

IEPA Log No.: **C-0146-20**
CoE appl. #: **LRC-2010-142**

Public Notice Beginning Date: **March 5, 2021**
Public Notice Ending Date: **March 22, 2021**

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: Illinois Department of Transportation – 201 W. Center Court,
Schaumburg, IL 60196

Discharge Location: Near Villages of Hawthorne Woods, Kildeer and Long Grove in Section 15 of
Township 43-North, Range 10-East of the 3rd P.M. in Lake County.

Name of Receiving Water: Unnamed tributary to Indian Creek and associated wetlands

Project Description: Proposed reconstruction of an existing two lane roadway to provide two full lane in
each direction, turn lanes and raised median.

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 Darren Gove at email darren.gove@illinois.gov or phone no. 217/782-3362.

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IDOT ("Applicant") has applied for a 401 Water Quality Certification for impacts associated with widening and reconstruction of approximately 3.5 miles of Illinois Route 22 from Quentin Road to Illinois Route 83. The project is located in Sections 13, 14, 15, 16, 19, 22, 23 and 24, Range 10 East of Township 43 North in Lake County, Illinois. The unnamed tributary to Indian Creek and associated wetlands in the area would receive unavoidable impacts to 8.06 acres of jurisdictional waters with 33 wetland sites impacted and 1134 linear feet (LF) of stream impacts. The project improvements include a profile raise of 8 feet at Corporate Drive in order to meet drainage criteria, and an alignment shift to the north and south of the current centerline. Other improvements include new ditches and storm sewer, 22 retaining walls, and replacing 7 culverts. Mitigation required for this project is a total of 31.02 acres based on correspondence from the Chicago District U.S. Army Corps of Engineers dated June 25, 2013 which outlined the preliminary mitigation requirements for the project. IDOT will purchase the 9.3-acre Eastern Prairie Fringed Orchid (EPFO) Nature Preserve to net a total of 3.99 mitigation credit acres with the remaining 27.042 acres to be purchased through a wetland mitigation bank within the watershed. IDOT will manage the EPFO Nature Preserve in coordination with Illinois Nature Preserves Commission and U.S. Fish and Wildlife during construction and upon completion, will convey the EPFO Nature Preserve to the Long Grove Park District.

Information used in this review was obtained from the application documents dated May 2, 2019, May 28, 2019 and September 26, 2019.

Identification and Characterization of the Affected Water Body.

The unnamed tributary to Indian Creek, locally known as Killdeer Creek, has 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary to Indian Creek is classified as a General Use Water. The unnamed tributary to Indian Creek 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 unnamed tributary to Indian Creek, tributary to Waterbody Segment IL_GU-02 is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as it has not been assessed. The unnamed tributary to Indian Creek is not subject to enhanced dissolved oxygen standards.

The Illinois Natural History Survey (INHS) conducted wetland delineations for this project in which 38 wetland and 4 waterway sites were identified, the most recent study completed in 2018. Additionally, avian surveys were completed in 2010 and 2018, and Botanical surveys (Eastern Prairie Fringed Orchid) in 2003 and 2018. Wetlands identified include, marsh, forested wetlands, wet floodplain forest, wet shrubland, wet forbland, wetland ponds, farmed wetlands and wet meadow communities. A total of 33 wetland sites and 3 waterways will be impacted by the project. Total permanent impacts of 7.933 acres and temporary impacts of 0.13 acres are anticipated. Of the 38 wetlands and 4 waterbodies identified within the project limits, 9 wetlands and 3 waterbodies were determined to be high-quality aquatic resources. Eight of the delineated wetland sites and the 3 waterbodies are associated with Lake County Advanced Identification (ADID) wetland #170 and the remaining wetland site is associated with Lake County ADID #169.

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 total suspended solids. These increases, a normal and unavoidable result of the excavation and culvert placement to divert the unnamed tributary to Indian Creek, may occur in the proposed project area. 7.694 acres of permanent wetland impacts are expected with roadway fill and 0.239 acres of permanent stream

impacts with replacement of 3 culverts within the project area. Temporary impacts are expected to occur in 0.13 acres of stream with the culvert replacement activities.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary in association with placement of the culvert. Impacts to the stream associated with roadway fill, as well as some in accordance with culvert placement will be permanent. Mitigation of the 7.93 acres of permanent impacts to jurisdictional water is proposed through the purchase of wetland bank mitigation credits and by purchasing the 9.3-acre EPFO Nature Preserve. Total compensatory mitigation required as a result of this project is 31.032 acres. The purchase of the EPFO Nature preserve will yield 3.99 acres of mitigation with the remaining 27.042 acres of mitigation to be purchased through a wetland mitigation bank.

Impacts to surface water will be achieved through appropriate erosion and sediment control best management practices (BMPs). Vegetative cover will be established on all unpaved areas and areas not covered by a permanent structure. Additionally, a winter Operations BMP plan for chloride reduction will be implemented. Post construction runoff will be filtered through ditches, detention basins, swales and bio-swales before it reaches any waterway or wetland. The BMPs will function as filter strips and grassy waterways are expected to function as a method of reducing the amount of runoff and any suspended solids during wet conditions. Three areas with bio-swales are designed and have been identified in the permit application. Compensatory storage within the bio-swales has been proposed and contain soils that are able to be infiltrated. Runoff into the compensatory mitigation areas may infiltrate to groundwater prior to entering the waterways, and in turn provide a benefit to the water quality. Native plantings where feasible will create buffers that are in accordance with USACE requirements.

Three Great Blue Heron rookeries exist within the project area; however, these rookeries are outlined on the project plans and no construction related activities will take place within 1000 feet of the Great Blue Heron rookeries between March 1 and August 31.

Several commitments have been proposed to improve resources at both Heron Creek and Egret Marsh Forest Preserves impacted by the project. The proposed shared use path would be an asset to the Lake County Forest Preserve District (LCFPD) by providing a connection between the preserves. Although the path will pass through portions of the impacted areas within both preserves in some areas, it will also be within IDOT ROW. The connector will be aggregate surface in accordance with LCFPD standards and specifications. Tree replacement activities will be performed by IDOT subject to LCFPD donating the temporary easement and LCFPD will determine tree types, sizes and locations. Time and use of the donated easement will be restricted. Suggested mitigation areas include 12.53 acres in Egret Marsh for tree mitigation and 10.17 acres in Heron Creek for tree mitigation and path connections. A proposed permanent easement in Egret Marsh Forest Preserve is required for a water quality ditch to convey stormwater to the waterways that run through both preserves. LCFPD staff has requested that the ditch be designed to look natural with a winding route, varying widths, native grass plantings, leaving the ditch unmowed, small temporary ponding areas and the inclusion of rocks to slow water flow. This design would provide an asset to the preserve and LCFPD will donate additional land for temporary easements, if needed, to achieve this design. Additional wetland impacts shall be avoided and LCFPD will be involved in review of the design plans to ensure the proposed improvements are consistent with its master plans for the sites.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of this project is to improve mobility on Illinois Route 22 from Quentin Road to Illinois Route 83. The needs outlined include safety, capacity and operation, geometric deficiencies and system linkage. System linkage enhancements is needed to eliminate a major east-west mobility bottleneck. Illinois Route 22 is one of only a few continuous east-west routes in Lake County and is part of the National Highway System (NHS). The NHS is a system of highways that have been determined to have

great national importance to transportation, commerce and defense in the United States. The roadway also provides local access to residential, recreational and offices uses in the project area. This project will reduce traffic congestion, increase safety with establishment of medians and turn lanes, reduce travel times and support the region's economic development goals.

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

Seven design alternatives were evaluated based on purpose and need of the project as well as cost impacts and impacts to environmental resources such as wetlands and environmental resources.

Alternative 1: This option is considered the baseline alternative for various build alternatives. A 2-lane road separated by a median would be constructed. Alignment follows the center line but is shifted 22 feet south and 36 feet north in some areas to avoid impacts. This option also includes curb and gutter construction and an enclosed drainage system to replace the open-ditch drainage system, varying median widths, 1:4 embankment slopes, and removal and replacement of 7 culvert crossings. The vertical profile will be also modified to improve drainage conditions. Acquisition of 22.34 acres of ROW would be required and 10.27 acres of impacts would be required. A cost estimate for this alternative is approximately \$40 million and meets all 3 purpose and need elements. This is a viable alternative.

Alternative 2: This alternative is based on Alternative 1 but uses 1:3 embankment slopes to reduce ROW acquisition, impacts and cost. This would require 21.12 acres of ROW acquisition and 9.72 acres of wetland impacts. This is 1.22 acres of ROW acquisition and 0.55 wetland impacts less than Alternative 1. Cost is approximately \$1 million less and meets all three purpose and need elements, making this a viable alternative.

Alternative 3a: This Alternative is similar in profile and alignment to Alternatives 1 and 2 but with a 30-foot grassed barrier median and 22 retaining walls proposed. The walls reduce embankment fill but a wider median offsets the reductions and only slightly lowers ROW acquisition of 22.06 acres (0.28 less than Alternative 1) and wetland impacts of 9.64 acres (0.63 acres less than Alternative 1). The cost is \$60 million dollars (\$20 million more than Alternative 1). This option meets all 3 elements of the purpose and need and reduces ROW acquisition and wetland impacts. Because the cost is 150% greater and the project is funded for \$50 million, this alternative was deemed not to be a viable option.

Alternative 3b: This alternative is similar to Alternative 3a but the standard grass barrier is reduced from 30 feet to 22 feet with 22 retaining walls. The Villages of Long Grove and Kildeer support the proposed project and additionally have requested the proposed 5-foot sidewalk be changed to a 10-foot shared use path. To minimize ROW impacts the drainage swales should be reduced to a typical swale size. This provision will allow for a reduction in the lane width to 12 feet. Alternative 3b requires 20.52 acres of ROW (1.82 acres less than Alternative 1) and wetland impacts of 9.09 acres (1.18 acres less than Alternative 1). The cost is \$55 million dollars (\$15 million over Alternative 1). This option meets all 3 elements of the purpose and need and reduces ROW and wetland impacts. Because the cost is 138% greater and the project is funded for \$50 million dollars, this alternative was deemed not to be a viable option.

Alternative 4: This alternative consists of a new alignment and was looked at due to the increase of construction costs. A straight centerline alignment with varied barrier median and 22 retaining walls option reduces ROW acquisition to 19.77 acres (2.57 acres less than Alternative 1) and wetland impacts of 9.18 acres (1.09 acres less than Alternative 1). Alignment is not shifted north or south as in previous alternatives and would impact the Eastern Prairie Fringed Orchid Nature Preserve and may affect the federally endangered Eastern Prairie Fringed Orchid. The cost of this option is approximately \$20 million over Alternative 1 and although it meets all three elements of purpose and need, this alignment may affect environmental resources. Additionally, the cost of Alternative 4 is 150% greater and therefore not a viable alternative.

Alternative 5 (Preferred Alternative): This alternative is a combination of Alternatives 1 and 2, was chosen after consideration of various impacts, both primary and secondary, after which community concerns were addressed. Alternative 5 provides two lanes in each direction separated by a median. This proposed alignment follows the centerline except in shifts of up to 36 feet in various areas in order to avoid wetlands and the Prairie Fringed Orchid Nature Preserve. This option includes a concrete curb and gutter as well as an enclosed drainage system in order to replace the existing open-ditch drainage system. Median widths are 12-foot painted medians in some areas and vary from 22 to 33-foot grassed curbed medians in other areas and a 10-foot multi-use path is proposed along the south side of IL Route 22 from Quentin Road to Illinois Route 83. Twenty-two retaining walls are proposed to reduce impacts to the Scenic Corridor Easements (SCEs) and need for an additional Right of Way (ROW). Seven culverts will be removed and replaced, and the vertical profile will be raised to improve drainage conditions. This alternative will require the purchase of 19.35 acres of additional ROW which is reduced by 2.99 in comparison to Alternative 1. Additionally, 7.93 acres will be impacted which is 2.34 acres less in comparison to Alternative 1. Cost is estimated to be \$10 million over Alternative one but this improvement meets all 3 elements of the purpose and need, avoids and minimizes impacts to the Village of Long Grove SCEs, avoids the EPFO Nature Preserve and reduces ROW acquisition requirements and impacts to wetlands. The Preferred Alternative is 125% over Alternative 1, but \$10 million lower than other alternatives, and provides a reduction of impacts to wetlands that are 128% less than Alternative 1. This alternative was deemed to be the Preferred Alternative.

Alternative 6: This is the no build alternative and assumes no improvements to Illinois Route 22 within the project limit. Routine maintenance will be provided to keep the road serviceable. Traffic safety and congestion will continue to be problematic. Commercial development may be impacted due to increased travel times and delays of goods and services deliveries due to the area experiencing traffic delay. This option does not meet the three elements of purpose and need and does not reduce number and severity of traffic accidents in the area. There would be no measures to correct limited sight distance and a lack of a median means no safe area for turning. System linkage will not be enhanced through elimination of a bottleneck area. This alternative was not considered further.

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

On May 23, 2020 the IDNR EcoCAT review was initiated for the project area and identified protected resources that may be in the vicinity of the proposed project. Long-standing coordination with the Illinois Nature Preserves Commission, US Fish and Wildlife Services, and IDNR is well documented for this project. Based on the implementation of commitments listed within the IDOT memorandum dated June 23, 2019, IDNR terminated the consultation.

There are several conservation areas within the Illinois Route 22 Corridor and the following outlines coordination and notification that has been completed:

Village of Long Grove Scenic Corridor Easements (SCEs) and Conservancy Districts: The purpose of the SCEs is to preserve a natural undisturbed buffer between properties and roadways. The plan supported by the Village to balance needs with the desire to minimize impacts to the SCE resulted in the development of painted medians and a 10-foot shared-use path. Retaining walls will be implemented to reduce impacts as well.

Eastern Prairie Fringed Orchid Nature Preserve: The EPFO Nature Preserve is located on the southside of Illinois Route 22 and bisected by the unnamed tributary of Indian Creek, locally known as Willowbrook Drain. The Preserve has been purchased by IDOT as part of wetland mitigation and will be deeded over to the Long Grove Park District after a 2-year maintenance period. BMPs were implemented requiring additional ROW. This includes a stormwater basin, water quality bio-swales and a shift in road alignment to the south to minimize impacts.

Heron Creek Forest Preserves: This preserve was developed to provide recreational opportunities and include trails, roadways, shelters and playground equipment. The project will impact 2.19 acres with 0.39 acres of permanent easement for proposed pavement and shared use path. 1.80 acres of temporary easement is proposed for water quality swales and grading. These impacted areas are located away from recreational facilities, adjacent to the roadway ROW and are not of significant recreational use to the resource. Application documents include correspondence between IDOT and the Lake County Forest Preserve District dated October 21 and November 18, 2013. One heron rookery has been identified within the preserve and two on the north side of Illinois Route 22 in the Village of Killdeer and Long Grove Open Space area. Restrictions on construction advise that no construction related activities will take place within 1000 feet of the Great Blue Heron rookeries between March 1 and August 31.

Egret Marsh Forest Preserves: This preserve was developed to provide passive recreational and habitat restoration opportunities such as wildlife viewing. The impacted areas are adjacent to the roadway ROW and not of significant recreational use to the resource. Impacts cannot be avoided due to proximity of a Lake County ADID wetland and omission of a parcel when the preserves were established. Retaining walls are proposed to minimize grading impacts.

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 will 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 will benefit the public through improved mobility and meet safety, capacity and operation, geometric deficiencies and system linkage needs along Illinois Route 22 between Quentin Road and Illinois Route 83. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.