

TECHNICAL MEMORANDUM

DATE: July 27, 2026

Project No.: 1032-80-24-02

TO: Puente Basin Water Agency

SENT VIA: EMAIL

FROM: Veva Weamer, Principal Scientist I

REVIEWED BY: Andy Malone, Principal Geologist , PG #8700



SUBJECT: Technical Memorandum 4: Evaluation of Implementation of Basin Management Alternatives 1A and 1B for the Puente Basin Groundwater Management Plan

1.0 BACKGROUND AND OBJECTIVES

The Puente Basin Water Agency (PBWA) initiated development of the Puente Basin Groundwater Management Plan (GMP) in 2022 to maximize the beneficial use of groundwater within the basin and reduce reliance on less reliable imported water supplies. West Yost Associates (West Yost) is developing the GMP under a multi-phase scope of work.

This Technical Memorandum 4 *Evaluation of Implementation of Basin Management Alternatives 1A and 1B for the Puente Basin Groundwater Management Plan* describes: i) Basin Management Alternatives 1A and 1B the PBWA selected to further evaluation; ii) the cost analysis of project implementation of the selected alternatives; iii) a simplified hydraulic analysis of how the selected alternatives will impact subsurface outflow to the Main San Gabriel Basin (Main Basin); iv) conclusions and recommendation for the alternative to include in the GMP; and v) the proposed scope of work to prepare the GMP document.

This section of TM-4 describes a brief background that has led to the development of the GMP, the objectives of the GMP, the scope of work to develop the GMP thus far and in the next phase, and the organization of this TM-4.

1.1 Puente Basin, Narrows Agreement and Judgment

In 1971, the PBWA was formed as a joint powers authority between the Walnut Valley Water District (WVWD) and the Rowland Water District (RWD) to oversee the protection and utilization of local, imported, and recycled water within the Puente Basin. The following year in 1972, the PBWA entered into the Puente Narrows Agreement with the Upper San Gabriel Valley Municipal Water District to ensure that water management activities in the Puente Basin do not interfere with the subsurface groundwater outflow from the Puente Basin to the adjacent Main San Gabriel Basin.¹

¹<https://puentebasin.com/wp-content/uploads/2024/10/Puente-Narrows-Agreement-with-the-Upper-San-Gabriel-Valley-Municipal-Water-District.pdf>

In 1986, the pumping rights in the Puente Basin were adjudicated pursuant to the Puente Basin Judgment (Judgment) which established a physical solution for the management of the Basin.² The Judgment provided for the creation of the Puente Basin Watermaster to administer the Judgment and manage the Basin in accordance with the Physical Solution. Puente Basin groundwater is pumped and used primarily by five “Primary Parties” to the Judgment for non-potable supply. The Principal Parties include the WVWD, RWD, City of Industry, Industry Successor Agency, and Royal Vista Golf Course.

1.2 Scope of Work to Prepare the GMP

In 2022, the PBWA contracted with West Yost, in partnership with the City of Industry, to develop a GMP to enhance the management of the Puente Basin beyond the execution of the Judgment and the Puente Narrows Agreement. At that time, the PBWA expressed desires to maximize the beneficial use of the Puente Basin and thereby decrease dependence on less reliable imported water supplies. As outlined in the West Yost proposal³ the GMP, is being developed in three phases:

- **Phase 1 – Describe the State of the Puente Basin and Establish GMP Goals.** The objective of this phase is to develop an understanding of the physical structure and hydrology of the Puente Basin and articulate the specific goals of the Puente Basin stakeholders for improved groundwater basin management.
- **Phase 2 – Evaluate Alternatives for Basin Management.** The objective of this phase is to design and evaluate various management alternatives, and then based on the evaluations, select a preferred management alternative that will become the GMP for the Puente Basin.
- **Phase 3 – Prepare GMP and Implementation Plan.** The objective of this phase is to publish a final GMP and its implementation plan.

Phase 1

In December 2023, the first part of Phase 1 was completed and final *Technical Memorandum 1: Description of the Puente Basin Groundwater Management Plan Area and Basin Setting* (TM-1) was published.⁴ TM-1 describes the plan area and the physical structure and hydrology of the Puente Basin. In March 2024, the second part of Phase 1 was completed and the final *Technical Memorandum 2: Goals and Concepts for Improved Management of the Puente Basin* (TM-2) was published.⁵ TM-2 describes goals and objectives and general concepts for improved management of the Puente Basin. Phase 1 has been completed.

Phase 2

Phase 2 was initiated in June 2024 and is divided into three parts:

- **Part 1: Describe Basin Management Alternatives.** This effort requires the PBWA to first identify and describe more specific “Basin Management Alternatives” that consist of one or more project concepts.
- **Part 2: Select Alternatives for Evaluation.** This effort identifies which of the Basin Management Alternatives should be evaluated in Part 3. The scope of the evaluation in Part 3 will be dependent upon the specific Basin Management Alternatives that are selected; hence, Part 2 will include the preparation of the cost estimate to perform Part 3.

² <https://puentebasin.com/wp-content/uploads/2024/10/Puente-Basin-Judgment.pdf>

³ Proposal to Develop a Groundwater Management Plan for the Puente Basin. West Yost. Submitted December 3, 2021.

⁴ https://puentebasin.com/wp-content/uploads/2023/12/TM-PBWA_TM1_20231204-Final.pdf

⁵ https://puentebasin.com/wp-content/uploads/2024/03/FINAL-TM-PuenteBasin_TM-2_240326.pdf

- **Part 3: Select Preferred Basin Management Alternative.** This effort consists of the evaluation of selected Basin Management Alternatives. The evaluation will include (i) a hydrologic analysis of the impacts to the Puente Basin and (ii) a cost analysis for project implementation to produce the new water supply. The evaluation will result in the selection of the preferred Basin Management Alternative that will become the basis for the GMP.

Phase 2 Part 1 was completed in October 2024, and draft Technical Memorandum 3 – Part 1: *Basin Management Alternatives for the Puente Basin Groundwater Management Plan* (TM-3 Part 1)⁶ was published. TM-3 Part 1 describes the methods and results of the development of several conceptual “Basin Management Alternatives” for the Puente Basin, designed to achieve the goals and objectives for the GMP described in TM-2.

Phase 2 Part 2 was completed in June 2025, and the final *Technical Memorandum 3 – Part 1& 2: Basin Management Alternatives for the Puente Basin Groundwater Management Plan* (TM-3 Part 2)⁷ was published. TM-3 Part 2 describes the methods and results to rank the Basin Management Alternatives and select specific alternatives for further evaluation, and a scope of work to evaluate the selected alternatives in Phase 2 Part 3. Based on the information presented in TM-3 Part 2, the PBWA determined that Basin Management Alternatives 1A and 1B warranted further evaluation in Phase 2 Part 3.

Phase 2 Part 3 will conclude with the completion of this TM- 4 which documents the evaluation of Basin Management Alternatives 1A and 1B, and the scope of work for the next Phase 3 to develop the GMP.

Phase 3

Phase 3, which is the development of the GMP, has not yet begun. It will commence following completion of this TM-4 and approval of the proposed scope of work to prepare the GMP presented in Section 6.

1.3 Objective of TM-4

The PBWA selected Basin Management Alternatives 1A and 1B for further evaluation. The approach to evaluate the selected alternatives includes conducting a detailed cost analysis to inform decisions regarding which alternatives should be incorporated into the GMP, as well as defining the methodology for assessing their hydraulic impacts on the basin. Since the PBWA selected Basin Management Alternatives 1A and 1B for further evaluation will be implemented through a monitoring program that will be developed as part of the GMP.

⁶ <https://puentebasin.com/wp-content/uploads/2024/10/TM-3-Basin-Management-Alternatives-Puente-Basin-241023-jb.pdf>

⁷ <https://puentebasin.com/wp-content/uploads/2025/06/TM3-Final-BMA-Puente-Basin-250618.pdf>

The objective of TM-4 is to document the methods and results of the evaluation of Basin Management Alternatives 1A and 1B, determine the preferred alternative for GMP implementation, and outline the next steps to develop the GMP. TM-4 includes the following sections:

1. **Background and Objectives.** Provides the background of the Puente Basin GMP, summarizes previous project phases, and describes the objectives and organization of TM-4.
2. **Basin Management Alternatives 1A and 1B.** Describes the two selected Basin Management Alternatives for further evaluation.
3. **Cost Analysis for Project Implementation to Produce a New Water Supply for Basin Management Alternatives 1A and 1B.** Evaluates the capital and long-term water supply costs of implementing Alternatives 1A and 1B and compares their economic performance to the Baseline Scenario.
4. **Hydraulic Response of Basin Management Alternatives 1A and 1B.** Assesses the potential effects of increased groundwater pumping on subsurface outflow, groundwater levels, and Puente Narrows credits using a simplified water-budget analysis.
5. **Conclusions and Recommendations.** Summarizes the results of the cost and hydraulic evaluations and recommendation of the preferred alternative for inclusion in the GMP.
6. **Scope of Services to Prepare GMP.** Presents the proposed Phase 3 scope of work, schedule, and budget for developing the GMP.

2.0 BASIN MANAGEMENT ALTERNATIVES 1A AND 1B

TM-3 included the description of seven conceptual Basin Management Alternatives developed to achieve the management goals and objectives of the GMP developed by the PBWA in Phase 1 and described in TM-2.

The Management Goals for the Puente Basin GMP defined in TM-2 are:

- Increase use of Puente Basin groundwater to become less reliant on imported water.
- Manage the Puente Basin in a manner that avoids adverse impacts, such as chronic lowering on groundwater levels, land subsidence, degrading water quality, impacting to GDEs, etc.
- Control groundwater underflow through the Puente Narrows in a manner to comply with the Puente Narrows Agreement while utilizing existing credits and minimizing the accumulation of credits in the future.

Based on the Management Goals, the Objective Statement for the Puente Basin GMP is:

Enhance the use of Puente Basin groundwater in a sustainable manner to become less reliant on imported water while maintaining compliance with the Puente Narrows Agreement.

The seven conceptual Basin Management Alternatives included two options to increase pumping in the basin to create additional non-potable water supply, and five options to increase pumping to generate a new potable water supply. As outlined in TM-3, the PBWA selected Alternatives 1A and 1B from the seven Basin Management Alternatives for further consideration and evaluation, which is the subject of the analysis and discussion in this TM-4. Basin Management Alternatives 1A and 1B are the two alternatives that increase pumping to create additional non-potable water supply. Table 1 summarizes Basin Management Alternatives 1A and 1B.

Table 1. Summary of Basin Management Alternatives 1A and 1B		
Criteria	Alternative 1A	Alternative 1B
Description	Increase Puente Basin pumping for non-potable supply ^(a) via pumping at existing wells . Pumping is assumed to increase by up to 15 percent where feasible, above their historical maximums. ^(b)	Increase Puente Basin pumping for non-potable supply ⁽¹⁾ via pumping at existing wells and one new well in the west . Pumping at the existing wells is assumed to increase to rates equivalent to their historical maximums. ⁽²⁾
Puente Basin Pumping	2,425 afy	2,631 afy
Increase in Pumping from Historical	886 afy	1,092 afy
Increased Pumping Location	Predominantly in the central portion of the basin	Distributed throughout the western and central portions of the basin
New Facilities	- San Jose Pipeline to connect WWWD and RWD recycled water systems - San Jose Pipeline pump station - Pipeline connecting Royal Vista well	- San Jose Pipeline to connect WWWD and RWD recycled water systems - San Jose Pipeline pump station - Pipeline connecting Royal Vista well - New pumping well in western portion of basin - Pipeline connecting new well to recycled water system
Notes: (a) The cost analysis presented later in this Technical Memorandum evaluates two variants of each alternative, based on whether the additional groundwater supply would replace imported water or recycled water supplies. (b) The assumed annual pumping rates the existing wells, and the source of the assumptions is shown in Table 2. afy = acre-feet per year		

Figures 1 and 2 are maps that show the location of existing and new wells and facilities in Basin Management Alternatives 1A, and 1B, respectively.

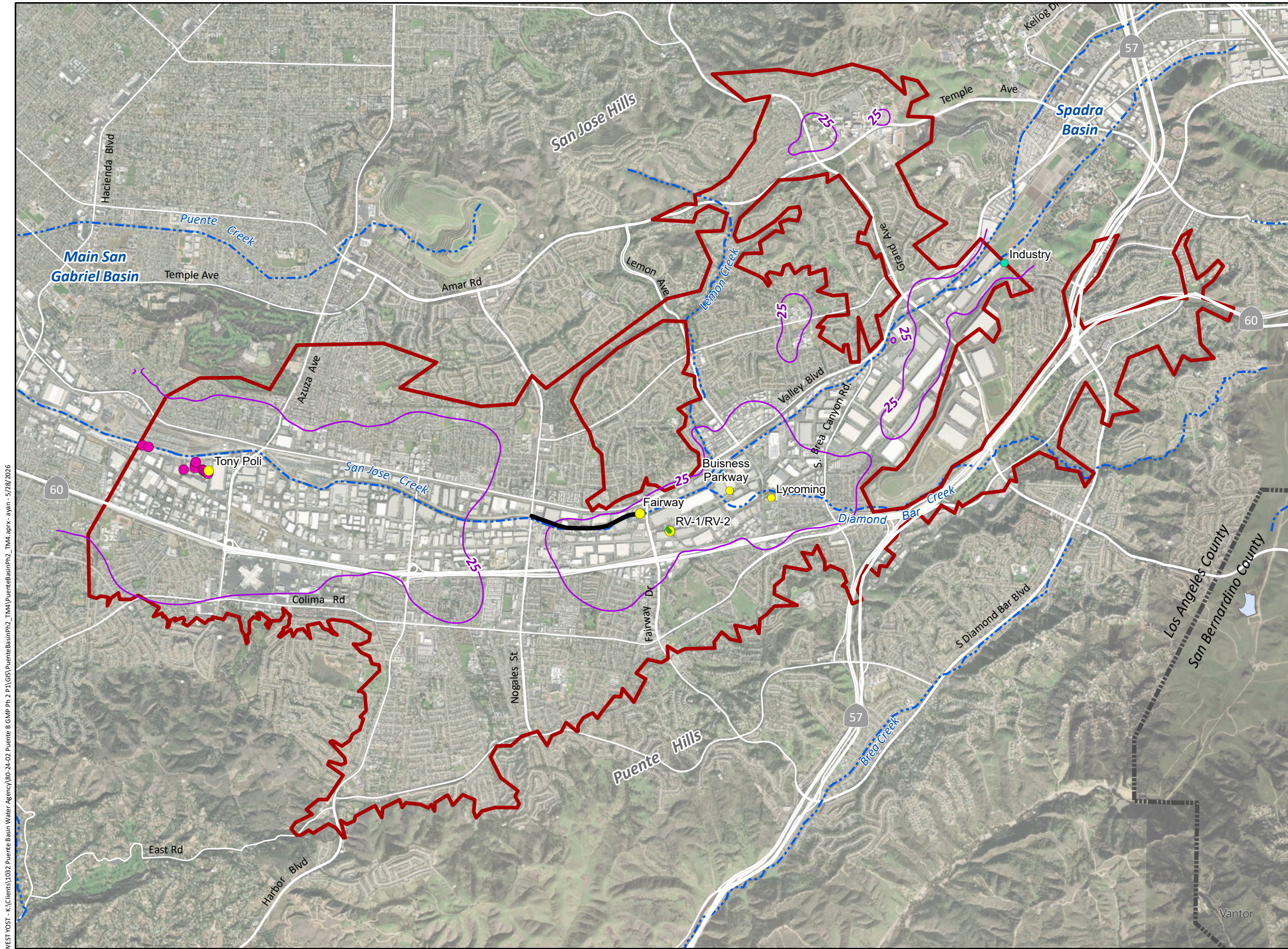
Table 2 outlines the assumed annual pumping rates for both the existing wells and the new well, derived from historical operating patterns and used to support the development of Basin Management Alternatives 1A and 1B.

Table 2. Assumptions of the Pumping Volume at Existing Wells and New Well to Maximize Pumping for Basin Management Alternatives 1A and 1B

Well	Maximum Annual Pumping Assumed in Basin Management Alternatives 1A		Maximum Annual Pumping Assumed in Basin Management Alternative 1B	
	Pumping, afy	Source	Pumping, afy	Source
Business Parkway	496	Max Pumping 2000-2022 + 15%	430	Max Pumping 2000-2022
Baker	0	Dry Well	0	Dry Well
Tony Poli ^(a)	290	Max Pumping 2020-2023 -15%	250	Avg Pumping 2020-2023
Lycoming	458	Max Pumping 2000-2022 + 15%	395	Max Pumping 2000-2022
Fairway	486	Max Pumping 2000-2022 + 15%	420	Max Pumping 2000-2022
RV-1/RV-2 ^(b)	505	Max Pumping 2000-2022 + 15%	436	Max Pumping 2000-2022
Carrier Wells Combined	190	Avg Pumping 2020-2023	190	Avg Pumping 2020-2023
New Wells	n/a	n/a	510	80% of Avg Well Capacity ^(c)
Total	2,425		2,631	

Notes:

- (a) Tony Poli is losing capacity in the later years, so the assumption uses the maximum pumping from the last 4 years, minus 15 percent; or average pumping in the last 4 years
- (b) Former Royal Vista Golf Course wells RV-1 and RV-2. The pumping volume reflects production from a single well (either RV-1 or RV-2), as WVWD anticipates operating only one of these wells in the future.
- (c) The assumed pumping for the new well in the west in Alternative 1B is equal to 80% utilization of the average capacity of the existing active wells in the Puente Basin.



Existing Facilities

- WWWD and RWD Pumping Well in Puente Basin
- WWWD Pumping Well in Spadra Basin
- Carrier BDP Pumping Well

Planned New Facilities for Alternative 1A

- San Jose Pipeline Connecting RWD/WWWD Recycled Water Systems
- Pipeline Connecting Royal Vista Well to WWWD Recycled Water System
- San Jose Pipeline Booster Pump Station (location not shown)

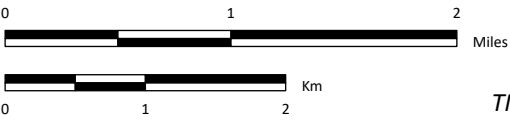
—25— Contour of Depth to Bedrock >25 ft-bgs

Puente Basin Adjudicated Boundary

Streams & Flood Control Channels



Prepared by:



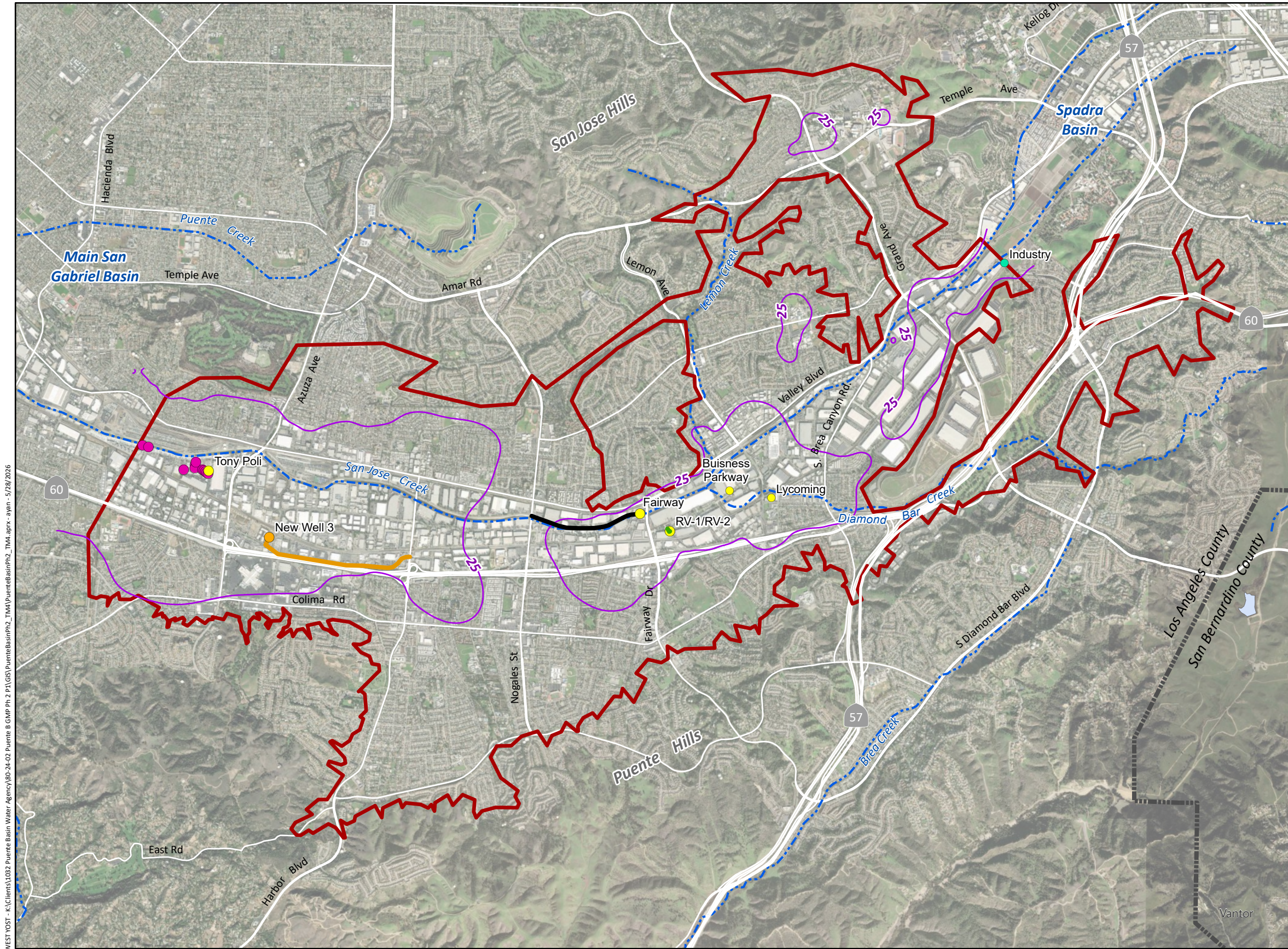
Prepared for:

Puente Basin Water Agency
Groundwater Management Plan
TM-4 Cost Analysis of Basin Management Alternatives



Basin Management Alternative 1A
Potential Location for Wells and Facilities

Figure 1



Existing Facilities

- WWWD and RWD Pumping Well in Puente Basin
- WWWD Pumping Well in Spadra Basin
- Carrier BDP Pumping Well

Planned New Facilities for Alternative 1B

- San Jose Pipeline Connecting RWD/WWWD Recycled Water Systems
- Pipeline Connecting Royal Vista Well to WWWD Recycled Water System
- Pipeline Connecting New Pumping Well to RWD Recycled Water System
- New Pumping Well
- San Jose Pipeline Booster Pump Station (location not shown)

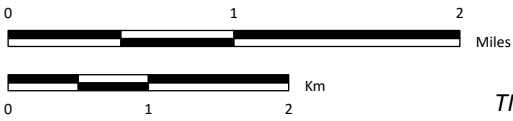
—25— Contour of Depth to Bedrock >25 ft-bgs

— Puente Basin Adjudicated Boundary

— Streams & Flood Control Channels



Prepared by:



Prepared for:

Puente Basin Water Agency
Groundwater Management Plan
TM-4 Cost Analysis of Basin Management Alternatives



Basin Management Alternative 1B
Potential Location for Wells and Facilities

Figure 2

3.0 COST ANALYSIS FOR PROJECT IMPLEMENTATION TO PRODUCE THE NEW WATER SUPPLY FOR BASIN MANAGEMENT ALTERNATIVES 1A AND 1B

Evaluation of the implementation costs for Basin Management Alternatives 1A and 1B is essential for the PBWA to make informed decisions about which alternatives to advance or implement as part of the GMP. The cost analysis provides estimates of implementation costs, identifies economic advantages or disadvantages, and evaluates the economic feasibility for the agencies. The approach for this water supply cost analysis includes three general steps:

1. Develop long-term water supply plans and the unit cost of water supplies without implementation of any Basin Management Alternative, termed “Baseline Scenario”.
2. Prepare engineering cost estimates for implementation of Basin Management Alternatives 1A and 1B.
3. Develop long-term water supply plans and the unit cost of water supplies with the implementation of Basin Management Alternatives 1A and 1B.

This water supply cost analysis estimates an “aggregate melded unit cost” for the Puente Basin agencies for the Baseline Scenario and the alternatives. The Baseline Scenario aggregate melded unit cost is then compared to the aggregate melded unit cost for Basin Management Alternatives 1A and 1B to assess whether implementing these supply-diversifying alternatives provides long-term financial benefits. Sections 3.1 through 3.3 outline these three steps to develop the water-supply aggregate melded unit cost. Attachment A contains the spreadsheet tables prepared of the long-term cost analysis for the Baseline Scenario and Basin Management Alternatives 1A and 1B, corresponding to the analyses completed in Steps 1 and 3.

3.1 Water Supply Cost for Baseline Scenario

A cost model for the Baseline Scenario was developed to represent long-term water supply plans and the unit cost of supplies for the Puente Basin agencies assuming no Basin Management Alternative is implemented. This required first developing water supply plans and unit costs for the agencies that pump groundwater from the Puente Basin: WVWD, RWD, and the City of Industry⁸. West Yost worked with individual agencies to prepare 50-year projections (2026–2075) of water supply plans under Baseline Scenario conditions. Attachment A provides the following tables detailing the 50-year water supply plan (in acre-feet per year [afy]) for each agency:

- Table A-1a. Baseline Water Supply Plan - Walnut Valley Water District
- Table A-1b. Baseline Water Supply Plan - Rowland Water District
- Table A-1c. Baseline Water Supply Plan - City of Industry

The water supply volumes used amongst the agencies include: imported water from Three Valleys Municipal Water District (TVMWD), recycled water from the Pomona Water Reclamation Plant (WRP) and San Jose Creek WRP, groundwater from the Puente Basin, and groundwater from adjacent basins (Six Basins, Main San Gabriel Basin, Central Basin, and Spadra Basin). These supplies were described in

⁸ WVWD pumps groundwater from its Puente Basin wells on behalf of the City of Industry, and this production is accounted towards to the City of Industry and the Industry Successor Agency production rights under the Puente Basin Judgment. RWD supplies recycled water from the San Jose Creek WRP to the City of Industry, and these deliveries count toward the City of Industry’s allocation from the San Jose Creek WRP.

detail in TM-1. The Baseline Scenario water supply plans for the agencies in Tables 1a through 1c include volumes for the historical period (2020–2025) and the projected period (2026–2075).

Water supply cost information was then collected from the agencies to develop unit costs for the various water supplies, including:

- **Commodity costs.** The cost of acquiring the water supply. For example, the commodity costs for Puente Basin groundwater are the Puente Basin Watermaster expenses allocated to the Principal Parties.
- **Production costs.** The energy costs associated with producing the water supply.
- **Operations and Maintenance (O&M) costs.** The variable costs for field staff, contract services, tools and equipment, training and supplies, repairs and general maintenance, and the regulatory compliance associated with producing the water supply. This excludes maintenance on reservoirs or pipelines and the variable O&M costs associated with treatment.
- **Treatment costs.** The costs for chemicals and other variable O&M costs associated with the treatment necessary to produce potable water.

These unit costs were collected for 2025 and except for imported water, all costs were assumed to increase three percent a year to account for factors such as inflation and technological advancements. The unit cost of Tier 1 treated imported water from TVMWD was assumed to increase four percent annually, based on the average inflation from 2016 to 2024. Attachment A provides the following tables detailing the annual unit cost of each water supply, and as a “melded unit cost” for each agency (in dollars per acre-foot) for 2025 to 2075:

- Table A-2a. Unit Costs for Water Supplies - Walnut Valley Water District
- Table A-2b. Unit Costs for Water Supplies - Rowland Water District
- Table A-2c. Unit Costs for Water Supplies - City of Industry

The individual agencies’ water supply plans and unit costs were then combined to develop a Baseline Scenario cost model representing Puente Basin agencies in aggregate. Attachment A provides the following tables detailing the Baseline Scenario cost model for 2026 to 2075:

- Table A-3a. Baseline Water Supplies - Aggregate of All Agencies
- Table A-3b. Baseline Melded Costs for Water Supplies - Aggregate of All Agencies

In Table A-3a, Puente Basin groundwater is held constant at 1,539 afy throughout the projection period (2026-2075) in the Baseline Scenario, which is essentially equal to historical production levels combined for WVWD, RWD, and City of Industry.

In Table A-3b, Baseline Scenario costs are shown as:

- Total annual cost for each water supply (i.e. Puente Basin groundwater, imported water, etc.) as an aggregate of all water agencies;
- Annual unit cost (dollars per acre-foot) for each water supply as an aggregate average amongst all water agencies; and
- The aggregate melded unit cost for all water supplies combined amongst all agencies (dollars per acre-foot).

The aggregate melded unit cost is the average cost per acre-foot based on each supply's contribution to total aggregate volume of all agencies; essentially the volume-weighted average cost for all water supply volumes in Table 3a. As noted earlier in this section, comparing the aggregate melded unit cost of the Baseline Scenario with those of Basin Management Alternatives 1A and 1B allows us to evaluate whether these alternatives offer long-term financial advantages.

Figure 3 is a time-series chart of the annual aggregate melded unit cost for the Baseline Scenario (breakdown shown in Table A-3b) along with the annual melded unit cost of each agencies' water-supply plan for the Baseline Scenario (breakdown shown in Tables A-2a, A-2b, and A-2c) for 2025-2075. The aggregate melded unit cost of the agencies' water-supply plans increases over time, and the rate of increase for each agency is dependent on its mix of water sources. The aggregate melded unit cost for the Baseline Scenario is estimated at \$3,043 per acre-foot in 2050 (middle of the planning period) and \$7,584 per acre-foot in 2075 (end of the planning period).

Figure 4 is a time-series chart that shows the annual unit cost for the various individual water supplies used by the Puente Basin agencies for the Baseline Scenario for 2025-2075. The lowest cost supply is groundwater from Spadra Basin, the highest cost supply is imported water from TVMWD.

Figure 3. Baseline Melded Unit Cost of Water Supplies for the Puente Basin Agencies

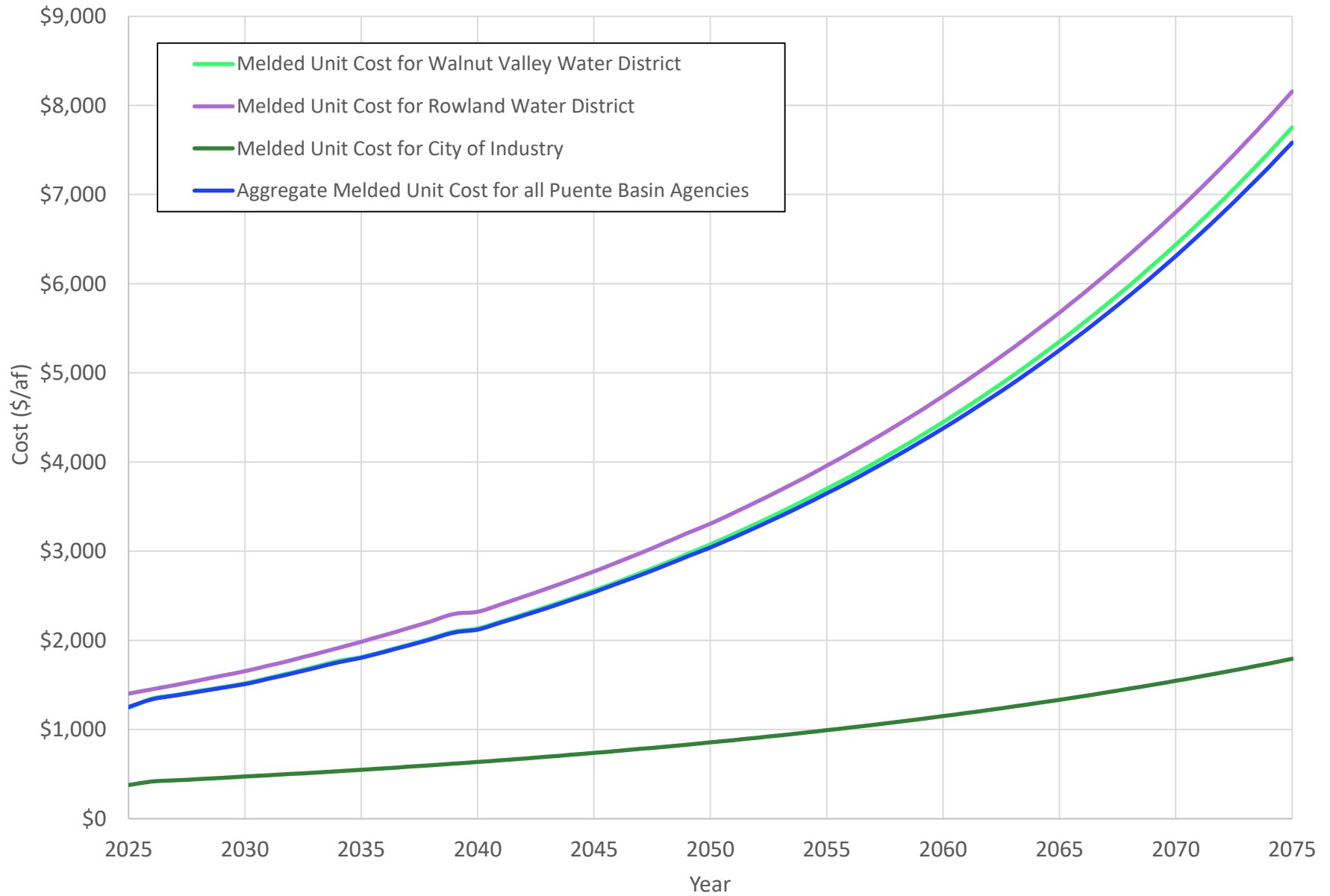
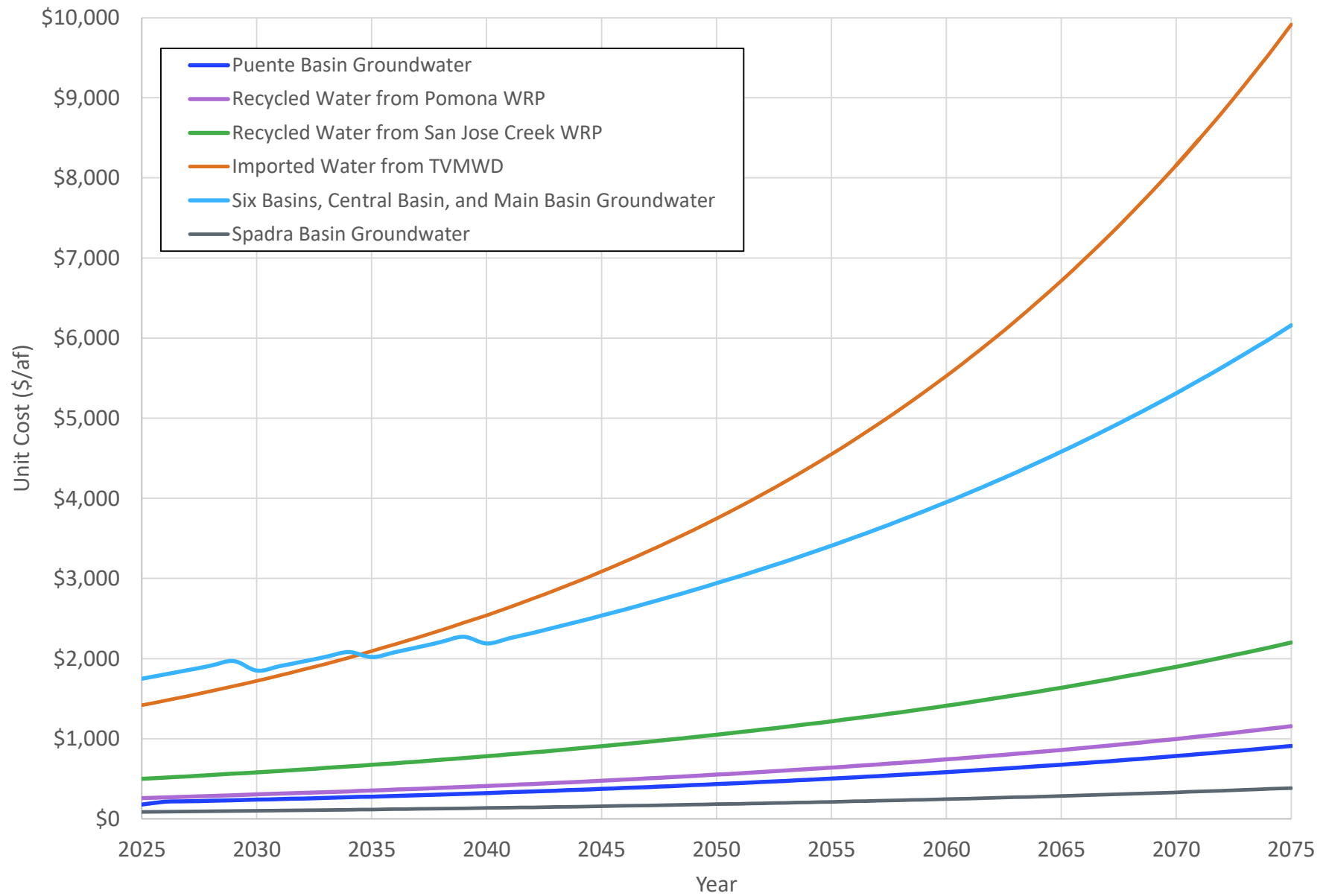


Figure 4. Baseline Unit Cost for Individual Water Supplies for Puente Basin Agencies



3.2 Cost Estimates for Basin Optimization Scenarios 1A and 1B

Planning-level cost estimates were developed for the construction of facilities envisioned in Basin Management Alternatives 1A and 1B and are intended only for budgetary purposes within the context of this alternatives analysis effort. Cost estimates are developed in accordance with the guidelines of the Association for the Advancement of Cost Engineering (AACE) International for a Class 5 Estimate. AACE International defines a Class 5 Estimate as:

This estimate is prepared based on limited information, where little more than proposed facility type, its location, and the capacity are known. Examples of estimating methods used would include cost/capacity curves and factors, scale up factors, and parametric and modeling techniques. Typically, little time is expended in the development of this estimate. The expected accuracy ranges for this class estimate are –20 to –50 percent on the low side and +30 to +100 percent on the high side.

Key assumptions and limitations for the capital costs presented herein include:

- Capital costs are presented in April 2026 dollars based on the Engineering News Record Construction Cost Index (ENR CCI) of 15668.31 for Los Angeles, CA.
- Capital costs were developed based on a combination of data supplied by manufacturers, published industry standard cost data and curves, construction costs for similar facilities built by other public agencies, and construction costs previously estimated by West Yost for similar facilities. This is further described below in Section “Unit Cost Assumptions.”
- Capital costs presented in this chapter are representative of average or typical construction costs.⁹
- Capital costs do not include costs for annual O&M.
- The proposed recycled water system facilities are assumed to be constructed in public rights-of-way or on public property; therefore, land acquisition costs have not been included.
- These costs should be used for conceptual cost estimates only and should be updated regularly to account for market changes.
- Contingency costs will vary considerably with each project and must be reviewed on a case-by-case basis. However, to assist PBWA with budgeting for these future construction projects, contingency costs have been added to the estimated base cost of construction using these two categories:
 - **Construction Contingency: 20 percent.** This includes accounting for construction uncertainties that cannot be fully known during conceptual-level cost estimating. Such unknowns may involve unexpected site conditions, unforeseen mechanical components, variations in final quantities, and fluctuations in material prices.
 - **Other Project Contingencies: 10 percent.** This includes consideration of engineering, construction management, and program implementation cost:
 - Engineering costs associated with new facilities include preliminary investigations and reports, right-of-way acquisition, foundation explorations, preparation of

⁹ Costs are not intended to represent neither the lowest prices in the industry nor higher costs based on current supply chain issues or market volatility.

drawings and specifications during construction, surveying and staking, sampling of testing material, and start-up services.

- Construction management covers such items as contract management and inspection during construction.
- Program implementation costs cover items such as legal fees, environmental/CEQA compliance requirements, financing expenses, administrative costs, and interest during construction.

The total mark-up of the base cost is approximately 32 percent with these two contingencies. The breakdown of the contingencies cost are shown in Tables 3 and 4.

- All values are rounded to the nearest \$1,000

Planning Level Capital Cost Estimates

As discussed in Section 2.0 and shown in Table 1 and Figures 1 and 2, new facilities are envisioned to implement Basin Management Alternatives 1A and 1B. Tables 3 and 4 present the planning-level capital cost estimates for these facilities, including construction costs and the contingencies to account for uncertainties associated with planning and construction, such as engineering, legal services, environmental review, inspections, and contract administration. The basis of the unit cost assumptions in Tables 3 and 4 used to estimate the construction costs for each of the facility type (i.e., recycled water pipelines, groundwater production wells, and booster pump stations), is detailed in the next section on Unit Cost Assumptions. Table 3 shows the estimated capital costs for Basin Management Alternative 1A. Alternative 1A has an estimated construction cost of approximately \$3.9 million (including construction contingency) and an estimated total capital cost of approximately \$4.3 million.

Table 3. Planning Level Capital Cost Estimate for Basin Management Alternative 1A^(a)				
Cost Component	Description	Quantity and Unit	Unit Cost or Cost, \$	Total Cost, \$
24-inch diameter San Jose Recycled Water Pipeline ^(b)	Connect WVWD and RWD recycled water systems	1 each	2,093,000	2,093,000
3 mgd Booster Pump Station ^(c)	For the San Jose Recycled Water Pipeline	1 each	3,200,000	3,200,000
8-inch diameter pipeline ^(d)	Connect to Royal Vista Well	145 Linear Feet	335	49,000
Base Construction Cost				\$3,249,000
Construction Contingency (20%)				650,000
Construction Cost with Construction Contingency				\$3,899,000
Other Project Contingencies ^(e) (10%)				389,000
Total Estimate of Capital Costs				\$4,288,000
(a) Costs shown reflect April 2026 dollars based on the construction cost index of Los Angeles (15668.31). Construction of facilities is assumed to be complete in 2030; therefore, the capital costs shown in Table A-4b (Alternative 1A Melded Unit Costs) have been escalated using an annual inflation rate of 3 percent applied to the total capital costs shown in this table. (b) Construction cost estimate for San Jose Pipeline provided by WVWD via email on 4/21/2026. (c) Firm capacity of booster pump station provided by PBWA agencies during meeting on 4/14/2026. (d) Location, length, and diameter of pipeline to connect to Royal Vista Well provided by WVWD via email on 5/14/2026. (e) Other project contingencies include contingencies for engineering costs, construction management, and administration.				

Table 4 shows the estimated capital costs for Basin Management Alternative 1B. Alternative 1B has an estimated construction cost of approximately \$12.2 million (including construction contingency) and an estimated total capital cost of approximately \$13.4 million.

Table 4. Planning Level Cost Estimate for Basin Management Alternative 1B^(a)				
Cost Component	Description	Quantity or Unit	Unit Cost or Cost, \$	Total Cost, \$
24-inch diameter San Jose Recycled Water Pipeline ^(b)	Connect WVWD and RWD recycled water systems	1 each	2,093,000	2,093,000
3 mgd Booster Pump Station ^(c)	For the San Jose Recycled Water Pipeline	1 each	3,200,000	3,200,000
8-inch diameter pipeline ^(d)	Connect to Royal Vista Well	145 Linear Feet	335	49,000
8-inch diameter pipeline ^(e)	Connect to new groundwater well	6,875 Linear Feet	335	2,303,000
Groundwater well		1 each	2,528,000	2,528,000
Base Construction Cost				\$10,173,000
Construction Contingency (20%)				2,035,000
Construction Cost with Construction Contingency				\$12,208,000
Additional Project Contingencies ^(f) (10%)				1,221,000
Total Estimate Capital Costs				\$13,429,000
(a) Costs shown reflect April 2026 dollars based on the construction cost index of Los Angeles (15668.31). Construction of facilities is assumed to be complete in 2030; therefore, the capital costs shown in Table 5b (Alternative 1B Melded Unit Costs) have been escalated using an annual inflation rate of 3 percent applied to the total capital costs shown in this table (b) Construction cost estimate for San Jose Pipeline provided by WVWD via email on 4/21/2026. (c) Firm capacity of booster pump station provided by PBWA agencies during meeting on 4/14/2026. (d) Location, length, and diameter of pipeline to connect to Royal Vista Well provided by WVWD via email on 5/14/2026. (e) Diameter and location of pipeline to connect to new groundwater well provided by PBWA agencies during meeting on 1/21/2026. Length of pipeline measured using ArcGIS. (f) Other project contingencies include contingencies for engineering costs, construction management, and administration.				

Cost Assumptions

The basis of the unit cost and cost assumptions in the Planning Level Capital Cost Estimates in Table 3 and 4, are described below.

Recycled Water Pipelines

Unit costs for construction of recycled water pipelines 4 to 16 inches in diameter are provided in Table 5. The unit costs include pipeline materials, trenching, placing and jointing pipe, valves, fittings, blow-offs, service connections, placing imported pipe bedding, native backfill material, and partial asphalt pavement replacement, if required. Unit costs are representative of pipeline construction conducted under common or normal conditions and would be significantly higher for special or difficult conditions.

Table 5. Unit Construction Costs for Recycled Water Pipelines^(a)	
Pipeline Size	Unit Construction Cost, dollars/linear foot^(b,c)
4-inch diameter	175
6-inch diameter	260
8-inch diameter	335
10-inch diameter	410
12-inch diameter	495
16-inch diameter	615
(a) Based on April 2026 ENR CCI of Los Angeles (15668.31). (b) Estimated construction costs generally include pipeline materials, trenching, placing and jointing pipe, valves, fittings, blow-offs, service connections, placing imported pipe bedding, native backfill material, and partial asphalt pavement replacement, if required. (c) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.	

Basin Management Alternatives 1A and 1B both include construction of an 8-inch diameter pipeline to connect the Royal Vista Well to WVWD’s recycled water system. The pipeline diameter, length, and location used to estimate the total cost in Tables 3 and 4 were provided by WVWD on May 14, 2026. The location of this pipeline is shown on Figures 1 and 2.

Basin Management Alternatives 1A and 1B both include construction of a 24-inch diameter San Jose Pipeline, which will connect the recycled water systems of WVWD and RWD (shown on Figures 1 and 2). The construction cost of the San Jose Pipeline was estimated by WVWD staff at \$2,093,000 and provided to West Yost on April 21, 2026. This estimated cost was included as the total costs for this pipeline in Table 3 and 4.

Basin Management Alternative 1B includes an 8-inch diameter pipeline to connect the new groundwater well to RWD’s recycled water system (shown on Figure 2). The pipeline diameter, location, and length used to estimate the total cost in Table 4 were discussed with the PBWA during a meeting on January 21, 2026.

Groundwater Production Wells

Well construction costs are based on construction activities including pilot hole drilling, water quality/soil sampling, pilot hole reaming, well construction, well development, and well equipping including: housing, pump, motor, automatic control equipment, discharge piping, SCADA, and disinfection equipment.

The construction costs for new groundwater well envisioned for Basin Management Alternative 1B is estimated to be approximately \$2,528,000 per well (assuming a well capacity between 100 gallons per minute [gpm] and 500 gpm). This cost is based on groundwater well costs previously estimated by West Yost for similar facilities and is representative of construction conducted under normal drilling conditions and would be higher for special or difficult locations.

Recycled Water Booster Pump Station

Estimated construction costs for pump stations, as shown in Table 6, are based on enclosed stations with architectural and landscaping treatment suitable for residential areas. Pump station costs can vary considerably, depending on architectural design, pumping head, and pumping capacity. Therefore, these costs are representative of construction under common or normal conditions and would be higher for special or difficult conditions.

Pump station cost estimates include the installation of the pumps, site piping, earthwork, paving, on site backup/standby power generator, SCADA, and related sitework.

Table 6. Construction Costs for Pump Stations^(a)	
Firm Capacity, million gallons per day^(b)	Estimated Construction Cost, million dollars^(c,d)
0.5	2.0
1	2.4
2	2.9
3	3.2
4	3.6
(a) Based on April 2026 ENR CCI of Los Angeles (15668.31). (b) Equal to the total pumping capacity with the largest pump out of service or on standby. (c) Pump station cost estimates are based on enclosed stations with architectural and landscaping treatment suitable for residential areas and include the installation of the pumps, site piping, earthwork, paving, on site backup/standby power generator, SCADA, and related sitework. (d) Estimated construction costs do not reflect an adjustment to account for the current economic bidding climate.	

Basin Management Alternatives 1A and 1B require a booster pump station with a firm capacity of 3 million gallons per day¹⁰ to be constructed with the San Jose Pipeline to lift water from RWD’s recycled water system to the operating hydraulic grade of WVWD’s recycled water system. The booster pump station firm capacity used to estimate the unit cost in Tables 3 and 4 was discussed with the PBWA during a meeting on April 14, 2026.

3.3 Water Supply Cost for Basin Optimization Scenarios 1A and 1B

This section presents the costs models of the long-term water supply plans and the unit cost of supplies for Basin Management Alternatives 1A and 1B. The water supply plans for the Alternatives 1A and 1B were modified from the Baseline Scenario (Table A-3a) to incorporate the increased Puente Basin pumping proposed under each alternative to meet water supply demands. The water supply cost estimates for Alternatives 1A and 1B were modified from the Baseline Scenario cost (Table A-3b) to include the planning level capital cost estimates in Tables 3 and 4, respectively, to construct the facilities for the implementation of the alternatives. The total estimated capital cost for each alternative in Tables 3 and 4 was added to the water supply cost in 2030, which is the assumed start year for implementation. An annual inflation rate of 3 percent was applied to the capital cost estimates in Tables 3 and 4 (estimated in 2026 dollars) to account for future price escalation and anticipated technological advancements.

Alternative 1A assumes an additional 886 afy of Puente Basin groundwater pumping from existing wells, whereas Alternative 1B assumes an additional 1,092 afy from a combination of existing wells and a new well located in the western portion of the basin. Two cost model variants were prepared each for Alternatives 1A and 1B to reflect different assumptions about which Baseline water supply is displaced by the increased Puente Basin groundwater. One approach assumes the additional groundwater replaces imported water from TVMWD, and the other assumes it replaces recycled water from both the Pomona and San Jose Creek WRPs¹¹. All other supplies remain the same as in the Baseline Scenario. Attachment A

¹⁰ Per PBWA agency direction during an April 14, 2026 meeting, the booster pump station is assumed to include three 1,000 gpm pumps, with two normally operating pumps and one standby pump, for a firm capacity of 2,000 gpm (3 mgd).

¹¹ Assumed that 60 percent of the groundwater supply replaced recycled water from the San Jose Creek WRP and 40 percent replaced recycled water from the Pomona WRP.

provides the following tables detailing the 50-year (2025-2075) water supply plan (in afy) and annual unit cost (in dollars per acre-foot) of the water supplies for each alternative for both assumptions of groundwater replacing imported water or recycled-water:

Groundwater replaces imported water:

- Table A-4a. Alternative 1A Water Supplies - Aggregate of All Agencies
- Table A-4b. Alternative 1A Melded Costs for Water Supplies - Aggregate of All Agencies
- Table A-5a. Alternative 1B Total Water Supplies - Aggregate of All Agencies
- Table A-5b. Alternative 1B Melded Costs for Water Supplies - Aggregate of All Agencies

Groundwater replaces recycled water:

- Table A-6a. Alternative 1A Water Supplies - Aggregate of All Agencies
- Table A-6b. Alternative 1A Melded Costs for Water Supplies - Aggregate of All Agencies
- Table A-7a. Alternative 1B Total Water Supplies - Aggregate of All Agencies
- Table A-7b. Alternative 1B Melded Costs for Water Supplies - Aggregate of All Agencies

Just as in the Baseline Scenario, an aggregate melded unit cost for all agencies and water supplies combined is calculated for Basin Management Alternatives 1A and 1B (Tables A-4b, A-5b, A-6b, A-7b).

Figure 5 is a time-series chart of the estimated annual aggregate melded unit cost for Basin Management Alternatives 1A and 1B assuming that the increased Puente Basin groundwater replaces imported water (Tables A-4b and A-5b), plotted with the annual aggregate melded unit cost for the Baseline Scenario (Tables A-3b). For alternatives where groundwater replaces imported water, the aggregate melded unit cost of water in the Puente Basin is projected to be:

- **Alternative 1A:** \$2,933 per acre-foot in 2050 and \$7,286 per acre-foot in 2075
- **Alternative 1B:** \$2,908 per acre-foot in 2050 and \$7,217 per acre-foot in 2075

Figure 6 is a time-series chart of the estimated annual aggregate melded unit cost for Basin Management Alternatives 1A and 1B assuming that the increased Puente Basin groundwater replaces recycled water (Tables A-6b and A-7b), plotted with the Baseline Scenario (Tables A-3b) aggregate melded unit cost. For alternatives where groundwater replaces recycled water, the aggregate melded unit cost of water in the Puente Basin is projected to be:

- **Alternative 1A:** \$3,029 per acre-foot in 2050 and \$7,555 per acre-foot in 2075
- **Alternative 1B:** \$3,026 per acre-foot in 2050 and \$7,548 per acre-foot in 2075

Table 7 summarizes all the estimated annual aggregate melded unit costs of water for the Baseline Scenario and Basin Management Alternatives 1A and 1B where increased groundwater replaces imported water or recycled water for 2025 through 2075.

Figure 5. All Scenarios Melded Unit Cost for Puente Basin Agencies Assuming Increased Puente Basin Groundwater Replaces Imported Water

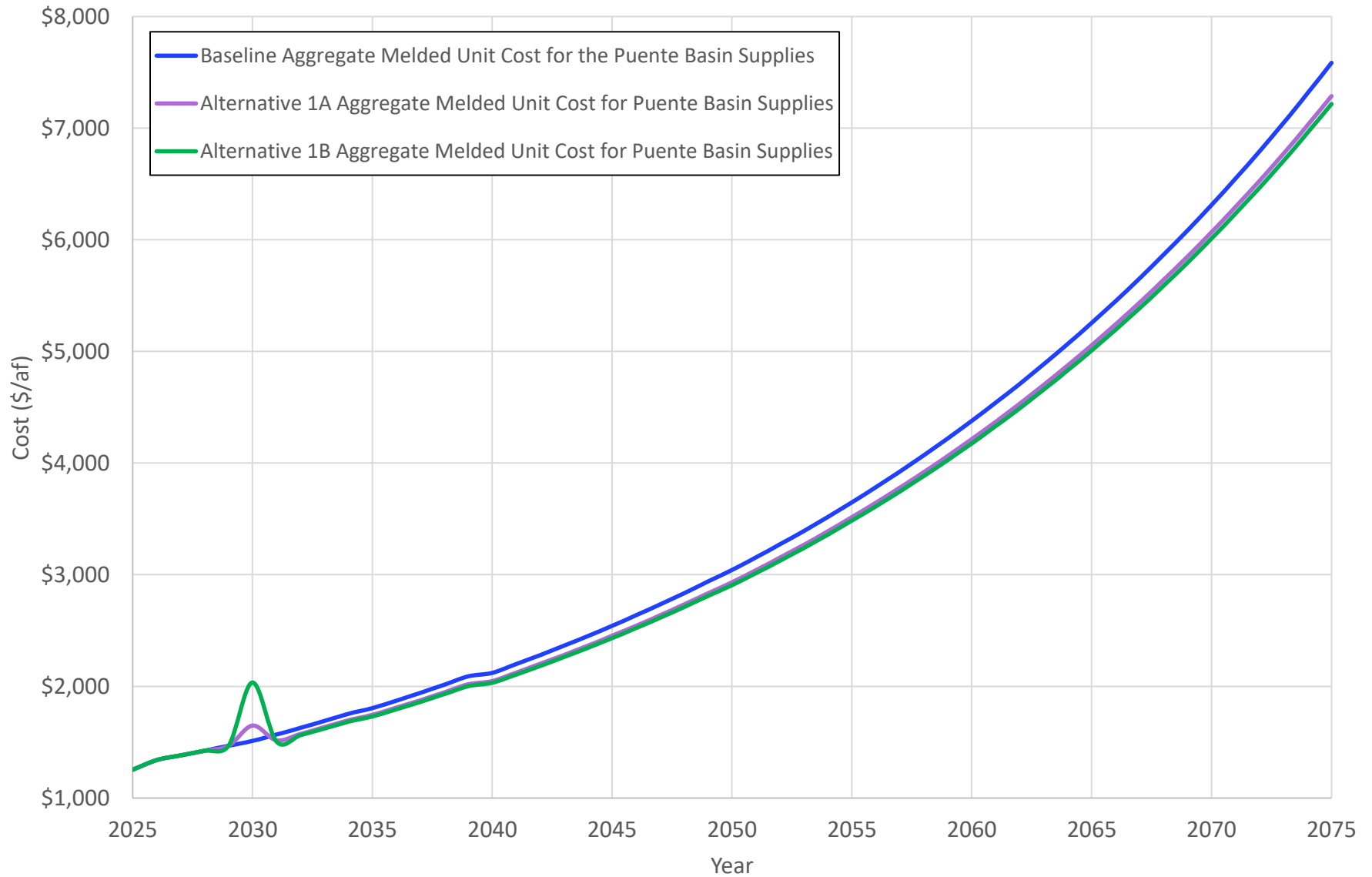


Figure 6. All Scenarios Melded Unit Cost for Puente Basin Agencies Assuming Increased Puente Basin Groundwater Replaces Recycled Water

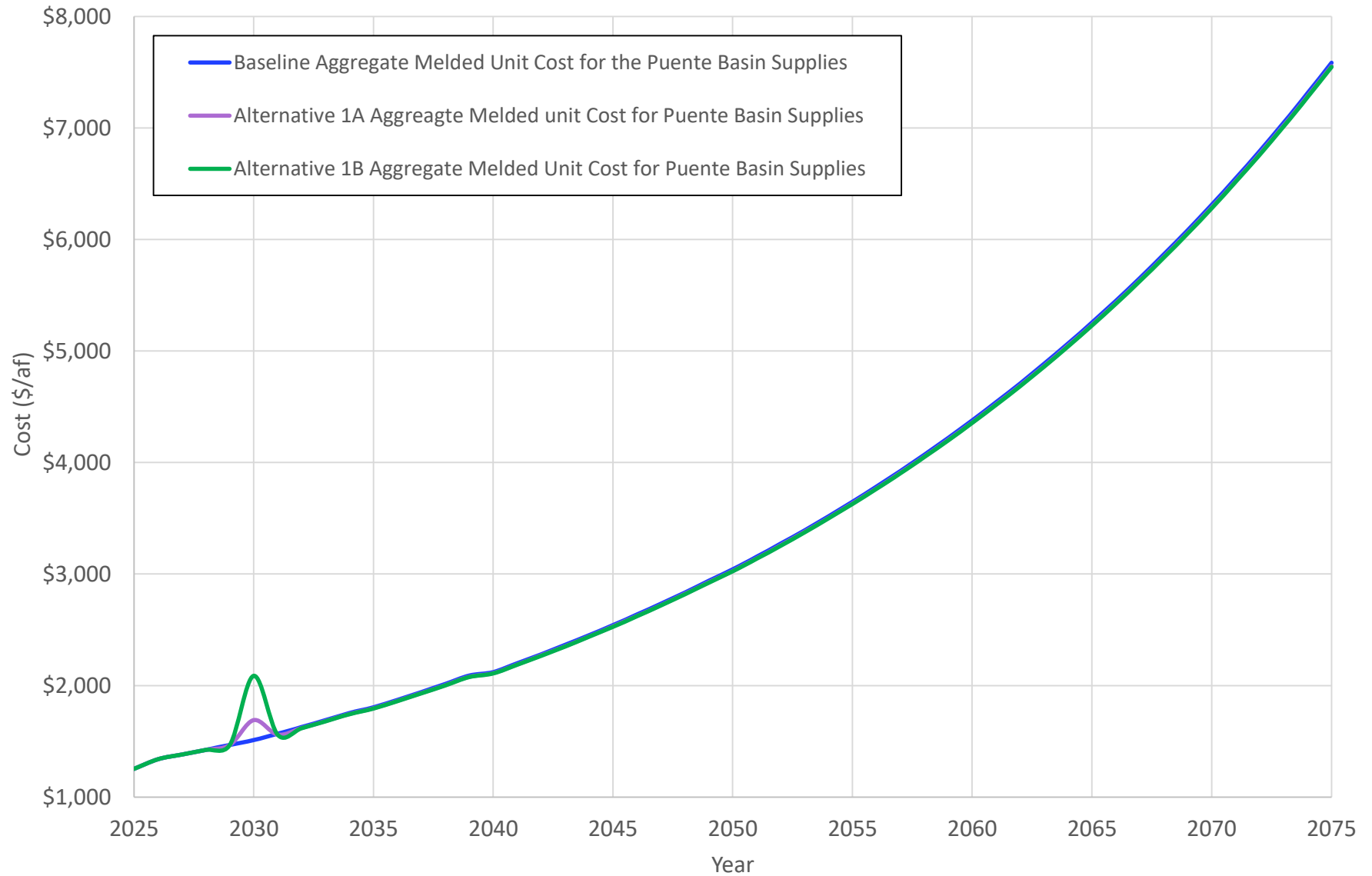


Table 7. Aggregate Melded Unit Costs of Water Supply for the Baseline and Basin Management Alternatives

Year	Total Annual Cost, dollars				
	Baseline (Table A-3b)	Increased Groundwater Replaces Imported Water		Increased Groundwater Replaces Recycled Water	
		Alternative 1A (Table A-4b)	Alternative 1B (Table A-5b)	Alternative 1A (Table A-6b)	Alternative 1B (Table A-7b)
2025	1,255	1,255	1,255	1,255	1,255
2026	1,340	1,340	1,340	1,340	1,340
2027	1,383	1,383	1,383	1,383	1,383
2028	1,425	1,425	1,425	1,425	1,425
2029	1,469	1,469	1,469	1,469	1,469
2030	1,512	1,649	2,036	1,691	2,088
2031	1,569	1,518	1,506	1,561	1,559
2032	1,629	1,575	1,563	1,621	1,619
2033	1,691	1,635	1,622	1,682	1,680
2034	1,755	1,697	1,684	1,747	1,745
2035	1,806	1,746	1,731	1,797	1,795
2036	1,873	1,810	1,796	1,864	1,862
2037	1,943	1,877	1,862	1,933	1,931
2038	2,015	1,947	1,931	2,006	2,003
2039	2,090	2,019	2,003	2,080	2,078
2040	2,122	2,049	2,032	2,112	2,110
2041	2,200	2,125	2,107	2,190	2,187
2042	2,281	2,202	2,184	2,271	2,268
2043	2,365	2,283	2,264	2,354	2,352
2044	2,453	2,367	2,347	2,441	2,438
2045	2,543	2,454	2,433	2,531	2,528
2046	2,637	2,544	2,522	2,625	2,622
2047	2,734	2,638	2,615	2,722	2,719
2048	2,835	2,735	2,711	2,822	2,819
2049	2,940	2,835	2,811	2,926	2,923
2050	3,043	2,933	2,908	3,029	3,026
2051	3,156	3,041	3,015	3,141	3,138
2052	3,272	3,154	3,126	3,258	3,254
2053	3,393	3,270	3,241	3,378	3,375
2054	3,519	3,390	3,360	3,503	3,500
2055	3,649	3,515	3,484	3,633	3,630
2056	3,785	3,645	3,613	3,768	3,764
2057	3,925	3,780	3,746	3,908	3,904
2058	4,071	3,920	3,884	4,053	4,049
2059	4,222	4,065	4,028	4,204	4,199

Table 7. Aggregate Melded Unit Costs of Water Supply for the Baseline and Basin Management Alternatives					
Year	Total Annual Cost, dollars				
	Baseline (Table A-3b)	Increased Groundwater Replaces Imported Water		Increased Groundwater Replaces Recycled Water	
		Alternative 1A (Table A-4b)	Alternative 1B (Table A-5b)	Alternative 1A (Table A-6b)	Alternative 1B (Table A-7b)
2060	4,379	4,215	4,177	4,360	4,356
2061	4,541	4,371	4,331	4,522	4,518
2062	4,710	4,533	4,492	4,690	4,686
2063	4,885	4,701	4,658	4,865	4,860
2064	5,067	4,875	4,831	5,046	5,041
2065	5,256	5,056	5,010	5,234	5,229
2066	5,452	5,244	5,195	5,430	5,424
2067	5,655	5,439	5,388	5,632	5,627
2068	5,866	5,641	5,588	5,842	5,837
2069	6,085	5,850	5,796	6,061	6,055
2070	6,312	6,068	6,011	6,287	6,281
2071	6,548	6,294	6,235	6,522	6,516
2072	6,793	6,528	6,467	6,766	6,760
2073	7,047	6,772	6,708	7,019	7,013
2074	7,310	7,024	6,957	7,282	7,276
2075	7,584	7,286	7,217	7,555	7,548

For Basin Management Alternatives 1A and 1B, capital improvement costs are assumed to occur in 2030 at the start of each alternative. After 2030, the aggregate melded unit cost for both alternatives—whether groundwater replaces imported water or recycled water—remains lower than the Baseline Scenario.

The long-term cost advantage of Alternatives 1A and 1B is driven by increased groundwater production from the Puente Basin, which offsets the higher-priced imported water from TVMWD and recycled water from the San Jose Creek and Pomona WRPs. Alternatives in which groundwater replaces imported water yield the greatest savings: by 2075, the aggregate melded unit cost of Alternative 1A is \$298 per acre-foot lower than the Baseline Scenario, and Alternative 1B is \$367 per acre-foot lower.

When groundwater replaces recycled water supplies, the savings are smaller but still positive. In 2075, Alternative 1A's aggregate melded unit cost is \$29 per acre-foot less than the Baseline Scenario, and Alternative 1B's cost is \$36 per acre-foot less than the Baseline Scenario.

Table 8 presents the cumulative water supply costs and savings associated with each alternative following initiation in 2030 and throughout the implementation period from 2031 to 2075. The results indicate that all alternatives provide a long-term economic benefit relative to the Baseline Scenario, reducing total water supply costs even after accounting for the capital investments required to construct the new facilities. And with alternatives replacing imported water providing substantially greater savings than those replacing recycled water.

Among the alternatives evaluated, Alternative 1B, in which groundwater replaces imported water, provides the greatest economic benefit. This alternative reduces total water supply costs throughout the planning period and estimates a cumulative savings of about \$194 million relative to the Baseline Scenario after incorporating capital costs.

In contrast, Alternative 1B, in which groundwater replaces recycled water, provides the smallest economic benefit. This alternative reduces total water supply throughout the planning period and estimates a cumulative savings of approximately \$9 million compared to the Baseline Scenario after accounting for capital costs.

Table 8. Cumulative Cost and Savings for Water Supplies with Alternative Implementation				
Alternative	Total Cost of Water Supplies 2031-2075 ⁽¹⁾	Cumulative Savings After Alternative Implementation (Baseline Total Cost minus Alternative Total Cost)	Estimated Capital Costs for Facilities in 2030 ⁽²⁾	Net Savings through 2075 (Cumulative Savings minus Capital Costs)
	(a)	(b) = (a)Baseline - (a)Alternative	(c)	(d) = (b) - (c)
Baseline Scenario	\$4,581 million	--	--	--
Alternative 1A - Groundwater Replaces Imported Water	\$4,411 million	\$170 million	\$5 million	\$165 million
Alternative 1A - Groundwater Replaces Recycled Water	\$4,561 million	\$20 million	\$5 million	\$15 million
Alternative 1B - Groundwater Replaces Imported Water	\$4,371 million	\$210 million	\$16 million	\$194 million
Alternative 1B - Groundwater Replaces Recycled Water	\$4,557 million	\$24 million	\$16 million	\$9 million
(1) Calculated as the sum of the annual costs for all water supply components—including the Puente Basin, Six Basins, Spadra Basin, Main San Gabriel Basin, Central Basin, imported water from TVWD, Pomona WRP recycled water, and San Jose Creek WRP recycled water—over the period 2031–2075. Annual water supply cost are presented in Appendix A, Tables A-3b, A-4b, A-5b, A-6b, and A-7b. (2) Capital costs are based on the estimated project costs presented in Tables 3 and 4 and escalated from 2026 dollars to 2030 dollars using an annual inflation rate of 3 percent. The resulting 2030 capital costs are included in Appendix A, Tables A-4b, A-5b, A-6b, and A-7b under “Total Capital Cost.”				

4.0 HYDRAULIC RESPONSE OF BASIN MANAGEMENT ALTERNATIVES 1A AND 1B

As described in TM-3, the proposed increase in pumping from the Puente Basin in Basin Management Alternatives 1A and 1B is unlikely to cause chronic lowering of groundwater levels or harmful reductions in subsurface outflow to the Main San Gabriel Basin. Given the expected magnitude of these impacts, the development and calibration of a groundwater flow model is not necessary to project the hydraulic response and impacts of these alternatives on the Puente Basin. Evaluation of the hydraulic response and potential impacts should be performed through the development and implementation of a monitoring program as part of the GMP. However, a simplified water-budget analysis can be performed to estimate

how increased pumping under Alternatives 1A and 1B can affect subsurface outflow to the Main Basin through the Puente Narrows and the resulting rate at which Puente Narrows credits could be used over time. The simplified water-budget analysis assumes the following:

- **Basin inflows will not change with the increased pumping in the alternatives.** The basin inflows include: percolation of precipitation and applied water, subsurface inflow from the surrounding hills, and subsurface inflow from the Spadra Basin. These inflows should not be materially affected by increased pumping under Alternatives 1A and 1B.
- **Increased pumping will reduce subsurface outflow on a 1:1 basis.** The basin outflows include: groundwater pumping and subsurface outflow to the Main Basin. Increased pumping will lower groundwater levels in the Puente Basin, which will reduce (or reverse) the hydraulic gradient towards the Main Basin, and thereby, reduce or eliminate subsurface outflow to the Main Basin. The maximum effect would be that each unit of increased pumping would result in a unit of decreased subsurface outflow. For example, a 200 afy increase in pumping would result in 200 afy decrease in subsurface outflow. This is a conservative assumption to estimate the *theoretical maximum reduction in subsurface outflow* that could occur under increased pumping in Alternatives 1A and 1B.
- **Puente Basin is a simple connected unit.** This analysis assumes a uniform aquifer across the basin that does not account for bedrock highs and the uncertainty of the degree of hydraulic connection between the western and central portions of the basin. As a result, the spatial distribution of drawdown and the associated changes in subsurface outflow may differ in practice from those depicted in this simplified representation.
- **Does not account for the specific location of increased pumping.** In Alternative 1A, the additional pumping is concentrated in the central portion of the basin. In Alternative 1B, the additional pumping is distributed across the central and western portions of the basin. The simplified analysis does not represent the localized drawdown patterns or the resulting hydraulic-gradient changes that could occur around individual pumping wells.

Table 9 describes the results of the simplified water-budget analysis, assuming Alternatives 1A and 1B startup begins in 2030, and the effect on subsurface outflow through the Puente Narrows and the use of banked credits. For each Alternative, columns (a) through (i) show:

- a) Assumed annual total pumping in the Puente Basin for a historical baseline
- b) Assumed annual total pumping in the Puente Basin in alternative
- c) Increase in total annual pumping relative to the historical baseline of 1,539 afy
- d) The 1:1 assumption of estimated annual reduction in subsurface outflow
- e) The annual average subsurface outflow that occurred historically
- f) Annual subsurface outflow computed by subtracting the reduction in column d from the historical average in e
- g) The annual credits needed to meet the 580 afy obligation when subsurface outflow is at the estimated volume in column f
- h) Calculation of how many years 22,000 banked credits can support this annual volume of reduced subsurface outflow
- i) Projected year in which credits would be fully depleted at the rate in column h

Table 9. Estimated Impact to Subsurface Outflow through Puente Narrows, for the Projected Period Starting in 2030

Alternative	Baseline Pumping ⁽¹⁾	Annual Puente Basin Pumping, afy	Annual Pumping Increase from Baseline, afy	Annual Maximum Possible Reduction in Subsurface Outflow, afy ⁽²⁾	Annual Average Baseline Subsurface Outflow, afy ⁽³⁾	Estimated Annual Subsurface Outflow, Based on Maximum Reduction, afy ⁽⁴⁾	Annual Credit Used ⁽⁵⁾	# Years Credit Depleted ⁽⁶⁾	Year Credit Depleted ⁽⁷⁾
	(a)	(b)	(c) = (b) - (a)	(d) = (c)	(e)	(f) = (e) - (d)	(g) = 580 - (f)	(h) = 22,000/(g)	(i) = 2030 + (h)
1A	1,539	2,425	886	886	960	74	506	43	2073
1B	1,539	2,631	1,092	1,092	960	-132	712	31	2061

Notes:

(1) Baseline pumping of 1,539 afy is equivalent to the average pumping historically from 2010 to 2023.

(2) This value represents the theoretical maximum reduction in annual subsurface outflow to the Main Basin across the Puente Narrows, assuming that 100% of the increased pumping results in an equivalent decrease in subsurface outflow.

(3) The Annual Average Baseline Subsurface outflow of 960 afy is the average outflow to the Main Basin for 2010–2023; consistent with the historical period used to establish the baseline pumping rate of 1,539 afy.

(4) This value represents the theoretical annual subsurface outflow to the Main Basin across the Puente Narrows based on the theoretical Maximum Possible Reduction in Subsurface Outflow— calculated as the Annual Average Baseline Subsurface Outflow minus the Maximum Possible Reduction in Subsurface Outflow.

(5) This represents the amount of credits applied each year toward the unmet portion of the 580 afy obligation, calculated as 580 minus the maximum annual subsurface outflow.

(6) The number of years after 2030 that the estimated annual credit can be consistently debited from the total banked credits of 22,000. The total banked credit of 22,000 is estimated based on the rate at which credits accumulated through Fiscal Year 2025.

(7) The year in which the 22,000 banked credits will be fully depleted based on the consistent annual credit use.

The estimates of the theoretical maximum impact in Table 9 are summarized as:

- Alternative 1A - increasing pumping by about 886 afy at existing wells results in: an equivalent reduction in subsurface outflow; an annual use of 506 afy of credits; and credit depletion after 43 years (2073).
- Alternative 1B - increasing pumping by about 1,092 afy at existing wells and a new well located in the west results in: an equivalent reduction in subsurface outflow; an annual use of 712 afy of credits; and credit depletion after 31 years (2061).

The simplified water-budget analysis estimates that between both alternatives the maximum implementation period of the assumed increased pumping is between 31 to 43 years. However, these estimates in Table 9 are conservative, and are considered a theoretical upper bound based on the assumed 1:1 relationship between increased pumping and reduced subsurface outflow. The estimates assume an immediate steady-state condition in which groundwater levels decline instantaneously and the hydraulic gradient through the Puente Narrows adjusts at the same time. In practice, the hydraulic response to increased pumping will be delayed as the initial response to increased pumping will result in losses from groundwater storage, with reductions in subsurface outflow occurring gradually as the hydraulic gradient decreases over time.

Given the uncertainties of the actual hydraulic response from these Basin Management Alternatives, it is crucial to include a monitoring program to detect any potential negative impacts associated with changes in groundwater levels and subsurface outflow. The monitoring program results can inform adaptive management of pumping if needed.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Table 10 provides a comparative summary of Basin Management Alternatives 1A and 1B relative to the Baseline Scenario. The table includes a description of the alternative, benefits, uncertainties, water supply changes, and results of the cost and hydraulic evaluations presented in this TM-4.

As described in Sections 3 and 4 of this TM-4, all evaluated alternatives provide a financial advantage compared to the Baseline Scenario, with each alternative generating varying levels of cost savings over time. The cost benefits are greater for Alternatives 1A and 1B when the additional groundwater production replaces the higher-cost imported water supply rather than the lower-cost recycled water supply. In addition, each alternative is projected to reduce subsurface outflow to the Main Basin, achieving the key objective of increasing the use of Puente Narrows credits.

Table 10 also introduces some uncertainties. For Alternative 1A, the uncertainties are: (i) that the long-term increased pumping rate in the central part of the Puente Basin may not be sustainable at the pumping wells due to drawdown and (ii) the concentrated pumping in the central portion of the basin may not cause groundwater levels to decline near the Puente Narrows, and thereby, may not achieve the objective to substantially reduce subsurface outflow.

In contrast, the main uncertainty for Alternative 1B is the actual production capacity of the new well in the western portion of the basin, which will depend on the final well location and the aquifer characteristics at that site. The groundwater-level changes and the corresponding reduction in subsurface outflow can only be confirmed after the new well is built and operated. However, increasing pumping to the west will certainly lower groundwater levels in that area, which is expected to reduce subsurface outflow to the Main Basin.

Based on the evaluation presented in this TM-4, **West Yost recommends implementing Basin Management Alternative 1B** as part of the GMP. This alternative offers the greatest potential to achieve the objective of reducing subsurface outflow and maximizing the use of Puente Narrows credits. By constructing a new production well in the western portion of the basin and shifting a portion of pumping to that area, Alternative 1B is expected to create targeted drawdown in the west to reduce subsurface outflow to the Main Basin. The PBWA can later determine whether the additional groundwater supply should replace imported water or recycled water, with the greater cost benefit achieved when it offsets imported water supplies. Both approaches, however, enhance overall water-supply reliability.

Table 10. Summary of the Evaluation of Basin Optimization Scenarios Compared to the Baseline Scenario

Summary		Baseline	Basin Management Alternative 1A		Basin Management Alternative Scenario 1B	
			Groundwater Replaces Imported Water	Groundwater Replaces Recycled Water	Groundwater Replaces Imported Water	Groundwater Replaces Recycled Water
Alternative Description	Uncertainties	n/a	● Maintaining long-term increased pumping in the central part of the basin may not be sustainable ● Concentrated increased pumping in the center portion of the basin not achieve the objective to reduce sub surface outflow to Main Basin		● The actual pumping capacity of the well to be constructed is unknown ● The amount of drawdown in the west and resulting reduction in subsurface outflow is unknown	
	New Facilities	n/a	● San Jose Pipeline connecting WVWD and RWD recycled water systems ● San Jose Pipeline pump station ● Pipeline connecting Royal Vista well to the recycled water system		● San Jose Pipeline to connect WVWD and RWD recycled water systems ● San Jose Pipeline pump station ● Pipeline connecting Royal Vista well to the recycled water system ● New pumping well in western portion of basin ● Pipeline connecting new well to recycled water system	
	Change in Puente Basin Pumping from Baseline	n/a	886 afy		1,092 afy	
	Projected Water Supplies - 2050	Puente Basin Groundwater	2,425 afy		2,631 afy	
		Recycled Water - Pomona WRP	1,202 afy	834 afy	1,202 afy	751 afy
		Recycled Water -San Jose Creek WRP	1,566 afy	1,014 afy	1,566 afy	890 afy
		Imported Water	15,710 afy	15,719 afy	14,592 afy	15,719 afy
		Groundwater from Other Basins	6,790 afy		6,790 afy	
Cost Evaluation	Aggregate melded unit cost of water supply in 2050 in \$/af (difference from Baseline)	\$3,043 (n/a)	\$2,933 (-\$110)	\$3,029 (-\$14)	\$2,908 (-\$135)	\$3,026 (-\$17)
	Aggregate melded unit cost of water supply in 2075 in \$/af (difference from Baseline)	\$7,584 (n/a)	\$7,286 (-\$298)	\$7,555 (-\$29)	\$7,217 (-\$367)	\$7,548 (-\$36)
	Cumulative savings of alternative implementation, compared to Baseline, through 2075, after captial costs	n/a	\$ 165 Million	\$15 Million	\$194 Million	\$9 Million
Hydraulic Evaluation	Estimated reduction in Annual Subsurface Outflow to the Main Basin	n/a	889 afy		1,092 afy	
	Estimated Annual Puente Narrows Credit Used	n/a	505		711	
	Year Credits Depleted	n/a	2074		2061	

6.0 SCOPE OF SERVICES TO PREPARE GMP (PHASE 3)

As noted in Section 1, this TM-4 represents the completion of Phase 2. The next phase, Phase 3, consists of the development of the GMP. This section describes the scope of services, budget and schedule to prepare the GMP.

6.1 Scope of Services

The following is a list of the key tasks necessary to develop the GMP, each further described below:

- Task 1. Develop a Groundwater Monitoring Program
- Task 2. Develop an Implementation Plan
- Task 3. Prepare GMP
- Task 4. Project Management, Administration, Workshops and Meetings

Task 1. Develop a Groundwater Monitoring Program

The objective of Task 1 is to develop a monitoring program that will support the PBWA in evaluating the impacts of implementing GMP. As described above, the GMP alternatives were not evaluated using modeling, and thus the monitoring program is key to understanding the impact of implementation.

The objectives of the groundwater monitoring program are to:

- Improve the hydrogeologic conceptual understanding of the aquifer system
- Support the verification that implementation of the GMP is achieving its goals
- Support the design of capital facilities associated with the implementation of the GMP
- Support any required monitoring and mitigation requirements associated with the implementation of the GMP

The subtasks for developing the groundwater monitoring program include:

- *Identify target areas for groundwater monitoring.* This work includes developing criteria to identify and delineate target areas in the Basin where monitoring wells are needed to achieve the objectives of the monitoring program.
- *Coordinate with well owners and canvass wells.* This work includes meeting with the stakeholders who own wells to discuss installing transducers in their wells and setting up SCADA to record production information; preparing maps and tables to support the well canvass; coordinating and conducting field visits with well owners; selecting wells for monitoring; and formulating monitoring strategies for each well.
- *Establish monitoring and reporting protocols for production and groundwater levels.* This work includes preparing and reviewing memorandums that describe the monitoring and reporting of high frequency data by agency staff.
- *Document the Monitoring Program.* This work includes documenting the monitoring network, including its objectives, responsible parties, well sites, monitoring protocols and implementation plan. Although the monitoring program will not be formally documented until the draft GMP prepared in Task 3, draft documentation of the monitoring program will be presented at a workshop with PBWA and stakeholders in Task 4. The PBWA and stakeholders will submit feedback at workshop and during a review period following the workshop.

Task 1 Deliverables:

- Draft Monitoring Program
- Final Monitoring Program

Task 2. Develop an Implementation Plan

The objective of Task 2 is to determine how the PBWA will implement its GMP. The subtasks for developing the implementation plan include:

- *Describe next steps.* This work includes developing a series of recommended next steps (implementation actions) based on the findings of TMs 1-4 and stakeholder input. The recommended next steps will be broken down into short-term efforts (like implementation of the groundwater monitoring program) and long-term efforts (like project construction). Next steps may include, but are not limited to:
 - Implementation of the groundwater monitoring program (Task 1)
 - Conducting technical studies to support the implementation of Alternative 1 (for example, a well siting study)
 - Coordination with local and regional agencies
 - Preparing environmental documentation and permitting
 - Preparing a preliminary design report
 - Preparing bid documents
 - Constructing facilities
- *Prepare cost and schedule.* This work includes preparing a detailed cost and schedule for the short-term efforts, and high-level cost and schedule for the long-term efforts resulting from the work described in the bullet above.

Although the implementation plan will not be formally documented until the draft GMP prepared in Task 3, the draft implementation plan will be presented in a PowerPoint format at a workshop with PBWA and stakeholders in Task 4. The PBWA and stakeholders will submit written comments and suggested edits during a review period following the meeting.

Task 3. Prepare the GMP

The objective of Task 3 is to document the work of TM-1 through TM-4 and the proposed Tasks 1 and 2 into a single cohesive document, the GMP. The proposed outline for the GMP is:

- Executive Summary
- Section 1. Introduction, Background & Objectives
- Section 2. Plan Area and Basin Setting
- Section 3. Goals and Concepts for Improved Management
- Section 4. Basin Management Alternatives for Improved Management
- Section 5. Implementation Plan
- Section 6. References

The subtasks for preparing the draft and final GMP plan include:

- *Prepare draft GMP.* This work includes preparing the draft GMP. This work includes preparing the draft GMP and distributing it to PBWA and stakeholders for a one-month review period.
- *Prepare final GMP.* This work includes incorporating the feedback received from PBWA staff and stakeholder on the draft GMP, preparing a response to comments document, and preparing the final GMP. A PBWA workshop will be conducted to review the draft GMP in Task 4. The workshop will be held during a one-month review period. The PBWA and stakeholders will submit written comments and suggested edits during the review period.

Task 3 Deliverables:

- PowerPoint and minutes from Workshop
- Draft GMP
- Final GMP

Task 4. Project Management, Administration, Workshops, and Meetings

This task includes all project coordination, administration and meetings. The subtasks include:

- *Project coordination and administration.* This work includes project initiation and setting up management tools, coordinating staffing and progress over the duration of the project, and providing monthly invoices and status to PBWA staff detailing project status and budget.
- *Conduct Workshops.* West Yost will conduct two PBWA and stakeholder workshops virtually to review and obtain feedback on the monitoring and implementation plans (workshop 1) and draft GMP (workshop 2). All meeting materials (agendas, minutes, presentations) will be posted on the PBWA website.
- *As-needed Project Meetings.* This work includes preparing for and conducting up to three as-needed meetings to discuss project deliverables and feedback. Meetings can be with PBWA staff to discuss as-needed topics for the completion of the scope of works defined herein and obtain feedback on the proposed monitoring and implementation plans, or a PBWA Board meeting to present results.

Task 4 Deliverables:

- PowerPoint, handouts, agenda, and minutes from workshops

6.2 Cost Estimate for Phase 3

Table 11 summarizes the estimated cost for Tasks 1 through 4. Table 12 is a detailed work breakdown structure and line-item cost estimate for the effort and cost for each task and subtask for the scope of services described above. West Yost will perform the scope of services on a time-and-materials basis at the billing rates set forth in West Yost's 2026 Billing Rate Schedule in Attachment B, with a not-to-exceed budget of \$172,765.

Table 11. Summary of Cost to Prepare a GMP for the Puente Basin		
Task No.	Task Name	Cost,\$
1	Develop a Groundwater Monitoring Program	49,710
2	Develop an Implementation Plan	30,832
3	Prepare the GMP	43,668
4	Project Management, Administration, Workshops, and Meetings	48,555
Total		\$172,765

Table 12. Work Breakdown Structure and Fee Estimate to Perform Phase 3 to Prepare a Groundwater Management Plan for the Puente Basin																		
Description	Labor												Other Direct Charges (ODCs)				Total Program Costs	
	Principal Engineer/ Geologist II	Principal Scientist I	Senior Engineer II	Associate Engineer II	Geologist II	Field Tech.	Tech Specialist II	Tech Specialist I	Task Multiplier	Total Labor			Travel	Equipment	Total ODCs			
										Person Hours	Labor Cost				Sub-task	Phase/ Task		
											Sub-task	Phase/ Task					Sub-Task	Phase/ Task
Task 1 - Develop a Groundwater Monitoring Program												\$49,310				\$400		\$49,710
1.1 Identify target areas for groundwater monitoring.	3.0	8.0		12.0	8.0				1	31.0	\$8,677							\$8,677
1.2 Coordinate with well owners and canvas wells		8.0		6.0	16.0	30.0			1	60.0	\$12,140		\$400		\$400			\$12,540
1.3 Establish monitoring and reporting protocols for production and groundwater levels.	3.0	8.0		28.0	8.0				1	47.0	\$12,917							\$12,917
1.4 Document the Monitoring Program	4.0	12.0		30.0	10.0				1	56.0	\$15,576							\$15,576
Task 2 – Develop an Implementation Plan												\$30,832				\$0		\$30,832
2.1 Describe next steps	4.0	14.0	12.0	18.0					1	48.0	\$14,596							\$14,596
2.2 Prepare schedule and cost	2.0	16.0	14.0	22.0					1	54.0	\$16,236							\$16,236
Task 3 - Prepare the Draft and Final GMP												\$43,668				\$0		\$43,668
3.1 Prepare draft GMP	9.0	40.0		40.0	16.0			10.0	1	115.0	\$34,229							\$34,229
3.2 Prepare final GMP	3.0	10.0		12.0	2.0			5.0	1	32.0	\$9,439							\$9,439
Task 4 – Project Management, Administration, Workshops, and Meetings												\$48,470				\$85		\$48,555
4.1 Project coordination and administration	0.25	2.6					0.75		10	36.0	\$11,750							\$11,750
4.2 Conduct workshops	3.0	12.0		12.0					2	54.0	\$17,310							\$17,310
4.3 As-needed project meetings with PBWA on GMP (up to 3)	2.0	10.0		8.0					3	60.0	\$19,410		\$85		\$85			\$19,495
Total	43	196	26	216	60	30	8	15		593		\$172,280	\$485	\$0	\$485	\$485		\$172,765

6.3 Schedule to Perform Phase 3 – Develop GMP

West Yost anticipates completing Tasks 1 through 4 within nine months of a formal notice-to-proceed.

Staffing and Closing Comments

Veva Weamer will serve as the lead scientist and project manager and will be responsible for implementing the project per the final approved scope and budget. Ms. Weamer will be supported by West Yost geologists, engineers, and scientists for implementation of the scope of services. Andy Malone will serve as the technical reviewer and will provide technical support to the project team and QA/QC of all project deliverables. Samantha Adams will serve as the Principal-in-Charge and will also perform technical review.

Thank you for providing West Yost the opportunity to continue to assist the PBWA in developing the GMP. We look forward to working with you on this important project, and completing this final phase. Please call if you have any questions or require additional information.

Attachment A

Tables of Long-Term Costs Analysis for Baseline Scenario and Basin Management Alternatives 1A and 1B

Table A-1a. Baseline Water Supply Plan - Walnut Valley Water District, afy ^(a,b)											
Year	Total Water Demands	Potable					Non-Potable				Total Supplies
		Groundwater			Imported Water from TVMWD ^(e)	Total Potable	Groundwater		Recycled Water from Pomona WRP	Total Non-Potable	
		Six Basins ^(b)	Main San Gabriel Basin ^(c)	Central Basin ^(d)			Spadra Basin	Puente Basin			
2020	18,603	0	0	0	16,630	16,630	55	667	1,251	1,973	18,603
2021	20,302	0	0	0	17,854	17,854	86	1,000	1,362	2,448	20,302
2022	19,178	0	0	0	16,844	16,844	61	721	1,552	2,334	19,178
2023	15,623	0	0	0	13,921	13,921	36	426	1,240	1,702	15,623
2024	15,751	0	0	0	14,163	14,163	36	442	1,110	1,588	15,751
2025	17,951	0	0	0	15,671	15,671	129	1,556	595	2,280	17,951
2026	17,580	0	0	0	16,053	16,053	124	690	713	1,527	17,580
2027	17,209	0	0	0	15,569	15,569	119	690	831	1,640	17,209
2028	16,838	0	0	0	15,085	15,085	115	690	949	1,754	16,838
2029	16,467	0	0	0	14,600	14,600	110	690	1,067	1,867	16,467
2030	16,096	700	0	0	13,416	14,116	105	690	1,185	1,980	16,096
2031	16,096	700	0	0	13,416	14,116	105	690	1,185	1,980	16,096
2032	16,096	700	0	0	13,416	14,116	105	690	1,185	1,980	16,096
2033	16,096	700	0	0	13,416	14,116	105	690	1,185	1,980	16,096
2034	16,096	700	0	0	13,416	14,116	105	690	1,185	1,980	16,096
2035	16,096	700	2,500	0	10,916	14,116	105	690	1,185	1,980	16,096
2036	16,096	700	2,500	0	10,916	14,116	105	690	1,185	1,980	16,096
2037	16,096	700	2,500	0	10,916	14,116	105	690	1,185	1,980	16,096
2038	16,096	700	2,500	0	10,916	14,116	105	690	1,185	1,980	16,096
2039	16,096	700	2,500	0	10,916	14,116	105	690	1,185	1,980	16,096
2040	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2041	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2042	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2043	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2044	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2045	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2046	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2047	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2048	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2049	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2050	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2051	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2052	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2053	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2054	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2055	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2056	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2057	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2058	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2059	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2060	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2061	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2062	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2063	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2064	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2065	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2066	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2067	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2068	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2069	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2070	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2071	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2072	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2073	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2074	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
2075	16,096	700	2,500	500	10,416	14,116	105	690	1,185	1,980	16,096
(a) Historical data for 2020 to 2025 and projected supply and demand for 2030, 2040, 2050, and 2060 are provided by Walnut Valley Water District (WVWD). Projected supply and demand for the interim years are linearly interpolated between the provided projected supply.											
(b) Groundwater from Old Baldy well in Ganesha Subbasin, and Durward well in Pomona Subbasin. Pumped groundwater will be conveyed via a connection to the PWR-JWL. Puente Basin Water Agency (PBWA) has leased 750 acre-feet per year (afy) of production from Old Baldy well, and expected to lease an additional 750 afy from the Durward well. Production from Six Basins is assumed to begin in 2030.											
(c) Raw Imported Water Stored in Main San Gabriel Basin and Pumped by Cal Domestic. PBWA’s Water Storage and Export Agreement with the Main San Gabriel Watermaster allows for the export and delivery of up to approximately 5,000 afy.											
(d) Groundwater pumped from Central Basin via the La Habra Heights County Water District, up to 2,000 afy of leased and purchased water rights from Central Basin. Water cannot currently be produced due to PFOS/PFOA contamination.											
(e) Projected water demands for interim years, prior to the start of production of groundwater from Six Basins in 2030, Main Basin in 2035, and Central Basin starting in 2040, are assumed to be met by an increase in imported water.											

Table A-1b. Baseline Water Supply Plan - Rowland Water District, afy ^(a)											
Year	Total Water Demands ^(b)	Potable					Non-Potable				Total Supplies
		Groundwater			Imported Water from TVMWD ^(f)	Total Potable	Puente Basin Groundwater	Recycled Water		Total Non-Potable	
		Six Basins ^(c)	Main San Gabriel Basin ^(d)	Central Basin ^(e)				Pomona WRP ^(g)	San Jose Creek WRP		
2020	10,759	0	1,112	0	8,515	9,627	157	15	960	1,132	10,759
2021	10,881	0	1,088	0	8,698	9,786	502	16	577	1,095	10,881
2022	10,522	0	594	0	8,856	9,450	380	19	673	1,072	10,522
2023	9,614	0	1,390	0	7,249	8,639	518	14	443	975	9,614
2024	9,695	0	1,059	0	7,794	8,853	542	17	283	842	9,695
2025	10,378	0	1,344	0	8,095	9,439	459	21	459	939	10,378
2026	10,120	0	1,295	0	7,865	9,161	459	20	480	960	10,120
2027	9,862	0	1,246	0	7,636	8,882	459	19	502	980	9,862
2028	9,605	0	1,198	0	7,406	8,604	459	19	523	1,001	9,605
2029	9,347	0	1,149	0	7,177	8,325	459	18	545	1,021	9,347
2030	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2031	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2032	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2033	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2034	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2035	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2036	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2037	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2038	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2039	9,089	700	1,100	0	6,247	8,047	459	17	566	1,042	9,089
2040	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2041	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2042	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2043	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2044	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2045	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2046	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2047	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2048	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2049	9,473	700	1,750	500	5,481	8,431	459	17	566	1,042	9,473
2050	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2051	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2052	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2053	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2054	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2055	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2056	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2057	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2058	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2059	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2060	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2061	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2062	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2063	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2064	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2065	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2066	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2067	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2068	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2069	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2070	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2071	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2072	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2073	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2074	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
2075	9,295	700	1,750	500	5,303	8,253	459	17	566	1,042	9,295
(a) Data for 2020 to 2025 is historical data provided by Rowland Water District (RWD). Projected supply and demand for 2030, 2040, 2050, and 2060 are provided by RWD. Projected supply and demand for the interim years are linearly interpolated between the provided projected supply. (b) In 2030 and 2040, RWD assumes it will meet the water conservation requirements established by the Urban Water Use Objective (UWUO), and reduce its demand by 698 acre-feet (ac-ft) in 2030 and 388 ac-ft in 2040. (c) Groundwater from Old Baldy well in Ganesha Subbasin, and Durward well in Pomona Subbasin. Pumped groundwater will be conveyed vis a connection to the PWR-JWL. Puente Basin Water Agency (PBWA) has leased 750 acre-feet per year (afy) of production from Old Baldy well, and expected to lease an additional 750 afy from the Durward well. Production from Six Basins is assumed to begin in 2030. (d) Raw Imported Water Stored in Main San Gabriel Basin and Pumped by Cal Domestic Water Company (CDWC). PBWA’s Water Storage and Export Agreement with the Main San Gabriel Watermaster allows for the export and delivery of up to approximately 5,000 afy. By 2040, RWD assumes it will be able to produce more water from the Main San Gabriel Basin based on discussions with CDWC. (e) Groundwater pumped from Central Basin via the La Habra Heights County Water District (LHHCWD), up to 2,000 afy of leased and purchased water rights from Central Basin. Water cannot currently be produced due to PFOS/PFOA contamination. By 2040, RWD assumes it will be able to produce from Central Basin due to LHHCWD having treatment online. (f) Projected water demands for interim years, prior to the start of production of groundwater from Six Basins in 2030 and Central Basin in 2040 and increase in production from Main Basin in 2040, are assumed to be met by an increase in imported water. (g) RWD receives recycled water from the Pomona WRP via an emergency connection from WVWD.											

Table A-1c. Baseline Water Supply Plan - City of Industry, afy					
Year	Total Water Demands	Non-Potable			Total Supplies
		Puente Basin Groundwater ^(a)	Recycled Water from San Jose Creek WRP ^(b)	Total Non-Potable	
2020	1,309	409	900	1,309	1,309
2021	1,539	531	1,008	1,539	1,539
2022	1,336	359	977	1,336	1,336
2023	1,174	184	990	1,174	1,174
2024	935	215	720	935	935
2025	1,517	596	921	1,517	1,517
2026	1,327	390	937	1,327	1,327
2027	1,343	390	953	1,343	1,343
2028	1,358	390	968	1,358	1,358
2029	1,374	390	984	1,374	1,374
2030	1,390	390	1,000	1,390	1,390
2031	1,390	390	1,000	1,390	1,390
2032	1,390	390	1,000	1,390	1,390
2033	1,390	390	1,000	1,390	1,390
2034	1,390	390	1,000	1,390	1,390
2035	1,390	390	1,000	1,390	1,390
2036	1,390	390	1,000	1,390	1,390
2037	1,390	390	1,000	1,390	1,390
2038	1,390	390	1,000	1,390	1,390
2039	1,390	390	1,000	1,390	1,390
2040	1,390	390	1,000	1,390	1,390
2041	1,390	390	1,000	1,390	1,390
2042	1,390	390	1,000	1,390	1,390
2043	1,390	390	1,000	1,390	1,390
2044	1,390	390	1,000	1,390	1,390
2045	1,390	390	1,000	1,390	1,390
2046	1,390	390	1,000	1,390	1,390
2047	1,390	390	1,000	1,390	1,390
2048	1,390	390	1,000	1,390	1,390
2049	1,390	390	1,000	1,390	1,390
2050	1,390	390	1,000	1,390	1,390
2051	1,390	390	1,000	1,390	1,390
2052	1,390	390	1,000	1,390	1,390
2053	1,390	390	1,000	1,390	1,390
2054	1,390	390	1,000	1,390	1,390
2055	1,390	390	1,000	1,390	1,390
2056	1,390	390	1,000	1,390	1,390
2057	1,390	390	1,000	1,390	1,390
2058	1,390	390	1,000	1,390	1,390
2059	1,390	390	1,000	1,390	1,390
2060	1,390	390	1,000	1,390	1,390
2061	1,390	390	1,000	1,390	1,390
2062	1,390	390	1,000	1,390	1,390
2063	1,390	390	1,000	1,390	1,390
2064	1,390	390	1,000	1,390	1,390
2065	1,390	390	1,000	1,390	1,390
2066	1,390	390	1,000	1,390	1,390
2067	1,390	390	1,000	1,390	1,390
2068	1,390	390	1,000	1,390	1,390
2069	1,390	390	1,000	1,390	1,390
2070	1,390	390	1,000	1,390	1,390
2071	1,390	390	1,000	1,390	1,390
2072	1,390	390	1,000	1,390	1,390
2073	1,390	390	1,000	1,390	1,390
2074	1,390	390	1,000	1,390	1,390
2075	1,390	390	1,000	1,390	1,390
(a) Groundwater supply from the Puente Basin is purchased by the City of Industry from Walnut Valley Water District (WVWD). Historical groundwater supply data for 2020 to 2025 and projected groundwater supply for 2030, 2040, 2050, and 2060 are provided by WVWD. Projected supply and demand for the interim years are linearly interpolated between the provided projected supply.					
(b) Recycled water supply from the San Jose WRP is purchased by the City of Industry from Rowland Water District (RWD). Historical recycled water supply data for 2020 to 2025 and projected recycled water supply for 2030, 2040, 2050, and 2060 are provided by RWD. Projected supply for the interim years are linearly interpolated between the provided projected supply.					

[illegible]

Table A-2b. Unit Costs for Water Supplies (dollars per acre-foot) - Rowland Water District ^(a)																																																																																																																																																																																																																																																																																																																																																																																														
Fiscal Year	Groundwater																			Recycled Water										Total Annual Cost ^(h)					Unit Cost ⁽ⁱ⁾																																																																																																																																																																																																																																																																																																																																																											
	Groundwater from Puente Basin					Groundwater From Six Basins				Groundwater from Main San Gabriel Basin ^(b)					Groundwater From Central Basin ^(c)				Imported Water from TVMWD					Pomona WRP via RWD ⁽¹⁾					San Jose Creek WRP			Groundwater				Recycled Water		Unit Cost ⁽ⁱ⁾																																																																																																																																																																																																																																																																																																																																																								
	Assessment	Production	Treatment	O&M ^(b)	Assessment	Production ^(d)	Treatment	O&M	Assessment	Production	Treatment	O&M	Tier 1 Untreated Water	Assessment	Production	Treatment	O&M	Tier 1	Production ^(f)	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production ^(g)	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Assessment

Table A-2c. Unit Costs for Water Supplies (dollars per acre-foot) - City of Industry													
Fiscal Year	Groundwater from Puente Basin ^(a)				Recycled Water from San Jose Creek WRP ^(b)				Total Annual Cost ^(c)		Unit Cost ^(d)		
	Assessment	Production	Treatment	O&M	Assessment	Production	Treatment	O&M	Puente Basin	San Jose Creek WRP	Groundwater from Puente Basin	Recycled Water from San Jose Creek WRP	Melded Unit Cost ^(e)
2025	\$221	\$0	\$0	\$0	\$153	\$117	\$0	\$213	\$131,716	\$444,557	\$221	\$483	\$380
2026	\$228	\$0	\$0	\$0	\$157	\$121	\$0	\$219	\$88,776	\$465,750	\$228	\$497	\$418
2027	\$234	\$0	\$0	\$0	\$162	\$124	\$0	\$226	\$91,439	\$487,813	\$234	\$512	\$431
2028	\$241	\$0	\$0	\$0	\$167	\$128	\$0	\$233	\$94,182	\$510,781	\$241	\$527	\$445
2029	\$249	\$0	\$0	\$0	\$172	\$132	\$0	\$240	\$97,008	\$534,688	\$249	\$543	\$460
2030	\$256	\$0	\$0	\$0	\$177	\$136	\$0	\$247	\$99,918	\$559,570	\$256	\$560	\$474
2031	\$264	\$0	\$0	\$0	\$182	\$140	\$0	\$254	\$102,915	\$576,357	\$264	\$576	\$489
2032	\$272	\$0	\$0	\$0	\$188	\$144	\$0	\$262	\$106,003	\$593,648	\$272	\$594	\$503
2033	\$280	\$0	\$0	\$0	\$193	\$148	\$0	\$270	\$109,183	\$611,457	\$280	\$611	\$518
2034	\$288	\$0	\$0	\$0	\$199	\$153	\$0	\$278	\$112,458	\$629,801	\$288	\$630	\$534
2035	\$297	\$0	\$0	\$0	\$205	\$157	\$0	\$286	\$115,832	\$648,695	\$297	\$649	\$550
2036	\$306	\$0	\$0	\$0	\$211	\$162	\$0	\$295	\$119,307	\$668,156	\$306	\$668	\$567
2037	\$315	\$0	\$0	\$0	\$218	\$167	\$0	\$304	\$122,886	\$688,201	\$315	\$688	\$584
2038	\$325	\$0	\$0	\$0	\$224	\$172	\$0	\$313	\$126,573	\$708,847	\$325	\$709	\$601
2039	\$334	\$0	\$0	\$0	\$231	\$177	\$0	\$322	\$130,370	\$730,112	\$334	\$730	\$619
2040	\$344	\$0	\$0	\$0	\$238	\$182	\$0	\$332	\$134,281	\$752,015	\$344	\$752	\$638
2041	\$355	\$0	\$0	\$0	\$245	\$188	\$0	\$342	\$138,310	\$774,576	\$355	\$775	\$657
2042	\$365	\$0	\$0	\$0	\$252	\$193	\$0	\$352	\$142,459	\$797,813	\$365	\$798	\$676
2043	\$376	\$0	\$0	\$0	\$260	\$199	\$0	\$363	\$146,733	\$821,747	\$376	\$822	\$697
2044	\$388	\$0	\$0	\$0	\$268	\$205	\$0	\$373	\$151,135	\$846,400	\$388	\$846	\$718
2045	\$399	\$0	\$0	\$0	\$276	\$211	\$0	\$385	\$155,669	\$871,792	\$399	\$872	\$739
2046	\$411	\$0	\$0	\$0	\$284	\$218	\$0	\$396	\$160,339	\$897,946	\$411	\$898	\$761
2047	\$423	\$0	\$0	\$0	\$293	\$224	\$0	\$408	\$165,149	\$924,884	\$423	\$925	\$784
2048	\$436	\$0	\$0	\$0	\$301	\$231	\$0	\$420	\$170,103	\$952,630	\$436	\$953	\$808
2049	\$449	\$0	\$0	\$0	\$310	\$238	\$0	\$433	\$175,207	\$981,209	\$449	\$981	\$832
2050	\$463	\$0	\$0	\$0	\$320	\$245	\$0	\$446	\$180,463	\$1,010,646	\$463	\$1,011	\$857
2051	\$477	\$0	\$0	\$0	\$329	\$252	\$0	\$459	\$185,877	\$1,040,965	\$477	\$1,041	\$883
2052	\$491	\$0	\$0	\$0	\$339	\$260	\$0	\$473	\$191,453	\$1,072,194	\$491	\$1,072	\$909
2053	\$506	\$0	\$0	\$0	\$349	\$268	\$0	\$487	\$197,196	\$1,104,360	\$506	\$1,104	\$936
2054	\$521	\$0	\$0	\$0	\$360	\$276	\$0	\$502	\$203,112	\$1,137,491	\$521	\$1,137	\$964
2055	\$536	\$0	\$0	\$0	\$371	\$284	\$0	\$517	\$209,206	\$1,171,615	\$536	\$1,172	\$993
2056	\$553	\$0	\$0	\$0	\$382	\$293	\$0	\$533	\$215,482	\$1,206,764	\$553	\$1,207	\$1,023
2057	\$569	\$0	\$0	\$0	\$393	\$301	\$0	\$548	\$221,946	\$1,242,967	\$569	\$1,243	\$1,054
2058	\$586	\$0	\$0	\$0	\$405	\$310	\$0	\$565	\$228,605	\$1,280,256	\$586	\$1,280	\$1,086
2059	\$604	\$0	\$0	\$0	\$417	\$320	\$0	\$582	\$235,463	\$1,318,663	\$604	\$1,319	\$1,118
2060	\$622	\$0	\$0	\$0	\$430	\$329	\$0	\$599	\$242,527	\$1,358,223	\$622	\$1,358	\$1,152
2061	\$641	\$0	\$0	\$0	\$443	\$339	\$0	\$617	\$249,803	\$1,398,970	\$641	\$1,399	\$1,186
2062	\$660	\$0	\$0	\$0	\$456	\$349	\$0	\$636	\$257,297	\$1,440,939	\$660	\$1,441	\$1,222
2063	\$680	\$0	\$0	\$0	\$469	\$360	\$0	\$655	\$265,016	\$1,484,167	\$680	\$1,484	\$1,258
2064	\$700	\$0	\$0	\$0	\$484	\$371	\$0	\$675	\$272,966	\$1,528,692	\$700	\$1,529	\$1,296
2065	\$721	\$0	\$0	\$0	\$498	\$382	\$0	\$695	\$281,155	\$1,574,553	\$721	\$1,575	\$1,335
2066	\$743	\$0	\$0	\$0	\$513	\$393	\$0	\$716	\$289,590	\$1,621,790	\$743	\$1,622	\$1,375
2067	\$765	\$0	\$0	\$0	\$528	\$405	\$0	\$737	\$298,277	\$1,670,443	\$765	\$1,670	\$1,416
2068	\$788	\$0	\$0	\$0	\$544	\$417	\$0	\$759	\$307,226	\$1,720,557	\$788	\$1,721	\$1,459
2069	\$811	\$0	\$0	\$0	\$561	\$430	\$0	\$782	\$316,442	\$1,772,173	\$811	\$1,772	\$1,503
2070	\$836	\$0	\$0	\$0	\$577	\$442	\$0	\$805	\$325,936	\$1,825,338	\$836	\$1,825	\$1,548
2071	\$861	\$0	\$0	\$0	\$595	\$456	\$0	\$830	\$335,714	\$1,880,099	\$861	\$1,880	\$1,594
2072	\$887	\$0	\$0	\$0	\$613	\$469	\$0	\$855	\$345,785	\$1,936,502	\$887	\$1,937	\$1,642
2073	\$913	\$0	\$0	\$0	\$631	\$483	\$0	\$880	\$356,159	\$1,994,597	\$913	\$1,995	\$1,691
2074	\$941	\$0	\$0	\$0	\$650	\$498	\$0	\$907	\$366,844	\$2,054,435	\$941	\$2,054	\$1,742
2075	\$969	\$0	\$0	\$0	\$669	\$513	\$0	\$934	\$377,849	\$2,116,068	\$969	\$2,116	\$1,794
(a) Groundwater supply from the Puente Basin is purchased by the City of Industry from Walnut Valley Water District (WVWD). 2025 costs for producing water from the Puente Basin was provided by WVWD. Projected annual costs are inflated 3 percent annually. (b) Recycled water supply from the San Jose WRP is purchased by the City of Industry from Rowland Water District (RWD). 2025 costs for recycled water from the San Jose WRP was provided by RWD. Projected annual costs are inflated 3 percent annually. (c) Total annual costs for each water supply source was calculated by multiplying each water supply source's total annual use from Table A-1c by their total respective total costs. (d) Unit costs for each water supply source was calculated by dividing each water supply source's total annual cost in this table by their respective total annual use from Table A-1c. (e) The melded cost is the average unit cost calculated based on each supply's contribution to total volume; essentially the volume-weighted average of the unit cost for each water supply in this table for the associated supply volumes in Table A-1c.													

Table A-3a. Baseline Water Supplies - Aggregate of All Agencies, afy ^(a)											
Year	Aggregate Potable Supplies					Aggregate Non-Potable Supplies					
	Groundwater			Imported Water from TVMWD	Total Potable	Groundwater		Recycled Water		Total Non- Potable	Total
	Six Basins	Main San Gabriel Basin	Central Basin			Spadra Basin	Puente Basin	Pomona WRP	San Jose Creek WRP		
2020	0	1,112	0	25,145	26,257	55	1,232	1,266	1,860	4,413	30,670
2021	0	1,088	0	26,552	27,640	86	2,033	1,378	1,585	5,082	32,723
2022	0	594	0	25,700	26,294	61	1,460	1,571	1,650	4,742	31,036
2023	0	1,390	0	21,170	22,560	36	1,128	1,254	1,433	3,851	26,411
2024	0	1,059	0	21,957	23,016	36	1,199	1,127	1,003	3,365	26,381
2025	0	1,344	0	23,766	25,110	129	2,611	616	1,380	4,736	29,846
2026	0	1,295	0	23,919	25,214	124	1,539	733	1,417	3,814	29,027
2027	0	1,246	0	23,205	24,451	119	1,539	850	1,454	3,963	28,414
2028	0	1,198	0	22,491	23,688	115	1,539	968	1,492	4,113	27,801
2029	0	1,149	0	21,777	22,926	110	1,539	1,085	1,529	4,262	27,188
2030	1,400	1,100	0	19,663	22,163	105	1,539	1,202	1,566	4,412	26,575
2031	1,400	1,100	0	19,663	22,163	105	1,539	1,202	1,566	4,412	26,575
2032	1,400	1,100	0	19,663	22,163	105	1,539	1,202	1,566	4,412	26,575
2033	1,400	1,100	0	19,663	22,163	105	1,539	1,202	1,566	4,412	26,575
2034	1,400	1,100	0	19,663	22,163	105	1,539	1,202	1,566	4,412	26,575
2035	1,400	3,600	0	17,163	22,163	105	1,539	1,202	1,566	4,412	26,575
2036	1,400	3,600	0	17,163	22,163	105	1,539	1,202	1,566	4,412	26,575
2037	1,400	3,600	0	17,163	22,163	105	1,539	1,202	1,566	4,412	26,575
2038	1,400	3,600	0	17,163	22,163	105	1,539	1,202	1,566	4,412	26,575
2039	1,400	3,600	0	17,163	22,163	105	1,539	1,202	1,566	4,412	26,575
2040	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2041	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2042	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2043	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2044	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2045	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2046	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2047	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2048	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2049	1,400	4,250	1,000	15,897	22,547	105	1,539	1,202	1,566	4,412	26,959
2050	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2051	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2052	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2053	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2054	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2055	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2056	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2057	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2058	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2059	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2060	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2061	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2062	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2063	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2064	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2065	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2066	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2067	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2068	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2069	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2070	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2071	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2072	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2073	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2074	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
2075	1,400	4,250	1,000	15,719	22,369	105	1,539	1,202	1,566	4,412	26,781
(a) Aggregate sum of all water supplies by source from Walnut Valley Water District (Table A-1a), Rowland Water District (Table A-1b), and City of Industry (Table A-1c).											

Table A-4a. Alternative 1A Water Supplies Assuming Increased Puente Basin Groundwater Replaces Imported Water - Aggregate of All Agencies, afy ^(a)											
Year	Aggregate Potable Supplies					Aggregate Non-Potable Supplies					
	Groundwater			Imported Water from TVMWD	Total Potable	Groundwater		Recycled Water		Total Non-Potable	Total
	Six Basins	Main San Gabriel Basin	Central Basin			Spadra Basin	Puente Basin	Pomona WRP	San Jose Creek WRP		
2020	0	1,112	0	25,145	26,257	55	1,232	1,266	1,860	4,413	30,670
2021	0	1,088	0	26,552	27,640	86	2,033	1,378	1,585	5,082	32,723
2022	0	594	0	25,700	26,294	61	1,460	1,571	1,650	4,742	31,036
2023	0	1,390	0	21,170	22,560	36	1,128	1,254	1,433	3,851	26,411
2024	0	1,059	0	21,957	23,016	36	1,199	1,127	1,003	3,365	26,381
2025	0	1,344	0	23,766	25,110	129	2,611	616	1,380	4,736	29,846
2026	0	1,295	0	23,919	25,214	124	1,539	733	1,417	3,814	29,027
2027	0	1,246	0	23,205	24,451	119	1,539	850	1,454	3,963	28,414
2028	0	1,198	0	22,491	23,688	115	1,539	968	1,492	4,113	27,801
2029	0	1,149	0	21,777	22,926	110	1,539	1,085	1,529	4,262	27,188
2030	1,400	1,100	0	18,777	21,277	105	2,425	1,202	1,566	5,298	26,575
2031	1,400	1,100	0	18,777	21,277	105	2,425	1,202	1,566	5,298	26,575
2032	1,400	1,100	0	18,777	21,277	105	2,425	1,202	1,566	5,298	26,575
2033	1,400	1,100	0	18,777	21,277	105	2,425	1,202	1,566	5,298	26,575
2034	1,400	1,100	0	18,777	21,277	105	2,425	1,202	1,566	5,298	26,575
2035	1,400	3,600	0	16,277	21,277	105	2,425	1,202	1,566	5,298	26,575
2036	1,400	3,600	0	16,277	21,277	105	2,425	1,202	1,566	5,298	26,575
2037	1,400	3,600	0	16,277	21,277	105	2,425	1,202	1,566	5,298	26,575
2038	1,400	3,600	0	16,277	21,277	105	2,425	1,202	1,566	5,298	26,575
2039	1,400	3,600	0	16,277	21,277	105	2,425	1,202	1,566	5,298	26,575
2040	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2041	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2042	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2043	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2044	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2045	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2046	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2047	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2048	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2049	1,400	4,250	1,000	15,011	21,661	105	2,425	1,202	1,566	5,298	26,959
2050	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2051	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2052	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2053	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2054	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2055	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2056	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2057	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2058	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2059	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2060	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2061	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2062	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2063	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2064	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2065	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2066	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2067	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2068	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2069	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2070	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2071	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2072	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2073	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2074	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
2075	1,400	4,250	1,000	14,833	21,483	105	2,425	1,202	1,566	5,298	26,781
(a) Alternative 1A assumes an additional 866 AFY of pumping from the Puente Basin through existing wells, resulting in a total Puente Basin groundwater supply of 2,425 AFY. This table assumes additional groundwater replaces imported water, while all other supplies remain the same as in the Baseline Scenario shown in Table A-3a.											

Table A-4b. Alternative 1A Merged Costs for Water Supplies Assuming Increased Puente Basin Groundwater Replaces Imported Water - Aggregate of All Agencies

Fiscal Year	Total Annual Cost ^(a)								Project Costs - Alternative 1A			Unit Cost ^(b)								
	Groundwater					Imported Water from TVMWD	Recycled Water		Capital Cost	O&M	Total Capital and O&M Cost	Groundwater					Imported Water from TVMWD	Recycled Water		Aggregate Merged Unit Cost ^(c)
	Puente Basin	Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin		Pomona WRP	San Jose Creek WRP				Puente Basin	Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin		Pomona WRP	San Jose Creek WRP	
2025	\$465,379	\$0	\$11,348	\$2,353,344	\$0	\$33,762,989	\$159,444	\$691,040	\$0	\$0	\$0	\$178	\$0	\$88	\$1,751	\$0	\$1,421	\$259	\$501	\$1,255
2026	\$329,301	\$0	\$11,254	\$2,335,932	\$0	\$35,306,170	\$196,803	\$731,464	\$0	\$0	\$0	\$214	\$0	\$91	\$1,804	\$0	\$1,476	\$268	\$516	\$1,340
2027	\$339,180	\$0	\$11,144	\$2,315,357	\$0	\$35,606,972	\$236,261	\$773,690	\$0	\$0	\$0	\$220	\$0	\$93	\$1,858	\$0	\$1,534	\$278	\$532	\$1,383
2028	\$349,355	\$0	\$11,018	\$2,291,446	\$0	\$35,876,519	\$277,908	\$817,792	\$0	\$0	\$0	\$227	\$0	\$96	\$1,913	\$0	\$1,595	\$287	\$548	\$1,425
2029	\$359,836	\$0	\$10,874	\$2,264,016	\$0	\$36,111,861	\$321,842	\$863,843	\$0	\$0	\$0	\$234	\$0	\$99	\$1,971	\$0	\$1,658	\$297	\$565	\$1,469
2030	\$583,918	\$2,395,524	\$10,712	\$2,232,878	\$0	\$32,353,438	\$368,162	\$911,922	\$4,971,105	\$0	\$4,971,105	\$241	\$1,711	\$102	\$2,030	\$0	\$1,723	\$306	\$582	\$1,649
2031	\$601,436	\$2,467,390	\$11,033	\$2,299,864	\$0	\$33,633,065	\$379,207	\$939,280	\$0	\$0	\$0	\$248	\$1,762	\$105	\$2,091	\$0	\$1,791	\$315	\$600	\$1,518
2032	\$619,479	\$2,541,411	\$11,364	\$2,368,860	\$0	\$34,963,440	\$390,583	\$967,458	\$0	\$0	\$0	\$255	\$1,815	\$108	\$2,154	\$0	\$1,862	\$325	\$618	\$1,575
2033	\$638,063	\$2,617,654	\$11,705	\$2,439,926	\$0	\$36,346,583	\$402,301	\$996,482	\$0	\$0	\$0	\$263	\$1,870	\$111	\$2,218	\$0	\$1,936	\$335	\$636	\$1,635
2034	\$657,205	\$2,696,183	\$12,056	\$2,513,124	\$0	\$37,784,589	\$414,370	\$1,026,376	\$0	\$0	\$0	\$271	\$1,926	\$115	\$2,285	\$0	\$2,012	\$345	\$655	\$1,697
2035	\$676,921	\$2,777,069	\$12,418	\$7,321,144	\$0	\$34,116,885	\$426,801	\$1,057,168	\$0	\$0	\$0	\$279	\$1,984	\$118	\$2,034	\$0	\$2,096	\$355	\$675	\$1,746
2036	\$697,229	\$2,860,381	\$12,790	\$7,540,779	\$0	\$35,467,262	\$439,605	\$1,088,883	\$0	\$0	\$0	\$288	\$2,043	\$122	\$2,095	\$0	\$2,179	\$366	\$695	\$1,810
2037	\$718,146	\$2,946,192	\$13,174	\$7,767,002	\$0	\$36,871,224	\$452,793	\$1,121,549	\$0	\$0	\$0	\$296	\$2,104	\$125	\$2,158	\$0	\$2,265	\$377	\$716	\$1,877
2038	\$739,690	\$3,034,578	\$13,569	\$8,000,012	\$0	\$38,330,904	\$466,377	\$1,155,196	\$0	\$0	\$0	\$305	\$2,168	\$129	\$2,222	\$0	\$2,355	\$388	\$738	\$1,947
2039	\$761,881	\$3,125,615	\$13,976	\$8,240,013	\$0	\$39,848,516	\$480,368	\$1,189,851	\$0	\$0	\$0	\$314	\$2,233	\$133	\$2,289	\$0	\$2,448	\$400	\$760	\$2,019
2040	\$784,737	\$3,219,384	\$14,396	\$10,260,414	\$1,079,671	\$38,172,588	\$494,779	\$1,225,547	\$0	\$0	\$0	\$324	\$2,300	\$137	\$2,414	\$1,080	\$2,543	\$412	\$783	\$2,049
2041	\$808,279	\$3,315,965	\$14,827	\$10,568,226	\$1,112,062	\$39,684,079	\$509,623	\$1,262,313	\$0	\$0	\$0	\$333	\$2,369	\$141	\$2,487	\$1,112	\$2,644	\$424	\$806	\$2,125
2042	\$832,527	\$3,415,444	\$15,272	\$10,885,273	\$1,145,423	\$41,255,567	\$524,911	\$1,300,183	\$0	\$0	\$0	\$343	\$2,440	\$145	\$2,561	\$1,145	\$2,748	\$437	\$830	\$2,202
2043	\$857,503	\$3,517,908	\$15,730	\$11,211,831	\$1,179,786	\$42,889,438	\$540,659	\$1,339,188	\$0	\$0	\$0	\$354	\$2,513	\$150	\$2,638	\$1,180	\$2,857	\$450	\$855	\$2,283
2044	\$883,228	\$3,623,445	\$16,202	\$11,548,186	\$1,215,180	\$44,588,173	\$556,878	\$1,379,364	\$0	\$0	\$0	\$364	\$2,588	\$154	\$2,717	\$1,215	\$2,970	\$463	\$881	\$2,367
2045	\$909,725	\$3,732,148	\$16,688	\$11,894,631	\$1,251,635	\$46,354,353	\$573,585	\$1,420,745	\$0	\$0	\$0	\$375	\$2,666	\$159	\$2,799	\$1,252	\$3,088	\$477	\$907	\$2,454
2046	\$937,017	\$3,844,113	\$17,189	\$12,251,470	\$1,289,184	\$48,190,659	\$590,792	\$1,463,367	\$0	\$0	\$0	\$386	\$2,746	\$164	\$2,883	\$1,289	\$3,210	\$492	\$934	\$2,544
2047	\$965,128	\$3,959,436	\$17,705	\$12,619,015	\$1,327,860	\$50,099,882	\$608,516	\$1,507,268	\$0	\$0	\$0	\$398	\$2,828	\$169	\$2,969	\$1,328	\$3,337	\$506	\$962	\$2,638
2048	\$994,081	\$4,078,219	\$18,236	\$12,997,585	\$1,367,695	\$52,084,921	\$626,772	\$1,552,486	\$0	\$0	\$0	\$410	\$2,913	\$174	\$3,058	\$1,368	\$3,470	\$521	\$991	\$2,735
2049	\$1,023,904	\$4,200,566	\$18,783	\$13,387,513	\$1,408,726	\$54,148,794	\$645,575	\$1,599,061	\$0	\$0	\$0	\$422	\$3,000	\$179	\$3,150	\$1,409	\$3,607	\$537	\$1,021	\$2,835
2050	\$1,054,621	\$4,326,583	\$19,347	\$13,789,138	\$1,450,988	\$55,608,497	\$664,942	\$1,647,033	\$0	\$0	\$0	\$435	\$3,090	\$184	\$3,245	\$1,451	\$3,749	\$553	\$1,052	\$2,933
2051	\$1,086,260	\$4,456,380	\$19,927	\$14,202,812	\$1,494,518	\$57,812,304	\$684,890	\$1,696,444	\$0	\$0	\$0	\$448	\$3,183	\$190	\$3,342	\$1,495	\$3,897	\$570	\$1,083	\$3,041
2052	\$1,118,847	\$4,590,072	\$20,525	\$14,628,896	\$1,539,353	\$60,103,648	\$705,437	\$1,747,337	\$0	\$0	\$0	\$461	\$3,279	\$195	\$3,442	\$1,539	\$4,052	\$587	\$1,116	\$3,154
2053	\$1,152,413	\$4,727,777	\$21,140	\$15,067,763	\$1,585,534	\$62,486,011	\$726,600	\$1,799,757	\$0	\$0	\$0	\$475	\$3,377	\$201	\$3,545	\$1,586	\$4,213	\$604	\$1,149	\$3,270
2054	\$1,186,985	\$4,869,607	\$21,775	\$15,519,796	\$1,633,100	\$64,963,015	\$748,398	\$1,853,750	\$0	\$0	\$0	\$490	\$3,478	\$207	\$3,652	\$1,633	\$4,380	\$623	\$1,184	\$3,390
2055	\$1,222,595	\$5,015,695	\$22,428	\$15,985,390	\$1,682,093	\$67,538,425	\$770,850	\$1,909,362	\$0	\$0	\$0	\$504	\$3,583	\$214	\$3,761	\$1,682	\$4,553	\$641	\$1,219	\$3,515
2056	\$1,259,273	\$5,166,166	\$23,101	\$16,464,952	\$1,732,556	\$70,216,159	\$793,976	\$1,966,643	\$0	\$0	\$0	\$519	\$3,690	\$220	\$3,874	\$1,733	\$4,734	\$661	\$1,256	\$3,645
2057	\$1,297,051	\$5,321,151	\$23,794	\$16,958,900	\$1,784,532	\$73,000,289	\$817,795	\$2,025,642	\$0	\$0	\$0	\$535	\$3,801	\$227	\$3,990	\$1,785	\$4,921	\$680	\$1,294	\$3,780
2058	\$1,335,962	\$5,480,786	\$24,508	\$17,467,667	\$1,838,068	\$75,895,048	\$842,329	\$2,086,412	\$0	\$0	\$0	\$551	\$3,915	\$233	\$4,110	\$1,838	\$5,117	\$701	\$1,332	\$3,920
2059	\$1,376,041	\$5,645,209	\$25,243	\$17,991,697	\$1,893,210	\$78,904,839	\$867,598	\$2,149,004	\$0	\$0	\$0	\$568	\$4,032	\$240	\$4,233	\$1,893	\$5,319	\$722	\$1,372	\$4,065
2060	\$1,417,322	\$5,814,565	\$26,000	\$18,531,448	\$1,950,007	\$82,034,242	\$893,626	\$2,213,474	\$0	\$0	\$0	\$585	\$4,153	\$248	\$4,360	\$1,950	\$5,530	\$743	\$1,413	\$4,215
2061	\$1,459,842	\$5,989,002	\$26,780	\$19,087,392	\$2,008,507	\$85,288,018	\$920,435	\$2,279,878	\$0	\$0	\$0	\$602	\$4,278	\$255	\$4,491	\$2,009	\$5,750	\$766	\$1,456	\$4,371
2062	\$1,503,637	\$6,168,672	\$27,583	\$19,660,013	\$2,068,762	\$88,671,117	\$948,048	\$2,348,275	\$0	\$0	\$0	\$620	\$4,406	\$263	\$4,626	\$2,069	\$5,978	\$789	\$1,500	\$4,533
2063	\$1,548,746	\$6,353,733	\$28,411	\$20,249,814	\$2,130,825	\$92,188,686	\$976,490	\$2,418,723	\$0	\$0	\$0	\$639	\$4,538	\$271	\$4,765	\$2,131	\$6,215	\$812	\$1,545	\$4,701
2064	\$1,595,209	\$6,544,345	\$29,263	\$20,857,308	\$2,194,750	\$95,846,081	\$1,005,784	\$2,491,285	\$0	\$0	\$0	\$658	\$4,675	\$279	\$4,908	\$2,195	\$6,462	\$837	\$1,591	\$4,875
2065	\$1,643,065	\$6,740,675	\$30,141	\$21,483,028	\$2,260,592	\$99,648,867	\$1,035,958	\$2,566,023	\$0	\$0	\$0	\$678	\$4,815	\$287	\$5,055	\$2,261	\$6,718	\$862	\$1,639	\$5,056
2066	\$1,692,357	\$6,942,895	\$31,045	\$22,127,518	\$2,328,410	\$103,602,832	\$1,067,037	\$2,643,004	\$0	\$0	\$0	\$698	\$4,959	\$296	\$5,206	\$2,328	\$6,984	\$888	\$1,688	\$5,244
2067	\$1,743,128	\$7,151,182	\$31,977	\$22,791,344	\$2,398,262	\$107,713,996	\$1,099,048	\$2,722,294	\$0	\$0	\$0	\$719	\$5,108	\$305	\$5,363	\$2,398	\$7,262	\$914	\$1,738	\$5,439
2068	\$1,795,422	\$7,365,717	\$32,936	\$23,475,084	\$2,470,210	\$111,988,619	\$1,132,019	\$2,803,963	\$0	\$0	\$0	\$740	\$5,261	\$314	\$5,524	\$2,470	\$7,550	\$942	\$1,791	\$5,641
2069	\$1,849,284	\$7,586,689	\$33,924	\$24,179,337	\$2,544,316	\$116,433,208	\$1,165,980	\$2,888,082	\$0	\$0	\$0	\$763	\$5,419	\$323	\$5,689	\$2,544	\$7,849	\$970	\$1,844	\$5,850
2070	\$1,904,763	\$7,814,290	\$34,942	\$24,904,717	\$2,620,646	\$121,054,532	\$1,200,959	\$2,974,724	\$0	\$0	\$0	\$786	\$5,582	\$333	\$5,860	\$2,621	\$8,161	\$999	\$1,900	\$6,068
2071	\$1,961,906	\$8,048,718	\$35,990	\$25,651,858	\$2,699,265	\$125,859,629	\$1,236,988	\$3,063,966	\$0	\$0	\$0	\$809	\$5,749	\$343	\$6,036	\$2,699	\$8,485	\$1,029	\$1,957	\$6,294
2072	\$2,020,763	\$8,290,180	\$37,070	\$26,421,414	\$2,780,243	\$130,855,817	\$1,274,098	\$3,155,885	\$0	\$0	\$0	\$833	\$5,922	\$353	\$6,217	\$2,780	\$8,822	\$1,060	\$2,015	\$6,528
2073	\$2,081,386	\$8,538,885	\$38,182	\$27,214,057	\$2,863,651	\$136,050,707	\$1,312,321	\$3,250,562	\$0	\$0	\$0	\$858	\$6,099	\$364	\$6,403	\$2,864	\$9,172	\$1,092	\$2,076	\$6,772
2074	\$2,143,827	\$8,795,052	\$39,327	\$28,030,478	\$2,949,560	\$141,452,213	\$1,351,690	\$3,348,078	\$0	\$0	\$0	\$884	\$6,282	\$375	\$6,595	\$2,950	\$9,536	\$1,125	\$2,138	\$7,024
2075	\$2,208,142	\$9,058,903	\$40,507	\$28,871,393	\$3,038,047	\$147,068,562	\$1,392,241	\$3,448,521	\$0	\$0	\$0	\$911	\$6,471	\$386	\$6,793	\$3,038	\$9,915	\$1,158	\$2,202	\$7,286

(a) Total annual costs for Puente Basin groundwater and imported water were calculated by multiplying the annual use of each supply from Table A-4a by its respective unit cost from the Baseline Merged Cost in Table A-3b. Total annual costs for all other supplies remain the same as in Table A-3b.

(b) Unit costs for each water supply source was calculated by dividing each water supply source's total aggregate annual cost by their respective total aggregate annual use from Table A-4a.

(c) The aggregate melded unit cost is the average unit cost calculated based on each supply's contribution to total aggregate volume of all agencies; essentially the volume-weighted average of the aggregate unit cost for each water supply in this table for the associated aggregate supply volumes in Table A-4a.

Table A-5a. Alternative 1B Total Water Supplies Assuming Increased Puente Basin Groundwater Replaces Imported Water - Aggregate of All Agencies, afy ^(a)													
Year	Aggregate Potable Supplies					Aggregate Non-Potable Supplies							
	Groundwater			Imported Water from TVMWD	Total Potable	Groundwater				Recycled Water		Total Non-Potable	Total
	Six Basins	Main San Gabriel Basin	Central Basin			Spadra Basin	Existing Puente Basin	New Puente Basin Well #3	Total Puente Basin	Pomona WRP	San Jose Creek WRP		
2020	0	1,112	0	25,145	26,257	55	1,232	0	1,232	1,266	1,860	4,413	30,670
2021	0	1,088	0	26,552	27,640	86	2,033	0	2,033	1,378	1,585	5,082	32,723
2022	0	594	0	25,700	26,294	61	1,460	0	1,460	1,571	1,650	4,742	31,036
2023	0	1,390	0	21,170	22,560	36	1,128	0	1,128	1,254	1,433	3,851	26,411
2024	0	1,059	0	21,957	23,016	36	1,199	0	1,199	1,127	1,003	3,365	26,381
2025	0	1,344	0	23,766	25,110	129	2,611	0	2,611	616	1,380	4,736	29,846
2026	0	1,295	0	23,919	25,214	124	1,539	0	1,539	733	1,417	3,814	29,027
2027	0	1,246	0	23,205	24,451	119	1,539	0	1,539	850	1,454	3,963	28,414
2028	0	1,198	0	22,491	23,688	115	1,539	0	1,539	968	1,492	4,113	27,801
2029	0	1,149	0	21,777	22,926	110	1,539	0	1,539	1,085	1,529	4,262	27,188
2030	1,400	1,100	0	18,571	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2031	1,400	1,100	0	18,571	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2032	1,400	1,100	0	18,571	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2033	1,400	1,100	0	18,571	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2034	1,400	1,100	0	18,571	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2035	1,400	3,600	0	16,071	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2036	1,400	3,600	0	16,071	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2037	1,400	3,600	0	16,071	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2038	1,400	3,600	0	16,071	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2039	1,400	3,600	0	16,071	21,071	105	2,231	400	2,631	1,202	1,566	5,504	26,575
2040	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2041	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2042	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2043	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2044	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2045	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2046	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2047	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2048	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2049	1,400	4,250	1,000	14,805	21,455	105	2,231	400	2,631	1,202	1,566	5,504	26,959
2050	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2051	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2052	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2053	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2054	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2055	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2056	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2057	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2058	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2059	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2060	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2061	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2062	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2063	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2064	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2065	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2066	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2067	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2068	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2069	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2070	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2071	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2072	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2073	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2074	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
2075	1,400	4,250	1,000	14,627	21,277	105	2,231	400	2,631	1,202	1,566	5,504	26,781
(a) Alternative 1B assumes an additional 1,092 AFY of pumping from the Puente Basin through a combination of existing wells and a new western well, resulting in a total Puente Basin groundwater supply of 2,631 AFY. This table assumes additional groundwater replaces imported water, while all other supplies remain the same as in the Baseline Scenario shown in Table A-3a.													

Table A-5b. Alternative 1B Melded Costs for Water Supplies Assuming Increased Puente Basin Groundwater Replaces Imported Water - Aggregate of All Agencies																							
Fiscal Year	Total Annual Cost ^(a)										Project Costs - Alternative 1B			Unit Cost ^(b)								Aggregate Melded Unit Cost ^(c)	
	Groundwater								Imported Water from TVMWD	Recycled Water		Capital Cost	O&M	Total Capital and O&M Cost	Groundwater					Imported Water from TVMWD	Recycled Water		
	Existing Puente Basin	New Puente Basin Well #3	Total Puente Basin	Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin	Pomona WRP		San Jose Creek WRP	Puente Basin				Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin	Pomona WRP		San Jose Creek WRP		
2025	\$465,379	\$0	\$465,379	\$0	\$11,348	\$2,353,344	\$0	\$33,762,989	\$159,444	\$691,040	\$0	\$0	\$0	\$178	\$0	\$88	\$1,751	\$0	\$1,421	\$259	\$501	\$1,255	
2026	\$329,301	\$0	\$329,301	\$0	\$11,254	\$2,335,932	\$0	\$35,306,170	\$196,803	\$731,464	\$0	\$0	\$0	\$214	\$0	\$91	\$1,804	\$0	\$1,476	\$268	\$516	\$1,340	
2027	\$339,180	\$0	\$339,180	\$0	\$11,144	\$2,315,357	\$0	\$35,606,972	\$236,261	\$773,690	\$0	\$0	\$0	\$220	\$0	\$93	\$1,858	\$0	\$1,534	\$278	\$532	\$1,383	
2028	\$349,355	\$0	\$349,355	\$0	\$11,018	\$2,291,446	\$0	\$35,876,519	\$277,908	\$817,792	\$0	\$0	\$0	\$227	\$0	\$96	\$1,913	\$0	\$1,595	\$287	\$548	\$1,425	
2029	\$359,836	\$0	\$359,836	\$0	\$10,874	\$2,264,016	\$0	\$36,111,861	\$321,842	\$863,843	\$0	\$0	\$0	\$234	\$0	\$99	\$1,971	\$0	\$1,658	\$297	\$565	\$1,469	
2030	\$537,282	\$96,330	\$633,612	\$2,395,524	\$10,712	\$2,232,878	\$0	\$31,997,897	\$368,162	\$911,922	\$15,566,691	\$0	\$15,566,691	\$204	\$1,711	\$102	\$2,030	\$0	\$1,723	\$306	\$582	\$2,036	
2031	\$553,401	\$99,220	\$652,621	\$2,467,390	\$11,033	\$2,299,864	\$0	\$33,263,461	\$379,207	\$939,280	\$0	\$0	\$0	\$210	\$1,762	\$105	\$2,091	\$0	\$1,791	\$315	\$600	\$1,506	
2032	\$570,003	\$102,197	\$672,199	\$2,541,411	\$11,364	\$2,368,860	\$0	\$34,579,217	\$390,583	\$967,458	\$0	\$0	\$0	\$217	\$1,815	\$108	\$2,154	\$0	\$1,862	\$325	\$618	\$1,563	
2033	\$587,103	\$105,263	\$692,365	\$2,617,654	\$11,705	\$2,439,926	\$0	\$35,947,159	\$402,301	\$996,482	\$0	\$0	\$0	\$223	\$1,870	\$111	\$2,218	\$0	\$1,936	\$335	\$636	\$1,622	
2034	\$604,716	\$108,421	\$713,136	\$2,696,183	\$12,056	\$2,513,124	\$0	\$37,369,363	\$414,370	\$1,026,376	\$0	\$0	\$0	\$230	\$1,926	\$115	\$2,285	\$0	\$2,012	\$345	\$655	\$1,684	
2035	\$622,857	\$111,673	\$734,530	\$2,777,069	\$12,418	\$7,321,144	\$0	\$33,684,381	\$426,801	\$1,057,168	\$0	\$0	\$0	\$237	\$1,984	\$118	\$2,034	\$0	\$2,096	\$355	\$675	\$1,731	
2036	\$641,543	\$115,023	\$756,566	\$2,860,381	\$12,790	\$7,540,779	\$0	\$35,017,639	\$439,605	\$1,088,883	\$0	\$0	\$0	\$244	\$2,043	\$122	\$2,095	\$0	\$2,179	\$366	\$695	\$1,796	
2037	\$660,789	\$118,474	\$779,263	\$2,946,192	\$13,174	\$7,767,002	\$0	\$36,403,803	\$452,793	\$1,121,549	\$0	\$0	\$0	\$251	\$2,104	\$125	\$2,158	\$0	\$2,265	\$377	\$716	\$1,862	
2038	\$680,613	\$122,028	\$802,641	\$3,034,578	\$13,569	\$8,000,012	\$0	\$37,844,978	\$466,377	\$1,155,196	\$0	\$0	\$0	\$259	\$2,168	\$129	\$2,222	\$0	\$2,355	\$388	\$738	\$1,931	
2039	\$701,031	\$125,689	\$826,720	\$3,125,615	\$13,976	\$8,240,013	\$0	\$39,343,351	\$480,368	\$1,189,851	\$0	\$0	\$0	\$266	\$2,233	\$133	\$2,289	\$0	\$2,448	\$400	\$760	\$2,003	
2040	\$722,062	\$129,460	\$851,522	\$3,219,384	\$14,396	\$10,260,414	\$1,079,671	\$37,647,857	\$494,779	\$1,225,547	\$0	\$0	\$0	\$274	\$2,300	\$137	\$2,414	\$1,080	\$2,543	\$412	\$783	\$2,032	
2041	\$743,724	\$133,344	\$877,068	\$3,315,965	\$14,827	\$10,568,226	\$1,112,062	\$39,138,571	\$509,623	\$1,262,313	\$0	\$0	\$0	\$283	\$2,369	\$141	\$2,487	\$1,112	\$2,644	\$424	\$806	\$2,107	
2042	\$766,036	\$137,344	\$903,380	\$3,415,444	\$15,272	\$10,885,273	\$1,145,423	\$40,688,457	\$524,911	\$1,300,183	\$0	\$0	\$0	\$291	\$2,440	\$145	\$2,561	\$1,145	\$2,748	\$437	\$830	\$2,184	
2043	\$789,017	\$141,464	\$930,481	\$3,517,908	\$15,730	\$11,211,831	\$1,179,786	\$42,299,868	\$540,659	\$1,339,188	\$0	\$0	\$0	\$300	\$2,513	\$150	\$2,638	\$1,180	\$2,857	\$450	\$855	\$2,264	
2044	\$812,687	\$145,708	\$958,396	\$3,623,445	\$16,202	\$11,548,186	\$1,215,180	\$43,975,252	\$556,878	\$1,379,364	\$0	\$0	\$0	\$309	\$2,588	\$154	\$2,717	\$1,215	\$2,970	\$463	\$881	\$2,347	
2045	\$837,068	\$150,079	\$987,147	\$3,732,148	\$16,688	\$11,894,631	\$1,251,635	\$45,717,154	\$573,585	\$1,420,745	\$0	\$0	\$0	\$318	\$2,666	\$159	\$2,799	\$1,252	\$3,088	\$477	\$907	\$2,433	
2046	\$862,180	\$154,582	\$1,016,762	\$3,844,113	\$17,189	\$12,251,470	\$1,289,184	\$47,528,218	\$590,792	\$1,463,367	\$0	\$0	\$0	\$328	\$2,746	\$164	\$2,883	\$1,289	\$3,210	\$492	\$934	\$2,522	
2047	\$888,046	\$159,219	\$1,047,265	\$3,959,436	\$17,705	\$12,619,015	\$1,327,860	\$49,411,196	\$608,516	\$1,507,268	\$0	\$0	\$0	\$338	\$2,828	\$169	\$2,969	\$1,328	\$3,337	\$506	\$962	\$2,615	
2048	\$914,687	\$163,996	\$1,078,683	\$4,078,219	\$18,236	\$12,997,585	\$1,367,695	\$51,368,948	\$626,772	\$1,552,486	\$0	\$0	\$0	\$348	\$2,913	\$174	\$3,058	\$1,368	\$3,470	\$521	\$991	\$2,711	
2049	\$942,127	\$168,916	\$1,111,043	\$4,200,566	\$18,783	\$13,387,513	\$1,408,726	\$53,404,450	\$645,575	\$1,599,061	\$0	\$0	\$0	\$358	\$3,000	\$179	\$3,150	\$1,409	\$3,607	\$537	\$1,021	\$2,811	
2050	\$970,391	\$173,983	\$1,144,374	\$4,326,583	\$19,347	\$13,789,138	\$1,450,988	\$54,834,915	\$664,942	\$1,647,033	\$0	\$0	\$0	\$369	\$3,090	\$184	\$3,245	\$1,451	\$3,749	\$553	\$1,052	\$2,908	
2051	\$999,503	\$179,203	\$1,178,706	\$4,456,380	\$19,927	\$14,202,812	\$1,494,518	\$57,008,065	\$684,890	\$1,696,444	\$0	\$0	\$0	\$380	\$3,183	\$190	\$3,342	\$1,495	\$3,897	\$570	\$1,083	\$3,015	
2052	\$1,029,488	\$184,579	\$1,214,067	\$4,590,072	\$20,525	\$14,628,896	\$1,539,353	\$59,267,533	\$705,437	\$1,747,337	\$0	\$0	\$0	\$391	\$3,279	\$195	\$3,442	\$1,539	\$4,052	\$587	\$1,116	\$3,126	
2053	\$1,060,373	\$190,116	\$1,250,489	\$4,727,774	\$21,140	\$15,067,763	\$1,585,534	\$61,616,754	\$726,600	\$1,799,757	\$0	\$0	\$0	\$403	\$3,377	\$201	\$3,545	\$1,586	\$4,213	\$604	\$1,149	\$3,241	
2054	\$1,092,184	\$195,820	\$1,288,004	\$4,869,607	\$21,775	\$15,519,796	\$1,633,100	\$64,059,300	\$748,398	\$1,853,750	\$0	\$0	\$0	\$415	\$3,478	\$207	\$3,652	\$1,633	\$4,380	\$623	\$1,184	\$3,360	
2055	\$1,124,949	\$201,694	\$1,326,644	\$5,015,695	\$22,428	\$15,985,390	\$1,682,093	\$66,598,884	\$770,850	\$1,909,362	\$0	\$0	\$0	\$428	\$3,583	\$214	\$3,761	\$1,682	\$4,553	\$641	\$1,219	\$3,484	
2056	\$1,158,698	\$207,745	\$1,366,443	\$5,166,166	\$23,101	\$16,464,952	\$1,732,556	\$69,239,367	\$793,976	\$1,966,643	\$0	\$0	\$0	\$440	\$3,690	\$220	\$3,874	\$1,733	\$4,734	\$661	\$1,256	\$3,613	
2057	\$1,193,459	\$213,977	\$1,407,436	\$5,321,151	\$23,794	\$16,958,900	\$1,784,532	\$71,984,766	\$817,795	\$2,025,642	\$0	\$0	\$0	\$454	\$3,801	\$227	\$3,990	\$1,785	\$4,921	\$680	\$1,294	\$3,746	
2058	\$1,229,263	\$220,397	\$1,449,659	\$5,480,786	\$24,508	\$17,467,667	\$1,838,068	\$74,839,255	\$842,329	\$2,086,412	\$0	\$0	\$0	\$467	\$3,915	\$233	\$4,110	\$1,838	\$5,117	\$701	\$1,332	\$3,884	
2059	\$1,266,141	\$227,009	\$1,493,149	\$5,645,209	\$25,243	\$17,991,697	\$1,893,210	\$77,807,177	\$867,598	\$2,149,004	\$0	\$0	\$0	\$481	\$4,032	\$240	\$4,233	\$1,893	\$5,319	\$722	\$1,372	\$4,028	
2060	\$1,304,125	\$233,819	\$1,537,944	\$5,814,565	\$26,000	\$18,531,448	\$1,950,007	\$80,893,046	\$893,626	\$2,213,474	\$0	\$0	\$0	\$496	\$4,153	\$248	\$4,360	\$1,950	\$5,530	\$743	\$1,413	\$4,177	
2061	\$1,343,248	\$240,833	\$1,584,082	\$5,989,002	\$26,780	\$19,087,392	\$2,008,507	\$84,101,557	\$920,435	\$2,279,878	\$0	\$0	\$0	\$511	\$4,278	\$255	\$4,491	\$2,009	\$5,750	\$766	\$1,456	\$4,331	
2062	\$1,383,546	\$248,058	\$1,631,60																				

Table A-6a. Alternative 1A Water Supplies Assuming Increased Puente Basin Groundwater Replaces Recycled Water - Aggregate of All Agencies, afy ^(a)											
Year	Aggregate Potable Supplies					Aggregate Non-Potable Supplies					
	Groundwater			Imported Water from TVMWD	Total Potable	Groundwater		Recycled Water		Total Non-Potable	Total
	Six Basins	Main San Gabriel Basin	Central Basin			Spadra Basin	Puente Basin	Pomona WRP	San Jose Creek WRP		
2020	0	1,112	0	25,145	26,257	55	1,232	1,266	1,860	4,413	30,670
2021	0	1,088	0	26,552	27,640	86	2,033	1,378	1,585	5,082	32,723
2022	0	594	0	25,700	26,294	61	1,460	1,571	1,650	4,742	31,036
2023	0	1,390	0	21,170	22,560	36	1,128	1,254	1,433	3,851	26,411
2024	0	1,059	0	21,957	23,016	36	1,199	1,127	1,003	3,365	26,381
2025	0	1,344	0	23,766	25,110	129	2,611	616	1,380	4,736	29,846
2026	0	1,295	0	23,919	25,214	124	1,539	733	1,417	3,814	29,027
2027	0	1,246	0	23,205	24,451	119	1,539	850	1,454	3,963	28,414
2028	0	1,198	0	22,491	23,688	115	1,539	968	1,492	4,113	27,801
2029	0	1,149	0	21,777	22,926	110	1,539	1,085	1,529	4,262	27,188
2030	1,400	1,100	0	19,663	22,163	105	2,425	848	1,035	4,412	26,575
2031	1,400	1,100	0	19,663	22,163	105	2,425	848	1,035	4,412	26,575
2032	1,400	1,100	0	19,663	22,163	105	2,425	848	1,035	4,412	26,575
2033	1,400	1,100	0	19,663	22,163	105	2,425	848	1,035	4,412	26,575
2034	1,400	1,100	0	19,663	22,163	105	2,425	848	1,035	4,412	26,575
2035	1,400	3,600	0	17,163	22,163	105	2,425	848	1,035	4,412	26,575
2036	1,400	3,600	0	17,163	22,163	105	2,425	848	1,035	4,412	26,575
2037	1,400	3,600	0	17,163	22,163	105	2,425	848	1,035	4,412	26,575
2038	1,400	3,600	0	17,163	22,163	105	2,425	848	1,035	4,412	26,575
2039	1,400	3,600	0	17,163	22,163	105	2,425	848	1,035	4,412	26,575
2040	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2041	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2042	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2043	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2044	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2045	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2046	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2047	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2048	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2049	1,400	4,250	1,000	15,897	22,547	105	2,425	848	1,035	4,412	26,959
2050	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2051	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2052	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2053	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2054	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2055	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2056	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2057	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2058	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2059	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2060	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2061	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2062	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2063	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2064	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2065	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2066	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2067	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2068	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2069	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2070	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2071	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2072	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2073	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2074	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
2075	1,400	4,250	1,000	15,719	22,369	105	2,425	848	1,035	4,412	26,781
(a) Alternative 1A assumes an additional 866 AFY of pumping from the Puente Basin through existing wells, resulting in a total Puente Basin groundwater supply of 2,425 AFY. This table assumes additional groundwater replaces recycled water, while all other supplies remain the same as in the Baseline Scenario shown in Table A-3a.											

Table A-7a. Alternative 1B Water Supplies Assuming Increased Puente Basin Groundwater Replaces Recycled Water - Aggregate of All Agencies, afy ^(a)													
Year	Aggregate Potable Supplies					Aggregate Non-Potable Supplies							
	Groundwater			Imported Water from TVMWD	Total Potable	Groundwater				Recycled Water		Total Non-Potable	Total
	Six Basins	Main San Gabriel Basin	Central Basin			Spadra Basin	Existing Puente Basin	New Puente Basin Well #3	Total Puente Basin	Pomona WRP	San Jose Creek WRP		
2020	0	1,112	0	25,145	26,257	55	1,232	0	1,232	1,266	1,860	4,413	30,670
2021	0	1,088	0	26,552	27,640	86	2,033	0	2,033	1,378	1,585	5,082	32,723
2022	0	594	0	25,700	26,294	61	1,460	0	1,460	1,571	1,650	4,742	31,036
2023	0	1,390	0	21,170	22,560	36	1,128	0	1,128	1,254	1,433	3,851	26,411
2024	0	1,059	0	21,957	23,016	36	1,199	0	1,199	1,127	1,003	3,365	26,381
2025	0	1,344	0	23,766	25,110	129	2,611	0	2,611	616	1,380	4,736	29,846
2026	0	1,295	0	23,919	25,214	124	1,539	0	1,539	733	1,417	3,814	29,027
2027	0	1,246	0	23,205	24,451	119	1,539	0	1,539	850	1,454	3,963	28,414
2028	0	1,198	0	22,491	23,688	115	1,539	0	1,539	968	1,492	4,113	27,801
2029	0	1,149	0	21,777	22,926	110	1,539	0	1,539	1,085	1,529	4,262	27,188
2030	1,400	1,100	0	19,663	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2031	1,400	1,100	0	19,663	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2032	1,400	1,100	0	19,663	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2033	1,400	1,100	0	19,663	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2034	1,400	1,100	0	19,663	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2035	1,400	3,600	0	17,163	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2036	1,400	3,600	0	17,163	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2037	1,400	3,600	0	17,163	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2038	1,400	3,600	0	17,163	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2039	1,400	3,600	0	17,163	22,163	105	2,231	400	2,631	765	911	4,412	26,575
2040	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2041	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2042	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2043	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2044	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2045	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2046	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2047	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2048	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2049	1,400	4,250	1,000	15,897	22,547	105	2,231	400	2,631	765	911	4,412	26,959
2050	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2051	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2052	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2053	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2054	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2055	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2056	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2057	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2058	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2059	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2060	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2061	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2062	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2063	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2064	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2065	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2066	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2067	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2068	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2069	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2070	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2071	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2072	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2073	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2074	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
2075	1,400	4,250	1,000	15,719	22,369	105	2,231	400	2,631	765	911	4,412	26,781
(a) Alternative 1B assumes an additional 1,092 AFY of pumping from the Puente Basin through a combination of existing wells and a new western well, resulting in a total Puente Basin groundwater supply of 2,631 AFY. This table assumes additional groundwater replaces recycled water, while all other supplies remain the same as in the Baseline Scenario shown in Table A-3a.													

Table A-7b. Alternative 1B Melder Costs for Water Supplies Assuming Increased Puente Basin Groundwater Replaces Recycled Water - Aggregate of All Agencies																							
Fiscal Year	Total Annual Cost ^(a)										Project Costs - Alternative 1B			Unit Cost ^(b)									Aggregate Melder Unit Cost ^(c)
	Groundwater								Recycled Water		Capital Cost	O&M	Total Capital and O&M Cost	Groundwater					Imported Water from TVMWD	Recycled Water			
	Existing Puente Basin	New Puente Basin Well #3	Total Puente Basin	Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin	Imported Water from TVMWD	Pomona WRP	San Jose Creek WRP				Puente Basin	Six Basins	Spadra Basin	Main San Gabriel Basin	Central Basin		Pomona WRP	San Jose Creek WRP		
2025	\$465,379	\$0	\$465,379	\$0	\$11,348	\$2,353,344	\$0	\$33,762,989	\$159,444	\$691,040	\$0	\$0	\$0	\$178	\$0	\$88	\$1,751	\$0	\$1,421	\$259	\$501	\$1,255	
2026	\$329,301	\$0	\$329,301	\$0	\$11,254	\$2,335,932	\$0	\$35,306,170	\$196,803	\$731,464	\$0	\$0	\$0	\$214	\$0	\$91	\$1,804	\$0	\$1,476	\$268	\$516	\$1,340	
2027	\$339,180	\$0	\$339,180	\$0	\$11,144	\$2,315,357	\$0	\$35,606,972	\$236,261	\$773,690	\$0	\$0	\$0	\$220	\$0	\$93	\$1,858	\$0	\$1,534	\$278	\$532	\$1,383	
2028	\$349,355	\$0	\$349,355	\$0	\$11,018	\$2,291,446	\$0	\$35,876,519	\$277,908	\$817,792	\$0	\$0	\$0	\$227	\$0	\$96	\$1,913	\$0	\$1,595	\$287	\$548	\$1,425	
2029	\$359,836	\$0	\$359,836	\$0	\$10,874	\$2,264,016	\$0	\$36,111,861	\$321,842	\$863,843	\$0	\$0	\$0	\$234	\$0	\$99	\$1,971	\$0	\$1,658	\$297	\$565	\$1,469	
2030	\$537,282	\$96,330	\$633,612	\$2,395,524	\$10,712	\$2,232,878	\$0	\$33,879,416	\$234,374	\$530,382	\$15,566,691	\$0	\$15,566,691	\$204	\$1,711	\$102	\$2,030	\$0	\$1,723	\$306	\$582	\$2,088	
2031	\$553,401	\$99,220	\$652,621	\$2,467,390	\$11,033	\$2,299,864	\$0	\$35,219,397	\$241,405	\$546,294	\$0	\$0	\$0	\$210	\$1,762	\$105	\$2,091	\$0	\$1,791	\$315	\$600	\$1,559	
2032	\$570,003	\$102,197	\$672,199	\$2,541,411	\$11,364	\$2,368,860	\$0	\$36,612,521	\$248,648	\$562,683	\$0	\$0	\$0	\$217	\$1,815	\$108	\$2,154	\$0	\$1,862	\$325	\$618	\$1,619	
2033	\$587,103	\$105,263	\$692,365	\$2,617,654	\$11,705	\$2,439,926	\$0	\$38,060,901	\$256,107	\$579,563	\$0	\$0	\$0	\$223	\$1,870	\$111	\$2,218	\$0	\$1,936	\$335	\$636	\$1,680	
2034	\$604,716	\$108,421	\$713,136	\$2,696,183	\$12,056	\$2,513,124	\$0	\$39,566,732	\$263,790	\$596,950	\$0	\$0	\$0	\$230	\$1,926	\$115	\$2,285	\$0	\$2,012	\$345	\$655	\$1,745	
2035	\$622,857	\$111,673	\$734,530	\$2,777,069	\$12,418	\$7,321,144	\$0	\$35,973,183	\$271,704	\$614,858	\$0	\$0	\$0	\$237	\$1,984	\$118	\$2,034	\$0	\$2,096	\$355	\$675	\$1,795	
2036	\$641,543	\$115,023	\$756,566	\$2,860,381	\$12,790	\$7,540,779	\$0	\$37,397,034	\$279,855	\$633,304	\$0	\$0	\$0	\$244	\$2,043	\$122	\$2,095	\$0	\$2,179	\$366	\$695	\$1,862	
2037	\$660,789	\$118,474	\$779,263	\$2,946,192	\$13,174	\$7,767,002	\$0	\$38,877,386	\$288,251	\$652,303	\$0	\$0	\$0	\$251	\$2,104	\$125	\$2,158	\$0	\$2,265	\$377	\$716	\$1,931	
2038	\$680,613	\$122,028	\$802,641	\$3,034,578	\$13,569	\$8,000,012	\$0	\$40,416,487	\$296,898	\$671,872	\$0	\$0	\$0	\$259	\$2,168	\$129	\$2,222	\$0	\$2,355	\$388	\$738	\$2,003	
2039	\$701,031	\$125,689	\$826,720	\$3,125,615	\$13,976	\$8,240,013	\$0	\$42,016,672	\$305,805	\$692,029	\$0	\$0	\$0	\$266	\$2,233	\$133	\$2,289	\$0	\$2,448	\$400	\$760	\$2,078	
2040	\$722,062	\$129,460	\$851,522	\$3,219,384	\$14,396	\$10,260,414	\$1,079,671	\$40,424,721	\$314,979	\$712,789	\$0	\$0	\$0	\$274	\$2,300	\$137	\$2,414	\$1,080	\$2,543	\$412	\$783	\$2,110	
2041	\$743,724	\$133,344	\$877,068	\$3,315,965	\$14,827	\$10,568,226	\$1,112,062	\$42,025,387	\$324,429	\$734,173	\$0	\$0	\$0	\$283	\$2,369	\$141	\$2,487	\$1,112	\$2,644	\$424	\$806	\$2,187	
2042	\$766,036	\$137,344	\$903,380	\$3,415,444	\$15,272	\$10,885,273	\$1,145,423	\$43,689,591	\$334,162	\$756,198	\$0	\$0	\$0	\$291	\$2,440	\$145	\$2,561	\$1,145	\$2,748	\$437	\$830	\$2,268	
2043	\$789,017	\$141,464	\$930,481	\$3,517,908	\$15,730	\$11,211,831	\$1,179,786	\$45,419,858	\$344,186	\$778,884	\$0	\$0	\$0	\$300	\$2,513	\$150	\$2,638	\$1,180	\$2,857	\$450	\$855	\$2,352	
2044	\$812,687	\$145,708	\$958,396	\$3,623,445	\$16,202	\$11,548,186	\$1,215,180	\$47,218,817	\$354,512	\$802,251	\$0	\$0	\$0	\$309	\$2,588	\$154	\$2,717	\$1,215	\$2,970	\$463	\$881	\$2,438	
2045	\$837,068	\$150,079	\$987,147	\$3,732,148	\$16,688	\$11,894,631	\$1,251,635	\$49,089,199	\$365,147	\$826,318	\$0	\$0	\$0	\$318	\$2,666	\$159	\$2,799	\$1,252	\$3,088	\$477	\$907	\$2,528	
2046	\$862,180	\$154,582	\$1,016,762	\$3,844,113	\$17,189	\$12,251,470	\$1,289,184	\$51,033,845	\$376,102	\$851,108	\$0	\$0	\$0	\$328	\$2,746	\$164	\$2,883	\$1,289	\$3,210	\$492	\$934	\$2,622	
2047	\$888,046	\$159,219	\$1,047,265	\$3,959,436	\$17,705	\$12,619,015	\$1,327,860	\$53,055,709	\$387,385	\$876,641	\$0	\$0	\$0	\$338	\$2,828	\$169	\$2,969	\$1,328	\$3,337	\$506	\$962	\$2,719	
2048	\$914,687	\$163,996	\$1,078,683	\$4,078,219	\$18,236	\$12,997,585	\$1,367,695	\$55,157,863	\$399,006	\$902,940	\$0	\$0	\$0	\$348	\$2,913	\$174	\$3,058	\$1,368	\$3,470	\$521	\$991	\$2,819	
2049	\$942,127	\$168,916	\$1,111,043	\$4,200,566	\$18,783	\$13,387,513	\$1,408,726	\$57,343,501	\$410,977	\$930,029	\$0	\$0	\$0	\$358	\$3,000	\$179	\$3,150	\$1,409	\$3,607	\$537	\$1,021	\$2,923	
2050	\$970,391	\$173,983	\$1,144,374	\$4,326,583	\$19,347	\$13,789,138	\$1,450,988	\$58,928,696	\$423,306	\$957,929	\$0	\$0	\$0	\$369	\$3,090	\$184	\$3,245	\$1,451	\$3,749	\$553	\$1,052	\$3,026	
2051	\$999,503	\$179,203	\$1,178,706	\$4,456,380	\$19,927	\$14,202,812	\$1,494,518	\$61,264,085	\$436,005	\$986,667	\$0	\$0	\$0	\$380	\$3,183	\$190	\$3,342	\$1,495	\$3,897	\$570	\$1,083	\$3,138	
2052	\$1,029,488	\$184,579	\$1,214,067	\$4,590,072	\$20,525	\$14,628,896	\$1,539,353	\$63,692,237	\$449,085	\$1,016,267	\$0	\$0	\$0	\$391	\$3,279	\$195	\$3,442	\$1,539	\$4,052	\$587	\$1,116	\$3,254	
2053	\$1,060,373	\$190,116	\$1,250,489	\$4,727,774	\$21,140	\$15,067,763	\$1,585,534	\$66,216,843	\$462,558	\$1,046,755	\$0	\$0	\$0	\$403	\$3,377	\$201	\$3,545	\$1,586	\$4,213	\$604	\$1,149	\$3,375	
2054	\$1,092,184	\$195,820	\$1,288,004	\$4,869,607	\$21,775	\$15,519,796	\$1,633,100	\$68,841,740	\$476,434	\$1,078,158	\$0	\$0	\$0	\$415	\$3,478	\$207	\$3,652	\$1,633	\$4,380	\$623	\$1,184	\$3,500	
2055	\$1,124,949	\$201,694	\$1,326,644	\$5,015,695	\$22,428	\$15,985,390	\$1,682,093	\$71,570,920	\$490,727	\$1,110,503	\$0	\$0	\$0	\$428	\$3,583	\$214	\$3,761	\$1,682	\$4,553	\$641	\$1,219	\$3,630	
2056	\$1,158,698	\$207,745	\$1,366,443	\$5,166,166	\$23,101	\$16,464,952	\$1,732,556	\$74,408,533	\$505,449	\$1,143,818	\$0	\$0	\$0	\$440	\$3,690	\$220	\$3,874	\$1,733	\$4,734	\$661	\$1,256	\$3,764	
2057	\$1,193,459	\$213,977	\$1,407,436	\$5,321,151	\$23,794	\$16,958,900	\$1,784,532	\$77,358,893	\$520,613	\$1,178,132	\$0	\$0	\$0	\$454	\$3,801	\$227	\$3,990	\$1,785	\$4,921	\$680	\$1,294	\$3,904	
2058	\$1,229,263	\$220,397	\$1,449,659	\$5,480,786	\$24,508	\$17,467,667	\$1,838,068	\$80,426,489	\$536,231	\$1,213,476	\$0	\$0	\$0	\$467	\$3,915	\$233	\$4,110	\$1,838	\$5,117	\$701	\$1,332	\$4,049	
2059	\$1,266,141	\$227,009	\$1,493,149	\$5,645,209	\$25,243	\$17,991,697	\$1,893,210	\$83,615,985	\$552,318	\$1,249,881	\$0	\$0	\$0	\$481	\$4,032	\$240	\$4,233	\$1,893	\$5,319	\$722	\$1,372	\$4,199	
2060	\$1,304,125	\$233,819	\$1,537,944	\$5,814,565	\$26,000	\$18,531,448	\$1,950,007	\$86,932,234	\$568,888	\$1,287,377	\$0	\$0	\$0	\$496	\$4,153	\$248	\$4,360	\$1,950	\$5,530	\$743	\$1,413	\$4,356	
2061	\$1,343,248	\$240,833	\$1,584,082	\$5,989,002	\$26,780	\$19,087,392	\$2,008,507	\$90,38,															

Attachment B

West Yost 2026 Billing Rate Schedule

2026 Billing Rate Schedule

(Effective January 1, 2026, through December 31, 2026)*

POSITIONS	LABOR CHARGES (DOLLARS PER HOUR)
ENGINEERING	
Principal/Vice President	\$392
Engineer/Scientist/Geologist Manager I / II	\$370 / \$387
Principal Engineer/Scientist/Geologist I / II	\$333 / \$355
Senior Engineer/Scientist/Geologist I / II	\$297 / \$312
Associate Engineer/Scientist/Geologist I / II	\$246 / \$265
Engineer/Scientist/Geologist I / II / III	\$191 / \$221 / \$231
Engineering Aide	\$117
Field Monitoring Services	\$145
Administrative I / II / III / IV	\$107 / \$133 / \$160 / \$176
ENGINEERING TECHNOLOGY	
Engineering Tech Manager I / II	\$384 / \$387
Principal Tech Specialist I / II	\$353 / \$365
Senior Tech Specialist I / II	\$320 / \$334
Senior GIS Analyst	\$292
GIS Analyst	\$277
Technical Specialist I / II / III / IV	\$206 / \$231 / \$261 / \$291
Technical Analyst I / II	\$148 / \$176
Technical Analyst Intern	\$119
Cross-Connection Control Specialist I / II / III / IV	\$154 / \$167 / \$188 / \$208
CAD Manager	\$233
CAD Designer I / II	\$181 / \$204
CONSTRUCTION MANAGEMENT	
Senior Construction Manager	\$373
Construction Manager I / II / III / IV	\$222 / \$237 / \$251 / \$318
Resident Inspector (Prevailing Wage Groups 4 / 3 / 2 / 1)	\$200 / \$222 / \$247 / \$256
Apprentice Inspector	\$181
CM Administrative I / II	\$96 / \$130
Field Services	\$256

- Hourly rates include charges for technology and communication, such as general and CAD computer software, telephone calls, routine in-house copies/prints, postage, miscellaneous supplies, and other incidental project expenses.
- Outside services, such as vendor reproductions, prints, and shipping; major West Yost reproduction efforts; as well as engineering supplies, etc., will be billed at the actual cost plus 15%.
- The Federal Mileage Rate will be used for mileage charges and will be based on the Federal Mileage Rate applicable to when the mileage costs were incurred. Travel other than mileage will be billed at cost.
- Subconsultants will be billed at actual cost plus 10%.
- Expert witness services, research, technical review, analysis, preparation, and meetings will be billed at 150% of standard hourly rates. Expert witness testimony and depositions will be billed at 200% of standard hourly rates.
- A finance charge of 1.5% per month (an annual rate of 18%) on the unpaid balance will be added to invoice amounts if not paid within 45 days from the date of the invoice.

2026 Billing Rate Schedule

(Effective January 1, 2026, through December 31, 2026)*

Equipment Charges

EQUIPMENT	BILLING RATES
2" Purge Pump & Control Box	\$300 / day
Aquacalc / Pygmy or AA Flow Meter	\$28 / day
Emergency SCADA System	\$35 / day
Field Vehicles (Groundwater)	\$200 / day
Gas Detector	\$80 / day
Generator	\$60 / day
Hydrant Pressure Gauge	\$10 / day
Hydrant Pressure Recorder, Impulse (Transient)	\$55 / day
Hydrant Pressure Recorder, Standard	\$40 / day
Low Flow Pump Back Pack	\$135 / day
Low Flow Pump Controller	\$200 / day
Powers Water Level Meter	\$32 / day
Precision Water Level Meter 300ft	\$30 / day
Precision Water Level Meter 500ft	\$40 / day
Precision Water Level Meter 700ft	\$45 / day
QED Sample Pro Bladder Pump	\$65 / day
Skydio 2+ Drone (2 hour minimum)	\$100 / hour
Storage Tank	\$20 / day
Sump Pump	\$24 / day
Transducer Communications Cable	\$10 / day
Transducer Components (per installation)	\$23 / day
Trimble GPS – Geo 7x	\$220 / day
Tube Length Counter	\$22 / day
Turbidity Meter	\$30 / day
Turbidity Meter (2100Q Portable)	\$35 / day
Vehicle (Construction Management)	\$18.75 / hour
Water Flow Probe Meter	\$20 / day
Water Quality Meter	\$50 / day
Water Quality Multimeter	\$185 / day
Well Sounder	\$30 / day