

**Illinois Environmental Protection Agency  
Bureau of Water, Permit Section  
(IEPA)**

1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276, 217/782-3362

The IEPA has issued a Public Notice of a request for a Clean Water Act Section 401 water quality certification that would allow the issuance of a federal permit for the discharge of pollutants to waters of the State.

**Public Notice Beginning Date:**

Friday, April 19, 2024

**Public Notice Ending Date:**

Friday, May 3, 2024

**Agency Log No.: C-0053-22**

**Federal Permit Information:** Federal permit/license no. LRC-2022-110 is under the jurisdiction of Chicago District, Regulatory Branch U.S. Army Corps of Engineers

**Name and Address of Discharger:** Fehr Graham Engineering & Environmental, Leonard Dane - 230 Woodlawn Avenue, Aurora, IL 60506

**Discharge Location:** In Section 10 of Township 39-North and Range 8-East of the East 3rd Principal Meridian in Kane County. Additional project location information includes the following: 602 Crissey Avenue, Geneva, IL 60134

**Name of Receiving Water:** Fox River

**Project Name/Description:** Geneva WWTP Improvements and River Crossing - to replace the existing 20-inch conveyance pipe and install a new potential river crossing with 2 parallel 20-inch conduits via open cut trenching. This potential project will reduce the likelihood of sanitary sewer overflows, provide redundancy and allow for easier inspection and maintenance. A temporary coffer dam will be constructed, and new junction boxes would be installed on both sides of the crossing

**Construction Schedule:** Not identified

The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters must provide their name and address along with comments on the certification request. The IEPA Log number must appear on each comment page. Commenters may include a request for public hearing. Only hearing requests and comments that pertain to Clean Water Act Section 401 authority will be considered. This authority provides consideration of whether the permit or license would be consistent with Sections 301, 302, 303, 306, or 307 of the CWA, as well as "any other appropriate requirement of State [or tribal] law". Requests for additional comment period must provide a demonstration of need. The final day of comment acceptance will be on the Public Notice Ending date shown above, unless the IEPA grants an extended notice period. The attached Fact Sheet provides a detailed description of the project and the findings of the IEPA's antidegradation assessment.

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 see the contact information below.

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Post Document. No. C-0053-22-04192024-PublicNoticeAndFactSheet.pdf

The City of Geneva (“Applicant”) has applied for a 401 Water Quality Certification for impacts associated with the replacement of the existing 20” wastewater conveyance crossing with two new 20” ductile iron pipes. The current crossing is located north of a railroad crossing bridge in the Fox River and during rain events, the existing 20” wastewater conveyance is hydraulically overloaded, resulting in sanitary sewer overflows at the river crossing and in the Fargo Area Basin, southwest of the crossing. The new pipes would be located south of the railroad bridge near 602 Crissey Avenue, Geneva, Illinois. The proposed project location is in Township 39 North, Range 8 East, Section 10 in Kane County.

The proposed project will add a new river crossing with 2 parallel 20” conduits. In addition to the installation of pipes across the river, the project includes a new screening building, new generator, replacement of the UV system, and a new solids handling building. The new crossing would convey flow directly into the wastewater treatment facility. New junction boxes would be installed on both sides of the crossing to provide hydraulic control for the two conduits and connect to the existing sanitary sewer. The impacts for the river crossing will be less than one acre (Ac) and require trenching within the river due to the fractured bedrock. Bedrock was encountered at elevations of 658.0 feet on the west bank and 659.5 on the east bank. The estimated invert elevation for the new sanitary lines is 660.1-666.8 on the west bank and 659.19 on the east bank. A coffer dam will be used to dewater half of the river at a time, and fish and mussels will be relocated downstream and upstream, respectively. Approximately 0.05 Ac of temporary wetland impact will occur as a result of this project. Compensatory mitigation will be provided by a soil erosion and sediment control plan, and wetland and stream bank will be rebuilt with improved wetland plant species. Additionally, the project itself will provide mitigation as it is an overall improvement to SSO overload issues.

A total of 1115 cubic yards (CY) of material is expected to be excavated as a result of the proposed project. 500 CY will be disposed of in a landfill or CCDD, and the remaining 615 CY will be returned to the riverbed.

Information used in this review was obtained from the application documents dated February 11, 2022, February 24, 2022, December 6, 2022, and December 22, 2023.

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

The Fox River has 152 cfs of flow during critical 7Q10 low-flow conditions. The Fox River is classified as General Use Water. The Fox River 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*, however, is it given an integrity rating of “E” in that document. The Fox River (IL\_DT-58), is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as alteration in stream-side or littoral vegetative covers, dissolved oxygen, and flow regime modification, fish consumption use with potential causes given as mercury and polychlorinated biphenyls, and primary contact use with a potential cause given as fecal coliform. This segment of the Fox River is not subject to enhanced dissolved oxygen standards.

A wetland delineation was completed by Fehr Graham on September 23, 2022, for the survey area. The wetland areas were identified as the West Bank wetland area, consisting of 0.135 Ac, and the East Bank wetland area consisting of 0.087 Ac. These areas lie along the river near the construction zone and were further surveyed on October 14, 2022. Four data points (DP-1, DP-1A, DP-2, and DP-2A) were selected to represent the project site area conditions. DP-1A and DP-2A were determined to be upland areas.

Data Point DP-1 (also referred to as SB-1 in the application documents) is located on the west side of the river. The plant community at DP-1 is primarily dominated by White Mulberry (*Morus alba*), Buckthorn (*Rhamnus cathartica*), Boneset (*Eupatorium perfoliatum*), Ragweed (*Ambrosia artemisiifolia*), Rough Cocklebur (*Xanthium strumarium*), Reed Canary (*Pharis arundinacea*), and Wild Grape (*Vitis vulpina*). DP-1 has a Native Mean C of 2.67 and a Native FQI of 6.53. The soil observed at DP-1 was determined to be hydric soil. The wetland hydrology indicators observed were saturation and oxidized rhizospheres on living roots.

Data Point DP-2 (also referred to as SB-3 in the application documents) is located on the east shore of the Fox River, slightly above the rip-rap embankment. This bank is heavily altered and had a very pronounced steep slope between the water's edge and the public trail path. The plant community at DP-2 is primarily dominated by Boxelder (*Acer negundo*), White Mulberry (*Morus alba*), Reed Canary (*Pharis arundinacea*), Annual Ragweed (*Ambrosia artemisiifolia*), White-moth Mullein (*Verbascum blatteria*), and Wild Grape (*Vitis vulpina*). DP-2 has a Native Mean C of 2.0 and a Native FQI of 4.90. The east bank along the Fox River at this location is highly altered and the presumed wetland area was contained within a very narrow strip on a steep slope of shallow soil material and rip-rap below. A full soil profile could not be obtained at this location due to the shallow nature of the restrictive rock bank. However, a shallow water table and the visible surface water level of the river indicated that this location had wetland hydrology.

The total impacts to the wetlands in the project area are expected to be approximately 0.05 Ac. These impacts will be temporary as the wetland and streambank areas will be improved upon being rebuilt.

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

Any pollutant load increases in suspended solids that will occur will be temporary and minimized by keeping construction within the confines of the proposed coffer dam. Water removed from the coffer dam and discharged in the river will be filtered using a Dandy Bag. While discharging into the river, water removed from the coffer dam will be monitored for changes in appearance or odors which may indicate possible contamination.

Temporary impacts will occur in the 2 wetland locations. Additionally, 615 CY of excavated material will be returned to the riverbed. If contamination is discovered in the riverbed, the material will not be returned to the riverbed, rather, it will be disposed of and clean fill will be brought in. The clean fill would closely match the existing gradation of the riverbed, or the gradation will be specified based on recommendations. Additionally, all excavated materials will be stored onsite temporarily.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

The increase in suspended solids from the proposed project would be short-term and temporary. Measures to minimize the potential impacts to the receiving waters include the Stormwater Pollution Control Plan (SWPPP), erosion control measures such as seeding to restabilize disturbed areas, silt fences and erosion control blankets. A Dandy sack will be used for inlet protection, and temporary erosion control methods will be employed. These may include ditch checks and perimeter erosion control barriers which will be removed upon project completion. Controls and best management practices (BMPs) will be inspected on a routine basis and maintained in working order.

No permanent wetland fill will occur as a result of this project. Temporary impacts to the wetlands and streambank will be rebuilt with improved wetland plant species.

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

The project will increase the capacity for conveyance of sanitary waste to the wastewater treatment facility. This will reduce the risk of sanitary overflows and basement backups.

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

The applicant has analyzed the following pipe installation alternatives for this project:

Alternative 1 – Do Nothing: This is not a viable alternative. The hydraulic capacity of the pipe is exceeded during rain events resulting in sewer backups and overflows into streets near the existing river crossing and in the Fargo Area Basin. These overflows create health and safety issues and pose an environmental concern.

Alternative 2 – Install a Second 20” Pipe at the Existing Location: This alternative is feasible, but the location of the existing pipe does not provide ideal access to the plant. Relocation of the crossing below the railroad bridge would provide better hydraulics to the plant but since a second pipe would be installed, disturbances to the stream would be similar to the proposed project. This was not chosen as the preferred alternative.

Alternative 3 – Use Trenchless Technologies to Install Pipe: This option would pose a risk of flooding or collapsing due to the fractured nature of the bedrock on the river bottom and potentially cause water quality issues. This was not chosen as the preferred alternative.

Alternative #4 – Install Two 20” Pipes at a New Location (Preferred Alternative): Open cutting across the river was determined to be the safest alternative. The excavation will be shallow with the top of the pipe installed five feet below bedrock and the bottom of pipe will be approximately ten feet below bedrock. A coffer dam will be used to dewater one half of the river for installing the two pipes. Once the pipe installation on one side of the river is completed, the coffer will be moved to the other side of the river. The coffer dam will be moved to the other side of the river for the construction to be completed. After the coffer dam is installed, fish and mussels will be captured and relocating downstream (for fish) or upstream (for mussels). Once dewatering is complete, the dammed area will be checked for fish and mussels. This will occur daily prior to the start of construction activities. The river would not be completely blocked at any time, and a passage will remain for fish and mussels, as well as other aquatic species. Alternative 4 was determined to be the Preferred Alternative.

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

An EcoCAT endangered species consultation was submitted on January 20, 2022 (Project #2208740) to the Illinois Department of Natural Resources. The Illinois Wetlands Inventory shows wetlands within 250 feet of the project location.

The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

The Illinois Natural Heritage Database did not show protected resources in the immediate vicinity of the project location; however, the Fox River is known to contain the following State-listed fish and the nature of coffer dam construction could impact these species:

## State Threatened or Endangered Species

River Redhorse (*Moxostoma carinatum*)

Greater Redhorse (*Moxostoma valenciennesi*)

Due to the project scope and known protected species within the Fox River, the Department recommends the following actions:

### **River Redhorse and Greater Redhorse**

1. The Department recommends no in-stream construction during the spawning period for these two fish species, spanning April 1st to July 31st. Construction during this interval risks taking eggs of both species.
2. If the spawning date restriction cannot be accommodated, the Department recommends the applicant conduct surveys for these species.
3. If survey efforts determine the fish are present, the applicant would need to pursue an Incidental Take Authorization from the Department.

A letter from the U.S. Fish and Wildlife Service (USFWS) dated January 31, 2023, verifies that the proposed project is not likely to result in unauthorized take of the northern long-eared bat (*Myotis septentrionalis*).

### **Aquatic Resources**

Due to the extent of stream bed disturbance from the installation of the new river crossing, the Department recommends the applicant conduct a survey to determine the presence or absence of freshwater mussels within the disturbance footprint. A qualified biologist should conduct this activity and a proposed sampling plan should be submitted to the Department for comments prior to any in stream activities. Permits from the IDNR would be required. Please visit the following site for additional information pertaining to permitting.

As a result of the IDNR's recommendation, a mussel survey for this site was conducted in September 2022. The results of the survey are included as part of the application documents.

There were no federal or state-listed threatened or endangered species encountered during the survey. Sixty-seven live mussels and ten dead mussels were observed with seven non-exotic species represented. All seven species are commonly found in the Fox River watershed. A summary of the mussels found during the survey is included in the survey documents. All mussels found were released above the railroad bridge.

### **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 the community by increasing the capacity for conveyance of sanitary waste to the wastewater treatment

facility thus reducing the risk of sanitary overflows and basement backups. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.