IEPA Log No.: **C-0108-12**
CoE appl. #: **LRC-2012-172**

Public Notice Beginning Date: **July 13, 2012**
Public Notice Ending Date: **August 3, 2012**

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: The Illinois State Toll Highway Authority – 2700 Ogden Avenue, Downers Grove, IL 60515

Discharge Location: Near Chicago in Sections 11-14 of Township 36N, Range 14E of the 3rd P.M. in Cook County.

Name of Receiving Water: I-57 ditch and Dixie creek

Project Description: Proposed construction of a partial interchange between the South Tri-State Tollway (I-294) and Interstate Route 57 (I-57)

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 The Illinois State Toll Highway Authority
IEPA Log No. C-0108-12
COE Log No. LRC-2012-172
Contact: Mark Books; 217/728-2012
Public Notice Start Date: July 13, 2012

The Illinois State Toll Highway Authority ("Applicant") in conjunction with the Illinois Department of Transportation ("IDOT") has applied for Section 401 water quality certification for proposed work involving constructing a partial interchange between the South Tri-State Tollway ("I-294") and Interstate Route 57 ("I-57"). The proposed new partial interchange would connect northbound I-57 to northbound I-294 and southbound I-294 to southbound I-57, as well as provide new access to and from northbound I-294 at 147th Street. There is currently no connection between these two interstate routes at this location. The proposed interchange project involves relocating and placing fill into three intermittent streams (Dixie Creek, Park Creek and an unnamed I-57 drainage ditch). The proposed sequence of construction will maintain the existing channels while new channels and control structures are being constructed and vegetation established first. The water flow will then be diverted to the new channels and the old channels will then be filled with material from the construction site. This project will also eliminate four isolated non-jurisdictional wetlands that are within the project area. The project is located along I-57 and I-294 in southern suburbs of Chicago. The project area is within the Village of Posen, Village of Midlothian, City of Markham, City of Harvey and the Village of Dixmoor. Specifically the project is within Section 11, 12, 13, & 14, Township 36 North, Range 13 East and Section 7, Township 36 North, Range 14 East.

Identification and Characterization of the Affected Water Body.

Dixie Creek, Park Creek and the unnamed I-57 drainage ditch all flow into existing storm sewers off-site. Dixie Creek flows into a separate storm sewer than Park Creek and the I-57 Drainage Ditch; however both separate storm sewers flow into the Little Calumet River at different locations. The creeks, drainage ditch and the wetlands are all General Use Water with a zero 7Q10 flow. The streams and wetlands have not been evaluated by the Illinois EPA Surface Water Monitoring Unit. The streams and wetlands are not an enhanced water body pursuant to the dissolved oxygen water quality standard. Using the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, the streams and wetlands are not listed as biologically significant streams nor have they received an integrity rating. Dixie Creek has a drainage area of approximately 0.6 square miles in the project area. Park Creek has a drainage area of 1.2 square miles and the I-57 unnamed drainage ditch has a drainage area of about 2.4 square miles within the project area. The streams are likely to be completely dry during the summer/early fall low rainfall periods.

The impact summary to the three streams is described below:

Stream	**Acres of the streams that will be lost or affected.**	**Acres of the streams that will be created or impacted**
Dixie Creek	0.36 acres	3.66 acres – relocated channel
I-57 Drainage Ditch	1.06 acres	1.8 acres - relocated channel
Park Creek	0.01 acres	0.01 acres- same length-culvert extension
Total	**1.43 acres**	**5.47 acres**

There are four wetlands within the project study corridor that will be impacted by this project. The four wetlands are described below:

Wetland ID#	**Wetland Description**	**Wetland Quality-FQI #**	**Impact Acres**	**Dominant Vegetation**	**Off-Site Mitigation Ratio**	**Required Mitigation Acres**
#12	Wet Shrubland	Low-8.2	0.23	Common Buckthorn and Reed Canary Grass	1.5:1	0.35
#13	Wet Meadow	Poor-3.5	0.10	Reed Canary Grass	1.5:1	0.15
#14	Wet Meadow	Low-8.5	3.03	Reed Canary Grass	2.5:1	7.58
#15	Wet Lowland Forest	Low-8.8	0.93	Silver Maple, American Elm, Common Buckthorn. Late Boneset and Reed Canary Grass	2.5:1	2.33
Total			**4.29**			***10.401**

*Concerning Mitigation for these four wetlands the Applicant has stated the following:

> "The Tollway and the Nature Conservancy ('TNC'), (a non-profit private conservation group with extensive property holdings in the project vicinity, including ownership of the Dropseed Prairie Nature Preserve), have agreed in principal that the Tollway will provide a cash payment to TNC to assist in wetland preservation in the Indian Boundaries Prairies (IBP) adjacent to the project study area. Per the proposed agreement, the Tollway will provide 14.7 acres of wetland mitigation to compensate the 4.29 acres of isolated wetland impacts."

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 during the construction of the project. Erosion control measures will be utilized to minimize any increase in suspended solids. The proposed impact of the tributaries will eliminate the current habitat from the fill areas of the streams. Aquatic life uses in the streams that will be disturbed during construction is anticipated to recover and support approximately the same community structure as is now found in the existing channels. Concerning impact to the existing streams the Applicant has stated the following:

> "Both the I-57 Drainage Ditch and Dixie Creek will be improved from their current condition after construction is completed. Currently, both these streams channels are intermittent, narrow steep walled channels with little vegetation to stabilize the channel and banks. As a result, these channels currently erode. The newly constructed channels will be shallow, wider features that will be planted with native vegetation. The vegetated channels are designed to enhance water quality of roadway runoff. In addition, the Dixie Creek channel, which essentially serves as an overflow channel for the I-57 Drainage Ditch, will be meandered near the outfall structure to the 120-inch diameter storm sewer. This meander will reduce slopes and velocity of runoff allowing sediment to settle out. Sediment basins will be installed at the end of the channels before the entrance to the

> 120-inch diameter storm sewer to collect sediment…The replacement of the eroded stream channels with shallow slope, vegetated channels and the addition of storm water detention facilities are expected to improve water quality of the roadway over the current condition even with the additional impervious surfaces. This water quality treatment train will replace the existing storm management system that has minimal treatment capacity."

The Applicant used the Illinois Stream Mitigation Guidance to determine mitigation needs for this project impacts to the three streams (22,191 mitigation credits required), and to determine credits generated as a results of the proposed mitigation efforts (25,447 total mitigation credits generated).

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids will be local and temporary. Erosion control measures will be utilized to minimize any increase in suspended solids ("SS") and prevent further impact to the stream.

Purpose and Social & Economic Benefits of the Proposed Activity.

The Applicant has stated the following concerning the purpose and need for this project:

> "The proposed interchange at I-294 and I-57 is part of the 2030 Regional Transportation Plan ('RTP') for the Chicago area. As stated in the 2030 RTP, 'Completion of a full interchange between I-294 and I-57 is expected to improve the accessibility of these suburbs to commerce activity from within the Chicago Metropolitan area, as well as, nationally via the interstate system. The lack of a connection between I-294 and I-57 and restricted local access to I-294 creates out-of-direction travel and increases regional travel times. The local roadway system is currently used as a connection route between the two interstates leading to increased congestion and decreased mobility through the region."

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

The construction of the proposed project will follow conditions set forth by the Agency and USACE. Erosion control measures will need to be implemented to prevent additional impacts to the stream. The Applicant will follow Best Management Practices for construction which will include a Storm Water Pollution Prevention Plan (SWPPP) and a Storm Water Management plan to control storm water discharges from the project area. These plans will include the use of storm water detention/ retention structures, flow attenuation by use of open vegetated swales and natural depressions and velocity dissipation devices. The Applicant has stated that all stormwater runoff will go thru detention basins before the runoff enters the new streams.

To reduce impact to additional wetlands the Applicant has stated:

> "Work also included the use of a retaining wall for over 1,100 feet along the east side of I-57 to allow for significantly less side slope grading impacts for the I-57 Drainage Ditch adjacent to the Dropseed Prairie Nature Preserve. The use of retaining walls also avoids any impacts to adjacent wetlands in the Dropseed Prairie property." The Applicant has stated that there were 30 different alternatives that were evaluated for this project.
>
> "Many of the preliminary build alternatives were eliminated based on feasibility, safety, right-of-way impacts, environmental impacts, costs, Agency coordination, and public

> comment. Three remaining preliminary build alternatives were combined to create the Preferred Alternative."

The Applicant has revised previous construction plans in order to avoid as many wetlands as possible and still construct the project as necessary.

The Applicant has reviewed the option of high-occupancy vehicle lanes and/or the use of Mass Transit improvements in the area to eliminate the need for this project; however, these options could not fulfill the purpose and the need for this project. Concerning the No-Build option, the Applicant has stated that the No-Build alternative does not alleviate the traffic and safety problems that currently exist at the project location.

Concerning the effects that additional salt use on the 40 additional acres of pavement will have on the three streams the Applicant has stated the following:

> "For the new ramps and shoulders, and auxiliary pavement, best management practices ('BMP') and detention basins will be used to improve storm water runoff quality. BMPs include natural infiltration and stream meanders, and low flow channels. These features will reduce and retard the peak chloride concentrations to the I-57 Unnamed ditch, Dixie Creek, and Park Creek watersheds. In previous studies by the United States Geological Survey (Sherwood, 2001), the use of detention facilities with natural infiltration were attributed with reducing peak chloride concentrations by 20 to 30 per cent…Additionally, the Tollway has implemented non-structural management practices to control dissolved chlorides…These practices are focused upon reducing salt consumption and application rates by following good maintenance and operating procedures."

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

In a letter from Steve Hamer dated June 15, 2011, IDNR stated that an initial report submitted through the EcoCAT website indicated the potential presence of protected resources in the vicinity of the project location. The letter further states that the IDNR has evaluated this information and concluded that adverse impacts to the protected resources are unlikely; therefore, consultation is terminated.

The State listed endangered plant Mountain Blue-Eyed Grass was identified as being in the project area and likely would be impacted by this project. The Applicant has stated to address this concern they have been coordinating with the Nature Conservancy and Northern Illinois University to select suitable locations for transplanting the plants.

> "A translocation plan has been approved by the Nature Conservancy as of April 2012 for moving the Mountain Blue-Eyed Grass plants to the Indian Boundary Nature Preserves. This area has suitable soil and hydrologic conditions needed for this 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 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 activity will benefit the community at large by providing better traffic flow in the area. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.