City of **JOPLIN** City Council Agenda Item

Requested Council Meeting Date: October 1, 2018
Council Bill No. 2018-143

Item: Work Authorization with Burns & McDonnell Engineering Co, Inc., for Professional Engineering Consulting Services for NPDES Permit Renewal Support, Phase 3.

Originating Department: Public Works – Engineering

Attachments: 1) Work Authorization No. BMC-OC18-002
2) Council Bill No. 2018-143

Department Head: David K. Hertzberg
Finance Department: Leslie Haase
City Attorney: Peter C. Edwards
City Manager: Samuel L. Anselm

Recommended Action: Approval of Work Authorization No. BMC-OC18-002 with Burns & McDonnell Engineering Co, Inc. in the not to exceed amount of $39,500.00 (Thirty-Nine Thousand Five Hundred and no/100 Dollars) for Professional Engineering Consulting Services for National Pollutant Discharge Elimination System (NPDES) Permit Renewal Support Phase 3.

Background: The Operating Permit for the Turkey Creek Wastewater Treatment Plant (WWTP), issued by the Missouri Department of Natural Resources (MDNR), is due for renewal. The focus of concern for the City and for MDNR is the allowable concentration limits of certain metals after the treated wastewater is discharged from the plant. Using nation-wide criteria established by the EPA, MDNR has proposed particularly strict limits in the forthcoming Operating Permit. To comply with the proposed limits, the estimated construction costs range between $50 and $250 million of improvements at the WWTP. Due to the mining legacy in our area, City staff have been seeking a change of concentration limits for both zinc and cadmium which would account for the natural contaminant levels found in Turkey Creek. City staff relies on the expertise of a technical team of consultants for assistance in negotiating with MDNR.

Last fall, City Council approved a Work Authorization with Burns and McDonnell, directing them to provide necessary technical expertise before and after the City's January 9, 2018

meeting with MDNR. At that meeting, MDNR was presented with data indicating how the treatment plant's discharge compares with metal concentrations found in Turkey Creek upstream and downstream of the plant. This was done in an effort to be granted special considerations due to ambient background levels. After considering the City's proposal, MDNR denied the City's request, concluding that the in-stream concentrations were due to man-made causes.

Discussion: MDNR has recently proposed new state-wide Water Quality Standards, some of which would benefit the Turkey Creek WWTP. If approved, the maximum concentration limits for both cadmium and zinc would be raised. City staff compared these proposed limits to historical concentrations flowing out of the plant. In the case of cadmium, the new limits would have been exceeded only once since January of 2010. This gives staff and MDNR confidence that the plant should be in compliance regarding cadmium. For zinc, however, the plant would still have experienced frequent exceedances, under the hypothetical comparison of data.

As a result, on August 23, 2018, City staff met with MDNR to discuss pursuing a discharger-specific variance, which is the next logical step toward achieving compliance. MDNR has indicated to the City that the new state-wide Water Quality Standards are expected to be approved. In the future the City may pursue a variance for cadmium, if either the new standards are disapproved, or if cadmium proves to be problematic for the wastewater treatment plant.

This Work Authorization directs Burns and McDonnell to assist with the variance application process, providing technical expertise. If the City's request for a Discharger-Specific Variance for zinc is granted, then the treatment plant should achieve compliance without improvements.

Recommendation: City staff recommends that approval of Work Authorization BMC-OC18-002 with Burns & McDonnell Engineering Co, Inc. for the not to exceed amount of $39,500.00 (Thirty-Nine Thousand Five Hundred and no/100 Dollars) for Professional Engineering Consulting Services for NPDES Permit Renewal Support, Phase 3 be approved on an emergency basis per Section 2.12 (6) of the Joplin City Charter.