



City of Denton

City Hall
215 E. McKinney Street
Denton, Texas
www.cityofdenton.com

AGENDA INFORMATION SHEET

DEPARTMENT: Procurement & Compliance

ACM: Frank Dixon

DATE: May 22, 2023

SUBJECT

Consider adoption of an ordinance of the City of Denton, a Texas home-rule municipal corporation, authorizing the City Manager, or their designee, to execute a contract with Kimley Horn and Associates Inc., for a Professional Service Agreement for the Water Utilities Department. This agreement provides for the expenditure of funds therefor; and providing an effective date (RFQ 7574-027 Professional Service Agreement) to provide regulatory permitting/approval support, process evaluation, design services, bidding assistance, construction phase services for the Pecan Creek Water Reclamation Plant (PCWRP) Expansion to 26MGD Project – awarded to Kimley Horn and Associates Inc., authorizing the expenditure of funds in the not-to-exceed amount of \$14,952,000

STRATEGIC ALIGNMENT

This action supports Key Focus Area: Enhance Infrastructure and Mobility.

INFORMATION/BACKGROUND

The Pecan Creek Water Reclamation Plant (PCWRP) is the City's only Wastewater Reclamation Facility and is currently permitted for an annual average capacity of 21 million gallons per day (MGD) and 46 MGD Peak 2-hour flow (P2HF). The facility treats 14-15 MGD of wastewater, which is 71% of the permit limit. The Texas Commission on Environmental Quality (TCEQ) requires a utility to begin design for capacity expansion when flows reach 75% of the permit limit and to begin construction of improvements when flows reach 90% of the permit limit. An updated discharge permit submitted to the Texas Commission on Environmental Quality (TCEQ) includes two additional phases of 26 MGD and 30 MGD, respectfully. TCEQ has administratively approved the amended discharge permit and Water Utilities anticipates the issuance this summer.

The proposed expansion of PCWRP will include a new 5 MGD treatment train that will utilize membrane bioreactor (MBR) technology, new 26 MGD solids handling facilities and ultraviolet disinfection (UV) facilities. The project will include the necessary piping and electrical/SCADA improvements to integrate the new facilities with the existing facilities to treat 26 MGD.

MBR technology, a new process for PCWRP, offers increased capacity in a similar footprint as a conventional treatment process. The effluent result from MBR treatment is free of suspended solids and contains reduced bacterial and viral content, requiring minimal disinfection. This process allows the treated effluent to be discharged into sensitive receiving streams or to be reclaimed for applications such as irrigation.

The proposed project utilizes proven new technology to effectively treat the influent at the location, resulting in high quality discharge and ensures environmental sustainability. This expansion will provide a capacity upgrade to provide safe wastewater treatment service associated with the increased growth within the City and surrounding communities.

Request for Qualifications for professional engineering services was solicited using the City's formal solicitation process. City Council approved a pre-qualified list of engineering firms on March 23, 2021 (Ordinance 2021-546). Engineering firms listed on the prequalified list for Wastewater Treatment facilities, were interviewed separately to determine the most qualified firm for the project. Based on the qualifications, knowledge, experience in designing large projects of similar type and concept most in line with future expansion, staff selected Kimley Horn and Associates Inc. from the list of qualified consultants to perform this work.

PRIOR ACTION/REVIEW (COUNCIL, BOARDS, COMMISSIONS)

On March 23, 2021, Council approved RFQ 7574 for a prequalified list of professional services firms (Ordinance 2021-546).

RECOMMENDATION

Award a contract with Kimley Horn and Associates Inc., for the Professional Service Agreement for the Water Utilities Department, in the not-to-exceed amount of \$14,952,000.

SUSTAINABILITY MEASURES

The proposed 5 MGD MBR facility and the supporting process equipment allows the Pecan Creek Water Reclamation Plant to expand the existing location with a smaller equipment footprint, sustain quality service and improve the water quality to be discharged.

Relationship to Sustainability Framework

Focus Area: *Water and Wastewater*

What are some of the goals the department will be setting up to ensure that the sustainability measures are met?

Goal 1: Expand the wastewater treatment capacity at Pecan Creek Water Reclamation Plant.

Goal 2: Ensure wastewater is treated and discharged in accordance with regulatory requirements.

Goal 3: Protect health, safety, and the environment by increasing the treatment capacity, improving reliability, and using advance technology to discharge safer effluent.

FISCAL INFORMATION

These Engineering Services will be funded from the Wastewater Utilities account 640496545.1360.20100. The initial \$1M is currently funded, with additional funds requested in the submitted Capital Improvement Budget for FY 24 through FY 27. Requisitions will be entered on an as-needed basis. The budgeted amount for this item is \$14,952,000

EXHIBITS

Exhibit 1: Agenda Information Sheet

Exhibit 2: Evaluation Sheet, Scope and Fee

Exhibit 3: Ordinance and Contract

Exhibit 4: Presentation

Respectfully submitted:
Lori Hewell, 940-349-7100
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Denton Water Utilities