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CONSIDERATION OF APPROVAL, REJECTION, AMENDMENT, AND/OR POSTPONEMENT OF AMENDMENT NO. ONE TO CONTRACT K-2021-39 BY AND BETWEEN THE CITY OF NORMAN, OKLAHOMA AND FREESE AND NICHOLS, INC., INCREASING THE CONTRACT AMOUNT BY $63,371 FOR A REVISED CONTRACT AMOUNT OF $270,531 FOR A STORM WATER MANAGEMENT PLAN (SWMP) UPDATE AND TOTAL MAXIMUM DAILY LOAD (TMDL) MODEL REVIEW AND REVISIONS AND BUDGET TRANSFER BETWEEN PROJECT ACCOUNTS AS OUTLINED IN THE STAFF REPORT.

BACKGROUND: Lake Thunderbird was constructed by the U.S. Bureau of Reclamation (BOR) in 1965 to impound the upper reaches of Little River and several tributaries east of Norman, Oklahoma north of State Highway 9. The watershed drains 256 square miles in Oklahoma and Cleveland Counties including Norman, Oklahoma City and Moore, as well as small parts of unincorporated Oklahoma and Cleveland Counties. The Lake is operated by the Central Oklahoma Master Conservancy District on behalf of the U.S. Bureau of Reclamation. In addition, the U.S. Army Corps of Engineers manages the flood control elements of Lake Thunderbird. Finally, the Oklahoma Department of Tourism and Recreation manages the parks and recreation services at the Lake.

The Lake provides drinking water for the cities of Norman, Midwest City, and Del City. It also provides a myriad of recreational opportunities for citizens of Norman and of the State of Oklahoma as a warm water aquatic community affording quality fishing for a variety of species and as a primary body contact water body providing recreational boating and water sports activities. In order to continue to provide these recreational opportunities and continue to provide quality drinking water, the Lake must meet certain Water Quality Standards. These Standards are set by the Oklahoma Water Resources Board for the purpose of maintaining the beneficial uses of water bodies in the State including lakes and streams.

Stormwater runoff to Lake Thunderbird has increased in both quantity and velocity as the populations of the nearby cities that deliver the vast majority of the stormwater runoff to the Lake have grown. Unintended consequences of strong growth include pollution in the water that runs off of the streets, buildings and lawns of the growing cities. This water flow carries sediment which clouds the water in the Lake and reduces its capacity and depth while also carrying other pollutants such as nutrients like nitrogen and phosphorus. All three of these pollutants are causing degradation to the water quality in the streams and in turn to the Lake.

In August 2010, the Environmental Protection Agency placed Lake Thunderbird on its 303(d) List of Impaired Waterbodies. This led to the establishment of a Total Maximum Daily Load (TMDL) by the Oklahoma Department of Environmental Quality (ODEQ) in November of 2013.

The TMDL established waste load allocations (WLAs) for each of the cities. These WLAs established the maximum amount of each of the key pollutants of concern, total suspended solids, total nitrogen and total phosphorus, which each city can discharge to the Lake Thunderbird watershed. The TMDL

also requires the Cities of Norman, Oklahoma City, and Moore to develop and implement Compliance and Monitoring Plans describing how each city will comply with the TMDL requirements. The Compliance Plan defines the steps to be taken by the City of Norman (City) in order to reduce stormwater pollution in the watershed and meet the load reduction requirements set out in the TMDL. The Monitoring Plan defines steps the City will take to establish a baseline quantifying the amounts of pollutants in the runoff, and it also establishes a mechanism to monitor the effectiveness of Best Management Practices (BMPs) put into effect by the City as a result of its compliance efforts. ODEQ approved the City's TMDL Compliance and Monitoring Plans on September 21, 2016, and required that the Monitoring Plan be fully implemented by November 12, 2016.

Implementation of the Plans is based on a 5-year permit cycle. The City began the first 5-year cycle by implementing a Monitoring Plan to establish a baseline for flow and pollutant loading of streams flowing from or through the City to Lake Thunderbird. BMPs were also implemented as part of the City's Compliance Plan beginning with education campaigns and enhancing programs already in place, progressing to increasing cleaning efforts. The efforts during the first 5 years were aimed at reducing pollutants in stormwater runoff at the source. The Plans and the results of the first 5 years of monitoring must be reviewed at the end of this initial 5-year cycle to determine where best to establish structural BMPs during the next 5-year cycle.

When the MS4 permit is renewed or every 5 years, whichever comes first, the City must submit a compliance evaluation report for ODEQ review and approval. If this report does not show "significant progress" towards meeting the load reduction goals, the City will need to submit an updated compliance plan and implementation plan within 6 months of that report.

The Stormwater Division of the Public Works Department prepared a Request for Proposals (RFP) to solicit the services of a qualified firm to review and analyze monitoring data generated during Years 1 -5 of the City of Norman's Lake Thunderbird TMDL monitoring program, determine compliance with TMDL's load reduction requirements, identify potential changes to the City of Norman's TMDL Compliance and Monitoring Plans, and update both plans and the associated Quality Assurance Project Plan as necessary.

Five (5) proposals were received for this project. The Selection Committee included three (3) staff members from the Public Works Department consisting of Michele Loudenback, Stormwater Program Specialist; Carrie Evenson, Stormwater Program Manager, and Scott Sturtz, City Engineer; and two (2) private citizens including Amanda Nairn, Vice Chair of Environmental Control Advisory Board; and Courtney Dekalb-Myers, Horticulture Educator, Cleveland County OSU Extension Services. The Selection Committee members independently scored each statement of qualifications on a point scale as defined in the RFP. Based on these scores, three (3) firms were selected to be interviewed by the Selection Committee. The three (3) firms were ranked based on their interviews, and Freese and Nichols, Inc., was selected for this project. Freese and Nichols, Inc., was selected based upon their experience working with other municipalities on similar projects and the proposed methods and procedures for completing the project.

Required services included the following:

1. Review and analyze all available water quality monitoring data;
2. Calculate waste load allocations using maximum daily load;
3. Determine compliance with TMDL's load reduction requirements;
4. Identify potential changes to the City of Norman's TMDL Compliance and Monitoring Plans,

and update both plans and the associated Quality Assurance Project Plan (QAPP);
5. Recommend location and type of potential structural water quality control measures; and
6. Evaluate and draft report for ODEQ summarizing progress toward compliance with the TMDL and progress toward achieving the WLAs and load reduction goals.

On October 13, 2020, City Council approved Contract K-2021-39 with Freese and Nichols, Inc., for completion of the Lake Thunderbird Watershed TMDL Monitoring, Years 6-10, project.

DISCUSSION: In addition to the Lake Thunderbird TMDL requirements described above, the City of Norman has also been designated as a Phase II Municipal Separate Storm Sewer System (MS4) City subject to the 1999 Phase II Stormwater Final Rule promulgated by the U.S. Environmental Protection Agency (EPA). On September 9, 1997, EPA delegated responsibility for stormwater discharges associated with construction sites, industrial sites, and Phase I and II MS4s to ODEQ. Under this delegation authority, DEQ issued General Permit OKR04 for Stormwater Discharges Associated with Municipal Separate Storm Sewer Systems in Small Cities, Urbanized Areas, and Other County Areas in the State of Oklahoma on February 8, 2005. On November 29, 2005, the City received Authorization No. OKR040015. This authorization must be renewed on a 5 year permit cycle. The current authorization expired on October 31, 2020, but has been administratively continued until its reauthorization, which is expected to occur in 2021.

As part of the reauthorization process, the City is required to review its Stormwater Management Program (SMP) and amend it as necessary to meet any new permit requirements set forth by ODEQ for the next 5 year permit cycle. Additionally, the City is required to adopt the Waste Load Allocations specified in the Lake Thunderbird TMDL as measurable goals in the SMP. Any changes made to the Lake Thunderbird TMDL Compliance Plan will need to be incorporated in the SMP as part of the permit renewal process. As such, the most efficient and effective method for updating the SMP is to work with Freese and Nichols, Inc., as part of their ongoing work to update the Lake Thunderbird TMDL Compliance and Monitoring Plans.

In addition to these stormwater-related items, the Utilities Department is pursuing an indirect potable reuse project using Lake Thunderbird as terminal storage. The current Lake Thunderbird TMDL may impact the requirements for any future discharges from the Water Reclamation Facility to Lake Thunderbird. Because Freese and Nichols, Inc., is evaluating the Lake Thunderbird TMDL model as it relates to stormwater runoff, evaluating potential revision to that same model to support the reuse project is easiest when done now with the same firm. The technical aspects of the modeling will be completed through a collaborative and iterative process involving other cities, DEQ and potentially review by EPA at the same time that the already-contracted work relating to the stormwater monitoring data is occurring.

Pending approval by City Council, this amendment will ensure that the City meets DEQ requirements through the completion of the following tasks:
1. Review and update the SMP;
2. Incorporate BMPs identified as part of the TMDL program review into the SMP;
3. Recommend a path forward for indirect potable reuse project modeling based on the findings of the modeling completed for the TMDL Compliance and Monitoring Plan Update;
4. Evaluate potential water quality modeling software; and
5. Coordinate with other agencies, organizations, and entities, including ODEQ, regarding modeling results and the potential need to revise the Lake Thunderbird TMDL to allow indirect

potable reuse.

Project No. DR0061 contains funds allocated for Lake Thunderbird TMDL compliance-related activities. Budgeted capital funds in the amount of $19,195 are available for the additional work related to updating the SMP in (50599968-46201) Project No. DR0061. Additional budgeted capital funds in the amount of $43,176 are available for the additional work related to the indirect potable reuse modeling in (32999911-46201) Project WW0317. Staff requests approval to transfer funds in the amount of $43,176 from (32999911-46201) Project No. WW0317, to (50599968-46201) Project No. DR0061.

If approved, the modeling work will begin immediately with SMP review and revision to follow with no extension of time to the contract. The amended project is still to be completed by October 2021.

RECOMMENDATION NO. 1: Staff recommends approval of Amendment No. 1 to Contract K-2021-39 with Freese and Nichols, Inc., in the amount of $63,371 for a Total Project Cost of $270,531 for the TMDL Monitoring Data Analysis and Compliance and Monitoring Plan Update.

RECOMMENDATION NO. 2: Budget transfer in the amount of $43,176 from (32999911-46201) Project No. WW0317, to (50599968-46201, Project No. DR0061.