



City of Columbia

701 East Broadway, Columbia, Missouri 65201

Department Source: City Utilities - Sewer/Stormwater

To: City Council

From: City Manager & Staff

Council Meeting Date: January 3, 2022

Re: Public Hearing: proposed construction of the Hinkson Creek Bank Stabilization adjacent to the Clear Creek sewer force main and gravity sewer main located east of Boulder Drive and west of Rock Quarry Road.

Executive Summary

This is the public hearing concerning the Hinkson Creek Bank Stabilization adjacent to the Clear Creek sewer force main and gravity sewer main located east of Boulder Drive and west of Rock Quarry Road. An Interested Parties (IP) meeting was held December 2, 2021. The resolution estimate for this project is \$220,000 to be paid from Sewer Utility enterprise revenue funds and Stormwater Utility enterprise revenue funds.

Discussion

The south bank of Hinkson Creek at the location shown on the attached Location Map has had significant erosion and mass wasting. Mass wasting causes large amounts of sediment to enter the creek, one of the likely causes of impairment to Hinkson Creek. The eroded creek bank is approaching the Clear Creek sewer force main and a gravity sewer main that run through the area. The sewer force main was installed in 2010. The attached project graphic shows how much the south bank has moved since 1980. Staff has been actively monitoring the progress of the erosion toward the Clear Creek Force Main since 2018. In that time, the stream bank has moved approximately 10 feet toward the force main with an additional 3 feet of movement after the recent June 2021 flood. There is likelihood that this erosion could cause the sewer force main to fail. More significant is the consequence of failure that would result in raw sewage entering Hinkson Creek.

The proposed improvements, shown in the preliminary plan, include installing 430 feet of Linear Peak Stone Toe (LPST) with Bendway Weirs. This method of stream bank stabilization protects the area of concern and avoids shifting erosive forces to another segment of the stream. It also provides more habitat for stream life than traditional approaches. Therefore, this project achieves multiple benefits of protecting sewer infrastructure, reducing the erosion of sediment into Hinkson Creek and improving habitat for macroinvertebrates in Hinkson Creek.

Staff presented the preliminary plan for the project to a joint meeting of the Hinkson Collaborative Adaptive Management (CAM) Science and Action Teams on November 19, 2021. The attendees of the meeting were favorable toward the project and offered valuable suggestions for monitoring the efficacy of the practice in achieving project goals. Staff presented the preliminary plan to the Hinkson Collaborative Adaptive Management (CAM) Stakeholder attendees on December 13, 2021. An Interested Parties (IP) meeting was held December 2, 2021. Three people attended the meeting and seemed favorable to the



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project. The contact log is attached. The resolution estimate for this project is \$220,000 with \$120,000 from the Sewer Utility enterprise revenue funds and \$100,000 from the Stormwater Utility enterprise revenue funds.

Fiscal Impact

Short-Term Impact: Resolution estimate is \$220,000.

Long-Term Impact: By preventing damage of the force main and emergency repairs, this project will have a beneficial, though unquantifiable, fiscal effect.

Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

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

Comprehensive Plan Impacts:

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

Legislative History

Date	Action
12/20/201	R192-21 Setting a public hearing: proposed construction of the Hinkson Creek stream bank stabilization project adjacent to the Clear Creek sewer force main and gravity sewer main located east of Boulder Drive and west of Rock Quarry Road.
12/13/2021	Hinkson Collaborative Adaptive Management Stakeholder meeting presentation
11/19/2021	Hinkson Collaborative Adaptive Management Joint Action Team and Science Team meeting presentation
12/2/2021	IP Meeting
12/13/2021	Hinkson Collaborative Adaptive Management Stakeholder Meeting

Suggested Council Action

Direct staff to proceed with the Hinkson Creek Bank Stabilization adjacent to the Clear Creek sewer force main and gravity sewer main located east of Boulder Drive and west of Rock Quarry Road.