Recommendation for Action

File #: 20-1545, **Agenda Item #:** 40. 3/26/2020

Posting Language

Authorize negotiation and execution of a multi-term contract with the University of Texas at Austin D/B/A University of Texas, to provide molecular and biochemical screening for toxic algae in Lake Austin and Lady Bird Lake, for up to five years, in an amount not to exceed $499,550.

(Note: This procurement was reviewed for subcontracting opportunities in accordance with City Code Chapter 2-9C Minority Owned and Women Owned Business Enterprise Procurement Program. For the services required for this procurement, there were no subcontracting opportunities; therefore, no subcontracting goals were established).

Lead Department

Purchasing Office.

Client Department(s)

Watershed Protection Department.

Fiscal Note

Funding in the amount of $99,910 is available in the Fiscal Year 2019-2020 Capital Budget of the Watershed Protection Department. Funding for the remaining contract term is contingent upon available funding in future budgets.

Purchasing Language:

Professional Services.

For More Information:

Inquiries should be directed to the City Manager's Agenda Office, at 512-974-2991 or AgendaOffice@austintexas.gov <mailto:AgendaOffice@austintexas.gov> or to Brenita Selement, at 512-974-3164 or brenita.selement@austintexas.gov <mailto:brenita.selement@austintexas.gov>.

Additional Backup Information:

The contract will expand the use of analytical techniques available to screen for toxins and identify the algal species that produce toxins in our drinking and recreational water supplies. Specifically, as part of the Watershed Protection Department's routine water quality monitoring, the frequency of visits to high risk areas of Lady Bird Lake will be increased and staff will collect additional algae and water samples beginning in July. For the samples collected, the University of Texas at Austin will utilize standard extraction protocols and highly sensitive equipment to analyze for the presence and amount of any toxins dissolved in the water or from within the algae mats. The analytical techniques utilized should enable detection of the toxins at low concentrations, a critical monitoring component as there are currently no federal guidelines detailing the lethal concentration threshold for the toxin observed in 2019 or from the toxic algae-type observed in 2019. To identify the species present, all of the DNA in the algae mat or in the water column will be isolated and compared with a library that is currently being developed from species collected in 2019. From that library, specific species of concern will

be flagged and screened for during the routine monitoring. Detection of a species of concern may precede toxin production and will alert staff that a harmful event may be imminent. After the 2019 harmful algal bloom event, an increased need is recognized to track the development of a bloom and identify and quantify algal toxins present that can negatively impact recreational uses of Austin's reservoirs.

Early detection through monitoring will enable more accurate prediction of harmful bloom development and targeted management strategies toward mitigation, and hopefully, prevention. This work supports City programs to monitor waterways for nuisance algal species that may result in impairments of the beneficial uses desired by the community.

A contract with University of Texas at Austin was entered in December 2018 and expired in December 2019 for a pilot program for these services. The University of Texas at Austin's laboratory is unmatched in their algal taxonomic skills, and experience culturing species and developing the molecular tools that provide the detailed information crucial to understanding the risk posed by an algae bloom. The Principal Investigator has applied her methods to numerous reservoirs and tributaries, and is well published in the development and application of the techniques the Watershed Protection Department feels will provide valuable new insight into the ecology of our aquatic systems.

If the City is unable to secure a contract, recreational uses of Lake Austin and Lady Bird Lake could be adversely impacted due to the inability of assessing and evaluating the potential of an algae bloom having toxins present which could be harmful to water users, both human and animal.

Contract Detail:

Contract Term	Length of Term	Contract Authorization
Initial Term	1 yr.	$ 99,910
Optional Extension 1	1 yr.	$ 99,910
Optional Extension 2	1 yr.	$ 99,910
Optional Extension 3	1 yr.	$ 99,910
Optional Extension 4	1 yr.	$ 99,910
TOTAL	**5 yrs.**	**$499,550**

Note: Contract Authorization amounts are based on the City's estimated annual usage.

Health and Environment.