



Department Source: City Utilities - Sewer/Stormwater

To: City Council

From: City Manager & Staff

Council Meeting Date: December 6, 2021

Re: Resolution to set a Public Hearing: proposed construction of Mechanical Screens at the WWTP Wetland Pump Station

Executive Summary

Staff has prepared for council consideration a resolution setting a public hearing on December 20, 2021, concerning the proposed construction of Mechanical Screens at the WWTP Wetland Pump Station. An Interested Parties (IP) meeting was held on October 6, 2021, to present the conceptual design for the project. The resolution estimate for this sanitary sewer project is \$3,000,000 and will be paid from Sewer Utility funds.

Discussion

After the wastewater is treated at the mechanical wastewater treatment plant (WWTP), the effluent flows to the constructed wetlands, which provide additional secondary treatment. Once the effluent has traveled through each of the four wetland treatment cells, the wetland pump station, located at WTU #3, discharges the treated effluent to the Missouri Department of Conservation Eagle Bluffs Conservation Area, see the location map. At the WTU #3 effluent pump station, natural debris (duckweed, cattails, etc.) can accumulate and obstruct the static screens. The debris can prevent the effluent from entering the pump station and also has the potential to damage pumps and reduce their effective useful life. Currently, the debris is removed manually, which is labor intensive and hazardous during icy conditions, or when excessive amounts of debris have accumulated from large rain events.

This proposed project will consist of the design and construction of an automated debris removal system to discharge debris to the side of the pump station where it can be safely and more easily removed with a skid loader. The project is located at WTU #3 as shown on the project graphic. Staff is preparing a Request for Qualifications (RFQ) to select a design-build team that will provide a final design, construction plans and construction for the proposed improvements to the WTU #3 effluent pump station.

An Interested Parties (IP) meeting was held on October 6, 2021, to present the conceptual design for the project. Six (6) people attended the meeting. All six (6) were from surrounding areas and representing various engineering and construction firms.

Staff is proposing that a Design-Build process will be used for the design and construction of this project. The resolution estimate for this project is \$3,000,000, which includes design and construction costs. The project will be funded with Sewer Utility funds and other such funds as may be lawfully appropriated.



Fiscal Impact

Short-Term Impact: Resolution estimate is \$3,000,000.

Long-Term Impact: It is anticipated that this project will have minimal impact to the Sewer Utility's annual operating cost.

Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

Primary Impact: Reliable Infrastructure, Secondary Impact: Organizational Excellence,
Tertiary Impact: Not Applicable

Comprehensive Plan Impacts:

Primary Impact: Infrastructure, Secondary Impact: Environmental Management, Tertiary
Impact: Not Applicable

Legislative History

Date	Action
10/06/2021	Interested Parties (IP) meeting

Suggested Council Action

Approve the resolution setting the public hearing for the WWTP Mechanical Screens Wetland Pump Station project on December 20, 2021.