

CITY COUNCIL MEMORANDUM

FROM: The Office of the City Manager **DATE:** March 23, 2020
SUBJECT: Consider a professional services agreement for engineering services with Freese and Nichols, Inc. in an amount not to exceed \$100,413 for the Mackey Creek Flood Study Project (DR2005).
PRESENTER: Justin Naylor, Civil Engineer

SUMMARY:

Council is being asked to consider a professional services agreement with Freese and Nichols, Inc. for engineering services for the preparation of a flood study to update the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for Mackey Creek from Snow Heights Elementary to Glenview Drive.

GENERAL DESCRIPTION:

Mackey Creek is a tributary of Big Fossil Creek. It's headwaters are located at Snow Heights Elementary flowing south past Glenview just east of Mullendore Elementary terminating in Big Fossil Creek west of Richland Plaza Drive. It is conveyed through a combination of underground pipe networks as well as several open channel sections.

The 100-year storm is an event that has a 1% chance of occurring in any given year. The 100-year floodplain is the land that is predicted to flood during a 100-year storm. Under the current FEMA floodplain mapping, a portion of approximately 116 properties along and near Mackey Creek north of Glenview Drive are located in the 100-year floodplain and have 1% chance of flooding. Of those 116 properties, approximately 70 have the primary structure touched by the floodplain. This means that for each of those 70 properties, if there is a federally backed mortgage for the property, the owner is required to purchase flood insurance. Staff has not been able to corroborate the flooding risk for most of the properties through historic flood losses and drainage complaints, and finds that the current limits of the 1% chance floodplain are likely too broad. With that in mind, the primary goal of this project is to develop a more accurate picture of the risk in the area through current floodplain modeling and mapping technology and update the FEMA regulatory mapping.

Staff followed city policy for procuring professional services for the design of this project. Requests for qualifications were sent to local engineering firms and advertised on the city's website. Ten firms responded by submitting statements of qualifications to the city. The selection committee found that Freese and Nichols' experience on similar projects and expertise with detailed modeling and FEMA submittals gave them an advantage over the other candidates, and selected them as the most qualified firm for the project.



The engineering agreement outlines the scope of work in Exhibits B. Listed below are the key items within the scope of work:

- Hydrologic and Hydraulic Modeling to define new floodplain limits
- Report Preparation
- FEMA Submittal to revise flood mapping
- Alternatives Analysis for any needed improvements.

The Public Works Department negotiated a fee of \$100,413. This basic services fee consists of project management, hydrologic and hydraulic modeling, report preparation, FEMA submittal and an alternative analysis.

The total amount of the professional services agreement for this project is \$100,413. The project budget has sufficient funding for this contract. The project schedule anticipates submitting the flood study to FEMA in July 2021, with the goal to have updated mapping by February 2021.

Funding for this item was included in the FY 2019/2020 Adopted Budget in the Mackey Creek Flood Study Project (DR2005).

RECOMMENDATION:

Approve a professional services agreement with Freese and Nichols, Inc. in an amount not to exceed \$100,413 for engineering services for the Mackey Creek Flood Study Project (DR2005).