City of **JOPLIN** City Council Agenda Item

Requested Council Meeting Date: October 16, 2017
Council Bill No. 2017-163

Item: Work Authorization with Burns & McDonnell Engineering Co, Inc., for Professional Engineering Consulting Services for NPDES Permit Renewal Support, Phase 2.

Originating Department: Public Works – Engineering

Attachments: 1) Work Authorization No. BMC-OC17-002
2) Council Bill No. 2017-163

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-OC17-002 with Burns & McDonnell Engineering Co, Inc. in the not to exceed amount of $17,500.00 for Professional Engineering Consulting Services for National Pollutant Discharge Elimination System (NPDES) Permit Renewal Support Phase 2.

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.

On July 3rd of this current year, City Council approved an amendment to Burns and McDonnell's Work Authorization, directing them to proceed with an initial, low-cost test to confirm the

effectiveness of the Water Effect Ratio (WER) approach. The WER study was allowed by MDNR in April of this year, when they agreed to delay the issuance of the new Operating Permit for the Turkey Creek WWTP until the results were known.

Discussion: Initial test results indicate that cadmium is a candidate for a WER study. However, this study may not be necessary for cadmium due to the expectation that MDNR might relax its limits on cadmium, based upon the findings of other studies in the nation. If the limits are raised sufficiently enough, the Turkey Creek WWTP will likely achieve consistent compliance regarding cadmium concentrations. Zinc, on the other hand, is not a candidate for a full WER study, as the results will not establish a concentration limit that can be achieved cost-effectively. Two alternate paths toward achieving a relaxation of the zinc limits have been identified, both of which require prior approval from MDNR.

This Work Authorization directs Burns and McDonnell to prepare for and attend an upcoming meeting with the leadership of MDNR, and to advise the City on the next steps to take. Staff envision subsequent work authorizations, once approval is received from MDNR regarding which paths to take for zinc and cadmium compliance. Additional support will be provided regarding compliance with the City's stormwater (MS4) permit.

Recommendation: City staff recommends that approval of Work Authorization BMC-OC17-002 with Burns & McDonnell Engineering Co, Inc. for the not to exceed amount of $17,500.00 for Professional Engineering Consulting Services for NPDES Permit Renewal Support, Phase 2 be approved on an emergency basis per Section 2.12 (6) of the Joplin City Charter.