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:	**Public Notice Ending Date:**
Friday, December 13, 2024	Thursday, January 2, 2025

Agency Log No.: C-0184-24

Federal Permit Information: Federal permit/license no. LRL-2024-00645 is under the jurisdiction of Louisville District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: Illinois Department of Transportation - District 7, Jeff Myers P.E. - Region 4 Engineer - 400 W Wabash Ave, Effingham, IL 62401

Discharge Location: In Statewide/Regional in Lawrence County. Additional project location information includes the following: On IL 1, overflow bridges located 0.5 miles and 1 mile north of US 50, Lawrenceville, IL 62439

Name of Receiving Water: Embarras River

Project Name/Description: Embarras River Overflow Bridges Replacement - proposed removal, replacement, and raising of the existing bridges

Construction Schedule: Immediate (Planned project duration is approximately 456 days)

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.

Name: Oyetunde Tinuoye Email: Oyetunde.Tinuoye@illinois.gov Phone: 217/782-3362

Post Document. No. C-0184-24-12132024-PublicNoticeAndFactSheet.pdf

The Illinois Department of Transportation (IDOT) has applied for a 401 Water Quality Certification for impacts associated with the removal and replacement of two existing structures (051-0004 and 051-0005) carrying Federal Aid Primary Route (FAP) 332 (IL 1) over an area prone to flooding when the nearby Embarras River north of Lawrenceville, overflows its banks. The proposed project will be constructed in Township 4 North, Range 11 West, Sections 30 and 31, Lawrence County, near Lawrenceville, Illinois. The project is located 0.5 mile (SN 051-0005) & 1.0 mile (SN 051-0004) north of the IL 1/US 50 junction which lies north of Lawrenceville, IL. The existing bridges which carry Illinois Route 1 over the overflow floodway area are being replaced due to their age and poor condition.

Recent inspections of structures 051-0004 and 051-0005 report that the structures are in overall poor condition. Both structures require extensive reconstruction or complete replacement to ensure the long-term safety and serviceability of the stream crossing. Structure 051-0004 is 8 spans and 346.0 feet long, while structure 051-0005 is 19 spans and 819.01 feet long. Both bridges have decks that are 35.7 feet wide, with 30.0-foot clear roadway widths. Both existing decks have potholes and wheel rutting with deterioration involving cracking, leaching, and spalling on the undersides. Neither deck is suitable for repair nor reuse due to the overall poor condition with over 30% of the deck area requiring full-depth replacement. Additionally, the steel beam superstructures have widespread severe rusting with section loss. In addition to completely removing and replacing the overflow structures, the roadway will be raised resulting in a larger footprint needed to construct the new bridges when compared to the footprint of the existing bridges. IDOT policy calls for a 40-foot minimum clear roadway width for new or reconstructed bridge decks with this traffic volume.

The proposed project will result in a total of 3.083 Ac of permanent wetland impacts which will require 11.924 Ac of compensatory mitigation, 8.752 Ac of which will be taken from the Lawrence Wetland Mitigation Bank, and 3.172 Ac of which will be taken from Raccoon Creek Wetland and Stream Mitigation Bank.

Information used in this review was obtained from the application documents dated January 16, 2019, April 10, 2024, April 12, 2024, April 30, 2024, July 15, 2024, August 26, 2024, and August 27, 2024.

Identification and Characterization of the Affected Water Body.

A wetland survey was conducted August 27, 2023, for each of the proposed bridges to determine the presence of wetlands in the project areas. Each structure had two wetland types named Site 1 and Site 2.

SN 051-004

Site 1 was determined to be a wet meadow community located under and on both sides of IL 1. Site 1 has a NWI code of U (upland) with a total area of 0.86 Ac occurring within the project corridor. This site has a mean C of 3.4, and an FQI of 21.1, indicating a relatively high natural quality. Dominant vegetation included southern lake sedge *(Carex hyalinolepis)* and panicled aster *(Symphyotrichum lanceolatum)*.

Site 2 was determined to be a wet floodplain forest located approximately 30 feet east and 20 feet west of IL 1. Site 2 has NWI codes of PFO1A (temporarily flooded, broad-leaved deciduous, forested, palustrine wetland), PFO1C (seasonally flooded, broad-leaved deciduous, forested, palustrine wetland, and U (upland) with a total area of 2.47 Ac occurring within the project corridor. This site has a mean C of 3.6, and an FQI of 28.9, both of which indicate a relatively high natural quality. Dominant vegetation included silver maple *(Acer saccharinum)*, big shellbark *(carya laciniosa)*, buttonbush *(Cephalanthus occidentalis)*, sea oats *(Chasmanthium latifolium)*, swamp white oak *(Quercus bicolor)*, lizard's tail *(Saururus cernuus)*, and panicled aster.

SN 051-0005

Site 1 was determined to be a wet floodplain forest located approximately 19 and 21 feet east and 21 and 22 feet west of IL 1. Site 1 has NWI codes of PFO1A (temporarily flooded, broad-leaved deciduous, forested, palustrine wetland) and U (upland) with a total area of 3.26 Ac occurring within the project corridor. This site has a mean C of 3.6, and an FQI of 26.9, both of which indicate a relatively high natural quality. Dominant vegetation included big shellbark *(carya laciniosa)*, sea oats *(Chasmanthium latifolium)*, burr oak *(Quercus macrocarpa)*, pin oak *(Quercus palustris)*, panicled aster, and poison ivy *(Toxicodendron radicans)*.

Site 2 was determined to be a wet meadow community located under and on both sides of IL 1. Site 2 has NWI codes of PFO1A (temporarily flooded, broad-leaved deciduous, forested, palustrine wetland) and U (upland) with a total area of 1.82 Ac occurring within the project corridor. This site has a mean C of 3.0, and an FQI of 19.9. Dominant vegetation included spiny barnyard grass *(Echinochloa muricata)*, late boneset *(Eupatorium serotinum)*, and marsh elder *(Iva annua)*.

The wetland impacts are shown in the table below:

Structure #	Site #	Community Type	Mean C / FQI	Acreage in Project Area	Wetland Impact (Ac)
051-0004	1	Wet Meadow	3.4 / 21.1	0.86	0.749
	2	Forested	3.6 / 28.9	2.47	0.215
051-0005	1	Forested	3.6/ 26.9	3.26	0.681
	2	Wet Meadow	3.0/19.9	1.82	1.438
			Total:	**8.41**	**3.083**

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 suspended solids. These increases are expected to occur as a result of complete removal and replacement of the existing structure requiring permanent impacts to the wetlands in the project area. There will be minimal increased runoff from the project area and will not have any significant effect on nearby wetlands as the project does not include adding any lanes for capacity.

Fate and Effect of Parameters Proposed for Increased Loading.

To minimize the wetland impacts during construction appropriate erosion and sediment control Best Management Practices (BMPs) will be implemented. An Erosion Control Plan has been developed and will be implemented prior to construction. A Stormwater Pollution Prevention Plan (SWPPP) will be implemented in order to address runoff collection and sedimentation. Staging areas for equipment repair and maintenance will be located away from nearby wetlands. 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.

The applicant proposes the use of a barrier fence to ensure that construction activities are restricted to the proposed impacted wetlands. The proposed project will result in a total of 3.083 Ac of permanent wetland impacts which will require 11.924 Ac of compensatory mitigation, 8.752 Ac of which will be taken from the Lawrence Wetland Mitigation Bank, and 3.172 Ac of which will be taken from Raccoon Creek Wetland and Stream Mitigation Bank.

Structure #	Site #	Community Type	Mean C / FQI	Wetland Impact (Ac)	Mitigation Ratio	Mitigation Required (Ac)
051-0004	1	Wet Meadow	3.4 / 21.1	0.749	5.5:1	4.12
	2	Forested	3.6 / 28.9	0.215	5.5:1	1.182
051-0005	1	Forested	3.6/ 26.9	0.681	5.5:1	3.746

	2	Wet Meadow	3.0/19.9	1.438	2:1	2.876
			Total:	**3.083**		**11.924**

The project is also expected to involve tree removal in 3.5 Ac for SN 051-0004, and 3 Ac for SN 051-0005.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of this project is to remove and replace both existing structures that carry IL 1 over the Embarras River overflow. Recent inspections of structures 051-0004 and 051-0005 report that the structures are in overall poor condition. Both bridges carry daily traffic volumes just over 5000, with 14% trucks. The structures require extensive reconstruction or complete replacement to ensure the long-term safety and serviceability of the stream crossing. The steel beam superstructures of both bridges are in poor to serious condition and have widespread severe rusting with section loss. The worst beams have perforations and section loss over 30% at critical bearing areas on the beam ends. The district fears that any additional steel section loss will likely lead to load postings and possible lane closures. The steel beam condition is poor enough and the beams are old enough that the steel superstructures are unsuitable for repair and reuse. The existing piers and abutments are in fair condition with map cracking, leaching, and spalling. These concrete substructure units are now over 100 years old. Given the age and condition of the piers and the abutments, both bridge substructures are unsuitable for reuse.

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

Below are the three alternatives that were considered:

No-Build Alternative
This option would result in no improvements to the existing IL 1 overflow bridges. The No Build alternative would require continued operational costs associated with maintaining the existing structures in a state of good repair. This alternative would not address the structural deficiencies, nor would it fix the existing narrow bridge width. Because of these issues and the fact that this option does not meet the project's purpose and need, the No Build Alternative was not considered further.

Alternative 1:
Alternative 1 would involve constructing a new alignment for the bridges 200 feet east of the existing IL 1 overflow bridges. IL 1 would follow the new alignment. The existing IL 1 overflow bridges would be left in place to maintain traffic during construction and then removed after the new bridges are complete. This alternative would impact the same floodplain and wetland areas that the current alignment does, however these impacts would be new impacts as opposed to constructing in the previously impacted alignment. A new alignment would also have increased costs due to having to realign IL 1 to utilize the new overflow bridges. While meeting the projects Purpose and Need, this alternative is less cost effective and would have greater impacts to the environment due to new impacts created.

Alternative 2 (Preferred Alternative):
Alternative 2 would involve constructing new bridges along the existing alignment. This option would not impact new areas of floodplains and wetlands, nor would it require construction of a new IL 1 alignment. This would result in significantly less cost and fewer impacts to the environment. Alternative 2 meets the project's Purpose and Need as well as costs less, and results in fewer impacts. Because of this Alternative 2 was chosen as the Preferred Alternative.

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

SN 051-0004
A Natural Resources Review was completed on April 30, 2024. It was determined by the Illinois Natural Heritage Database that there were records of the eastern sand darter and yellow crowned night heron. However, there was no suitable habitat for the eastern sand darter, and no trees with large canopies to support nesting night-herons and therefore no impact to yellow crowned night heron. No other record of other State-listed threatened or endangered species, dedicated Illinois Nature Preserves, Illinois Natural Area Inventory or registered Land and Water Reserves in the vicinity of the project location. Consultation under Part 1075 was terminated.

An IPaC qualification interview was completed on April 24, 2024. It was determined that the project is within the scope of the programmatic biological opinion and the project is not likely to adversely affect either the Northern Long-eared bat (NLEB) or the Indiana Bat (Ibat). Currently, the tricolored bat (TCB) is proposed for listing as federally endangered. The species habitat requirements are similar to NLEB and IBAT. Therefore, it was determined that the above determination applies to Tricolored Bat. However, once the USFWS issues their final ruling on whether or not to list the Tricolored bat as federally endangered, there may be additional consultation needed for those projects that have not been completed by the effective date. Additionally, the preferred habitat of the whooping crane was cross referenced to find that the proposed project will have no effect on that species.

Suitable summer habitat for NLEB and Ibat is present in the forested habitat within the project limits. The project is not likely to adversely affect the NLEB and Ibat provided the following conservation measures are implemented: tree clearing of trees three (3) inches in diameter at breast height will happen outside of the active bat season. No tree clearing beyond 100 feet of the edge of pavement or railroad will occur. Should the project require temporary or permanent lighting, all lighting shall be installed in accordance with Federal Highway Administration Guide for bats which recommends that lighting does not increase illumination above ambient conditions and that incorporates full cut off, downward facing lights directed away from forested areas.

SN 051-0005

A Natural Resources Review was completed on July 15, 2024. It was determined by the Illinois Natural Heritage Database that there were records of the eastern sand darter and Arkansas sedge. However, there was no suitable habitat for the eastern sand darter, and botanical surveys confirmed to protected plant species or high-quality communities are present in the project area Therefore the project will have no adverse impact on eastern sand darter and Arkansas sedge. No other record of other State-listed threatened or endangered species, dedicated Illinois Nature Preserves, Illinois Natural Area Inventory or registered Land and Water Reserves in the vicinity of the project location. Consultation under Part 1075 was terminated.

An IPaC official species list contained the endangered, threatened, proposed and candidate species and proposed and designated critical habitat that may be present within or in the vicinity of the proposed improvement. The following species were returned: Indiana Bat (Ibat), Northern Long-eared Bat (NLEB), Tricolored Bat (TCB), fat pocketbook and whooping crane. No proposed or designated critical habitat overlaps the project area.

Suitable habitat was found to be present in the forested habitat within the project limits. A bat bridge assessment (BBA) was completed on September 14, 2023, and found no indication of bridge use from NLEB, Ibat, or any other protected bat species. An IPaC qualification interview was completed on April 23, 2024. Recommendations regarding tree removal includes: All tree clearing of trees three (3) inches in diameter at breast height will happen outside of the active bat season. No tree clearing beyond 100 feet of the edge of pavement or railroad will occur. Should the project require temporary or permanent lighting, all lighting shall be installed in accordance with Federal Highway Administration Guide for bats which recommends that lighting does not increase illumination above ambient conditions and that incorporates full cut off, downward facing lights directed away from forested areas.

At this time, the Tricolored bat is proposed for listing as federally endangered. The species habitat requirements are similar to NLEB and IBAT. However, it was determined that the above determination applies to Tricolored Bat. However, once the USFWS issues their final ruling on whether or not to list the Tricolored bat as federally endangered, there may be additional consultation needed for those projects that have not been completed by the effective date. Additionally, the preferred habitats of the fat pocketbook and whooping crane were cross referenced to find that the proposed project will have no effect on those species.

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 completely removing and replacing the two existing bridges which carry Illinois Route 1 over the overflow floodway area. The structures need replacement due to their age and poor condition. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.