

IEPA Log No.: **C-0107-12**
CoE appl. #: **2012-497**

Public Notice Beginning Date: **April 5, 2013**
Public Notice Ending Date: **April 26, 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
Facility Evaluation Unit
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 – District 2, 819 Depot Avenue, Dixon, IL 61021

Discharge Location: Along Illinois Route 173 from the west entrance of Rock Cut State Park to Forest Hills Road

Name of Receiving Water: North Branch Willow Creek and an Unnamed Wetland

Project Description: Widening of Illinois Route 173 from 2 lanes to 4 lanes.

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 Thaddeus Faught at 217/782-3362.

TJF:0107-12PN.docx

Fact Sheet for Antidegradation Assessment

Illinois Department of Transportation – North Branch Willow Creek & Unnamed Wetland – Winnebago County

IEPA Log #C-0107-12

COE Log #2012-497

Contact: Bob Mosher 217/558-2012

April 5, 2013

The Illinois Department of Transportation (“Applicant”) has applied for Section 401 water quality certification for work associated with the expansion of IL Rt. 173 from a 2-lane highway to a 4-lane, limited access, divided highway. This proposed project is for 1.7 miles of roadway widening from the entrance to Rock Cut State Park to Forest Hills Road. Due to the proximity of the park, the project is forced to use land to the north of the park for road expansion and this includes the current location of the creek. A total of 4,739 feet of the North Branch of Willow Creek will be filled along with a 0.81 acre wetland. The applicant provided information regarding antidegradation assessment in a document entitled Antidegradation Report, Illinois Route 173, North Branch of Willow Creek and Wetland Site 1, West Entrance to Rock Cut State Park to Forest Hills Road, Machesney Park, Winnebago County, Illinois dated March 28, 2013.

The Applicant will purchase 1.215 acres of wetland from the Kilbuck Creek Mitigation Bank south of Rockford to provide mitigation for the wetland site (Wetland Site 11) that will be filled. This wetland is a shrub wetland of fair quality. Stream mitigation will occur near the original stream bed. A total of 4,323 feet of the North Branch Willow Creek will be created and an additional 1,212 feet of stream will be preserved. The created stream will contain meanders, riffles and other habitat improvements. The preserved segment of stream is on a 7.7 acre site. Riparian buffers will be established for all of the stream segments. The Illinois Stream Mitigation Guidance Version 1.0, March 2010 was used to determine the extent of stream mitigation. Stream mitigation is described in detail in a document entitled Stream Mitigation Plan, January 9, 2013, Illinois Route 173.

Identification and Characterization of the Affected Water Body.

The North Branch Willow Creek and the wetland are General Use waters with zero 7Q10 flows. The stream and wetlands have not been evaluated by the Illinois EPA Surface Water Monitoring Unit. The stream and the wetland areas are not enhanced water bodies 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 stream is not listed as a biologically significant stream nor has it received an integrity rating. The North Branch Willow Creek has a drainage area of approximately 2.0 miles at the downstream end of the project site according to the USGS Stream Stats web tool. At the upstream end of the project, the watershed size for the North Branch Willow Creek is 0.67 square miles. The Illinois Natural History Survey provided a physical and chemical description of the stream in a document entitled A limited Water Quality Assessment and Stream Characterization of an Unnamed Tributary of Willow Creek at North Perryville Road, Winnebago County, Illinois, dated March 15, 2013. The stream had long periods of no flow during the drought of 2012. Flow was observed to have resumed on January 7, 2013 and a water sample for chemical analysis was taken several days later. The stream bed is generally very narrow and in some areas the entire bed is covered in cattails or grass. The water chemistry of the stream is normal for this type of stream with no water quality standards violations noted.

The floristic quality assessment of the shrub wetland indicates that the floristic quality index is 10.4 and the native mean conservation value is 2.1, which is representative of a fair quality wetland.

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. Aquatic life uses in the portion of the North Branch Willow Creek that will be filled during construction will be negatively impacted, but in time, the created segments of the stream will support approximately the same community structure as is now found in the existing channel. The project will eliminate the current habitat from the filled wetland.

Once the project is constructed, it will result in additional chloride in the North Branch Willow Creek due to winter road salting. The applicant concluded that since an annual average of 51 tons of road salt is applied to the existing two-lane roadway currently, expansion to four lanes will result in a 102 ton average road salt tonnage applied. Given the watershed of North Branch Willow Creek has significant areas of park lands and other land use that will not contribute road salt, the water quality standard for chloride is anticipated to be met after the project is completed.

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 and prevent further impact to the stream. The created stream segments will be constructed in the dry, thereby minimizing suspended solids.

The Applicant used the Illinois Stream Mitigation Guidance Version 1.0, March 2010 document to determine credits required from the proposed impact to the North Branch Willow Creek (14,176 mitigation credits required), and to determine the credits generated as a result of the proposed mitigation efforts (15,715 mitigation credits generated). A 1.5:1 ratio was utilized to determine wetland mitigation.

Chloride will persist in the stream channel and will be diluted when the North Branch Willow Creek enters Willow Creek, which then enters the Rock River approximately two miles downstream of the project site.

Purpose and Social & Economic Benefits of the Proposed Activity.

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

“The purpose of the project is to expand the existing two lane road to four lanes to accommodate the rapid economic development within the IL 173 corridor. The new roadway will improve access to Rock Cut State Park and the surrounding commercial, retail and residential developments within this corridor. The new roadway will also improve the capacity and safety deficiencies of the existing roadway by regulating the spacing of intersections and providing adequate turning lanes and traffic controls.”

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.

The following alternatives were considered for this project;

1. No-Action Alternative: The No-Action Alternative does not address the adverse impacts which result from an increase of traffic on the existing two-lane road. Conditions on IL Route 173 would deteriorate as automobile and truck traffic increases as development of the area continues. Public convenience and safety would be compromised.

2. Six Lane Alternative: This alternative would impact more stream corridor and wetlands than the preferred four lane alternative.
3. Four Lane Alternative: This is the preferred alternative and proposes that the minimal expansion be made to the existing roadway to improve its carrying capacity and operational safety.

The presence of the parkland all along the south side of Rt. 173 limits the ability of the applicant to avoid the wetland and the North Branch of Willow Creek. Restrictions exist to the use of parkland for projects of this nature, forcing all the road expansion to the north.

An alternatives analysis was also performed for the additional loading of chloride. The applicant will minimize salt used on the roadway according to policies adopted and published in the "Bureau of Operations and Maintenance Policy Manual." These policies include:

- Use of salt trucks with calibrated spreaders and ground speed sensors that control the rate of spreading to conform to a table that has recommended salt amounts for various conditions of ice and snow.
- A training program for truck drivers and salt handlers to improve efficiency and reduce losses.
- Subscription to a weather forecasting service that gives local snow and ice conditions and recommends application rates based on the aforementioned table.
- Pre-wetting of road surfaces which allows salt to better stick to the road surface and not blow or bounce away.

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

Endangered species consultation was initiated through the Illinois Department of Natural Resource's EcoCAT system. A November 28, 2012 letter from IDNR terminates consultation as they conclude that the activity is unlikely to impact the species nearby.

The applicant conducted a public meeting on the project in the Rockford area. Comments were received from a local environmental group.

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 improving traffic flow and promotion of economic opportunity. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.