IEPA Log No.: **C-0086-18**
CoE appl. #: **LRC-2016-00158**

Public Notice Beginning Date: **March 11, 2019**
Public Notice Ending Date: **April 1, 2019**

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

Discharge Location: Along I-294 corridor within Cook and Dupage Counties.

Name of Receiving Water: Multiple Waters

Project Description: Proposed widening and reconstruction of approximately 22.5 miles of the Interstate 294 Central Tri-State Tollway (CTS).

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 U.S. 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.

DRG:C-0086-18_401 PN and FS_01Jun18.docx

Fact Sheet for Antidegradation Assessment
For Illinois State Toll Highway Authority
IEPA Log No. C-0086-18
COE Log No. LRC-2016-00158
Contact: Abby Brokaw 217/558-2012
Public Notice Start Date: March 11, 2019

The Illinois State Toll Highway Authority ("Applicant") has applied for a 401 Water Quality Certification for impacts associated with the widening and reconstruction of Interstate 294 (I-294) for the Central Tri-State (CTS) Tollway from milepost 17.5 (95th street) to milepost 40.0 (Balmoral Avenue) in the Villages of Rosemont, Schiller Park, Franklin Park, Northlake, Elmhurst, Berkeley, Oak Brook, Hillside, Westchester, Western Springs, Hinsdale, Indian Head Park, Burr Ridge, Countryside, Willow Springs, Justice, Bridgeview, Hickory Hills, and unincorporated Cook and DuPage counties in Illinois. The proposed CTS Tollway project is primarily within the limits of the existing I-294 Tollway's right-of-way (ROW). One omission area, between milepost 33.6 (North Avenue) to milepost 36.3 (just south of Wolf Road), was previously permitted by USACE to facilitate the connection from the Elgin O'Hare Western Access (EOWA) to I-294.

The I-294 CTS Tollway consists of four mainline lanes in each direction, with auxiliary lanes at system interchanges and toll plazas. In its current state, the CTS Tollway is characterized by several deficiencies including: meeting current roadway standards, substandard design for a higher design speed, severe congestion, and deficient bridges. The proposed CTS Tollway project would bring the roadway to a state of good repair and replace an outdated, frequently congested roadway with a corridor that better serves the region's transportation network and allows for more safe, reliable and efficient regional travel.

The scope of work includes improving capacity throughout the proposed project area by constructing a flex lane (or a widened inside shoulder) and a fifth lane in each direction along the most congested sections of the roadway. Additional proposed project improvements include: reconfiguration to the major system interchanges; new interchanges for improved local access; replacement of 40 existing bridges; rehabilitation of 30 existing bridges; addition of 7 new bridges; removal of 2 bridges; and enhancements to toll plazas, drainage walls, retaining walls, noise abatement, roadway lighting and Intelligent Transportation Systems (ITS). The largest bridge reconstructions would occur at the Mile Long Bridge, BNSF over I-294, and Bensenville Yard Bridge; which would all require the construction of causeways. The open drainage system would be improved with the addition of permanent Best Management Practices (BMPs) including: detention basins, biofilters (swales) and manufactured devices (catch basin or hydrodynamic separator) to improve water quality within the project corridor.

Most recent Wetland and Waterway Impact Tables provided to the Agency identify a total of 30 waterways (or ditches) and 26 wetlands within the project area that qualify as wetlands and Waters of the United States (WOUS) under USACE jurisdiction. Total impacts to wetlands and WOUS are minimized throughout the design of the project; however, a total of 5.20 acres (or 12,614 linear feet) of waterway would be permanently impacted; 2.22 (or 2,574 linear feet) acres of waterway would be temporarily impacted; 5.28 acres of wetland would be permanently impacted; and 0.54 acres of wetland would be temporarily impacted.

According to the applicant, construction outside of all jurisdictional wetlands and waterways was anticipated to begin in 2018 with bridge rehabilitation and utility relocation. The BNSF Bridge and Mile Long Bridge are proposed to start construction in 2019. The BNSF Bridge would be completed

in 2022, while the Mile Long Bridge construction would be completed in 2023. Construction of the mainline is anticipated to begin in 2022 and be completed in 2026. Information used in this review was obtained from the Antidegradation Assessment dated May 14, 2018; Spring Brook No. 1 Creek and Wetland Restoration Project, Phase 2 at Blackwell Forest Preserve plan dated October 2018; and supplemental information.

Identification and Characterization of the Affected Water Body

A total of 30 waterways (18.55 acres or 27,869 linear feet) and 26 wetlands (14.31 acres) were identified within the project limits. The Applicant provided physical stream characteristics for each stream crossed by the project including, type of waterway, upstream watershed size (square miles), stream width (ft.), stream substrate, and riparian buffer/bank vegetation type. In-stream water quality field parameters including temperature, dissolved oxygen, pH, and conductivity were sampled at tributaries of Salt Creek, Des Plaines River, Chicago Sanitary and Ship Canal, Crystal Creek, Flag Creek, and 2 unnamed tributaries of Flag Creek. In addition, copper, lead, zinc, total suspended solids and chloride data from the USEPA and USGS were reviewed for the watersheds of Salt Creek, Crystal Creek, Des Plaines River, Chicago Sanitary and Ship Canal, and Flag Creek. Samples at each site were found to be below the acute and chronic water quality standards for each parameter.

The Qualitative Stream Habitat Assessment Procedure was used for evaluating the physical habitat of 5 sites, including: Crystal Creek, Flag Creek at SRC Park, Flag Creek at Plainfield Road, Salt Creek at Bemis Woods, and Salt Creek at I-294. The total score is based on 15 parameters and provides an overall habitat quality rating for each stream reach. Habitats are standardized and compared to reference conditions, rather than scored at cutoff points. Habitat conditions at 4 of the 5 sites differed substantially from reference conditions and therefore receive a “poor” rating with the fifth site receiving a “fair” rating (Salt Creek at I-294).

Macroinvertebrates were collected by the Illinois Natural History Survey (INHS) (2016) from the 5 sites using the IEPA 20 jab method and evaluated using the Macroinvertebrate Biotic Index (MBI) and the Macroinvertebrate Index of Biotic Integrity (MIBI). The 20 jab MBI value was between 5.2 and 5.0 for sampled streams. A low MBI score indicates a higher quality water body (scoring is 0 – 11). The MIBI value for Crystal Creek and Flag Creek at SRC Park were under 20.8, which is considered “poor” using the IEPA method for interpreting MIBI scores. The MIBI values for Flag Creek at Plainfield Road, both Salt Creek sample locations and the two tributaries to Flag Creek were between 20.9 and 41.7, which are considered “fair” using the IEPA method for interpreting MIBI scores.

The metric used for evaluating the fish communities in Illinois is the Index of Biotic Integrity (IBI). The IBI consists of 10 metrics or parameters that include trophic composition, as well as abundance and condition of the fish community. The IBI scores for the three sample locations were 11 at Crystal Creek, 27 at Salt Creek and 20.33 at Flag Creek. The Biotic Integrity Class for each were very low, low and low, respectively.

The INHS conducted mussel collections at six locations on four streams during August and September 2015. Of the six locations surveyed, live mussels were only found at two locations. Dead shells were observed by the INHS during the survey, along with numerous Asian clams, an invasive species. Species collected include 1 Giant floater (*Pyganodon grandis*) at Salt Creek (Dean Nature

Preserve), 28 Giant floaters (*Pyganodon grandis*) at Flag Creek (Cochise drive), 1 Liliput (*Toxoplasma parvum*) at Flag creek, and 1 Paper pondsheel (*Utterbackia imbecillus*) at Flag Creek (Cochise Drive).

The identification and characterization of the wetlands and waterways of the Des Plaines River watershed (HUC #07120004) are below. The streams and wetlands within the Addison Creek Watershed (HUC #071200040403) were reviewed as part of the previously permitted connection from the Elgin O'Hare Western Access to I-294.

Stony Creek Watershed (HUC #71200030401)

The unnamed tributary of Stony Creek is a General Use Water with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary of Stony Creek, a tributary to Waterbody Segment IL_HG, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. The unnamed tributary of Stony 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* or given an integrity rating in that document. The unnamed tributary of Stony Creek is not subject to enhanced dissolved oxygen standards. A total of 0.30 acres (or 2,441 linear feet) of the unnamed tributary of Stony Creek is in the project limits.

The unnamed tributary of Stony Creek was characterized in the wetland and waterway delineation report as a perennial stream with moderate flow and adjacent land cover consisting of upland meadow, upland forest, and urban land. An attempt was made to perform measurements on the wetland connected to the water; however, fencing and a locked gate restricted the ability to gather data. However, within the right of way, the waterway appeared to be artificially constructed and channelized. Liquid water present at the time of the visit, despite extended period of sub-freezing temperatures (visit completed February 2019), suggests either the presence of moving water within this area or high concentrations of dissolved salt. Wetland vegetation was abundant within and along the waterway and it is expected to dominate the attached wetland.

One wetland was identified in the Stony Creek Watershed as a marsh with a FQI/C-Value of 4.7/2.7 and a total of 0.19 acres within the project limits.

Maple Lake - Chicago Sanitary and Ship Canal Watershed (HUC #071200040705)

The unnamed tributary of I&M Canal is a General Use Water with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary of I&M Canal is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. The unnamed tributary of I&M Canal is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. The unnamed tributary of I&M Canal is not subject to enhanced dissolved oxygen standards. A total of 0.12 acres (or 605 linear feet) of the unnamed tributary of the I&M Canal is in the project limits.

The Illinois and Michigan (I&M) Canal (no segment code), a General Use tributary to Waterbody Segment IL_GI-06, has 0 cfs of flow during 7Q10 low-flow conditions. The I&M Canal is not listed

on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. The I&M Canal is not listed as a biologically significant stream at the point of discharge in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. The I&M Canal is not subject to enhanced dissolved oxygen standards. A total of 0.50 acres (1,035 linear feet) of the I&M Canal are in the project limits.

The Chicago Sanitary and Ship Canal is a General Use Water with 1014 cfs of flow during critical 7Q10 low-flow conditions. The Chicago Sanitary and Ship Canal, Waterbody Segment IL_GI-06, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for indigenous aquatic life use with potential causes given as dissolved oxygen, phosphorus (total), iron, and total dissolved solids; and fish consumption use with a potential cause given as polychlorinated biphenyls (PCBs). The Chicago Sanitary and Ship Canal is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System*; however, it is given a "D" integrity rating in that document. The Chicago Sanitary and Ship Canal is not subject to enhanced dissolved oxygen standards. A total of 3.52 acres (1,342 linear feet) of the Chicago Sanitary and Ship Canal are in the project limits.

In addition, 4 wetlands were identified in the watershed and within the project limits, totaling 0.48 acres. Two of the wetlands were identified as High Quality Aquatic Resources (HQAR) with FQI/C-Values of 9.8/4.0 and 8.5/6.0. The other two wetlands had FQI/C-values of 11.5/3.2 and 0.0/0.0. The wetland types were identified as follows: 0.03 acres of emergent wetland, 0.3 acres of wetlands adjacent to traditional navigable waters (TNW) and 0.15 acres of wetland with significant nexus (a wetland that has more than a speculative or insubstantial effect on the chemical, physical, and biological integrity of a TNW).

Goose Lake - Des Plaines River Watershed (HUC #071200040706)

The Des Plaines River is a General Use Water with 133 cfs of flow during critical 7Q10 low-flow conditions. The Des Plaines River, Waterbody Segment IL_G-39, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as aldrin, arsenic, chloride, dissolved oxygen, lindane, methoxychlor, other flow regime alterations, pH, and phosphorus (total); fish consumption use with potential causes given as polychlorinated biphenyls and mercury; and primary contact use with a potential cause given as fecal coliform. Aesthetic quality use is fully supported. The Des Plaines River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System*; however, it is given a "C" integrity rating in that document. The Des Plaines River is not subject to enhanced dissolved oxygen standards. A total of 1.69 acres (or 1,006 linear feet) of the Des Plaines River are in the project limits and are identified as HQAR.

The unnamed tributary of the Des Plaines River is a General Use Water with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributary of the Des Plaines River, a tributary to Waterbody Segment IL_G-39, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. The unnamed tributary of the Des Plaines River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural

Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. The unnamed tributary of the Des Plaines River is not subject to enhanced dissolved oxygen standards. A total of 0.15 acres (or 810 linear feet) of the unnamed tributary of the Des Plaines River are within the project limits.

In addition, 8 wetlands were identified within the watershed and within the project limits, totaling 5.23 acres; of which, 3 wetlands were identified as HQAR with FQI/C-Values of 8.1/4.7, 15.7/3.8, and 12.0/6.0. The additional 5 wetlands have FQIs ranging from 0 to 6.6 and C-Values ranging from 0 to 3.0. The wetland types included a wetland with significant nexus, wetland adjacent to TNW (3), and historical wetland (4).

Flag Creek Watershed (HUC #071200040701)

Flag Creek is a General Use water with 9.0 cfs of flow at the I-55 crossing and 0 cfs of flow at the 47th Street crossing during 7Q10 low-flow conditions. Flag Creek, Waterbody Segment IL_GK-03, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as alteration in streamside or littoral vegetative covers, arsenic, DDT, hexachlorobenzene, methoxychlor, and phosphorus (total). Aesthetic quality use is fully supported. Flag Creek is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. Flag Creek is not subject to enhanced dissolved oxygen standards. A total of 2.43 acres (or 9,161 linear feet) of Flag Creek is within project limits.

The unnamed tributaries of Flag Creek (6 total) are General Use Waters with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributaries of Flag Creek, tributaries to Waterbody Segment IL_GK-03, are not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since they have not been assessed. The unnamed tributaries of Flag Creek are not listed as a biologically significant streams in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given integrity ratings in that document. The unnamed tributaries of Flag Creek are not subject to enhanced dissolved oxygen standards. A total of 2.43 acres (or 4,923 linear feet) of the unnamed tributaries of Flag Creek are within the project limits.

Two unnamed tributaries to Flag Creek at MP 24.2 and MP 24.7 were determined to have a watershed drainage of greater than one square mile. Both tributaries were sampled for macroinvertebrates and water quality, as neither tributary had been assessed by the Agency. Macroinvertebrates were collected and in-stream habitat was assessed for both tributaries. At the time of the site visit, a fish kill was observed. The portion of the tributary flows under the CTS Tollway is concrete lined and much wider than the portion upstream, greatly decreasing the water depth. Therefore, fish are not normally present adjacent to or under the CTS. However, it appeared fish had been carried downstream by high flow and became trapped prior to the site visit. Due to the lack of water depth, many died. Those that could be rescued were carried back upstream and placed in a more suitable habitat. The fish observed included green sunfish, bullhead and minnows.
In addition, 6 wetlands were identified within the watershed and within the project limits, totaling 2.0 acres. None of the wetlands were identified as HQAR and had FQIs ranging from 1.0 – 9.9 and C-Values ranging from 1.0 – 3.0. The wetlands were identified as marsh (2), forested wetland and wet meadow, forested wetland, wet meadow (2).

Lower Salt Creek Watershed (HUC #071200040404)

Salt Creek is a General Use water with 39 cfs of flow during 7Q10 low-flow conditions. Salt Creek, Waterbody Segment IL_GL-09, is listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as Aldrin, chloride, dissolved oxygen, methoxychlor, other flow regime alterations, phosphorus (total), sedimentation/siltation, and total suspended solids; fish consumption use with potential causes given as polychlorinated biphenyls and mercury; and primary contact use with a potential cause given as fecal coliform. Aesthetic quality use is fully supported. Salt Creek is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System*; however, it is given a "D" integrity rating in that document. Salt Creek is not subject to enhanced dissolved oxygen standards. A total of 0.29 acres (or 97 linear feet) of Salt Creek are within the project limits and were identified as HQAR.

Salt Creek had a fish IBI score of 27, indicating low biotic integrity. Salt Creek had a macroinvertebrate score of fair. Only one mussel was found in Salt Creek, indicating the stream is not a significant mussel resource.

Salt Creek (IL_GL-09) has an approved Total Maximum Daily Load (TMDL) limit for the following impairments: ammonia (total), BOD (carbonaceous), chloride, and volatile dissolved solids. In addition, Salt Creek has a Stage 3 TMDL for fecal coliform and pH. The TMDL indicates that salt application for deicing is the major source of chloride leading to the general use water quality standard exceedance and therefore, indicates the need for salt application chloride reduction. The TMDL determined that a waste load allocation (WLA) concentration of 300 mg/L protects the water quality standard.

The four unnamed tributaries of Salt Creek are General Use Waters with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributaries of Salt Creek, tributaries to Waterbody Segment IL_GL-09, are not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since they have not been assessed. The unnamed tributaries of Salt Creek are not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given integrity ratings in that document. The unnamed tributaries of Salt Creek are not subject to enhanced dissolved oxygen standards. A total of 0.36 acres (or 572 linear feet) of the unnamed tributaries of Salt Creek are within the project limits.

In addition, 3 wetlands were identified within the watershed and within project limits, totaling 2.45 acres. The wetlands were identified as Forested wetland, marsh and wet meadow; forested wetland and wet meadow; and emergent wetland with FQI values ranging from 5.2 – 16.9 and C-Values ranging from 2.2 – 3.1.

Addison Creek Watershed (HUC #071200040403)

The project corridor crosses Addison Creek within the Addison Creek Watershed. In addition, 3 wetlands were identified within the watershed and within the project limits. Only 1 wetland totaling 0.29 acres would be impacted by the project. The wetland was identified as an emergent wetland

with an FQI value of 10.3 and C-Value of 3.6. The wetland was identified as a HQAR. The CTS between 33.6 and 36.3, which includes the crossing of Addison Creek, was previously permitted as part of the aforementioned EOWA project.

Bensenville Ditch - Des Plaines River Watershed (HUC #071200040506)

The Bensenville Ditch, also known as Silver Creek (no segment code), is a General Use water with 4.7 cfs of flow during critical 7Q10 low-flow conditions. The Bensenville ditch, a tributary to the Des Plaines River, IL_G-30, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. The Bensenville Ditch is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. The Bensenville Ditch is not subject to enhanced dissolved oxygen standards. A total of 0.14 acres (or 53 linear feet) are within the project limits.

The unnamed tributaries of Crystal Creek (9 total) are General Use waters with 0 cfs of flow during critical 7Q10 low-flow conditions. The unnamed tributaries of Crystal Creek, tributaries to Waterbody Segment IL_GN-01, are not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since they have not been assessed. The unnamed tributaries of Crystal Creek are not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given integrity ratings in that document. The unnamed tributaries of Crystal Creek are not subject to enhanced dissolved oxygen standards. A total of 2.61 acres (or 5,319 linear feet) of the unnamed tributaries of Crystal Creek are within the project limits. Physical characteristics of the unnamed tributaries of Crystal Creek were included in the wetland delineation report. Seven of the streams were identified as perennial with muck, silt, sand and concrete substrates and bank vegetation consisting of green ash, red mulberry, Siberian elm, eastern cottonwood, willow, cattail, reed canary grass, and cottonwood. The other two streams were identified as intermittent with muck, sand and some silt substrates and bank vegetation consisting of common buckthorn, green ash, red mulberry, Siberian elm, cattails, box elder, common reed, teasel, and Virginia creeper. As previously mentioned, a habitat assessment, in-stream water quality field parameter collection, and fish community evaluation were completed in Crystal Creek, which is downstream of the unnamed tributaries.

Crystal Creek is a General Use water with 0 cfs of flow during critical 7Q10 low-flow conditions. Crystal Creek, Waterbody Segment IL_GN-01, is not listed on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) List, since it has not been assessed. Crystal Creek is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources publication *Illinois Multiple Taxa in a Biological Stream Rating System* or given an integrity rating in that document. Crystal Creek is not subject to enhanced dissolved oxygen standards. A total of 1.08 acres (or 505 linear feet) of Crystal Creek is within the project limits.

In addition, one wetland located within the watershed is in the project limits, totaling 2.62 acres. The wetland was identified as forested with an FQI value of 9.2 and a C-value of 3.3.

Of the 14.31 acres of wetlands and 18.55 acres (or 27,869 linear feet) of waterway within the project limits, permanent impacts to 5.28 acres of wetlands and 5.20 acres (or 12,614 linear feet) of

waterway are anticipated. An additional 0.54 acres of temporary impacts to wetlands and 2.22 acres (or 2,574 linear feet) are anticipated for construction of the causeways. The Applicant proposes mitigation for impacts at the Spring Brook No. 1 Creek and Wetland Restoration - Phase 2 project site.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses

Increased pollutant loading of total suspended solids and stream disturbance would be caused by construction of culvert extensions, a widened roadway, and bridge improvements. Surface area impacts includes 5.20 acres permanent impact to waterways and 5.28 acres permanent impacts to wetlands, with 2.76 total acres of temporary impacts to waterways and wetlands. The temporary impacts are from constructed causeways used for pier removal during construction which would require using a concrete block filled with non-erodible, clean stone. During in-stream work, all demolition debris would be continuously removed from the waterway and debris/trash booms would be installed to contain floating debris. Once the instream work is complete, the contractor would be required to re-establish waterway contours within acceptable construction tolerances.

The SELDM model was used to assess the potential water quality impacts due to total suspended solids, copper, lead, and zinc in highway runoff at Chicago Sanitary & Ship Canal, I&M Canal, Des Plaines River, Flag Creek, unnamed tributary to Flag Creek, Salt Creek and Crystal Creek. Existing water quality data for metals does not indicate the potential for water quality impacts. Wherever possible, stormwater runoff would be conveyed through vegetated swales or bioswales, which provide filtration of suspended solids and contaminants such as phosphorus, nitrogen, BOD, metals and oils. In some locations open ditches would be converted to pipes due to the presence of retaining wall and space restrictions. Oil/water separators, structural grit separators and other mechanical methods for water quality improvements would be used at these locations.

Chloride concentrations were projected using the USGS's methodology of regression models and indicated that the chloride General Use water quality standard of 500 mg/L would be achieved for streams within the proposed project area. Currently, there are 156 lane miles that receive an average of 4,440 tons per year of rock salt for de-icing. The expansion would add approximately 40 lane miles of new pavement and under current practices, application of salt would be approximately 5,578 tons per year of salt. Recognizing that many of the watersheds are impaired for chlorides, the Applicant commits to a 'no net increase' in rock salt use for the CTS corridor, on a five-year running average. The commitment would maintain the average application amount of 4,440 tons of rock salt per year would be achieved by reductions in salt application and an "offset program." The Applicant plans to further reduce salt application by expanding its liquid de-icing practices and the 100 pound per mile salt application rate. Pre-wetting and anti-icing has the potential to reduce salt use in the watershed crossed by the CTS by a total of 11,336 tons per year. If further reductions are needed, the Applicant plans to develop an offset program in partnership with the DuPage River Salt Creek Workgroup, MWRDGC Chicago Area Waterways Chloride Initiative Workgroup and other municipalities adjacent to the corridor with an aim at reducing salt use by 17.5% - 20% within partnering municipality roadway jurisdictions over a continuous five-year period. Reductions and offsets would be achieved through funding agreements and intergovernmental agreements for upgrades and improvements to community partner's salt application equipment and techniques. The combined or individual potential of these practices to reduce salt use in the watersheds crossed by the

proposed CTS Tollway project area is greater than the reduction and offset target of 1,423 tons per year.

Fate and Effect of Parameters Proposed for Increased Loading

The increase of suspended solids in the impacted streams would be local and temporary and although the benthic habitat would be disturbed in the receiving streams, it is anticipated to recover and improve over time**.** A total of 5.28 acres of jurisdictional wetlands and 5.20 acres (12,614 linear feet) of jurisdictional waterways are proposed to be permanently impacted. Most of the wetlands and WOUS to be impacted are considered low to moderate quality and would require wetland mitigation at a ratio of 1.5:1. Five wetlands and two waterways were identified as High Quality Aquatic Resources (HQAR), due to high Native C-Values (wetlands) or B biological diversity ratings as part of the Biological Stream Characterization study (waterways). Any impacts to HQAR wetlands and waterways would require wetland mitigation at a ratio of 3:1.

The Applicant is proposing to provide wetland and WOUS mitigation at the Spring Brook No. 1 Creek and Wetland Restoration - Phase 2, a 116 acres site acquired by the Forest Preserve District of DuPage County, within Blackwell Forest Preserve in Warrenville, Illinois. The mitigation site would restore Spring Brook No. 1 Creek to a more naturalized state by removing a control structure and modifying the stream bed and banks to create stream meanders and wetlands on adjacent shorelines. The Spring Brook No. 1 Creek would increase from its existing length of 4,400 linear feet to a total of 5,515 linear feet, along with the creation of 7.66 acres of wetlands. The Spring Brook No. 1 Creek and Wetland Restoration – Phase 2 project satisfies the mitigation requirements for all impacts to WOUS and wetlands from the proposed CTS Tollway project. The Forest Preserve District of DuPage County and the Applicant entered into a formal Intergovernmental Agreement in May 2018, in which the Applicant has agreed to fund the planning, design, permitting and construction of the Phase 2 project. In total, the project includes 18.46 acres of total wetland creation; 1,115 linear feet of stream creation; and 4,400 linear feet of stream restoration.

Purpose and Social & Economic Benefits of the Proposed Activity

The CTS Tollway is an integral part of the region's economy and transportation network by connecting two airports, three railroad intermodal facilities, thousands of businesses and hundreds of thousands of residents. Large industrial, freight and commercial distribution centers located along the CTS Tollway take advantage of the connection it provides to other highways, airports, and railroad intermodal facilities. The purpose and need of the proposed CTS Tollway project is to reduce congestion and improve mobility throughout the corridor resulting in a safer roadway, less fuel consumption, and benefits to the regional economy. Rebuilding and widening the CTS Tollway is part of the 15-year, $12 billion capital program, *Move Illinois: The Illinois Tollway Driving the Future,* aimed to update and enhance the existing Tollway system.

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

The CTS Tollway is an existing roadway in a highly urbanized and restricted corridor. There are limited options for modifying roadway alignments to avoid wetland and waterway impacts without impacting other resources (i.e. residences and businesses). Only slight modifications to the existing

alignment are possible and have been proposed. The Master Plan developed 8 different roadway configurations or alternatives to meet the long-term needs of the corridor. These alternatives included typical and hybrid options including: in-kind reconstruction (no added capacity), in-kind reconstruction with flex-lane (no added capacity), reconstruction with a fifth general purpose lane, reconstruction with a fifth general purpose lane plus flex lane, reconstruction with addition of dual buffered managed lanes with direct connection ramps at system interchanges, hybrid-reconstruction with the number of general purpose lanes to meet 2040 demand, hybrid-reconstruction to meet 2040 demand using a combination of general purpose lanes and a flex lane, and hybrid-reconstruction to provide a number of general purpose lanes to meet 2040 demand plus a flex lane. The alternatives were evaluated based on the following guiding principles: provides congestion relief, improves access, minimizes environmental impacts, provides future flexibility, supports opportunity for future innovation, fixes flooding and drainage problems, improves freight mobility, and probable cost. The alternative with the greatest environmental impact was eliminated from further study (i.e. managed lanes).

The Applicant selected a hybrid-reconstruction to provide a number of general purpose lanes to meet 2040 demand plus a flex lane to meet the goals of the project. To provide widening in many areas, retaining walls would be used to avoid property take and minimize impacts. Wetlands and waterways adjacent to the ROW have been avoided by limiting construction to Tollway ROW, where possible. The least intrusive alternative would be to not complete the project. This is not an acceptable alternative given the degradation of the CTS and mobility issues caused by traffic congestion. The proposed project would follow conditions set forth by the Agency and USACE.

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

The Applicant is subject to the Inter-Agency Wetland Protection Act (IWPA), which requires the Tollway to submit an IWPA Application to IDNR for the project and adhere to any and all recommendations/conditions provided by IDNR, as part of the permitting effort. An IWPA Application has not been submitted to IDNR at this time. In addition, the Applicant maintains a Memorandum of Understanding with Illinois Department of Natural Resources pertaining to EcoCAT consultations. The Applicant did, however, submit 4 consultations for information only EcoCAT consultations as part of wetland delineations and bio-assessments with initial results indicating the presence of Santa Fe Prairie INAI Site, Santa Fe Prairie Nature Preserve, Iowa Darter (*Etheostoma exile*), Fullersburg Woods Nature Center INAI Site, Salt Creek Woods INAI Site, Wolf Road Prairie INAI Site, Salt Creek Woods Nature Preserve, Wolf Road Prairie Nature Preserve, shadbush (*Amelanchier interior*), Wolf Road Prairie INAI Site, and Wolf Road Prairie Nature Preserve within the project vicinity.

The INHS completed fish, mussel and macroinvertebrate studies in July and August 2015 within the study corridor. No state listed mussels were identified during the surveys. One Iowa Darter was found in Flag Creek at Spring Rock Park, which is located east of the study area, south of BNSF railroad tracks. According to the INHS, the location the fish was observed is not near any known locations of stable populations of Iowa darter.

T&E species consultation has been completed by the Applicant for federally listed species with USFWS. The only species identified was the Northern long-eared bat (*Myotis septentrionalis*).

USFWS determined that this species may be affected, but that it was not likely to be adversely affected.

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 would 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 would benefit regional transportation and public safety. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.