

**REQUEST FOR PROPOSAL FOR PROFESSIONAL SERVICES  
WATER SYSTEM MASTER PLAN  
TAHOE CEDARS WATER SYSTEM  
MADDEN CREEK SYSTEM  
TAHOE CITY PUBLIC UTILITY DISTRICT  
TAHOE CITY, CALIFORNIA**

**INTRODUCTION**

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The Tahoe City Public Utility District (TCPUD) is soliciting written proposals for professional services related to the development of two water system master plans (Master Plans). The Master Plans will be focused on assessing the overall deficiencies of the newly acquired Tahoe Cedars and Madden Creek Water Systems (Systems) and recommending improvements and associated capital improvement projects to address the identified deficiencies within each system.

**BACKGROUND/SYSTEM DESCRIPTION**

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The TCPUD is a California Special District located on the north and west shores of Lake Tahoe providing water, sewer and parks and recreation services to an area of approximately 22 square miles. The TCPUD provides water service to 5,300 customers through approximately 130 miles of water mains, 15 groundwater wells, 1 seasonal surface water treatment plant, 6 booster pump stations and 15 water storage tanks. The water service area stretches approximately from D.L. Bliss State Park to the Dollar Point area but is segregated into seven distinct public water systems, including the Systems. The attached figure shows TCPUD's seven distinct public water systems with approximate locations of water facilities as well as the locations of several other public water systems not owned or operated by TCPUD.

On January 1, 2018 TCPUD acquired and began operation of the Tahoe Cedars Water System (TCWS) and the Madden Creek Water System (MCWS). The Systems were owned and operated by a private entity known as Mid-Sierra Utilities. While originally owned by the same entity, the Systems are individual public water systems, separated by a couple of miles and are not currently interconnected with each other.

**Tahoe Cedars Water System Description**

TCWS provides water primarily to the community of Tahoma, an unincorporated area of El Dorado County along the west shore of Lake Tahoe, with a small portion of TCWS being located in Placer County. TCWS is comprised of approximately 1,100 water service connections, approximately 14 miles of water mains, one groundwater well and two water storage tanks. An interconnection with the TCPUD McKinney Quail Water System was constructed in 2018 which provides critical source and storage redundancy to TCWS. The distribution system is largely comprised of a "grid" network of 4-inch steel water mains primarily located in back of lot easements. Other areas include 6 and 8-inch steel mains and some PVC mains outside of the grid area as well as many smaller diameter 1-inch and 2-inch service mains. TCWS is largely an unmetered water system with less than 40 service connections being metered. The sole production source of water in the TCWS is a groundwater well, the Elm Street Well, which was drilled in the 1950's and produces between 400-500 gallons per minute. TCWS is served by two water storage tanks which are located adjacent to each other, interconnected and separated by approximately 20 feet in base elevation. The upper tank has a storage volume of 350,000 gallons and the lower tank has a storage volume of approximately 120,000 gallons. A vault containing two check valves isolates each tank from the distribution system. A check valve (CV1) located between the lower tank and the distribution system only allows water to flow from the lower tank to the distribution system. The other check valve (CV2), located between the upper tank and the distribution system, and only allows water to flow from the distribution system to the upper tank. During operation of the Elm Street Well, water produced in excess of the system

demand flows through CV2 to the upper tank while holding CV1 closed. When the Elm Street Well turns off based on the level in the upper tank, CV2 closes and CV1 opens allowing the system demand to be met by the lower tank. An altitude valve replenishes the lower tank from the upper tank until the level in the upper tank calls for the Elm Street Well to turn back on. Operation of the well is based on the upper tank level and operated via a radio based SCADA system.

### **Madden Creek Water System Description**

MCWS provides water primarily to the community of Homewood, an unincorporated area of Placer County along the west shore of Lake Tahoe. MCWS is comprised of approximately 160 water service connections, approximately 3.5 miles of water mains, one groundwater well and one water storage tank. An interconnection with the TCPUD McKinney Quail Water System is scheduled to be constructed in 2019 which will provide critical source and storage redundancy to MCWS. The distribution system is largely comprised of a 6-inch steel water main backbone with many smaller diameter 1-inch and 2-inch service mains. This distribution network dates back to the 1940's and has seasonal water mains which are turned off in the fall and winter. A very limited amount of PVC is in the system. MCWS is largely an unmetered water system with less than 30 service connections being metered. The sole production source of water in the MCWS is the Silver Street Well, a groundwater well. The Silver Street Well was drilled in the 1970's and produces between 250-300 gallons per minute. MCWS is served by a single water storage tank which has a storage volume of 120,000 gallons. Operation of the well is based on the tank level and operated via a radio based SCADA system.

### **Project Description**

The subject Systems are in need complete evaluation, planning and upgrading. The purpose of this RFP is to select the most qualified Consultant to complete the Master Plans for these Systems. The District desires to develop a thorough understanding of the existing systems and their respective water system distribution facilities. The distribution facilities are crucial to residential and commercial services as well as to provide fire suppression capabilities in the area, with respect to flow, duration and fire hydrant coverage. The District will need to develop individual Water System Master Plans and Hydraulic Models for both the Tahoe Cedars and Madden Creek water systems. The Master Plans will include an assessment of the existing capability of the water supply sources as well as the current and future water demands, and to determine the system performance and operations. The system assessment will develop recommendations for existing water system renewal and replacement including optimized locations for recommended infrastructure replacement, water metering implementation, fire hydrant and isolation valve placement. Working with District staff, the selected Consultant, will create a criteria to prioritize CIP recommendations for future water system capital improvements. The Master Plans will create alternatives with a range of implementation timeframes. Each alternative will evaluate the proposed phasing, construction impacts and cost implications of short term and long term implementation, along with 2 alternatives with moderate implementation timelines between the two. The consultant shall identify funding opportunities/scenarios and implications for each alternative to include grants, borrowing, and rate adjustments.

## **INFORMATION AVAILABLE**

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Attached to this RFP are electronic versions of the following documents:

1. TCPUD Water System Facilities Figure
2. TCPUD GIS Water System Maps for the TCWS and MCWS
3. PCWA - Northwest Lake Tahoe Area Water System Master Plan Project – February 2010
4. TCPUD - Rubicon Water System Planning Evaluation Technical Memorandum – February 2010
5. TCPUD’s Standard Agreement for Professional Services

Questions regarding these documents should be directed to the TCPUD, not the consultant that may have prepared them.

## **SCOPE OF WORK**

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The tasks presented below represent the TCPUD’s best understanding of the work required to complete the Project. Consultants are encouraged to identify any supplemental tasks deemed necessary for successful completion of the work. The scope of work for this Project includes the following:

1. **Project Management** – The Consultant shall have one project manager for the Project who will be the prime contact for the TPCUD. The project manager shall be solely responsible for coordinating all aspects of development of the Project. In the event the consultant wishes to change the project manager, the principal of the consulting firm shall notify the TCPUD, in writing, of the change request. The TCPUD will review and approve/disapprove this request.
  - a. The consultant shall be responsible for coordinating and attending all design team meetings, permitting and regulatory agency meetings, and relevant TCPUD committee and board meetings.
  - b. The consultants shall prepare all meeting agendas, presentations, and maintain meeting minutes (assume two TCPUD committee meetings and one TCPUD board meeting).
  - c. The Consultant shall produce a Project schedule and shall update the schedule on a monthly basis.
2. **System Assessments** – The consultant shall review all existing data provided by the TCPUD (including this RFP) and shall perform any additional assessment of the Systems as deemed necessary by consultant and the TCPUD.
  - a. The consultant shall provide a scope and schedule for assessment efforts, to be reviewed and coordinated with the TCPUD in advance of the work.
  - b. All work impacting TCPUD facilities and operations shall be scheduled and performed in close coordination with TCPUD staff to mitigate any impacts to TCPUD operations.
  - c. The consultant will be provided the District’s GIS mapping information. The consultant shall verify and update, as necessary, the District’s GIS data base with pertinent field data including but not limited to: transmission lines, distribution lines, air release valves, pressure reducing valves, hydrants, and meters to a level of detail needed to develop the Master Plans.
3. **Master Plan** – the consultant shall prepare two distinct Master Plans for the Tahoe Cedars Water System and the Madden Creek Water System. Both Master plans will present all available and collected data, interpret data, and evaluating System operation and make clear recommendations to

the TCPUD on prioritized capital improvement projects. The Master Plans shall contain the following, at minimum:

- a. Description of existing water service area
- b. Discussion and evaluation of current and future water demands
- c. Discussion and evaluation of existing water supply sources
- d. Discussion and evaluation of existing water system distribution facilities
- e. Discussion and evaluation of Systems current fire suppression capabilities including flow, duration and fire hydrant coverage
- f. Discussion, evaluation, and recommendations for system performance and operations
- g. Evaluation and recommendations for existing water system renewal and replacement
- h. including optimized locations for recommended infrastructure replacement, water meter installations, fire hydrant and isolation valve placement
- i. Evaluation and recommendations for future water system capital improvements
- j. Develop criteria to prioritize CIP recommendations
- k. Evaluation of four (4) different system improvement implementation timelines: short term, long term and two (2) alternatives in between.
- l. Development and evaluation of funding strategies for each alternative of implementation including: grants, borrowing, and rate adjustments.
- m. Recommended Capital Improvement Program Appendices
- n. Develop GIS-based water system Hydraulic Model, including:
  - i. Physical and operational attributes for model for major system components
  - ii. Scenarios for Fire Flow (FF), Maximum Day Demand (MDD), Average Day Demand (ADD), MDD+FF, and Peak Hour Demand (PHD)
  - iii. Major facility, valve, and hydrant locations (valve & hydrant locations files provided by TCPUD)

The Master Plans shall be submitted to the TCPUD for internal review and then to the TCPUD Sewer and Water Committee as a final draft before producing the final report.

## **SCHEDULE**

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The TCPUD will select the most-qualified consultant for the Project. The TCPUD plans to award a Professional Services Contract for the Project to the selected consultant at the October 18, 2019 Board meeting. Work should begin immediately thereafter. The goal of the TCPUD is to complete all System inspection and assessment work during the Fall of 2019. Consultant is advised that all field work and site reconnaissance efforts required will need to be completed in advance of winter weather, i.e., snow and heavy precipitation. The goal of the TCPUD is to complete the Scope of Work by the end of the Summer of 2020.

## **PROPOSAL FORMAT**

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Proposals should be of a length and contain a level of detail equal to the magnitude of the proposed project. All proposals should include the following information, at a minimum:

### **1. Scope of Work:**

Provide a detailed Scope of Work summarizing all work tasks required to complete the Project as generally described above. Consultants are encouraged to explain, in detail, their understanding of the Scope of Work and to identify any supplemental tasks deemed necessary for successful completion of the Project. Identify in the Scope of Work any key issues anticipated in completing the Project and summarize how the team will approach these. Include a summary of assumptions made in preparing the Scope of Work and/or proposed exclusions to the Scope of Work.

The proposed Scope of Work will serve as the basis for final negotiations of the contractual scope of work with the selected consultant.

**2. Project Manager and Project Team:** Include an organizational chart of the consultant team and identify the Project Manager, key personnel, and sub-consultants, along with their proposed project responsibilities. Provide a description of the qualifications and experience for each key personnel, in addition to their current availability.

**3. Experience:** Include a list of projects completed by members of the consultant team over the last five years that are similar in scope and provide a brief description of the projects. Specifically, describe any previous experience with water system assessment and master planning.

**4. References:** Provide contact information for at least three references from previous clients who are public agencies for which the firm has performed work similar to this Project.

**5. Schedule:** Provide a preliminary Project schedule, broken down by task, showing a contract start date of November 2019.

**6. Consultant Fee:** Provide, in a separate sealed envelope, a not to exceed fee estimate, broken down by task, for completing all work as described in the proposal Scope of Work, including materials and outside services. Also provide a current fee schedule for engineering services as used to calculate the consultant's fee. The consultant fee and fee schedule will serve as the basis for final negotiations of the Consultant Agreement for Professional Services.

## **SELECTION OF CONSULTANT**

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All qualified consultants are encouraged to submit proposals; consultants are not limited to those listed on the attached Consultant Distribution List. The proposals will be evaluated by a selection committee made up of two TCPUD staff and two TCPUD Board members. At this time, the selection committee does not plan to interview consultants for this Project. However, depending on the proposals submitted, the committee may elect to modify the selection schedule and interview a short-list of consultants.

Each proposal will be rated on:

- Completeness of the proposed Scope of Work and responsiveness to this RFP;
- Qualifications and experience of the consultant team; particularly in the areas of water system assessment and master planning;
- Demonstrated experience of consultant team with projects of the same nature;
- Experience providing the specified services in the Lake Tahoe basin;
- References; and
- Cost (may be considered if no clear decision is reached after consideration of the Technical Proposal).

### **TCPUD'S STANDARD AGREEMENT FOR PROFESSIONAL SERVICES (CONTRACT)**

Attached to this RFP is a copy of the TCPUD's standard Agreement for Professional Services (Contract) used for consultant engineering services. Please review this Contract, including the insurance requirements, carefully before you spend time on preparing a proposal for this project. The TCPUD will consider minor revisions to the Contract subject to the review and approval of the TCPUD's legal counsel. A summary of proposed revisions to the standard form Contract should be included in the consultant's proposal.

### **SUMMARY**

The TCPUD reserves the right to reject any or all proposals, to waive defects and informalities, and to accept any proposal.

Submit five (5) copies of the proposal in a sealed envelope with one consolidated .pdf file, on CD, by **Monday, September 16, 2019 at 3:00 pm** to:

Charley Miller, P.E.  
Engineering Manager  
Tahoe City Public Utility District  
P.O. Box 5249  
221 Fairway Drive  
Tahoe City, CA 96145  
(530) 580-6323  
[cmiller@tcpud.org](mailto:cmiller@tcpud.org)

Enclosures via Dropbox Link:

<https://www.dropbox.com/sh/ceqlyedavn3en8l/AAAzVOMON6w0CKhbcEXrhQuAa?dl=0>

c: TCPUD Consultant Selection Committee (Sewer and Water Committee)

### **Consultant Distribution List**

The following list is provided for informational purposes; all qualified consultants are encouraged to propose.

Mr. Wally Auerbach  
Auerbach Engineering Corp.  
PO Box 5399  
Tahoe City, CA 96145

Marco J. Palilla  
HDR Engineering, Inc.  
2365 Iron Point Road, Suite 300  
Folsom, CA 95630

Mr. Paul Selsky  
Brown & Caldwell  
10540 Whiterock Rd., Ste. 180  
Rancho Cordova, CA 95670

Mr. Michael Bennett  
Lumos Engineering  
308 N. Curry St, Suite 200  
Carson City, NV 89703

Mr. Tim Taylor  
Carollo Engineers  
2880 Gateway Oaks Drive, Ste. 300  
Sacramento, CA 95833

Mr. Tim Williams  
Kennedy/Jenks Consultants  
10850 Gold Center Drive, Suite 350  
Rancho Cordova, CA 95670

Mr. Brett Isbell  
CH2M Hill  
2525 Airport Drive  
Redding, CA 96001

Mr. Adrian Tieslau  
Tieslau Civil Engineering, Inc  
P.O. Box 412  
Tahoe Vista, CA 96146

Ms. Debbie Jenkins  
Eastern Sierra Engineering  
4515 Towne Drive, Suite A  
Reno, NV 89521

Mr. Jason Drew  
Nichols Consulting Engineers  
1885 S. Arlington Ave., Suite 111  
Reno, NV 89509

Mr. Matt Van Dyne  
Farr West Engineering  
5442 Longley Lane, Suite A  
Reno, NV 89511

Mr. Victor Alaniz  
NV5  
2495 Natomas Park Drive, 4<sup>th</sup> Floor  
Sacramento, CA 95833

Mr. Gary Davis  
JK Architecture Engineering  
PO Box 7409  
Tahoe City, CA 96145

Mr. Chuck Parsons  
Sancon Engineering  
5841 Engineer Drive  
Huntington Beach, CA 92649

Mr. Larry P. Johnson  
HDR Engineering, Inc.  
100 Pringle Ave., Suite 400  
Walnut Creek, CA 94596

Mr. Gabe Aronow  
Stantec Consulting Services, Inc  
3875 Atherton Road  
Rocklin, CA 95765

TCPUD – Request for Proposal  
Water System Master Plan  
August 21, 2019

Ms. Amber Harmon  
Wood Rodgers  
5440 Reno Corporate Drive  
Reno, NV 89511

Mr. Dean Marsh  
Sauers Engineering Inc.  
105 Providence Mine Road, Suite 202  
Nevada City, CA 95959

Mr. Andrew T. Ryan  
PR Design & Engineering, Inc.  
PO Box 1847,  
Kings Beach, CA 96143

Schaaf and Wheeler  
Mr. Daniel J. Schaaf  
1171 Homestead Rd. Ste. 255  
Santa Clara, CA 95050