



Department Source: City Utilities - Sewer/Stormwater

To: City Council

From: City Manager & Staff

Council Meeting Date: December 20, 2021

Re: Setting a Public Hearing: proposed construction of the Hinkson Creek Bank Stabilization at Clear Creek Sewer Force Main east of Boulder Drive.

Executive Summary

Staff has prepared for Council consideration a resolution setting a public hearing on January 3, 2022, concerning the proposed construction of Hinkson Creek Bank Stabilization at Clear Creek force main east of Boulder Drive. An Interested Parties (IP) meeting was held on 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 soil wasting. Mass wasting causes large amounts of sediment to enter the creek, one of the potential 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 and continues to move. Staff has been actively monitoring the progress of the erosion toward the Clear Creek Force Main for the last three years. Since 2018, the stream bank has moved approximately 10 feet toward the force main with 3 feet of movement after the June 2021 flood. There is likelihood that this erosion could uncover the 20-inch sewer force main causing it to float and possibly fail. More significant is the consequence of failure that would result in raw sewage entering Hinkson Creek.

The proposed improvements include installing 430 feet of Linear Peak Stone Toe (LPST) with Bendway Weirs. This method of stream bank stabilization uses large rock and existing trees in the channel to protect the area of concern. By deliberately placing these materials, stream flows and erosive forces are directed away from existing banks. The materials also provide habitat for stream life. Therefore, this project achieve 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. Additionally, staff plans to attend the Hinkson Collaborative Adaptive Management (CAM) Stakeholder meeting on December 13, 2021, to present the preliminary plan. An Interested Parties (IP) meeting was held December 2, 2021. Three people attended the IP meeting and



City of Columbia

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seemed favorable to the project. 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
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

Approve the resolution setting a Public Hearing for the Hinkson Creek Bank Stabilization at Clear Creek Force Main east of Boulder Drive on January 3, 2022.