



CITY OF NORMAN, OK STAFF REPORT

MEETING DATE: 01/13/2026

REQUESTER: Jason Murphy, Stormwater Program Manager

PRESENTER: Scott Sturtz, Director of Public Works

TITLE: CONSIDERATION OF APPROVAL, REJECTION, AMENDMENT, AND/OR POSTPONEMENT OF CONTRACT K-2526-128: BY AND BETWEEN THE CITY OF NORMAN AND THE OKLAHOMA WATER RESOURCES BOARD IN THE AMOUNT OF \$237,711.86 FOR THE LAKE THUNDERBIRD TOTAL MAXIMUM DAILY LOAD (TMDL) MONITORING PROGRAM. (City)

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 ODEQ in November of 2013.

DISCUSSION:

The City of Norman has maintained a comprehensive stormwater monitoring program in support of the Lake Thunderbird Total Maximum Daily Load (TMDL) Compliance Plan since 2016. This program is critical for tracking pollutant load reductions, evaluating long-term water quality trends, and supporting regulatory reporting requirements. The Oklahoma Water Resources Board (OWRB) has served as the City's monitoring partner throughout this period and possesses extensive institutional knowledge of the watershed, monitoring locations, equipment, and data management systems currently in place.

OWRB has over ten years of direct experience installing, operating, maintaining, and calibrating the City's existing monitoring infrastructure, including automated samplers, stage recorders, telemetry systems, turbidity meters, and biological monitoring equipment. Their long-term involvement has ensured data continuity, consistency with approved Quality Assurance Project Plans (QAPPs), and compliance with ODEQ and EPA-approved methodologies. Maintaining the existing partnership minimizes risk associated with transitioning equipment, personnel, and data management responsibilities to a new provider.

OWRB was competitively selected twice through formal qualification-based procurement processes, during which they were evaluated against other qualified entities and selected based on demonstrated technical expertise, proposed methodologies, experience with similar municipal monitoring programs, and overall value to the City. Their continued performance has met or exceeded contractual expectations and has supported the City's adaptive implementation of the TMDL Compliance Plan.

The proposed contract will allow OWRB to continue implementing the stormwater monitoring program in accordance with the updated Monitoring Workplan. The scope of work includes routine water quality monitoring, biological assessments, turbidity monitoring, equipment maintenance, data management, and reporting as summarized below. The contract term is for one year with automatic renewal for four successive one-year terms subject to appropriation of funds by City Council each year.

Workplan Summary

Required services will include, but are not limited to, the following:

1. Routine Water Quality and Quantity Monitoring

- Monthly baseflow sampling at ten (10) permanent monitoring stations.
- A minimum of four (4) storm event sampling events annually, which may substitute for monthly samples when all stations are sampled.
- Sampling of fourteen (14) major stormwater outfalls during storm events.
- Analysis of samples for Total Suspended Solids (TSS), Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), and Nitrate-Nitrite (NO₂-NO₃).
- Collection of in-situ field parameters including temperature, dissolved oxygen, pH, and specific conductivity.
- Flow measurements collected at permanent stations during baseflow and storm conditions using FlowTracker or ADCP equipment as conditions allow.
- Continuous stage and precipitation data logging at 15-minute intervals with real-time telemetry.
- Data review and adjustment by OWRB staff as necessary.

2. Biological Monitoring

- Annual macroinvertebrate sampling at all ten (10) permanent monitoring stations during the designated sampling season.
- Fish and habitat surveys conducted at two (2) stations per year on a rotating basis.
- Laboratory analysis conducted by qualified third-party specialists in accordance with OWRB standard operating procedures (SOPs).

3. Turbidity Monitoring

- Installation and maintenance of turbidity meters and associated cameras at City-designated locations.
- Monthly equipment maintenance, data correction, calibration, and quality control.
- Quarterly baseflow sampling and storm event sampling at turbidity monitoring locations.

4. Reporting and Data Management

- Monthly monitoring reports summarizing sampling activities, laboratory results, flow data, hydrographs, and rainfall totals.
- Data support for MS4 permit reporting, TMDL tracking, and public transparency.

Total Budget Summary

The table below provides a consolidated summary of the anticipated costs for the FY-2026 Norman Stormwater Monitoring Program. This total includes all major project components, including routine monitoring, biological assessments, and turbidity monitoring. Equipment and installation costs are included in Year 1 only, while ongoing maintenance, data collection, and analysis costs are reflected in both Year 1 and Year 2 where applicable. The total budget also accounts for laboratory analysis, personnel, data management, and a contingency fund for unforeseen equipment replacement needs.

| Item | Cost (Year 1) | Cost (Year 2) |
|-----------------------|---------------------|---------------------|
| Routine Monitoring | \$200,049.03 | \$200,049.03 |
| Biological Monitoring | \$16,800.20 | \$15,200.58 |
| Turbidity Monitoring | \$20,862.63 | \$7,476.03 |
| Total | \$237,711.86 | \$222,725.64 |

Monitoring Locations

Monitoring activities will be conducted at the City's established permanent monitoring stations and stormwater outfalls, which are strategically located throughout the Lake Thunderbird watershed to capture representative inflows from major tributaries and urban drainage areas. Locations may be added, removed, or modified as needed, subject to mutual agreement between the City and OWRB, to ensure the monitoring program remains responsive to changing watershed conditions and regulatory needs.

Based on OWRB's technical expertise, familiarity with the City's infrastructure, proven performance history, and prior competitive selection, staff finds it to be in the City's best interest to enter into a new contract with OWRB for continued implementation of the stormwater monitoring program.

RECOMMENDATION NO. 1:

Staff recommends the approval of Contract K-2526-128 with the Oklahoma Water Resources Board in the amount of \$237,711.86 for the Lake Thunderbird TMDL Monitoring Program. Funds are available in the Thunderbird TMDL Compliance Project (DR0061, Acct. 50599968-46201 Design).