IEPA Log No.: **C-0672-12**
CoE appl. #: **LRC-2012-00164**

Public Notice Beginning Date: **November 13, 2013**
Public Notice Ending Date: **December 13, 2013**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

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 State Toll Highway Authority – 2700 Ogden Avenue, Downers Grove

Discharge Location: Near Chicago in Section 1 of Township 41N, Range 8E of the 3rd P.M. in Kane County.

Name of Receiving Water: Fox River and adjacent wetlands

Project Description: Proposed reconstruction and expansion of the Jane Addams Memorial Tollway (I-90) bridge

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge 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 call Darren Gove at 217/782-3362.

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Fact Sheet for Antidegradation Assessment
For Illinois State Toll Highway Authority
IEPA Log No. C-0672-12
COE Log No. LRC-2012-00164
Contact: Eric Runkel (217) 558-2012
Public Notice Start Date: November 13, 2013

The Illinois Toll Highway Authority (Applicant) is applying for a 401 water quality certification for impacts associated with a proposed bridge widening and reconstruction over the Fox River in Elgin, Illinois. The proposed project consists of the addition of one mainline lane in each direction between Mile Post (M.P.) 55.45 and 56.0 and the addition of four to six feet of additional shoulder width to incorporate future transit. The proposed widening includes all associated infrastructure, such as lighting, retaining walls, detention ponds, and storm sewers.

Antidegradation assessment materials were received from the applicant under a November 13, 2012 cover, Joint Application, Illinois Toll Highway Authority, Army Corps of Engineers (COE) Permit # LRC-2012-00164, IEPA Log # C-00672-12, received November 16, 2012 from Illinois Toll Highway Authority, Downers Grove, Illinois.

Identification and Characterization of the Affected Water Body.

The Fox River is a General Use water with a 143 cfs 7Q10 flow. The Fox River has a Waterbody Segment designation of IL_DT18 at this location and is listed in the 2012 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for Aquatic Life; Alteration in Stream-side Vegetated Cover (non-pollutant), Hexachlorobenzene, Other Flow Regime Alterations (non-pollutant), Oxygen-Dissolved (non-pollutant), Sedimentation/Siltation, and Total Suspended Solids (TSS) are given as causes of this impairment and as impaired for Fish Consumption use; Mercury and polychlorinated biphenyls are given as the causes of this impairment. Primary Contact Recreation, Secondary Contact, and Aesthetic Quality were not assessed. The river is not listed as biologically significant, however it has been given an integrity rating of category C in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The river is not enhanced in regards to the dissolved oxygen water quality standard. The watershed at the proposed project area covers approximately 1,556 square miles.

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

The pollutant load increases that would occur from this project include possible increases in suspended solids. Pollutants in highway runoff may include deicing chemicals, oils and grease, metals, and other solids, both dissolved and suspended.

Adjacent land use consists of Trout Park Nature Preserve, Kane County Forest Preserve District, Voyagers Landing Forest Preserve, and the Fox River Trail. Trout Park Nature Preserve includes a rare, high quality, forested fen complex.

Because there are potential HQAR within the project limits, the COE mitigation ratio for this project will likely be 5.5:1. It is anticipated that a mitigation ratio of 5.5:1 will be utilized for impacts to HQAR wetlands mitigated in-basin. The cumulative permanent impact anticipated

due to Fox River Bridge reconstruction is 0.014 acre. Anticipated required mitigation is 0.08 acre.

Fate and Effect of Parameters Proposed for Increased Loading.

The proposed bridge improvements will result in a temporary and local increase in suspended solids. Best Management Practices (BMPs) will be used to treat construction related stormwater impacts and improve stormwater runoff quality over existing conditions as bridge runoff currently goes directly to the Fox River via scuppers without treatment. The proposed BMPs include bermed detention basins, treatment forebays, vortex separators, energy dissipation devices, and retaining walls to control splash and spray from leaving the right-of-way (ROW). Other stormwater management BMPs include re-routing road drainage to bypass the ecologically sensitive fen in Trout Park and eliminating a storm sewer that is currently draining fen groundwater. There will be no direct runoff into the River as a result of this project.

The pollutant loading of existing storm water runoff is compared to proposed discharges with BMPs to assess any potential impact upon water quality. The existing pollutant loading for TSS and heavy metals were compared to the proposed pollutant loading with the expanded lanes and added BMPs. The following reduction in pollutant loading to the Fox River will result from the proposed project:

	Existing lbs/yr	Proposed Discharge lbs/yr
Total Suspended Solids	8,793	2,665
Lead	24.8	8.62
Copper	3.34	1.2
Zinc	20.4	7.6

For each pollutant listed above, the annual loading to the Fox River will be reduced with the proposed project. Chloride concentrations on an annual maximum basis will increase by less than 1 mg/L.

The bridge will mainly be constructed from the top to minimize use of cranes. In addition, drilled shafts will be used to construct the piers, which will reduce the vibration/pounding in the ground at the fen (driven piles will still be needed at the abutment). Sheet piling will be used to minimize temporary grading impacts for construction operations adjacent to the bridge.

The new replacement structures will be stage constructed and have only three piers in the Fox River as opposed to the existing seven. Adjacent to the highly sensitive forested fen, the new bridges will also have only one pier between Duncan Ave and the East Abutment as opposed to the three piers currently in this location. Cofferdams will be constructed in areas where new piers will be placed in the Fox River. During dewatering of the coffered work area, all sediment-laden water will be filtered to remove sediment. Possible options for sediment removal include baffle systems, anionic polymer systems, dewatering bags, or other appropriate methods. Water shall have sediment removed prior to being re-introduced to the downstream waterway. A stabilized conveyance route from the dewatering device to the waterway will be used.

All in-stream work shall be performed in accordance with COE, Chicago District – Regulatory Branch Requirements for In-stream Construction Activities. This includes the use of nonerodible cofferdams, filtering of dewatering operations, timber/work mats and the use of low ground-pressure equipment for work in wetlands as much as practical. During in-stream work, all demolition debris that enters the river will be continuously removed throughout the duration of the project, with no fallen debris in the river for greater than 48 hours. In addition, protective shielding will be installed to prevent debris from deck removal from falling into the river. Trash and debris booms will be installed in the river to contain floating debris.

The Illinois Toll Highway Authority's (Tollway's) preferred wetland mitigation opportunity is to restore the forested fen within the former Fox River Country Day School property. The entire site is approximately 57 acres with the fen occupying approximately 27 acres. The fen was initially proposed as an Illinois Nature Preserve, but was never dedicated. It is one of two forested fens in the state. The unique site is of very high quality and has northern white cedars as well as other rare species. The Tollway has reached out to the Illinois Nature Preserves Commission (INPC) and The Conservation Foundation and has requested their assistance in developing a plan for the acquisition, restoration and long-term management of the site. Both groups are committed to working with the Tollway on the initiative and a formal agreement establishing such is currently in process. Furthermore, additional partnerships are being investigated to establish an appropriate long-term steward and owner of the existing school/developed infrastructure.

If the preferred mitigation opportunity is not feasible, the Tollway will determine what site provides the most valuable mitigation opportunity. In October 2011, the Tollway met with the INPC to discuss mitigation opportunities in the Fox River Watershed. Bluff Springs Fen was one of the areas discussed as having good potential for restoration, as this project just needs funding. The Tollway will investigate this site as well as other INPC recommended sites for restoration in order to provide secondary mitigation options to the IEPA.

All impacted trees adjacent to the fen and Nature Preserve will be replaced using the Tollway's Guidance for Removal and Replacement of Trees.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose and need of the project is to reconstruct fifty-year old pavements associated with the Fox River bridge to eliminate increasing maintenance and rehabilitation costs including the associated traffic delays, increase capacity to an acceptable level of service by the addition of a fourth through lane in each direction to provide a safe and efficient travel way for Tollway patrons, and to incorporate future transit capabilities from Chicago to Rockford.

The proposed reconstruction of the bridge has public welfare benefits as it will reduce congestion and time of travel for commuters in this area. The bridge is a key crossing allowing transport of workers and goods across the Fox River.

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

The Tollway rejected all design options which did not minimize impacts to the fen. The applicant proposes 0.014 acres of permanent impact along the edge of a fen. A few portions of the fen will be temporarily impacted by construction totaling 0.084 acre of temporary impact. All temporary impacts will only be in place for a couple of months due to staging area and construction access needs. Construction mats will be used to protect areas of temporary impact.

A no action alternative will allow bridge degradation to continue, further jeopardizing traffic safety and increasing maintenance requirements.

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

An Eco-CAT was submitted on May 29, 2012 for an endangered species consultation with Illinois Department of Natural Resources. In a letter dated May 29, 2012, IDNR replied that project #1215247 was not likely to adversely impact protected resources and that consultation was terminated.

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 antidegradation review summary was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving waters will be maintained; 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 project will enhance traffic efficiency and reduce runoff pollutants to the Fox River. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.