EXHIBIT A
SCOPE OF WORK AND TIME SCHEDULE

2025 WATER MASTER PLAN UPDATE

1. Project Services. Consultant agrees to perform professional services for a project known and described as the 2025 Water Master Plan Update ("Project"). The Services are described in the following subtasks:

1.1 Data Collection

A. Consultant will meet (one meeting virtual and one in person) with City Engineering and Operations staff to review overall water system operations and develop an initial list of known deficiencies, concerns, and areas of focus for the existing water system. Consultant will review the following data and files provided by the City:

1. Water system GIS and water atlas mapping digital files.
2. Water supply system operations data including historical well supplies, treatment plant production records, pump station and tank settings etc.
3. Existing studies and reports on water supply, condition assessments, and preliminary design reports for pump stations and tanks.
4. Water quality data and regulatory reporting. SCADA information as requested for evaluating historic water use trends.
5. General Plan Update and population forecasts.
6. Recent developments and proposed new developments.

B. Consultant will summarize data quality; data gaps and plans to overcome the data gaps (i.e., assumptions to be made or additional efforts required to obtain data).

1.2 Review and Update Water System Design Criteria

A. Consultant will review the planning criteria in the 2018 Water Master Plan ("WMP") and the data collected in Task 1.1 to recommend design criteria modifications, if appropriate, for consideration by the City. Water system analysis and recommended improvements will be based on the updated design criteria. The criteria will include storage (operational, fire, emergency, and reserve storage), peaking factors, minimum and maximum pressures, pipeline velocities, and pump station facility design criteria.

B. Review with the City fire flow requirements and industry standards utilized and allowances for reductions due to fire sprinklers. One meeting (virtual) is assumed with the City Fire Department to review the 2018 Fire Code. Summarize minimum fire flows and durations by land use for the 2025 WMP.

1.3 Water Demand Analysis and Projections

A. Establish existing "baseline" water demand (2024)

1. Review and summarize historic water billing data assumed over the past three to five years and sort existing water use by account and pressure zones and provide summary. The meter data will be provided in electronic format for ease in evaluation.

2. Review existing potable water use trends considering recent water conservation, pandemic years, short term rental housing, and other economic factors.
3. Evaluate and develop unit demands based on a land use basis, and if available based on a per capita (and per employment basis) to assist in developing a future demand forecast.
4. Evaluate system wide peaking factors including maximum day and maximum month trends and seasonal variations in potable water use, including minimum demand days.
5. Prepare summary tables of existing water use by land use and pressure zone.

B. Provide Forecast/Projections

1. Confirm methodology for projected future demands with City staff, for consistency with 2024 WMP forecasts.
2. Prepare water demand forecast for year 2030, 2035 and 2040 based on General Plan information and input from the City.

1.4. Water Supply Analysis and Optimization

A. Supply Workshop #1 (virtual): Conduct an initial workshop with Engineering and Operations staff to review supply sources and existing conditions. Based on the North Well Field drilling program, review potential supply projects and identify future opportunities and constraints.

B. Summarize existing water supply sources, capacities, and reliability issues that could affect water delivery to the City including:

1. Horizontal Collector Well ("HCW") (assume the first phase rehabilitation is completed)
2. North well field
3. Island wells
4. South Intake

C. Identify and review potential future water supply sources based on information and data provided by the City, such as:

1. North well field expansion
2. State Park
3. Colorado River with surface water treatment plant
4. Others

D. Prepare a water supply source evaluation.

1. Based on the water demand forecasts identify year 2030, 2035, and 2040, estimate water supply capacity needs to meet maximum day demand and average day demand, and with one major source out of service.
2. Develop specific supply mixes to meet demand.
3. Develop preliminary capital costs for each new supply mix option (up to three). At least one new supply option will consider a second Water Treatment Plant with minimum base load supply and to provide full system redundancy.
4. Review water quality issues and address concerns for future treatment.
5. Review potential institutional, reliability, environmental, and constructability issues for each option.

E. Supply Workshop # 2 (in person) - Conduct a second workshop with City Engineering and Operations staff to review supply evaluation and projects and prepare a road map for implementation of new water supplies.

1.5 Water Treatment Plant (WTP) Evaluation

A. Existing WTP review. Review existing plant drawings and recent improvements made at the WTP. Consultant will prepare for and attend one WTP site visit and provide a summary of current operations, treatment performance, and known deficiencies or concerns with components such as electrical, controls, storage, UV system, filters, etc.

B. Prepare preliminary costs for identified improvements.

C. Identify a second WTP site for the purposes of enhancing reliability and meeting treatment needs with existing and new sources of water. One consideration will proximity to existing plant to minimize transmission system upgrades. Prepare site lay-out and develop preliminary costs for conceptual planning purposes.

1.6 Water Model Updates and Analysis

A. Model update.

1. The City currently uses the potable water model InfoWater. The existing model will be compared to the current GIS and updated to include new water facilities and pipelines and based on the existing demands as estimated from the historic meter records and operational data. The updated demand data will be assigned to representative model nodes.
2. Review existing pump station and tank operational controls utilizing City SCADA and update settings in the existing model with the City.

B. Existing system analysis.

1. Perform analysis of the existing system to meet planning criteria and recommend system improvements. The analysis shall include storage and pump station capacity, fire flows, and emergency operations.
2. The water model will be used to analyze the existing potable water system with existing demands under the following steady-state demand conditions:
   - Minimum Day Demands
   - Maximum Day Demand plus global fire flows analysis
   - Peak Hour Demands
3. The hydraulic model will be used to size the required infrastructure to improve the existing system for hydraulic performance. The improvements shall include physical system improvements such as pipelines, water pump stations, and reservoir storage and operational improvements.

C. 2040 water system analysis

1. Based on data developed in other tasks construct a model of the 2040 system.
2. Analyze the potable water system and recommend system improvements to meet the planning criteria. Prepare maps with schematic facility locations and sizes.

1.7 Water Storage and Pump Station Update

A. A zone by zone storage update will be conducted based on the system design criteria. Storage deficiencies and excess will be identified, categorized, and prioritized into a final CIP.

B. A zone by zone pump station analysis will be conducted based on the system design criteria. Pump Station deficiencies will be identified, categorized, and prioritized into a final draft CIP. The analysis will also include a review of system operations to determine if pump station operational modifications would improve system performance.

1.8 Facility and Risk Assessment

A. Review the City's current replacement program and asset management goals.

B. Conduct a "top-down" risk assessment of City's water facilities including pump stations and reservoirs. The assessment will be conducted using a risk-based approach to identify assets that pose an elevated risk of failure. The risk assessment approach will consider the consequences associated with asset failure and the likelihood of asset failure.

C. Through knowledge of industry practices and the City's system, the Consultant will develop a recommended list of service level ("LOS") categories for consideration. It is anticipated that several categories will be established for each system, based on the Consultant's experience in conducting asset management programs for numerous other utilities.

D. The Consultant will create a draft Consequence of Failure ("CoF") matrix based on the LOS categories. The matrix will include the criteria and scoring system necessary to quantify the CoF of assets and calculate the relative risk of failure. Similarly, the Consultant will develop a recommended criteria and scoring system for quantifying the likelihood of failure ("LoF") of the linear assets.

E. To facilitate the calculation of risk, the Consultant will create a spreadsheet to capture the assets and subsequent COF and LOF scores. The analysis may use asset attribute data from the City's GIS, other GIS data, City's computerized maintenance management system ("CMMS"), and other sources to score assets. The output will identify the pump stations or reservoirs posing the greatest potential risk.

F. Summarize an approach for a future pipeline risk-based assessment based on a review of the City's asset data, GIS data, pipe materials, and available break record information. Consultant to utilize Industry Standards and American Water Works Association ("AWWA") Guidelines for identifying replacement needs.

G. Pipeline Access and Maintenance Issues. The City has identified numerous pipelines that were constructed on private property, and in most cases within City Easements. Using GIS databases identify these pipelines and develop alternatives to removing/abandon.

H. Conduct one Workshop (in person) to review findings and future implementation and priorities. Establish a total annual pipeline replacement program that is necessary based on the top-down by City Public Works.

1.9 Capital Improvement Plan ("CIP") Prioritization and Cost Estimates

A. Prepare a comprehensive CIP and implementation plan that includes the Project summary, priority, and costs. Review and incorporate the City's existing CIP program and project list and modify the list as necessary and update for 2030, 2035 and 2040.

B. Estimate probable cost opinions of the required potable water capital facilities. Provide a description of the basis for the CIP costs in the report.

1.10 Deliverables

A. Prepare a report outline at project initiation. The draft report outline will be discussed at the kick-off meeting.

B. Prepare Draft Report similar in organization to the 2024 WMP. Digital copies of the draft report shall be submitted for the City's review. Draft reports shall include figures, tables, system maps, computer analysis, and text. The text will include recommendations for implementation, cost estimating, and a priority schedule of construction presented in both color-coded map and table format.

C. Prepare Final Report. Incorporate the City's comments on the Draft Report. Upon incorporation of the City's comments. The final report shall be delivered to the City and an electronic copy of the final report shall be submitted on CD in PDF format. Additionally, electronic files (spreadsheets, reports, figures, maps, CAD, etc.) shall be uploaded for the City in the native format of the file type.

1.11 Project Management

A. Project management includes the preparation of status reports on Project progress, budget and schedule, and invoicing, and general Project coordination.

B. Monthly Meetings

1. Kickoff meeting to confirm Project goals for the 2025 WMP.
2. Monthly status meetings (may be conference calls to minimize travel time or included with other site visits) to keep the team informed and gather information. This task includes the preparation of meeting agendas and minutes.

C. Prepare for and attend one presentation to City Council.

2. Assumptions

2.1 Consultant will reasonably rely upon the accuracy, timeliness, and completeness of the information provided by the City.

2.2 In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the Project, Consultant has no control over the cost or price of labor and materials, unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate Project cost or schedule. Therefore, Consultant makes no warranty that the City's actual Project costs, financial aspects, economic feasibility, or schedules will not vary from the Consultant's opinions, analyses, projections, or estimates.

3. Schedule. The Services will commence upon receipt of an executed Agreement and will take approximately seven months to complete with the following tentative schedule:

- Kick-Off Meeting: March 11, 2025
- Report Outline April 23, 2025
- 90% Draft Report August 8, 2025
- Final Report September 23, 2025

EXHIBIT B
FEE SCHEDULE

2025 WATER MASTER PLAN UPDATE

Consultant agrees to perform the Services outlined in Exhibit A for a lump sum amount of $224,940, and invoiced on a lump sum basis by major task complete as follows:

1.1 Data Collection	$20,400
1.2 Review Design Criteria	$4,640
1.3 Water Demand Analysis	$24,140
1.4 Water Supply Analysis	$19,700
1.5 Water Treatment Plant Assessment	$14,880
1.6 Water Model Update and Analysis	$38,920
1.7 Storage and Pumping Capacity	$8,280
1.8 Facility and Risk Assessment	$24,320
1.9 CIP Prioritization	$11,880
1.10 Report Preparation	$35,820
1.11 Project Management	$21,960
TOTAL	$224,940