

Legislation Text

File #: BILL NO. 23-230, **Version:** 1

An Ordinance approving an agreement between the City of Lee's Summit, Missouri and the United States Geologic Survey for the Installation and Maintenance of Stream Gages in the amount of \$206,200, and authorizing the Mayor to execute the same. (PWC 11/13/23)

Issue/Request:

An Ordinance approving an agreement between the City of Lee's Summit, Missouri and the United States Geologic Survey for the Installation and Maintenance of Stream Gages in the amount of \$206,200, and authorizing the Mayor to execute the same.

Key Issues:

- Pursuant to the FY24 Capital Improvement Plan, the City authorized funding to partner with local and federal agencies to conduct an engineering and planning study to manage stormwater
- Pursuant to the April 4, 2023 No Tax Increase Bond Issue election, voters approved projects to enhance public safety through remote sensors and technology
- Stream gaging installation will provide real time, flood risk information for emergency managers and first responders
- Stream gaging installation will provide data to better manage stormwater
- The US Geologic Survey (USGS) has authorized partial federal funding to install stream gaging stations within the City of Lee's Summit; and,
- The USGS will provide \$88,400 of the project funding, labor, equipment, and webhosting, with the remaining \$206,200 funded by City

Proposed Committee Motion:

I move to recommend to the City Council approval of an Ordinance approving an agreement between the City of Lee's Summit, Missouri and the United States Geologic Survey for the Installation and Maintenance of Stream Gages in the amount of \$206,200, and authorizing the Mayor to execute the same.

Background:

The purposes of installing stream gages within Lee's Summit are to improve stormwater management and enhance public safety. Improving the city's stormwater management infrastructure, coupled with improved emergency response, align with the City's strategic plan goals to enhance public safety, reduce flood risk and damage to property, and mitigate impacts from natural disasters.

Stream gaging will provide real-time, remote sensing to track flooding potential during storm events. Currently, there are no stream gages within the City of Lee's Summit. The closest stream gages are located on the Little Blue River at Lee's Summit Road. This serves as an indicator of water surface levels in the Oaks Ridge Meadows area. These new gages will be located along Cedar Creek at the Chipman Road crossing, and along the East Fork of the Little Blue River.

The gages will be maintained and operated by the USGS, and the information will be posted on a public facing website. This readily available data that can be viewed by anyone, to include emergency managers and first responders, to monitor real-time water surface levels in Cedar Creek and the East Fork to the Little Blue River between US-50 Highway and Prairie Lee Lake.

The USGS scope of service includes the procurement and installation of gages, create a public facing website, and model areas of inundation based on the stream gage readings. These models will be linked to rainfall data. When fully developed, first responders input projected rainfall amounts from weather forecasts into the webpages to show a projected area of inundation before a storm. Then throughout the rain event, emergency managers can monitor the rise and fall of water in the stream. This type of remote sensing is also part of the suite of bond issue projects approved by voters in April 2023. However, funding for this is still coming from the 2017 CIP Sales Tax for stormwater infrastructure improvements to mitigate the impacts of flooding.

This project is intended to be coupled with the proposal to build a network of rain gages in Lee's Summit that will be connected to the Joint Operations Facility, Water Utilities Operation, and Public Works Operations. Rain gages can serve as a "leading indicator" of when streams may swell with flash floods. The stream gages are "lagging indicators" that show a stream rising after significant rain. Collecting rainfall and stream data locally, over many years, will help create much for accurate flooding models of local streams. This will help to better manage floodplain areas, reduce flood insurance rates, and provide more accurate local flood plain maps.

Working with the USGS allows the City to share some of the cost with the USGS. The City could pursue this on it's own, but this partnership provides access to funds and access to a well-establish, national source of information.

Impact/Analysis:

If not approved, the USGS will not be able to contribute federal funds, nor conduct the work. The City would have to find other resources and bear 100% of the cost and maintenance.

Timeline:

October 2022 through December 2025

George Binger, Deputy Director of Public Works/City Engineer

Staff recommends approval.

Committee Recommendation: [Enter Committee Recommendation here]