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:**
Wednesday, August 21, 2024	Tuesday, September 10, 2024

Agency Log No.: C-0109-24

Federal Permit Information: This civil works project is under the jurisdiction of St. Louis District, Regulatory Branch U.S. Army Corps of Engineers

Name and Address of Discharger: Illinois Department of Transportation, Kirk H. Brown - 2801 W Murphysboro Rd., Carbondale, IL 62901

Discharge Location: In Section 17 of Township 9-South and Range 1-East of the West 3rd & East 3rd Principal Meridian in Williamson County. Additional project location information includes the following: IL 13 EB & WB from E of Spillway Rd. to Shawnee Trail Rd., Carterville, IL 62918

Name of Receiving Water: Crab Orchard Lake

Project Name/Description: IL 13 Add Lane over Crab Orchard Lake - proposed improvement to IL 13 that will include the addition of a third lane over Crab Orchard Lake and intersection improvements

Construction Schedule: Immediate (Planned project duration is approximately 1004 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-0109-24-08212024-PublicNoticeAndFactSheet.pdf

The Illinois Department of Transportation (IDOT) has applied for a 401 Water Quality Certification for impacts associated with proposed improvements to IL Route 13 east of Spillway Road to Shawnee Trail Road in Section 13, Township 9 South, Range 1 West, Williamson County near Carterville, Illinois.
Improvements include the addition of a third lane both eastbound (EB) and westbound (WB); removal and replacement of bridge structures 100-0018 and 100-0020 (EB bridges), and 100-0067 and 100-0066 (WB bridges) over Crab Orchard Lake; and intersection improvements at Cambria Road that include conversion to a continuous green intersection. The intersection will have signals installed for three proposed WB thru lanes, proposed dual left turns, construction of a median U-turn for accessing The Haven, and reconstruction of the southbound to westbound right turn lane length, resurfacing of existing lanes, and addition of a multi-use path to connect with current Crab Orchard Greenway sections.

The pavement will be widened on both the north and south side of the roadway and to provide a shared use path on the south side. Fill will be placed in three wetland sites for a total permanent wetland impact amount of 0.498 Acres (Ac). Wetland mitigation required is 0.747 Ac and will occur at the Little Muddy Addendum site 1 Wetland Mitigation Bank. Crab Orchard Lake will undergo 5.92 Ac., or 31,050 linear feet (LF) of impacts as a result of riprap placement along the shoreline to accommodate road widening. The lake impacts will be mitigated at Sugar Camp Creek Wetland Mitigation Bank.

Information used in this review was obtained from the application documents June 21, 2023, March 19, 2024, April 23, 2024, and June 10, 2024.

Identification and Characterization of the Affected Water Body.

Crab Orchard Lake has 0 cfs of flow during critical 7Q10 low-flow conditions. Crab Orchard Lake is classified as General Use Water. Crab Orchard Lake 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. Crab Orchard Lake, Waterbody Segment IL_RNA, is listed on the 2020/2022 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 aesthetic quality with potential causes given as total phosphorus and total suspended solids (TSS). Aquatic life use is fully supported. This segment of Crab Orchard Lake is not subject to enhanced dissolved oxygen standards.

Crab Orchard Lake was identified as Site Number OSW 4 in the wetland delineation of the project area. The lake lies approximately fifteen feet south of IL 23 and occurs in 163 LF (0.03 Ac) of the project corridor. It has a watershed area of less than one square mile and is given a National Wetlands Inventory (NWI) code of U (upland).

Four other surface waters (OSWs 1, 2, 3 and 5) were identified in the survey area, however these surface waters will not be impacted by the proposed project.

Illinois Natural History Survey conducted a wetland survey on April 26 and 27, 2023, for the proposed project area. Eight wetlands (Site Numbers 1-8) were identified within the project area. Impacts are proposed for Wetlands 2, 3, and 8.

Wetland (Site #)	Area in Project Corridor (Ac)	Impact Area (Ac)	Community Type	NWI Code	Impact Type	FQI/Mean C
2	0.36	0.261	Forested Wetland	U	Permanent	14.7/2.8
3	0.07	0.045	Forested Wetland	U	Permanent	19.9/3.4
8	0.35	0.192	Forested Wetland	U	Permanent	14.4/3.0
Total	**0.78**	**0.498**				

Wetland 2 is a forested, lacustrine fringe wetland that lies approximately 23 feet south of IL 13. This wetland abuts Crab Orchard Lake and extends outside of the project corridor. Dominant vegetation consists of box elder *(acer negundo)*, Virginia wild rye *(Elymus virginicus)*, pin oak *(Quercus palustris)*, panicled aster *(Symphotrichum lanceolatum)*, poison ivy *(Toxicodendron radicans)*, and smooth arrowwood *(Viburnum recognitum)*.

Wetland 3 is a forested, depressional wetland that lies 25 feet north of IL 13. Dominant vegetation consists of river birch *(Betula nigra)*, buttonbush *(Cephalanthus occidentalis)*, Reed canary grass *(Phalaris arundinacea)*, swamp cottonwood *(Populus heterophylla)*, black willow *(Salix nigra)*, panicled aster, and American elm *(Ulmus americana)*.

Wetland 8 is a forested, depressional wetland that lies approximately 20 feet south of IL 13. This wetland is connected to Crab Orchard Lake via an ephemeral drainage feature. Dominant vegetation consists of red maple (*Acer rubrum)*, brown fox sedge (*Carex vulpinoidea)*, Virginia wild rye, bristleless dark green bulsedge *(Scirpus georgianus)*, poison ivy, and American elm.

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

Crab Orchard Lake is listed as impaired; however, this project will not contribute to further impairment of the lake. Best management practices to reduce streambank and lake shore erosion will be followed to reduce potential phosphorus loading into the lake. There will be riprap placed in the lake along the shoreline where the road is being made wider to accommodate the add lane and multi-use path. Impacts to Crab Orchard Lake will occur at both EB and WB IL13. EB IL 13 will undergo impacts from 36,764 cubic yards (CY) of fill placed in 13,748 LF (3.13 Ac) and WB IL 13 will undergo impacts from 25,307 CY of fill placed in 3554 LF (2.79 Ac). The total impact of lost surface area to the lake is 5.92 Ac and Wetlands 2, 3, and 8 will be permanently filled totaling 0.498 Ac of impacts.

The pollutant load increases that would occur from this project include some possible increases in chloride. These increases may occur as a result of adding additional roadway lanes that may require deicing salt as part of the roadway/traffic improvements. No increases in suspended solids are expected with this project due to erosion control methods and the stormwater prevention plans that will be utilized**.** Short-term impacts to Crab Orchard Lake are expected with the placement of riprap.

Fate and Effect of Parameters Proposed for Increased Loading.

Appropriate erosion and sediment control Best Management Practices will be implemented to protect surface water in order to avoid or minimize short-term construction related water quality impacts. A uniform perennial vegetative cover must be established on all unpaved areas and areas not covered by the permanent structure. Winter Operation BMPs include annual training for road crews to improve the efficiency of de-icing application and to reduce loss of de-icing chemicals, utilization of calibrated spreaders, pre-wetting of solid de-icing chemicals/mixtures for better pavement adhesion and ice/snow melting and adjusting de-icing chemical rates according to pavement temperature and weather conditions.

The wetland mitigation proposed to occur at the Little Muddy Addendum Site 1 Wetland Mitigation Bank is 0.747 Ac. All wetland impacts will be mitigated at a ratio of 1.5:1 as determined by the Interagency Wetlands Policy Act.

The applicant has stated in the Antidegradation Assessment included in the application documents that: “IDOT has an approved Federal Categorical Exclusion dated 7/22/2015. After consultation with the US Army Corps of Engineers, it has been assumed that the impacts to the lake will be covered by that Federal CE under a Nationwide 23 404 Permit at a 1:1 ratio. The 5.92 acres of impact will be mitigated at Sugar Camp Creek Wetland Mitigation Bank.”

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of the proposed project is to address safety concerns along the IL 13 corridor, improve the efficiency and capacity of the corridor, provide safe and efficient access to adjacent businesses and recreation areas, and to accommodate cyclists.

This project is the last part of a larger 6-lane expansion from west of Carbondale to the IL 13/IL 37 interchange in Marion. The roadway is currently nearing the end of its service life. The recent amount of economic growth in the region from commercial, industrial and population has increased the daily volume of traffic. The addition of a third lane in both directions will alleviate this congestion. The Cambria Road and Spillway Road intersections have been shown to be 5% intersections for safety according to traffic studies. Additionally, the geometric improvements at these intersections would add extra safety solutions for the public.

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

The alternatives that were considered are all at the Cambria Road intersection and will include addition of a third lane both EB and WB, a multi-use path on the south side of the EB lanes, and replacement of structures to accommodate the additional lane.

No Action Alternative: This alternative was evaluated using information gathered from the long-range planning study completed in 2004 and revised in 2006. When considering this option, it was observed that level of service (LOS) average daily traffic (ADT) will increase by 16,000 (30,600 to 46,600) from 2005 to 2025 with a LOS decrease from C to D at 40,000 ADT if the roadway remains 4-lane. When the stop-controlled intersections were reviewed, it was found that the LOS falls to poor performance as a result of the ADT increase and high turning volumes. Increasing to 6 lanes with intersection modifications would keep the LOS rating at a C (fair). Safety evaluations show 48 accidents from 2014-2020 and with no improvements to the intersection, accidents are expected to increase due to the ADT increases described above. Additionally, this option did not address cyclist and pedestrian safety. The No Action Alternative was not considered further.

Inside vs. Outside Lane Addition: Discussion of additional lane placement determined that outside placement would be preferred. Existing EB and WB lane profiles don't match in some sections of the roadway, making inside lane placement difficult. Existing median at intersections would be needed to add turn lanes. Additionally, the Crab Orchard Wildlife Refuge expressed a desire to maintain the green space in the median to avoid diminishing the aesthetic value of Crab Orchard Lake.

Alternative 1- Slip Ramp Option: This option would have taken either IL 13 over Cambria Road, or Cambria Road over IL 13 with both including a tight diamond interchange. However, this option was eliminated due to the need for a right of way from Crab Orchard Wildlife Refuge, increased frontage road traffic, potential confusion with the one-way ramp intersecting a two-way roadway, and a requirement for a longer green light to maneuver the side road slowing through traffic. This alternative was not chosen as the preferred.

Alternative 2: Restricted Crossing Median U-Turn (RCUT): This option would have required traffic from Cambria Road wanting to go East to turn West on to IL 13 and make a U-turn to go back East on IL 13 and as a result, eliminating left turns from side roads and minimizing crashes. However, this option was dismissed due to local opposition. Concerns were due to this being an unfamiliar intersection type that would be difficult for boats and large trucks to maneuver, the proposed U-turn for left turning traffic would add an additional mile before being able to travel in the desired direction, and the required merging into WB IL 13 traffic to get to the U-turn in the median would potentially cause more safety issues.

Alternative 3: Signalized Intersection: This option would involve making the intersection at Cambria Road signalized. This would have decreased the risk of high severity crashes, decreased the left turn delay, and maintained movement for Cambria Road and The Haven. This option was dismissed due to the risks associated with the stop condition on IL 13 both EB and WB and the rear end accident potential associated with the stop condition, as well as the reduced speed limit that would have been necessary.

Alternative 4: Signalized Super T Intersection, Chosen Alternative: This alternative converts the Cambria Road intersection to a continuous green intersection with signals installed for the southbound and westbound movements, reconstruction of the SB to WB free flow right turn lane to policy length and adds a U-turn east of Cambria Road in the median for traffic wanting to turn into The Haven. This option maintains through traffic EB on IL 13 and controls the left turn north to Cambria Road across IL 13 WB decreasing the risk for high severity crashes. It also decreases the delay those wanting to turn left are experiencing currently by dedicating green time for the turning maneuver.

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

A Natural Resource Review (NRR) dated March 19, 2024, states that the Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species. However, it was determined that bat guano found at one of the bridges was from a Northern Long-eared bat. There were no INAI sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location. Therefore, consultation under Part 1075 was terminated.
A Section 7 consultation was completed by the USFWS on March 19, 2024. Through IPaC, it was determined that the following listed or proposed to be listed species may be present in the project area:

- Indiana bat (Myotis sodalis) - Endangered
- Northern long-eared bat (Myotis septentrionalis) - Endangered

- Tricolored bat (Perimyotis subflavus) – Proposed Endangered
- Whooping Crane (Grus americana) – Experimental Population, Non-Essential
- Monarch Butterfly (Danaus plexippus) - Candidate

The Northern long-eared bat (NLEB) determination key is within the IPaC. It is used to determine applicability of the project with the USFWS revised programmatic biological opinion. The IPaC qualification interview determined that the project is within the scope of the programmatic biological opinion. It was also determined that the project may effect and likely to adversely affect NLEB. Take of the NLEB will be avoided provided that following conservation measures are taken:

- A bridge assessment for bats will be completed prior to removal of the structure. Expanding foam should be applied in the joints below the deck to deter future use of bats. Trees three (3) inches or greater in diameter at breast height will not be cleared April 1 through September 30.

It was determined that the project will have no effect on the remaining listed species.

A consistency letter for the project under the Programmatic Biological Opinion issued by the USFWS was issued March 19, 2024, and stated the following:

"The U.S. Fish and Wildlife Service (Service) has received your request dated March 19, 2024 to verify that the 17931J (Proposed Action) may rely on the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*)."

"Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures. At least one of the qualification interview questions indicated an activity or portion of your project is consistent with a likely to adversely affect therefore, the overall determination for your project is, may affect, and is likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to section 7(a)(2) of the ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required."

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 addressing safety concerns along the IL 13 corridor, improving the efficiency and capacity of the corridor, providing safe and efficient access to adjacent businesses and recreation areas, and accommodating cyclists. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.