutton 217-782-9864

The Illinois Department of Transportation (IDOT) has applied for a 401 Water Quality Certification for impacts associated with the replacement of the US 51 Bridge over the Ohio River at the Illinois/Kentucky border. The proposed project will be constructed in Township 17 South, Range 1 East, Section 31, Alexander County, at Cairo, Illinois. The project begins at the Minor Slough bridge in Kentucky, ending at the US 51/US 60/US 62 intersection in Illinois and is approximately 1.94 miles long. The new bridge will include steel plate girder approach spans to the simple span network tied arch and will be approximately 980 feet upstream of the existing bridge. It will have twenty-one piers total, and six of the piers will be within the Ohio River. The project will include two 12-foot lanes with 8-foot outside shoulders, with a roundabout at the intersection with US 60 and US 51 alignments. An access road will be installed to allow the Kentucky Transportation Cabinet (KYTC) access to the new bridge as well as the existing bridge. Temporary impacts will include cofferdams and a trestle in order to construct the piers. The existing bridges are being replaced due to the need for improvements to bridge structure and safety.

The Ohio River will have temporary and permanent impacts on both sides (KY and IL) due to the construction of bridge piers and use of cofferdams and trestles to construct the piers. Wetland 1 is in Illinois and will have temporary and permanent impacts from the ramp and trestle, and dredging to allow for construction of the roadway, construction of the piers and tree removal. There will also be a total of 0.002 acre (Ac) of permanent impact to UT 1 of Ohio River and 0.0002 (Ac) to UT 4 of Ohio river. The Illinois wetland impacts will be mitigated at a 5.5:1 ratio for a required total of 14.905 Ac. Wetland mitigation is proposed occur within the Big Muddy Drainage Basin. The applicant has credits available from the E.T. Simonds Wetland Mitigation Bank and the Sugar Camp Creek Wetland Mitigation Bank. The final location of which mitigation banks will be used will be determined during the permitting process.

The applicant currently has one NWP 33 and two NWP 6 authorizations for the survey activities, temporary construction access, and dewatering while the bridge construction is being reviewed under the USACE individual 404 permit. The U.S. Coast Guard (USCG) also regulates this activity under its own authority; therefore, a state water quality certification under CWA § 401 may be required for the USCG permit process. Until recent changes to the 401 certification rules pursuant to 40 CFR 121, USCG would satisfy its permitting criteria by using an existing water quality certification issued for a USACE permit, provided the project's permitted activities are identical. Given these procedural changes, it is necessary for the proponent to seek a separate CWA § 401 water quality certification for the pending USCG permit even though this Agency has already evaluated and made a final determination that the activity would meet all applicable water quality requirements.

Information used in this review was obtained from the application documents dated April 3, 2025, June 12, 2025, June 27, 2025, September 15, 2025, and October 28, 2025.

Identification and Characterization of the Affected Water Body.

The Ohio River has 54,120 cfs of flow during critical 7Q10 low-flow conditions. The Ohio River is classified as General Use Water. The Ohio 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 Ohio River, Waterbody Segment IL_A-920-981, is listed on the 2024 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for fish consumption use with potential causes given as Dioxin (including 2, 3, 7, 8-TCDD) mercury, and polychlorinated biphenyls, and primary contact use with a potential cause given as fecal coliform. Aquatic life and public and food processing water supply uses are fully supported. This segment of the Ohio River is subject to enhanced dissolved oxygen standards.

The Ohio River is a perennial waterway that is 40 feet deep and 2555 feet wide. Within the Ohio River, permanent impacts are expected in 100 LF (1.377 Ac). The total permanent impacts on the Illinois side are expected to be 0.230 Ac and on the Kentucky side permanent impacts are expected to total 1.147 Ac. On the Illinois side, impacts will occur as a result of pier 3 placement. There are no streams in Illinois being impacted that require mitigation besides the Ohio River. Impacts to the Ohio River in Illinois are in the same segment of the Ohio River as Kentucky. Therefore, the KYTC proposes to purchase In Lieu Fee Adjusted Mitigation Units through that program administered by the Kentucky Department of Fish and Wildlife Resources. Temporary impacts to the Illinois side of the Ohio River include 0.008 Ac for cofferdams, and 0.207 Ac for the trestle.

Two non-jurisdictional waterways (Ephemeral Streams UT 1 and UT 4) are expected to have impacts in 52 LF and 5 LF, respectively.

The unnamed tributaries to the Ohio River (UT 1 and UT 4) have 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributaries to the Ohio River are classified as General Use Water. The unnamed tributaries to the Ohio River are not listed as a biologically significant streams in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are they given an integrity rating in that document. The unnamed tributaries to the Ohio River, tributaries to Waterbody Segment IL_A-920-981, are not listed on the 2024 Illinois Integrated Water Quality Report and Section 303(d) List as they have not been assessed. These segments of the Ohio River are not subject to enhanced dissolved oxygen standards.

A wetland survey was conducted October 15, 2024, for the project area and determined the presence of wetlands in the project area. One of the impacted wetland sites (Wetland 1) is in Illinois while the remaining 3 are in Kentucky. Wetland 1 is a forested wetland with NWI code PFO1A (Palustrine Forested, Broad-leaved Deciduous vegetation, Temporarily Flooded). It is located between US 51 and the Ohio river approximately 1700 feet to the north. Wetland 1 has a Mean C of 2.3 and an FQI of 9.4 with dominant species consisting of Silver Maple *(Acer saccharinum)*,

Buttonbush *(Cephalanthus occidentalis)*, Black Maple *(Salix nigra)*, Small Duckweed *(Lemna minor)*, and Small Morning Glory (*Ipomoea lacunosa)* The total size of the wetland within the project area is 45.7 Ac of which 2.7 Ac is expected to be impacted permanently as a result of dredging to build the roadway, piers, and tree removal. Temporary impacts will occur in 0.14 Ac as a result of ramp and trestle construction.

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

The pollutant load increases that would occur from this project include some possible increases in suspended solids. These increases may occur as a result of installation of the proposed piers in both Wetland 1 and the Ohio River, dredging in Wetland 1, and tree removal within the right of way limits. Dredging will only be required in a few small areas of Wetland 1 with no fill anticipated. Temporary impacts will include cofferdams that will impact the Ohio River and a trestle that will impact both the Ohio River and Wetland 1. Total permanent fill in the Ohio River is estimated to be approximately 595,742 cubic yards (CY) with 1550 CY of the fill placed on the Illinois side for the construction of Pier 3 in 0.23 Ac of the waterway. Cofferdams and a trestle will cause temporary impacts to the Ohio River. Total permanent fill to Wetland 1 is estimated to be approximately 3125 CY (all in IL) in 2.71 Ac of the wetland. 1700 CY will be for Pier 1 construction and 1425 CY for Pier 2 construction. A ramp and trestle will cause temporary impacts to Wetland 1. Total fill in Illinois will total 4675 CY comprised of the structures, as well as concrete and steel.

Fate and Effect of Parameters Proposed for Increased Loading.

To minimize the surface water impacts during construction appropriate erosion and sediment control Best Management Practices (BMPs) will be implemented. Short-term construction-related water quality impacts will be avoided or minimized with proper implementation of the BMPs and compliance with the NPDES construction permit. A uniform perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area must be established on all unpaved areas and areas not covered by permanent structure per the NPDES permit.

Winter Operations BMPs include the following:

- Annual snowplow operator training to improve deicing application efficiency and to reduce de-icing chemical loss.
- Utilization of calibrated spreaders equipped with ground sensors that can accurately control the spreading rate.
- Utilization of the practice of prewetting solid deicing chemicals and mixtures for better adhesion to the pavement surface and for ice and snow melting
- Adjusting application rates of deicing chemicals according to pavement temperature and weather conditions.

This project would have temporary impacts to water quality during the construction phase. Minimization of impacts is generally achieved through structural BMPs (silt fence, silt checks,

detention basins, etc.) or non-structural BMPs such as mulching, seeding, grading, etc. With the employment of these BMPs the project would be expected to have minimal impact to water quality. Efforts will be made to prevent runoff into the tributaries and to preserve the flow of the tributaries downstream.

Impacts to Wetland 1 were minimized by placing the bridge abutment outside of the wetland area. Impacts to wetlands and streams were also minimized by limiting tree clearing to those areas that are needed to complete construction. “Do Not Disturb” limits have been placed on the plan sets in areas that are within the right-of-way that will not be disturbed.

The Ohio River is the only stream requiring mitigation in Illinois. Impacts to the Ohio River are in the same stream segment in both Illinois and Kentucky; however, the Kentucky Department of Fish and Wildlife’s In-lieu Fee Program will be used to compensate for stream loss. Most of the fill placement will occur on the Ohio side.

Mitigation for wetland impacts in Illinois will be completed at a 5.5:1 ratio. Mitigation credits required will total 14.905 Ac. IDOT proposes to use the credits from the Big Muddy Drainage Basin in the USACE St. Louis District and has 15 credits from the E.T. Simonds Wetland Mitigation Bank and 9.6 credits from IDOTs Sugar Camp Creek Wetland Bank. Final determination is expected to occur during the permitting process.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the US 51 Bridge Project is to improve travel across the Ohio River between Wickliffe, KY and Cairo, IL. This can be done by addressing the safety and reliability issues caused by the narrow lanes, lack of shoulders and tight curves of the existing bridge and its approaches. The project is needed in order to provide an improved bridge structure that meets current design standards and can serve modern vehicle and traffic needs as well.

Design Concerns include the following:

- The bridge is considered to be in “fair” condition.
- The design load of the current bridge does not meet today’s design standards.
- Rehabilitation is needed for the next 25 years as well as addressing scour, seismic loading, and barge impacts.
- Maintaining river crossing connectivity is needed for commuters, commercial traffic, farming operations, tourism purposes, and emergency vehicles to name a few.
- The ability to transport oversized loads is needed.
- The closest alternate crossings are not viable options for local traffic.

Safety Concerns include the following:

- Narrow lanes are contributing to sideswipe accidents.

- The lane and approach widths do not meet current standards for road widths and clearances defined for bridges.
- One of the vertical curves does not meet criteria for headlight sight distance limiting how far ahead drivers can see at night.

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

The following alternatives were considered for the proposed project:

No Build Alternative – The No-Build Alternative would maintain the existing roadway approaches and US 51 Bridge structure as is. Widening of the US 51 Bridge would not occur, needed shoulders would not be provided, nor would the tight curve on the KY approach be addressed. This does not improve cross river mobility or address the safety and reliability issues in the corridor as the. Although a no build alternative would eliminate cost and any environmental impacts, it would not meet the project's purpose and need. For these reasons, this alternative was eliminated from further consideration.

Alternative 1 – This alternative is located 1800 feet upstream of the existing US 51 Bridge. This is the furthest distance compared to the other 2 alternatives. The bridge length is 2.03 miles aligned between the protected Ramsey Parcel and the exiting bridge then curving to cross the railroad 100 feet west of a railroad bridge. The roadway then crosses the Ohio River perpendicularly. The profile is proposed to provide 23 feet of clearance above the railroad and 60 feet above the Ohio River within the 925-foot main span. This would impact the least amount of stream length and the most forest impacts. It would also require less right of way; however, this alternative would require the most temporary easements. This alternative was considered to impact barge fleeting the most of the 3 alternatives and more fee simple right-of-way. For these reasons, Alternative 1 was eliminated from further consideration.

Alternative 2 (Preferred Alternative) – This alternative is located 980 feet upstream of the existing US 51 Bridge. The bridge length is 1.88 miles with alignment and design as discussed in the proposed project description. This alternative would impact the second-most amount of stream length, forest acreage, and wetland acreage. It would also require the second-most amount of right-of-way acreage and temporary easements. Of the build alternatives considered, it is the least expensive alternative. It was preferred as a result of navigation simulations at the Seamen's Church Institute and was also the preferred option of representatives at the most recent (October 15, 2020) Citizen's Advisory Group meeting. The Preferred Alternative also creates minimal issues related to maintenance of traffic on the existing bridge during construction because it is constructed further away from the existing US 51 Bridge. It also provides a temporary bridge during an anticipated 7-day closure during construction. The roundabout configuration provides the least delay and allows for a focal point as traffic enters and exits Cairo. This was chosen as the Preferred Alternative.

Alternative 3 – This alternative is located 85 feet upstream of the existing US 51 Bridge. This is the closest distance compared with the other 2 alternatives. The bridge length is 1.88 miles and has a similar approach and elevation with the Alternatives 1 and 3. The profile is proposed to provide 23 feet of clearance above the railroad and 60 feet above the Ohio River within the 925-foot main span. This would impact the most stream length and wetland acreage. It would also require the most right-of-way and the least temporary easements. Because a 55-mph curve must be provided, the alignment must swing wider and further away from the existing roadway. The new road is required to be 100 feet from the railroad bridge, and as such Alternative 3 would cross the existing US 51 Bridge, then the Ohio River perpendicularly. Because Alternative 3 would cross the existing US 51 Bridge, a temporary bridge would be constructed to minimize bridge closings. At least a week closure of the US 51 crossing would be required to tie in a temporary bridge which would require an eighty mile or longer detour during construction. In addition, Alternative 3 would require more fee simple right-of-way, and did not perform well in navigation simulations. For these reasons, Alternative 3 was eliminated from further consideration.

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

An EcoCAT endangered species consultation (Project Number 2513737) was submitted to the Illinois Department of Natural Resources. The natural resource review provided by EcoCAT identified protected resources that may be in the vicinity of the proposed action. The Department has evaluated this information and concluded that adverse effects are unlikely. Therefore, consultation under 17 Ill. Adm. Code Part 1075 is terminated. A consultation termination was provided on June 12, 2025.

INHS was consulted on the presence/habitat suitability of the Pallid Sturgeon within the proposed project limits. Based on their review, there has been no evidence of Pallid Sturgeon in the Ohio River, likely due to locks and dams that reduce availability of free-flowing water. Therefore, INHS determined no effect to the species within the proposed project limits. Consultation under Part 1075 is terminated.

A Biological Assessment (BA) was completed and sent to the US Fish and Wildlife Service (USFWS) on April 29, 2025. The BA summarized all affected T&E species and addressed the recommended conservation measures. The USFWS approved the BA and sent a concurrence letter dated June 27, 2025 and is included as part of the application documents. It concurs that the project "may affect, is likely to adversely affect" the Indiana bat (*Myotis sodalis*) and the project "may affect, is not likely to adversely affect" the pallid sturgeon (*Scaphirhynchus albus*), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), fat pocketbook (*Potamilus capax*), longsolid (*Fusconaia subrotunda),* orangefoot pimpleback (*Plethobasus cooperiansus*), pink mucket (*Lampsilis abrupta*), rabbitsfoot (*Quadrula cylindrica cylindrica*), ring pink (*Obovaria retusa*), rough pigtoe (*Epioblasma obliquata*), and gray bat (*Myotis grisescens*).

Concerning the potentially affected species, the applicant states the following: “A portal survey did not find any caves or rock shelters that would provide the needed habitat for the listed bats; however riparian habitat will be affected. Therefore, a "may affect, not likely to adversely affect" determination was made for the gray bat. Due to clearing of forested areas, a "may affect, likely to adversely affect" determination was made for the Indiana bat. Tree clearing in Kentucky will follow the guidance of the *Biological Opinion on the Effects of Transportation Projects in Kentucky on the Indiana Bat and Gray Bat* developed in by the United Stated Fish and Wildlife Service, Kentucky Field Office (USFWS KFO) and the Federal Highway Administration (FHWA). Habitat is present but no federally listed mussels were found during the presence/absence survey. Therefore, a "may affect, not likely to adversely affect" determination was made for the listed mussels. For the pallid sturgeon, gravel bar habitat is present around the pier location on the Illinois side. Any river bottom-disturbing work within this specific gravel bed area will be conducted outside of the spawning season (March-May).”

IDOT has chosen to address the loss of suitable maternity roosting habitat through habitat replacement and coordination with the Illinois Field Office.

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 providing a new river crossing that will address issues associated with safety and the structure of the existing bridge. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.