



Market Sounding Brief

Pure Water Antelope Valley
Advanced Water Purification Facility
Progressive Design Build
August 15, 2025



TABLE OF CONTENTS

1.0 INTRODUCTION..... 4

1.1 Purpose..... 4

1.2 Participation..... 5

1.3 Instructions to Participate 6

1.4 Agenda..... 6

2.0 OVERVIEW..... 6

2.1 Program Description..... 6

2.2 Advanced Water Purification Facility and Ancillary Facilities..... 8

2.3 Design Build Entity Procurement Process and Schedule 9

2.4 Project Implementation Schedule 9

2.5 Project Funding 10

2.6 Environmental Permitting..... 10

2.7 Innovation and Cost Savings 10

3.0 QUESTIONS FOR PARTICIPANTS..... 11

LIST OF TABLES

Table 1.1 – Available times for the market sounding virtual meetings. 6

Table 2.1 – Anticipated procurement schedule..... 9

Table 2.2 – Anticipated project schedule..... 10

LIST OF FIGURES

Figure 1.1 – Pure Water AV Full-Scale Advanced Water Purification Facility Site 5

Figure 2.1 – Pure Water AV program components..... 8



Acronyms and Abbreviations

Abbreviation	Definition
AOP	advanced oxidation process
AWPF	advanced water purification facility
CDR	conceptual design report
CEQA	California Environmental Quality Act
City	City of Palmdale
DBB	design-bid-build
DBE	Disadvantaged Business Enterprise
gpm	gallons per minute
IPR	indirect potable reuse
LACSD	Los Angeles County Sanitation Districts
LAWA	Los Angeles World Airports
MF	membrane filtration
MGD	million gallons per day
PDB	progressive design-build
Pure Water AV	Pure Water Antelope Valley
PWD	Palmdale Water District
PWRP	Palmdale Water Reclamation Plant
RFQ	Request for Qualifications
RFP	Request for Proposal
SOQ	Statement of Qualifications
Stantec	Stantec Consulting Services Inc.
USEPA	United States Environmental Protection Agency
UV/AOP	ultraviolet/advanced oxidation process



1.0 INTRODUCTION

The Palmdale Water District (PWD) has been providing high-quality water to its 125,000 customers since 1918. PWD primarily relies on local groundwater and both local and imported surface water delivered through the State Water Project to meet its water needs. To diversify its water supply and increase resiliency against future droughts, PWD has embarked on an indirect potable reuse (IPR) project referred to as Pure Water Antelope Valley (Pure Water AV).

The Stantec Team (including Stantec, Trussell, MWA, Katz, and Montgomery & Associates) was retained by the Palmdale Water District (PWD) to provide program management services for Pure Water AV or Program. Using advanced treatment processes including low-pressure membrane filtration (MF), reverse osmosis (RO), and ultraviolet light with advanced oxidation (UV/AOP), Pure Water AV will further purify tertiary treated (Title 22) wastewater from Los Angeles County Sanitation Districts' (LACSD) Palmdale Water Reclamation Plant (PWRP). The purified water will meet all applicable state and federal drinking water standards and regulations for indirect potable reuse (IPR). This purified water will be injected into the local groundwater aquifer, thereby supplementing PWD's existing potable water supplies.

1.1 PURPOSE

The Palmdale Water District (PWD) will be delivering a series of project elements under the Pure Water Antelope Valley (Pure Water AV) Program. PWD is assessing market interest for designing and constructing an advanced water purification facility (AWPF), product water pipeline, and groundwater injection wells at the (greenfield) property located at APN #3022-011-900 and APN # 302-011-002, in Palmdale, California and shown in **Figure 1.1**. This brief provides background information for the infrastructure to be constructed on the aforementioned property using the progressive design-build (PDB) delivery method to facilitate collaboration, innovation, and early cost certainty.

Utilizing the series of questions included in this briefing, one on-one market sounding calls will be held with interested progressive Design Build Entities (DBE) consisting of contractors and designers in advance of the Request for Qualifications (RFQ) with the intent to gain feedback on the intended approach, risk transfer limitations, and contract element preferences to refine the DBE procurement process.





Figure 1.1 – Pure Water AV Full-Scale Advanced Water Purification Facility Site

1.2 PARTICIPATION

The market sounding calls are open to firms or teams interested in pursuing the AWPf, injection wells and product water pipeline PDB Project. Stantec will facilitate all market sounding calls virtually. **Table 1.1** shows the dates and times that have been set aside for the conference calls. Additional dates and times may be made available if all of those time slots are taken.

Interested parties should email Jennifer Villa at jv@palmdalewater.org using the subject line “**Palmdale Pure Water AV Market Sounding**”. In the e-mail, please state three options in order of preference. In your e-mail, please include the following:

- Whether you are a designer, contractor or a DBE (designer + contractor team)
- Names and roles for all planned participants

Table 1.1 – Available times for the market sounding virtual meetings.

Date	Time
Tuesday, September 2	1:00 pm, 4:00 pm
Wednesday, September 3	9:00 am, 11:00 am, 2:00 pm, 3:00 pm, 4:00 pm
Thursday, September 4	11:00 am, 1:00 pm, 2:00 pm, 4:00 pm
Tuesday, September 9	11:00 am, 4:00 pm
Wednesday, September 10	10:00 am, 11:00 am, 2:00 pm
Thursday, September 11	11:00 am, 1:00 pm, 2:00 pm, 4:00 pm
Tuesday, September 16	8:00 am, 9:00 am, 11:00 am, 1:00 pm, 4:00 pm
Wednesday, September 17	8:30 am, 10:00 am
Thursday, September 18	8:30 am, 11:00 am

1.3 INSTRUCTIONS TO PARTICIPATE

PWD will send a meeting request with specific call-in information to the email addresses and contacts you provide. Participation in the market sounding call is not mandatory, nor will participation impact selection of the DBE. Responses will not be attributed to a firm or team in the debrief with PWD. This brief is available on the Palmdale Pure Water AV Program website at [Pure Water Antelope Valley](#).

1.4 AGENDA

The market sounding calls will be limited to 55 minutes each and will have the following agenda:

- Introductions (5 minutes)
- Questions (45 minutes)
- Closing (5 minutes)

2.0 OVERVIEW

The following sections describe the program as well as AWPf, product water pipeline and injection wells and associated procurement details.

2.1 PROGRAM DESCRIPTION

PWD has been providing water service to its customers since 1918 when the Palmdale Irrigation District was formed. Due to extensive agricultural use, the Antelope Valley Groundwater Basin has



been in an overdraft condition since the 1930s, resulting in land subsidence. In 1973, the Palmdale Irrigation District changed its name to Palmdale Water District. In 2012, the Palmdale Recycled Water Authority, comprising members from the City of Palmdale (City) and PWD, was established to manage recycled water that is generated and used within the Palmdale area solely for landscape irrigation.

PWD has conducted several studies that date back to as early as the 1990s to evaluate the water resources necessary to meet future water demands. Concepts evaluated to date include using recycled water for landscape irrigation, discharging into existing sand and gravel pits where the recycled water would replenish the groundwater basin naturally, and groundwater recharge (GWR) using recharge basins (e.g., Palmdale Regional Groundwater Recharge and Recovery Project). Based on the Littlerock Creek Groundwater Recharge and Recovery Project Feasibility Study (Kennedy Jenks, 2015), the average infiltration rate was expected to be 9.4 feet per day in the northern region and 12 feet per day in the southern region for the proposed sites. A series of subsequent pilot studies showed less than half of the original estimated recharge volume was realized, which challenged the feasibility of this alternative and prompted PWD to investigate other approaches to augment existing water supplies.

Following the pilot studies for surface spreading, PWD hired Stantec to conduct a feasibility study on other potable reuse alternatives including indirect and direct potable reuse (IPR/DPR). The study concluded that IPR by groundwater augmentation via direct injection is the most economical alternative for potable reuse and can be implemented based on existing regulations. Additional studies completed included evaluation of tertiary water requirements, brine management strategy, funding assessment, evaluating delivery methods, conducting an economic impact assessment, conducting a numerical groundwater model, public outreach strategy and regulatory approval requirements. More information on the studies leading to and forming the Pure Water AV can be found in PWD's *Program Priorities and Implementation Plan* (<https://purewaterav.org/resources>). The PPIP is a living document and is periodically updated to reflect changes in the program.

In addition to preparing the PPIP, the Stantec Team has completed design of a 240 gpm AWPF demonstration facility that is located east of Palmdale Water District's Headquarters at 2107 East Avenue Q, Palmdale, CA 93550. The demonstration facility is currently under construction and scheduled for commissioning in July 2026. Water quality data from the demonstration facility will be utilized to inform the full-scale AWPF design.

As shown in **Figure 2.1**, the Pure Water AV Program incorporates multiple project components and delivery methods that include traditional design bid build (DBB) as well as PDB. The packaging has been designed to optimize efficiency taking into consideration cost, balancing risk, schedule and performance. The District continues to evaluate the selected delivery method for each package.



The main project components and project packages include:

- Demonstration facility (DBB and under construction)
- Tertiary Effluent Pump Station & Pipeline (DBB contract)
- AWPf, Product Water Pipeline & Injection Wells (PDB contract)
- Brine Conveyance Pipeline (DBB contract)
- Brine Ponds (DBB contract)



Figure 2.1 – Pure Water AV program components.

2.2 ADVANCED WATER PURIFICATION FACILITY AND ANCILLARY FACILITIES

The full-scale AWPf will be designed to treat up to 4.75 million gallons per day (mgd) of secondary effluent from LACSD's PWRP to meet all state and federal regulations for groundwater replenishment with space allocated to expand the facility by another 5 mgd. Treatment will include low-pressure membrane filtration (MF), reverse osmosis (RO) and ultraviolet advanced oxidation processes (UV/AOP). The advanced treated water will be pumped from the AWPf to two injection wells located on the same site to achieve a daily injection rate of approximately

1,650 gpm. A conceptual design report (CDR) has been developed that includes design criteria for the full-scale AWPF, injection wells and product water conveyance pipelines. The CDR establishes the foundation for the design process by outlining water quality and performance goals, conceptual sizing and design criteria, and preliminary layouts. A copy of the CDR will be provided prior to the Request for Proposals (RFP).

2.3 DESIGN BUILD ENTITY PROCUREMENT PROCESS AND SCHEDULE

PWD is adapting a two-step procurement process to hire a DBE for the full-scale AWPF, injection wells and product water pipeline. After the market sounding and virtual meetings with interested parties, feedback from these meetings will be incorporated into the procurement process. A Request for Qualifications (RFQ) will be released in October 2025. Upon receipt of Statement of Qualifications (SOQs), PWD will review and shortlist up to three DBEs to solicit proposals. The RFP is expected to be released in February, 2026 and the selected DBE will be notified of the award in June / July 2026. **Table 2.1** shows the anticipated DBE procurement schedule.

Table 2.1 – Anticipated procurement schedule.

Milestone	Date
Market Sounding Calls	September 2025
RFQ Release and Pre-Bid Meeting	October 2025
SOQs Due and Shortlisting	December 2025 – January 2026
RFP Release and Confidential Meetings	February 2026
Proposals Due and Interviews	May 2026
Award Notification and Negotiations	June 2026 – July 2026
Notice to Proceed	August 2026

2.4 PROJECT IMPLEMENTATION SCHEDULE

The anticipated project schedule for the AWPF, injection wells and product water line PDB contract is as shown in **Table 2.2**. A detailed program schedule that incorporates all construction packages will be provided with the RFP.



Table 2.2 – Anticipated project schedule.

Milestone	Date
Procurement	September 2025 – August 2026
Design	August 2026 – May 2028
Guaranteed Maximum Price	November 2027
Equipment Procurement	June 2027 - May 2028
Construction	November 2027 – March 2030
Commissioning and Startup	March 2030 – May 2030

2.5 PROJECT FUNDING

The Program is funded through PWD, state and federal grants that have been awarded, and a low-interest WIFIA loan through the USEPA. Additional state and federal grant funding will continue to be sought to offset program costs as additional opportunities become available. Federal funding requirements will be included in the RFQ/RFP.

The total program costs is estimated to be \$285M and includes land acquisition, program management, engineering and construction of all facilities. The PDB portion of the program that includes the AWPf, injection wells and product water pipeline is estimated to be approximately \$130M.

2.6 ENVIRONMENTAL PERMITTING

Field investigations for biological and cultural resources have been completed at the AWPf site and Stantec is currently preparing a CEQA Initial Study. It is anticipated that a Mitigated Negative Declaration will be the appropriate CEQA document for the project and this will be obtained prior to release of the RFP. Other permits necessary for the implementation of the project will be discussed in the RFP.

2.7 INNOVATION AND COST SAVINGS

While the CDR for the PDB contract will present a preliminary facility configuration and recommended treatment technologies, the PDB delivery approach presents opportunities for innovation of technology, facility configuration, and construction means and methods. PWD is interested in industry ideas that may save capital costs, long-term operations and maintenance costs and schedule. Ideas discussed and presented during the one-on-one market sounding meetings will be confidential in nature and will not be shared with other potential designers and contractors.



3.0 QUESTIONS FOR PARTICIPANTS

The following questions will be discussed during each market sounding call. Please come prepared to the market sounding call to respond to the following questions:

1. What are factors that will influence your interest in pursuing this project?
2. Do you have any feedback on the following items?
 - a. Proposed limits of the AWPf, injection wells and product pipeline project scope
 - b. Anticipated procurement schedule
 - c. AWPf and Ancillary Facilities project implementation schedule
3. What risks are you most worried about and how do you propose to mitigate those?
4. Based on current market conditions, what contractual flexibility do you recommend?
5. Do you anticipate any items with long-lead times and if so, how do you propose to mitigate the issue?
6. Do you have any issues with self-performing 51% of the work and would you be okay if such requirement was included in the RFP?
7. Are there any specific items you find most challenging during contract negotiations?
8. What types of performance guarantees do you feel comfortable with for this project?
9. What do you think is suitable bonding, insurance, safety requirements that should be considered for the pass-fail criteria in the RFQ?
10. Based on your experience, what permits do you expect PWD to be responsible for vs the DBE?
11. Do you feel comfortable completing the Basis of Design Report (BODR) for the AWPf without any data from PWD's AWT Demonstration Facility? If not, what data do you have to have before finalizing the BODR?
12. Can you share your lessons learned that you find critical for successful implementation of PDB projects?
13. Will you require an NDA for proprietary discussions?
14. Do you prefer a single-stage or two-stage procurement (RFQ/RFP vs RFQ with price at submittal)?





SUBMITTING WITH

