PURE WATER PROJECT
LAS VIRGENES-TRIUNFO

Bringing Our Water Full Circle

Market Sounding Brief

Las Virgenes-Triunfo Joint Powers Authority

June 7, 2022

Contents

Acronyms and Abbreviations

AWPF	Advanced Water Purification Facility
Basin Plan	Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, 2020
DBB	design-bid-build
EPA	U.S. Environmental Protection Agency
IPR	indirect potable reuse
JPA	Las Virgenes-Triunfo Joint Powers Authority
LVMWD	Las Virgenes Municipal Water District
MGD	million gallons per day
NPDES	National Pollutant Discharge Elimination System
PDB	progressive design-build
Program	Pure Water Project Las Virgenes-Triunfo
PWP	Pure Water Project Las Virgenes-Triunfo
RFP	Request for Proposals
RFQ	Request for Qualifications
RO	reverse osmosis
SMP	Calleguas Salinity Management Pipeline
SOQ	Statement of Qualifications
TMDL	total maximum daily load
TWRF	Tapia Water Reclamation Facility
TWSD	Triunfo Water and Sanitation District
U.S.	United States
UV AOP	ultraviolet light advanced oxidation process

1. Introduction

1.1 Purpose

The Las Virgenes-Triunfo Joint Powers Authority (JPA) is delivering a series of project elements under the Pure Water Project Las Virgenes-Triunfo (PWP or Program). Las Virgenes Municipal Water District (LVMWD) serves as the administering agency of the JPA. The Jacobs Team is serving as the Program Manager/Owner's Adviser and is assisting the JPA with management and delivery of the Program.

Though the JPA typically uses the traditional design-bid- build (DBB) project delivery model to select, award, and implement design and construction projects, given the size and complexity of the PWP, the JPA has elected to deliver their new Advanced Water Purification Facility (AWPF) using the progressive design-build (PDB) delivery model to facilitate early cost certainty, constructability input, innovation, and collaboration.

The Program is conducting market sounding calls to support the PDB procurement, with the following objectives:

- Conduct one-on-one meetings with potential proposers in advance of the Request for Qualifications (RFQ) and Request for Proposals (RFP) to refine the procurement process.
- Gain feedback from potential proposers on the intended approach, risk transfer limitations, and contract element preferences.
- Gain feedback from potential proposers on PDB lessons learned from past projects.

1.2 Pure Water Project Overview

The JPA is a partnership between LVMWD and the Triunfo Water & Sanitation District (TWSD), established to cooperatively treat wastewater for these two bordering areas that share the Malibu Creek watershed. The JPA has been a pioneer in the development of recycled water as a renewable resource, operating the Tapia Water Reclamation Facility (TWRF) since 1965 (LVMWD 2022a). All of the recycled water produced at the TWRF is used for irrigation during the summer; however, surplus recycled water is discharged to Malibu Creek during the winter. The National Pollutant Discharge Elimination System (NPDES) permit prohibits discharge to Malibu Creek from April 15 to November 15, except under an operational emergency or qualifying storm event.

Regional Board Resolution Number R16-009 (May 16, 2017) amended the Water Quality Control Plan for the Los Angeles Region, the *Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, 2020* (Basin Plan) (Los Angeles RWQCB 2020) to incorporate more stringent seasonal nitrogen and phosphorus total maximum daily loads (TMDLs) for discharge to Malibu Creek to address benthic community impairments. The JPA considered a multipronged approach to address these stringent U.S. Environmental Protection Agency (EPA) water quality standards for discharge of recycled water into the creek, as compliance was determined to be expensive and impactful to sewage treatment rates for customers. The JPA has expressed its commitment to creek stewardship, but with common sense solutions to water quality issues (Los Angeles RWQCB 2017b).

As part of a robust, 18-month stakeholder participation process, the JPA evaluated a number of options to beneficially use surplus recycled water to improve regional water supply reliability and drought resilience, while eliminating discharge into the creek. On August 3, 2016, the JPA Board voted to explore the preferred alternative, indirect potable reuse (IPR), which would create a local, reliable water supply for the region (LVMWD 2022b). A subsequent feasibility study identified the preferred project alternative as the IPR project, now known as the PWP (Kennedy Jenks Consultants 2018). The PWP represents a unique opportunity to proactively address three major challenges facing the JPA:

1) Comply with more stringent regulatory requirements for discharge to Malibu Creek.
2) Balance seasonal variation of recycled water demand.
3) Create a valuable resource to supplement the region's water supplies, enabled by California's reservoir water augmentation requirements.

The fundamental plan is to build an AWPF to treat tertiary effluent from the TWRF for IPR, and convey the purified water to the Las Virgenes Reservoir, where it will be blended with Metropolitan Water District of Southern California supply. The water from the Las Virgenes Reservoir will then be treated at the Westlake Filtration Plant prior to distribution (Figure 1).

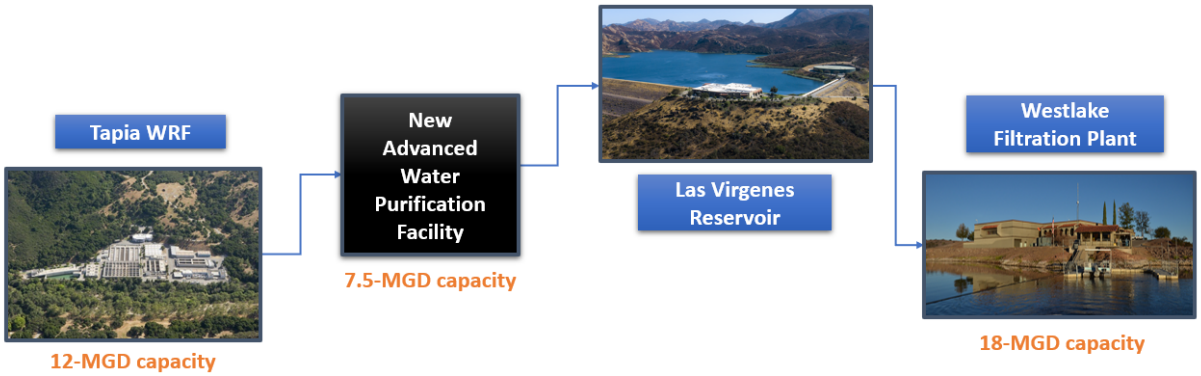

Figure 1. Pure Water Project Las Virgenes-Triunfo Major Elements

The TWRF will provide treated tertiary effluent to a new, 7.5-million-gallon-per-day (MGD) AWPF. Two potential AWPF site locations are under consideration for the California Environmental Quality Act review: (1) 30800 Agoura Road and (2) Las Virgenes Reservoir (Figure 2). Site selection will be finalized after certification of the Program Environmental Impact Report.

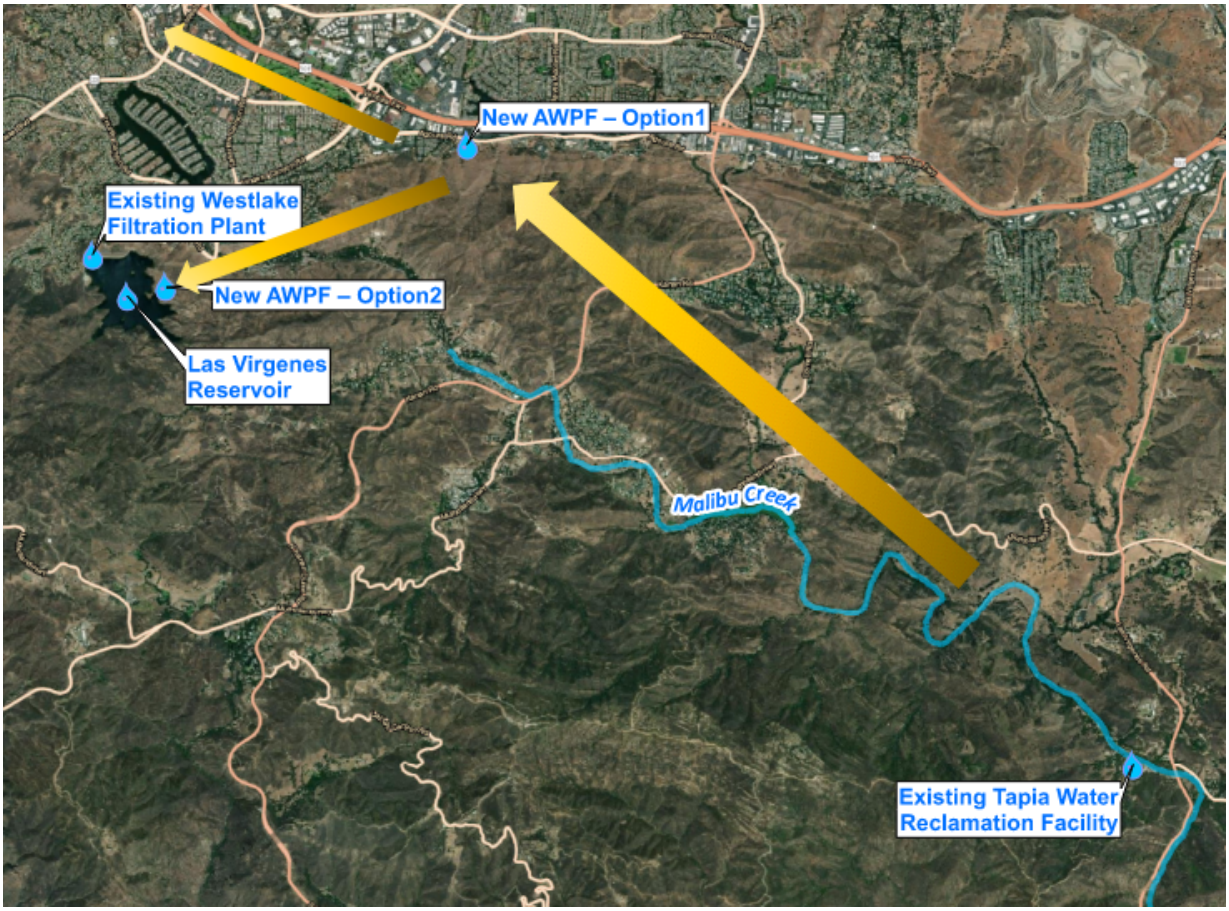

Figure 2. Potential Advanced Water Purification Facility Locations

Map Source: ESRI World Street Map, 2018

The 12-MGD TWRF (design capacity) currently produces approximately 7.5 MGD of tertiary effluent. However, there is no available effluent flow in the summer due to the effective nonpotable reuse program, based on Years 2017 to 2021 flow data (Figure 3). Seasonal variation in flow to the AWPF will complicate operations and create an underused asset for half of the year. Achieving a steady-state operating flow for the AWPF would improve systemwide operational efficiency and continuously produce a valuable purified water product. In support of this goal, the JPA will continue to consider feasible options for augmenting sources of influent water to the TWRF, directly to the AWPF, or both.

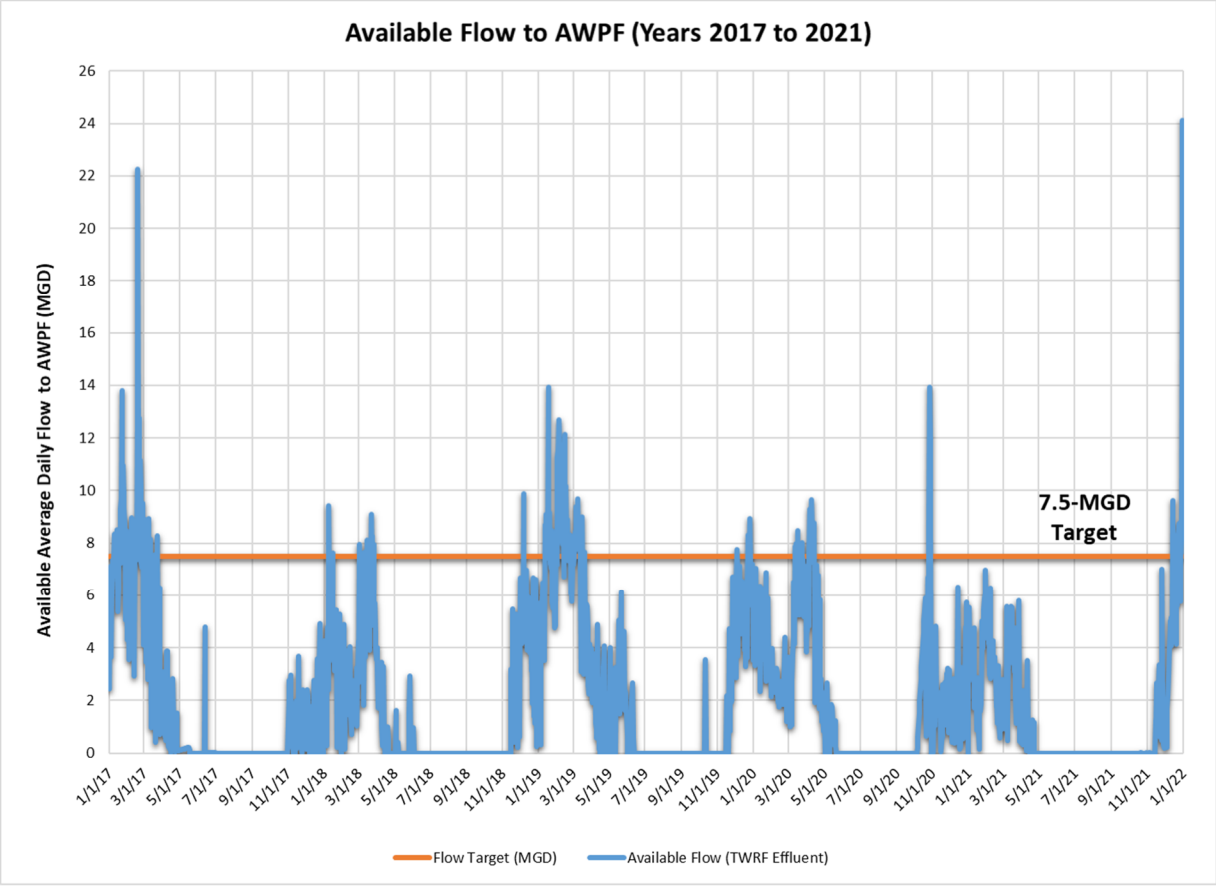

Figure 3. Available Flow to the Advanced Water Purification Facility
Surplus flow that would have been available, based on historical data from Years 2017 to 2021

The JPA has been operating a Pure Water Demonstration Project since September 11, 2020, to support the full-scale design through assessment of water quality and treatment performance (JPA 2022).

The compliance date for operation of the new AWPF is November 15, 2030. This is the date when the new NPDES permit limits for the TWRF take effect for discharge of final effluent to Malibu Creek (Los Angeles RWQCB 2017a).

1.3 Procurement Approach and Scope

The JPA will be delivering the various scopes of the PWP using different delivery methods. A PDB approach will be used for the AWPF, and a DBB approach will be used for the conveyance pipelines.

The conveyance projects will include up to 20 miles of pipeline for delivery of:

- Source water from the existing recycled water distribution system to the AWPF for treatment.

- Purified water from the AWPF to the Las Virgenes Reservoir for storage.
- RO concentrate from the AWPF to the Calleguas Salinity Management Pipeline (SMP) for ultimate discharge to the ocean.
- Residuals from the AWPF to the sanitary sewer for disposal.

The AWPF project will provide full advanced treatment to meet reservoir augmentation requirements for IPR in California. The minimum elements include:

- Membrane filtration, RO, and ultraviolet light advanced oxidation process (UV-AOP)
- Additional barriers for pathogen removal
- Chemical facilities
- Potential treatment approaches to meet California Toxics Rule requirements
- Purified water stabilization
- RO concentrate stabilization and compliance with SMP NPDES requirements
- Ancillary support systems

1.4 Funding

The JPA will seek funding through low-interest federal and state loans and various grant opportunities. If successful, it is anticipated that the Program will need to comply with federal requirements, including the Build America, Buy America Act. More information on how the Build America, Buy America Act will impact the Program will be provided in future updates.

Anticipated total project costs for the PWP range from $256 to $342 million, depending on the required elements. The PWP budget will be finalized at the end of Year 2022.

1.5 Procurement Schedule

Table 1 summarizes the anticipated schedule of the two-step procurement process that will be implemented for the AWPF PDB procurement.

Table 1. Anticipated Advanced Water Purification Facility Procurement Schedule

Milestone	Date
Hold Market Sounding Calls	June 2022
Release RFQ, and Hold Pre-Bid Meeting	January 2023
Submit SOQs, and Develop Short List	April – May 2023
Release RFP, and Hold Confidential Meetings	June – August 2023
Submit Proposals, and Hold Interviews	September – November 2023
Select Successful Proposer, and Hold Negotiations	November 2023 – January 2024
Release Notice to Proceed	February 2024

SOQ = Statement of Qualifications

1.6 Project Schedule

The conveyance and AWPF projects will be implemented in parallel with the anticipated schedule summarized in Table 2. The conveyance pipelines will be completed prior to substantial completion of the AWPF to support commissioning of the AWPF.

Table 2. Anticipated Project Schedule

Milestone	Date
Conveyance	
Procurement	December 2022 – June 2023
Design	June 2023 – November 2024
Procurement	November 2024 – May 2025
Construction	May 2025 – October 2027
AWPF	
Procurement	January 2023 – February 2024
Design and Construction	February 2024 – November 2027
Commissioning	November 2027 – May 2028
Compliance	
AWPF Operation	By November 15, 2030

2. Market Sounding Calls

2.1 Participation

The market sounding calls are open to firms or teams interested in pursuing the AWPF PDB project. Jacobs will facilitate all market sounding calls virtually. Interested parties should email Karen Meade at Karen.Meade@jacobs.com using the subject line "Pure Water Project Las Virgenes-Triunfo PDB Market Sounding." In the email, please state three options in order of preference from the following dates and times, and include names and roles for all planned participants.

Week 1: June 20, 21, 22, or 24, 2022 (Monday, Tuesday, Wednesday, Friday)
Week 2: June 27, 28, or 29, 2022 (Monday, Tuesday, Wednesday)

- 9:00 – 10 a.m., Pacific time
- 10:30 –11:30 a.m., Pacific time
- 1:00 – 2:00 p.m., Pacific time

Participation in the market sounding call is not mandatory, nor will participation impact selection in the AWPF PDB procurement. Responses will not be attributed to a firm or team in the debrief with LVMWD.

The project information in this market sounding brief has been provided to support procurement discussions during this planning phase and is subject to change. This brief is available on the Pure Water Project website at https://www.ourpureh2o.com/.

2.2 Agenda

The market sounding calls will have a 1-hour duration and follow this agenda:

- Introductions (5 minutes)
- Questions (50 minutes)
- Closing (5 minutes)

2.3 Questions

The following questions will be discussed during each market sounding call. Please come prepared to provide responses.

1) What would entice your firm to submit a proposal? Is there anything that would prevent you?
2) What do you consider to be the most significant risks associated with this project? What can be done to eliminate or mitigate these risks for a successful project delivery?
3) Do you have feedback on the anticipated AWPF project schedule?
4) Do you have feedback on the proposed limits of the AWPF project scope and interface with the conveyance improvements?
5) What contractual flexibility or requirements do you recommend to address current market conditions?
6) What is your recommended level of Phase 1 design development, which serves as the basis for the Phase 2 Proposal? What are the implications of an early guaranteed maximum price (30% or 60% versus 90%)?
7) What is your opinion on inclusion of self-performance requirements in the RFP, and what is your approach?
8) What are your suggestions to demonstrate performance given seasonal operation (anticipated from November to April)? If the JPA is interested in extended commissioning or short-term operations (approximately 6 months), what considerations should be incorporated into the RFP and contract?

9) What forms of performance guarantees would be reasonable for a project of this nature?
10) Do you have any recommendations for additional data that should be obtained in advance of contract award?
11) What is a reasonable delineation of permitting responsibility? What permits would you prefer to be under the Design Builder's responsibility versus the Owner's?
12) What areas of contract negotiation do you generally find to be the most challenging to work through, and why? What specific contract terms could potentially cause an impasse?
13) Do you have feedback on the anticipated procurement schedule?
14) Can you share your experience with activities critical to successful implementation of PDB projects?
15) Are there any limitations (such as financial performance [including annual turnover and cash flow], bonding, insurance, and safety) that we should consider when establishing pass-fail criteria in the RFQ?

3. References

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