

Fact Sheet for Antidegradation Assessment

Illinois Department of Transportation, District 6 – Main Drainage Ditch, tributary to Main Drainage Ditch and unnamed wetland – Christian County

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The Illinois Department of Transportation (“Applicant”) has applied for Section 401 water quality certification for work associated with the expansion of US 51 from a 2- lane highway to a 4-lane, partial access controlled, divided highway. This proposed project is part of a total 32 miles construction project from near Elwin (south of Decatur) on the north to just south of the City of Pana to convert US 51 into a 4-lane road. This specific proposed project is for 4.33 miles of roadway widening from 1.4 miles south of the City of Assumption to 2.7 miles north of Illinois Route 16. A total of five bridges will be constructed or widened, a small 0.06 acre wetland will be impacted and a drainage stream will need to be relocated. The project is located in Section 1, 2, 13, 14, 23, 24, 25, 26, 35, and 36, Township 11 & 12 North, and Range 1 East. The impacted streams are identified by the Applicant as the Main Drainage Ditch and an unnamed tributary to the Main Drainage Ditch. Note: The Illinois Integrated Water Quality Report identifies the Main Drainage Ditch as being Lake Fork Creek, segment code EOHK.

The following is a summary of the crossings.

<u>Crossing</u>	<u>Stream</u>	<u>Total Impact Length</u>	<u>Riprap/ Cubic Yards</u>
SN 011-3362	Main Drainage Ditch	81.5 feet	481.7
SN-011-0038	Main Drainage Ditch	110.5 feet	605
SN-011-0037	Main Drainage Ditch	60 feet	410
SN-011-2504	Main Drainage Ditch	196 feet	(culvert)
SN-011-3413	tributary to the Main Drainage Ditch	*80.25 feet	57.78

\*There will also be a 0.06 acre marsh wetland affected by this crossing.

Normal low flows will be maintained during construction by placing a culvert in the streams or by other applicable and appropriate water re-routing methods. The stream channels will be cleaned and reshaped upon completion of the project. The Applicant will purchase 0.12 acres of wetland from the LaGrange Wetland Bank in Brown County for the 0.06 acres of wetlands impacted by this project (a 2:1 ratio).

**Identification and Characterization of the Affected Water Body.**

The Main Drainage Ditch, the unnamed tributary to the Main Drainage Ditch and the wetland are General Use waters with zero 7Q10 flows. The streams and the wetlands have not been evaluated by the Illinois EPA Surface Water Monitoring Unit. The streams and the wetland areas are not an enhanced waterbody 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 are not listed as biologically significant streams nor have they received an integrity rating. The floristic quality assessment of the wetland indicates that the floristic quality index is 8.0 and the native mean conservation value is 2.2, which is representative of a disturbed low quality wetland. The Main Drainage Ditch has a drainage area of approximately 28 miles at the project site. The unnamed tributary to the Main

Drainage Ditch has a drainage area of approximately 3.5 miles at the project site. The drainage area for both streams has been described by the Applicant as, “the land use within this watershed is entirely composed of farmland (crop production and farmsteads).”

**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 Main Drainage Ditch that will be disturbed during construction may be negatively impacted, but in time, they will recover and support approximately the same community structure as is now found in the existing channel. The project will eliminate the current habitat from the wetland and the rerouted unnamed tributary to the Main Drainage Ditch.

**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. Construction for the proposed project will occur during a period of low flow to further minimize any impact.

The Applicant used the Illinois Stream Mitigation Method document to determine credits required from the proposed impact to the unnamed tributary to the Main Drainage Ditch (7,952 mitigation credits required), and to determine the credits generated as a result of the proposed mitigation efforts (9,980 mitigation credits generated). Part of this mitigation plan includes planting a minimum 50’ wide buffer consisting of native perennial and annual plant species on both sides of the new relocated stream. This will result in approximately 8.42 acres of buffer next to the stream that currently has no buffer.

**Purpose and Social & Economic Benefits of the Proposed Activity.**

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

“The decision is to construct a four-lane, partially access-controlled, divided highway from the south of the City of Pana to existing four-lane regional interstate highway near Elwin...The proposed action to construct a new highway is one of several courses of action that were evaluated for satisfying the goals and objectives of the project which are to: 1) promote economic development; 2) provide better system continuity with existing regional interstates; 3) provide the same level of service that exists on U.S. 51 north of Decatur; 4) correct operational deficiencies; and 5) provide a safer transportation corridor.”

**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 streams.

The Applicant has stated the following concerning alternatives 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 rural communities in the study area. Conditions on U.S. 51 would deteriorate as automobile and truck traffic increases...”

2. Other Modes of Transportation; This alternative does not meet the goals and objectives of the project and is not considered a viable alternative...
3. Minimal Improvements to U.S. 51; This alternative proposes that minimal improvements be made to existing U.S. 51 to improve its carrying capacity and operational safety...This alternative does not meet the goals and objectives of the project and is not considered a viable alternative.”

After considering the above described alternatives the Applicant reviewed numerous build options that either went around the east or west side or thru the different communities affected in the total 32 mile widening project of U.S. 51.

“The recommended alternative best serves the statewide effort to promote Corridors of Economic Opportunity. It also serves to reduce safety hazards and minimize the threat to the quality of life.”

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

In a report generated through IDNR’s EcoCAT system dated July 6, 2012, the Illinois Natural Heritage Database contains no records of State-listed threatened or endangered species in the vicinity of the project location; therefore, consultation is 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 activity will benefit the community at large by improving traffic flow and promote 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.