

## **Project Summary and Preliminary Environmental Impacts Determination (PEID)**

Information in this report was obtained, in part, from the following source: Wastewater Facilities Plan submitted to the IEPA in January 2016, and amended in September 2018, by the City of Mascoutah. Additional documentation was obtained from loan application documents and compiled by the IEPA.

### **Part I – Applicant and Project Information**

**Project Name:** Wastewater Treatment Plant (WWTP) Improvements

**Loan Applicant:** Mascoutah

**County:** St. Clair

**Project Number:** L175101

**Current Population:** 7,850

**Future Population (Year 2038):** 10,000

**Project Description:** The project consists of improvements being made to the North Terminal lift station, Mid America lift station, 6<sup>th</sup> Street lift station, Kligelhoefer lift station, Eisenhower lift station, 4<sup>th</sup> Street lift station, lagoon improvements, and the construction of a new WWTP.

**Project Location:** See the attached map for project location.

**Project Justification:** The existing WWTP was constructed in 1987 and can no longer meet the effluent limit requirements that are required in the upcoming National Pollutant Discharge Elimination System (NPDES) permit. The City plans to construct a new WWTP that has a sequencing batch reactor with a biological nutrient removal operation and a chemical backup system. The new WWTP will also have a headworks containing a parshall flume, coarse and fine screen, a tertiary filter, rehabilitated aerobic digesters, and appurtenances. The City owns and operates three lagoons. Lagoons one and two are utilized for wet weather treatment and storage. Lagoon three is used as a sludge storage lagoon. All three lagoons are needing bank protection on the inside berms. This will help prevent berm failure and reduce the chance of flooding. Additionally, there are 6 lift stations that need improvements in Mascoutah. The Mid America lift station will get a generator and have two 30 hp pumps replaced. The North Terminal lift station will have an odor control system installed. The 6<sup>th</sup> Street lift station will have two 25 hp pumps replaced. The Kligelhoefer lift station will have the control panel upgraded. The Eisenhower lift station will get a generator and have two 40 hp pumps replaced. The 4<sup>th</sup> Street lift station will receive a generator and get some valves replaced. The upgrades in the collection system are badly needed and the new WWTP will be able to remove phosphorus in order to meet effluent limits set forth in the NPDES permit. This project will help the City of Mascoutah meet the service needs of the 20-year planning period.

**Estimated Construction Start Date:** January 2020

**Estimated Construction Completion Date:** June 2021

**Project Cost Estimate:** \$15,155,000 for construction, contingencies, design engineering, and construction engineering.

## **Part II – Project Affordability for Residents and Utility Customers**

The applicant is proposing to finance part of the project costs with a loan from the IEPA Water Pollution Control Loan Program (WPCLP). A \$15,155,000 loan, with an estimated interest rate of 1.84%, for a twenty (20) year period, would have an annual repayment of approximately \$906,283.

**Source of Loan Repayment:** The City of Mascoutah will use money from their sewer fund to repay the loan. User rates were increased quite some time ago, in anticipation of this project.

**Current Average Residential Cost of Service:** \$52.56

**Projected Average Residential Cost of Service:** \$52.56

**Average Monthly Residential Sewer Use:** 6,000 gallons

**How is the residential rate/cost of service calculated?**

Current Monthly Charges include: \$16.56 flat fee + \$6.00 per 1,000 gallons used. An average monthly use of 6,000 gallons = \$16.56 + (\$6.00 X 6,000/1,000 gallons used) resulting in an average monthly bill of \$52.56.

**Number of Customers or Service Connections:** 3,250

**Median Household Income (MHI):** \$70,957

**Percentage of MHI needed for the projected avg. annual residential cost of service:** 0.9%

Annual cost of service/MHI is an affordability ratio used by IEPA. If less than 2.0 percent of the MHI is required to pay residential user rates, the project is generally considered affordable by IEPA standards.

## **Part III – Environmental Review and Impacts**

The proposed project was submitted to the Illinois Department of Natural Resources (IDNR) EcoCAT website for review. IDNR's review identified protected sources that may be in the vicinity of the proposed project. Specifically, IDNR noted that the Indiana bat (*Myotis sodalists*), which is a state and federally endangered animal, has been recorded in the area. The northern long-eared bat (*Myotis septentrionalis*) is a state and federally threatened species that has also been recorded in the vicinity. To avoid impacts to these species, IDNR recommends if tree clearing is necessary, it should not occur between April 1<sup>st</sup> and October 14<sup>th</sup>. Additionally, the Silver Creek Shrub Swamp Illinois Natural Areas Inventory (INAI) Site is located south of the existing sewage lagoons. IDNR goes on to state that soil and erosion (best management practices (BMPs) should be implemented and strictly followed to prevent siltation from the construction site and to protect water quality in Silver Creek and to prevent adverse impacts to

the Silver Creek Shrub Swamp INAI Site. IDNR determined that if the recommendations mentioned above are adopted, impacts are unlikely.

The proposed project was also submitted to IDNR Office of Water Resources (OWR) for proper permitting. IDNR/OWR stated that the work appears to comply with Statewide Permit No. 6 and Statewide Permit No. 7.

The project has also been reviewed by IDNR's Illinois Historic Preservation Office for compliance with the National Historic Preservation Act, Section 106. The Department determined that based upon the information provided, no historic properties are affected, and the office had no objection to the project proceeding as planned.

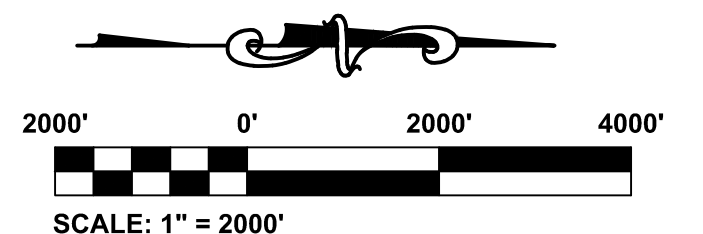
Lastly, the project was submitted to the U.S. Army Corps of Engineers (Corps) for review. The Corps determined that a Section 404 Permit was not needed.

**Public comments are invited on the proposed project. For further information contact:**

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**CITY OF MASCOUTAH, ILLINOIS**  
**FACILITY PLAN**  
**OVERALL CITY PLAN**

**FIGURE VIII-6**

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|--------------------|------------------------|
| DATE:<br>1/26/2018 | HS PROJECT#<br>1402000 |
|--------------------|------------------------|