CALIFORNIA PUBLIC UTILITIES COMMISSION
WATER DIVISION

Advice Letter Cover Sheet

Utility Name:	California Water Service Company	**Date Mailed to Service List:**	11/30/2022
District:	Los Angeles County Region		
CPUC Utility #:	U-60-W	**Protest Deadline (20th Day):**	01/20/2023
Advice Letter #:	2467	**Review Deadline (30th Day):**	01/20/2023
Tier:	☐1 ☐2 ■3 ☐ Compliance	**Requested Effective Date:**	TBD
Authorization:	D.14-08-058	**Rate Impact:**	$418,369 revenue increase
Description:	Recycled Water for Palos Verdes Golf Course		

The protest or response deadline for this advice letter is 20 days from the date that this advice letter was mailed to the service list. Please see the "Response or Protest" section in the advice letter for more information.

Utility Contact:	Albree Jewell	**Utility Contact:**	Natalie Wales
Phone:	(916) 205-4539	**Phone:**	(408) 367-8566
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DWA Contact: Tariff Unit

Phone: (415) 703-1133

Email: Water.Division@cpuc.ca.gov

DWA USE ONLY

DATE	STAFF	COMMENTS

[ ] APPROVED [ ] WITHDRAWN [ ] REJECTED

Signature: _____ **Comments:** _____

Date: _____

CALIFORNIA WATER SERVICE COMPANY
1720 NORTH FIRST STREET
SAN JOSE, CA 95112 · (408) 367-8200 · F (408) 367-8428

November 30, 2022

Advice Letter No. 2467

To The Public Utilities Commission of the State of California:

California Water Service Company ("Cal Water") respectfully submits this Tier 3 advice letter and hereby transmits for filing the following changes in its tariff schedules applicable to its Los Angeles County Region. ***Please note that this advice letter will only be distributed electronically to the Water Division and the attached service lists.***

C.P.U.C. Sheet No.	Title of Sheet	Schedule No.	Canceling C.P.U.C. Sheet No.
XXXXX-W	Residential Metered Service (p. 1)	AV-LAR-1-R	XXXXX-W
XXXXX-W	Non-Residential Metered Service (p. 1)	AV-LAR-1-NR	XXXXX-W
XXXXX-W	Residential Metered Service (p. 1)	PV-LAR-1-R	XXXXX-W
XXXXX-W	Non-Residential Metered Service (p. 1)	PV-LAR-1-NR	XXXXX-W
XXXXX-W	Recycled Metered Service (p. 1)	LAR-PV-6	XXXXX-W
XXXXX-W	Table of Contents (Page 9)	TOC 9	XXXXX-W
XXXXX-W	Table of Contents (Page 6)	TOC 6	XXXXX-W
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Summary

This advice letter requests approval to establish new tariff rate schedules in the Los Angeles County Region so that recycled water from West Basin can be provided to the Palos Verdes Golf Course located in Palos Verdes Estates, California. This is submitted as a Tier 3 advice letter pursuant to D.14-08-058, the Commission decision adopting a policy framework for the development of recycled water projects.

Background

Cal Water has a legacy recycled water tariff in Palos Verdes but does not provide any service to customers under it. This advice letter would modify the rates, terms, and conditions on the existing tariff based on the proposed service to the Palos Verdes Golf Course.

Discussion

The proposed recycled water supply project is a partnership between the following entities: West Basin Municipal Water District (West Basin), City of Palos Verdes Estates (PVE), Palos Verdes Golf Club (PV Club), Cal Water, and the City of Torrance. The partnership entails the construction of a

pipeline that connects facilities between West Basin and Cal Water's service area in order to purvey recycled water to PV Club located in PVE. The main financial investment of the partnership is in the proposed recycled water line ("Palos Verdes Recycled Water Pipeline Project," or "Project").

West Basin, Cal Water, and PV Club have agreed to jointly pursue this recycled water project to deliver approximately 218 acre feet per year (AFY) of recycled water for irrigation at the PV Club. The PV Club's conversion of its irrigation usage from potable water to recycled water will free up potable water for use by existing customers. The development and use of recycled water is beneficial to our customers, PV Club, West Basin, and Cal Water.

On August 11, 2022, Governor Gavin Newsom announced the release of a strategy document called "California's Water Supply Strategy, Adapting to a Hotter, Drier Future."[1] The Governor's press release states that, "To help make up for the water supplies California could lose over the next two decades, the strategy prioritizes actions to capture, recycle, de-salt and conserve more water."[2] One of the actions to accomplish this is "[r]ecycling and reusing at least 800,000 acre-feet of water per year by 2030, enabling better and safer use of wastewater currently discharged to the ocean."[3] The project proposed herein contributes towards the State's goal of recycling and reusing at least 800,000 AFY of water.

West Basin has secured grant money in the amount of $2,045,537 from the State of California's Department Water Resources, through its 2015 Proposition 84 Integrated Regional Water Management Implementation Grant agreement with the Los Angeles County Flood Control District. Once construction is complete such that recycled water can be delivered through the Project to West Basin's wholesale master meter, West Basin shall invoice and Cal Water shall pay to West Basin the sum of $2,500,000. When recycled water can be delivered through the Project all the way to Cal Water's retail service meter at PV Club's property line, PV Club shall pay to West Basin a partial reimbursement of Project costs in the amount of $1,100,000. West Basin is responsible for paying the balance of the $12.9 million estimated for the Project. The Project's estimated construction completion date is December 2023.

Upon completion, West Basin will own, operate, and maintain all Project facilities up to and including the master meter. West Basin will be responsible for reading the master meter. Cal Water will own, operate, and maintain the Project facilities downstream of the master meter up to and including the service meter.

Currently, PV Club pays the potable non-residential water rates in Cal Water's Palos Verdes service area. Upon completion of this Project, PV Club will buy recycled water from Cal Water at a new tariffed rate consisting of the area's potable non-residential service charge, and a 20% discount off

[1] https://www.gov.ca.gov/2022/08/11/governor-newsom-announces-water-strategy-for-a-hotter-drier-california/.
[2] *Id.*
[3] *Id.*

of the potable non-residential quantity rate. The recycled water rate will subsequently change as the potable non-residential water rates change.

The Project will provide long-term benefits for Cal Water's existing customers in the Los Angeles County Region. PV Club has committed to using 218 AFY of recycled water for irrigation in lieu of its current potable water use, thus making 218 AFY of potable water available for other uses. From a planning and operational perspective, use of this incremental supply can take a few forms: 1) the volume of water can be distributed/redistributed to existing Palos Verdes customers to maintain operational targets in the distribution system; and, 2) to the extent that existing water demands are met in the Palos Verdes area, the incremental supply may allow the deferral of capital projects in that it may delay or prevent the need for Cal Water to seek other, potentially more expensive, means of meeting potable water demands in the area.

The last adopted revenue Cal Water uses in this filing is the revenue requirement approved in AL 2437.[4] Note that the consumption amounts used to calculate rates in AL 2437 were increased as a result of the triggering of the Sales Reconciliation Mechanism (SRM) at the end of 2021.[5] Since then, both the Antelope Valley and Palos Verdes service areas have significantly reduced their water sales due to the drought. For the purposes of this filing, Cal Water uses the adopted consumption values *without the SRM sales increase* because Cal Water believes that excluding the higher SRM sales provides a more accurate representation of the expected consumption for 2023.

This Project would result in a revenue increase of $418,369 to be collected from all customers in the Los Angeles County Region. **Appendix A** is provided to support the technical requirements of this advice letter in accordance with D.14-08-058, and includes several attachments.

If the Project is approved, a typical monthly bill for an Antelope Valley residential customer with a 5/8" x 3/4" meter who uses 10 CCF of water (which is 1,000 cubic feet, or approximately 7,480 gallons) per month would increase by $0.47, or 0.66%.[6] A typical monthly bill for a Palos Verdes residential customer with a 5/8" x 3/4" meter who uses 15 CCF of water per month would increase by $0.88, or 0.82%.[7]

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[4] AL 2437 was a compliance filing that, for the Los Angeles County Region, aggregated the results of AL 2433 (Steps and Sales Reconciliation Mechanism) and AL 2435 (purchased water/pump tax offsets) to calculate final rates effective January 1, 2022.

[5] Cal Water's SRM is triggered when actual sales vary from adopted sales by more than 5% in years 2 and 3 of a GRC period. For the purposes of calculating rates after the SRM has triggered, consumption equal to one-half of the variation (2.5% if the variation is 5%) is added to (in the case of higher actual sales) or removed from (in the case of lower actual sales) the adopted sales – resulting in what can be referred to as "SRM sales" values.

[6] A set of rates is calculated based upon the revenue requirement of the entire Los Angeles County Region (LAR) ratemaking area. These "LAR rates" appear on the tariffs for Antelope Valley customers.

[7] There is a large potable water pipeline project located in the Palos Verdes area that is not funded by Antelope Valley customers. Instead, a hypothetical set of tariffed rates (residential and non-residential) is calculated using the revenue requirement for the potable pipeline project. The individual rate components on those hypothetical tariffs are then added to the corresponding ones of the LAR rates to generate tariffed rates for Palos Verdes customers.

As discussed above, the agreement between the parties establishes recycled water rates that are based on the potable non-residential water rates for Palos Verdes customers. Because those non-residential rates will likely change during the Commission's consideration of this advice letter, upon approval of this Project, Cal Water proposes to update the tariffs for the Los Angeles County Region to reflect the Project according to the methodology provided in the workpapers for this advice letter.

Requested Effective Date

Cal Water submits this advice letter as a Tier 3 pursuant to General Order 96-B, General Rule 7.3.5, and proposes that the rate changes herein become effective when the project is used and useful for utility services.

Notice:

Customer Notice: Notice of this request will be provided to affected customers consistent with General Order 96-B, General Rule 4.2 and Water Industry Rule 3.1. A copy of the bill onserts that are providing notice of this advice letter is attached as **Appendix B**. Notices are anticipated to be delivered to customers in December 2022. ***Cal Water therefore proposes to extend the protest period to January 20, 2023.***

Service List: In accordance with General Order 96-B, General Rule 4.3 and 7.2 and Water Industry Rule 4.1, a copy of this advice letter will be electronically transmitted on **November 30, 2022,** to competing and adjacent utilities and other utilities or other interested parties having requested such notification. *Please note that this advice letter will only be distributed electronically.*

Response or Protest

Anyone may respond to or protest this advice letter. When submitting a response or protest, please include the utility name and advice letter number in the subject line. A response supports the filing and may contain information that proves useful to the Commission in evaluating the advice letter. A protest objects to the advice letter in whole or in part and must set forth the specific grounds on which it is based. These grounds are:

(1) The utility did not properly serve or give notice of the advice letter;
(2) The relief requested in the advice letter would violate statute or Commission order, or is not authorized by statute or Commission order on which the utility relies;
(3) The analysis, calculations, or data in the advice letter contain material error or omissions;
(4) The relief requested in the advice letter is pending before the Commission in a formal proceeding; or
(5) The relief requested in the advice letter requires consideration in a formal hearing, or is otherwise inappropriate for the advice letter process; or

(6) The relief requested in the advice letter is unjust, unreasonable, or discriminatory (provided such a protest may not be made where it would require relitigating a prior order of the Commission.)

A protest shall provide citations or proofs where available to allow staff to properly consider the protest. A response or protest must be made in writing or by electronic mail and must be received by the Water Division within 20 days of the date this advice letter is filed. The address for mailing or delivering a protest is:

water.division@cpuc.ca.gov, or
Tariff Unit, Water Division, 3rd floor
California Public Utilities Commission,
505 Van Ness Avenue, San Francisco, CA 94102

On the same date the response or protest is submitted to the Water Division, the respondent or protestant shall send a copy by mail (or e-mail) to Cal Water at the following address:

cwsrates@calwater.com, or
Natalie Wales
California Water Service Company
1720 North First Street,
San Jose, California 95112

Cities and counties requiring Board of Supervisors or Board of Commissioners approval to protest should inform the Water Division within the 20-day protest period so a late-filed protest can be entertained. The informing document should include an estimate of the date the proposed protest might be voted on. The advice letter process does not provide for any responses, protests or comments, except for the utility's reply, after the 20-day comment period.

Replies: The utility shall reply to each protest and may reply to any response. Each reply must be received by the Water Division within 5 business days after the end of the protest period and shall be served on the same day to the person who filed the protest or response. If you have not received a reply to your protest within 10 business days, contact California Water Service Company at (408) 367-8200, and ask for the Rates Department.

CALIFORNIA WATER SERVICE COMPANY

/s/
Albree Jewell
Rates Analyst

Enclosures
cc: Syreeta Gibbs (Public Advocates Office), PublicAdvocatesWater@cpuc.ca.gov

APPENDIX A

Contents & Organization

This Appendix is organized into ten (10) sections. These sections are consistent with *Attachment B* of *Decision 14-08-058*, and outlined in the table below.

Section No.	Item Description
1	Background of the Proposed Recycled Water Project
2	Need for the Proposed Recycled Water Project
3	General Structure of Proposed Project Transaction
4	Project Cost-Effectiveness
5	Supply Potential
6	Incentives
7	Due Diligence on Recycled Water Supply
8	Project Costs
9	Revenue Requirement, Rates and Rate Design
10	Environmental Review, Permits and Certifications
Attachment 1	Preliminary Design Report (available upon request)
Attachment 2	Palos Verdes Lateral Feasibility Study
Attachment 3	Palos Verdes Recycled Water Pipeline Agreement (exhibits available upon request)
Attachment 4	City of Palos Verdes Estates letter of support
Attachment 5	Notice of Determination

Advice Letter Requirement

Section 1

Background of the Proposed Recycled Water Project

This section covers the principal technical and reporting requirements of Section II, Item 1 of D.14-05-058*, Attachment B*. Significant elements covered include: (1a) some general project information; (1b) some project developmental details; (1c) the status of any related projects; (1d) project location; (1e) conformance to applicable permits, and; (1f) details pertaining to any/all partnering arrangements. Each of these points are respectively discussed in the following subsections.

Section 1a – General Information

This project will extend an existing recycled water line, served by the Torrance Booster Pump Station, from its terminus at the intersection of Azna Avenue and Calle Mayor in the City of Torrance, to the Lago Seco Pump Station, and subsequently to the **Palos Verdes Golf Club (PV Club)**. Technical data supporting the project, as well as a map of the proposed alignments, are contained in the **Preliminary Design Report (PDR)** (identified as **Attachment 1**, and available upon request due to the large document size).

The existing recycled water line serves 12 customers (Entradero Park, West High School, Victor Elementary School, St. James Catholic School, Victor Park, Anza Medians, Paradise Park, Anza Elementary School, Calle Mayor Middle School, South High School, Seaside Heroes Park, and La Paloma Park). The annual demand of these customers is roughly 157 Acre Feet (AF). There are other planned and future customers, which are discussed in the **Palos Verdes Lateral Feasibility Study (Feasibility Study)** and is included as **Attachment 2**. According to the PDR Appendix A (based on the Feasibility Study), when all existing and future customers are connected the entire project (existing line and this proposed lateral) demand will be 310 acre-feet per year (AFY) at nighttime. When the pipeline is not serving customers at nighttime, capacity will be available for the PV Club.

This lateral is referred to as the **Palos Verdes Recycled Water Pipeline (PVRWP) Project**. The PVRWP Project includes construction of a new recycled water line, pump station, and onsite storage to serve approximately 218 AFY to the PV Club, owned by the City of Palos Verdes Estates (PVE).

The objective of this recycled water project is four-fold: (1) to increase regional water reliability and long-term sustainability by expanding a drought-proof water supply that is not subject to cutbacks from the State; (2) diversify Los Angeles County Region water supply mix (3) expand West Basin's non-potable recycled water distribution system into Palos Verdes Estates; and (4) provide recycled water service to the PV Club.

It should be noted that although this project will provide recycled water in the Palos Verdes service area, the cost of the project will be spread over the Cal Water ratemaking area called the Los Angeles County Region. (In the 2015 General Rate Case (GRC), the Palos Verdes and Antelope Valley Districts were consolidated into one ratemaking area, the Los Angeles County Region.) As such, except for the Palos Verdes Peninsula Water Reliability Project, which increased water reliability to the Palos Verdes Peninsula through a large potable water pipeline project funded only by Palos Verdes customers, all capital projects in either Antelope Valley or Palos Verdes are borne by customers in both areas.

Section 1b – Project Development

As part of its exploration of options to extend its recycled water system, West Basin evaluated the possibility of providing recycled water to the PV Club using the existing Anza Lateral that runs through the western part of the City of Torrance. The Feasibility Study provided as Attachment 2 was completed in 2016. In anticipation of this expansion, the PV Club installed a separate irrigation system to use recycled water and removed nearly twenty-five percent of its turf grass. This project will increase the

sustainability of the facility and provide a reliable, long-term source of water to serve the needs of the golf course.

Section 1c – Status of Related Projects

This is the only recycled water project that is planned and feasible within the Palos Verdes service area at this time (See Section 2d for further discussion).

Section 1d – Project Location

The proposed location of the project falls within the following cities: Torrance and Palos Verdes Estates. The recycled water line starts at Lago Seco Park in Torrance. The point of connection for the proposed PVRWP is at the intersection of Calle Mayor and Anza Avenue in the City of Torrance. The PVRWP will connect to the existing Anza Lateral, an existing 6-inch PVC pipeline which is served by the Torrance Booster Pump Station. Recycled water will be conveyed through the PVRWP by the proposed Lago Seco Pump Station LSPS, located on the southwest corner of Lago Seco Park at Ladeene Ave and 238th Street. The PVRWP will terminate at a new meter connection near the intersection of Via Navajo and Paseo Del Campo in the City of Palos Verdes Estates. Additional technical data supporting the project are discussed in the Feasibility Study and the PDR.

Section 1e – Conformance to Applicable Permits

The PVRWP is in compliance with all applicable laws and regulations as listed below:

- California Environmental Quality Act (CEQA)
- CalTrans – The alignment will cross the Pacific Coast Highway at the intersection with Anza and Montana Avenue.
- City of Torrance – Encroachment permit
- City of Palos Verdes Estates – Encroachment permit
- National Pollutant Discharge Elimination System (NPDES) permit – for discharge of pressure test water

- Conditional Use Permit – It was determined that this permit is not needed, as the project does not conflict with the land use plan
- Fire Department permit – Not needed because chemicals will not be stored onsite
- City of Torrance – Building Department permit for the pump station
- State Water Resources Control Board, Division of Drinking Water (SWRCB, DDW) – Plans for the pipeline have been reviewed by DDW staff. Plans are in compliance with DDW requirements.

Section 1f – Partnering Entities

There are five partners implementing this recycled water supply project: West Basin Municipal Water District (West Basin), City of Palos Verdes Estates (PVE), Palos Verdes Golf Club (PV Club), California Water Service Co. (Cal Water), and City of Torrance. The partnership entails the construction of a pipeline that connects facilities between West Basin and Cal Water in order to purvey recycled water to the PV Club located in Palos Verdes Estates (within Cal Water's existing Palos Verdes service area).

Section 2

Need for the Proposed Recycled Water Project

This section covers the principal technical and reporting requirements of Section II, Item 2 of D.14-08-058*, Attachment B*. Significant elements covered include: (2a) the current water demand, availability, and cost for both potable and recycled water in the subject service area; (2b) the potential recycled water demand by customer; (2c) displacement potential of current potable water deliveries, and; (2d) projected recycled water supply impacts in the IRWRP service area. Each of these points are respectively discussed in the following subsections.

Item 2a – Water Demand, Availability, and Cost

As noted in Section (1a), the demand for recycled water for the PV Club is estimated to be 218 AFY, and the existing recycled water line serves 12 customers. The annual demand of the existing customers is roughly 157 AF. Other planned and future customers for the PVRWP are discussed in the PDR and Feasibility Study and include Richardson Middle School, Walteria Park, Caltrans Median, Los Arboles Park, and Riviera Elementary School within the City of Torrance. In total, these would add another 23 AFY. When the pipeline is not serving customers at nighttime, capacity will be available for the PV Club. Under the Palos Verdes Recycled Water Pipeline Agreement (provided as Attachment 3), Cal Water would set the quantity rate for recycled water at $5.6309 per 100 cubic feet (ccf),[1] which is equivalent to approximately $2,453 per AF.

The estimated cost to design and construct the PVRWP Project is approximately $12.9 million. West Basin, PV Club, and Cal Water will fund the project, with additional funding from a Department of Water Resources grant, as follows:

Cal Water Contribution	$ 2,500,000
PV Club Contribution	$ 1,100,000
West Basin Contribution	$ 7,254,463
Grant Funding from DWR	$ 2,045,537
Total Funding	**$ 12,900,000**

Section 2b – Potential Customer Demand by Customer

The demand for recycled water for the Palos Verdes Recycled Water Pipeline (PVRWP) Project is estimated to be 240 AFY, including additional customers within the City of Torrance. The primary customer requiring the demand from the PVRWP will be PV Club at 218 AFY.

[1] Under the Agreement, the tariffed rates are based on the non-residential potable rate as follows: the service charges are the same as those for non-residential potable water, and the quantity rate is a 20% discount off of the non-residential potable quantity rate.

Item 2c – Displacement of Current Potable Delivery

As noted in Section (2b), PV Club is expected to receive 218 AFY of the PVRWP customer demand. Given the water supply portfolio of the Palos Verdes service area, the PVRWP is expected to displace an equivalent volume of potable water (218 AFY) from the Cal Water commercial customer base that would otherwise have to be delivered from the normal supply and distribution infrastructure within Palos Verdes. This is especially significant since the only source of supply for the Palos Verdes service area is purchased water.

Section 2d – Projected Impacts in the IRWRP Service Area

In 2021, West Basin completed a Capital Implementation Master Program (CIMP).[2] The CIMP includes all of the planned projects for recycled water and desalination through 2040. The CIMP identified and prioritized areas where recycled water has the potential to expand based upon potential future customers. According to the CIMP, "from 2010 through 2019, West Basin has produced more than 300,000 AF of recycled water."[3] The CIMP later states that "West Basin anticipates doubling the existing average day demand (ADD) of 34 mgd to 70 mgd, with a maximum day demand in the range of 80 to 85 mgd, by Year 2040. Based on [its] findings …, approximately 70,000 afy (63 mgd) in new recycled water opportunities were identified,"[4] some of which could expand upon the PVRWP Project (referred to as the proposed Palos Verdes Lateral Project[5] in the CIMP). The CIMP is revised periodically and the projects recommended by the CIMP are re-evaluated. Additionally, more projects can be recommended which would increase the expected recycled water use in West Basin's service area. West Basin continues to pursue new cost-effective projects both within and outside its service area.

[2] https://www.westbasin.org/wp-content/uploads/2022/05/West-Basin-Master-Plan_final_rev4.pdf.
[3] *Id.,* page 1-3.
[4] *Id.,* page 8-3.
[5] *Id.,* page 3-14.

Section 3

General Structure of Proposed Project Transaction

This section covers the principal technical and reporting requirements of Section II, Item 3 of *D.14-08-058, Attachment B*. Significant elements covered include: (3a) summary and explanation of key terms and conditions; (3b) contractual benefits to customers, and; (3c) a tabular project overview summary. Each of these points are respectively discussed in the following subsections.

Section 3a – Summary and Explanation of Key Terms and Conditions

As noted in Section 1(f), the recycled water supply project is a partnership between the following entities: West Basin, PVE, PV Club, Cal Water, and the City of Torrance. The partnership entails the construction of a pipeline that connects facilities between West Basin and Cal Water's service area in order to purvey recycled water to PV Club located in PVE. The main financial investment of the partnership is the proposed recycled water line (PVRWP Project).

An agreement for the funding, design, and construction of the PVRWP Project was executed on May 17, 2022 between West Basin, Cal Water and the PV Club and is included as **Attachment 3 (PV Recycled Water Pipeline Agreement).** The estimated construction completion date of the project is December 2023. Additionally, the City of PVE fully supports this project. The City's letter of support is included as **Attachment 4 (PVE Letter of Support)**.

As noted in Section (2a), West Basin has secured grant money in the amount of $2,045,537 from the State of California Department Water Resources, through its 2015 Proposition 84 Integrated Regional Water Management Implementation Grant agreement with Los Angeles County Flood Control District. Once construction is complete such that recycled water is able to be delivered through the PVRWP Project to a Master Meter, Cal Water shall pay to West Basin the sum of $2,500,000. When

construction is complete to the point that recycled water is able to be delivered through the PVRWP to the Service Meter at PV Club, PV Club shall pay to West Basin a partial reimbursement of PVRWP Project costs in the amount of $1,100,000. West Basin is responsible for paying the difference from the current total estimate of $12.9 million.

Upon completion, West Basin shall own, operate, and maintain all PVRWP Project facilities up to, and including, the Master Meter. West Basin shall be responsible for the reading the Master Meter. Cal Water will own, operate, and maintain the PVRWP Project facilities downstream of the Master Meter up to, and including, the Service Meter at PV Club.

West Basin's FY 2021-22 Water Rates and Charges, adopted May 24, 2021,[6] outlines the wholesale cost of water, which Cal Water used in calculating the rates in this filing. West Basin's Board of Directors set recycled water rates annually, maintaining a discount margin with imported water of roughly 20%. Cal Water is authorized to increase rates when the wholesale cost of water increases. Therefore, the retail cost of water will change to recover the incremental increase in the wholesale water cost.

Currently, PV Club pays the non-residential potable water rate in Cal Water's Palos Verdes service area. PV Club has agreed to buy recycled water at the potable non-residential service charge rate and at a 20% discount of the potable non-residential quantity rate offered by Cal Water in the Palos Verdes service area. Therefore, the recycled water rate will change as the potable non-residential rates change. In the event that recycled water is not available to PV Club, Cal Water will provide PV Club with potable water in lieu of recycled water.

Section 3b – Contractual Benefits to Customers

The PVRWP project will provide long-term benefits to Cal Water's potable use customers. When the project is complete, PV Club has committed to taking 218 AFY of

[6] https://www.westbasin.org/wp-content/uploads/2021/07/FY-2021-22-Water-Rates-and-Charges-PDF.pdf.

recycled water. In the short-term, this will make available the same volume of potable water. From a planning and operational perspective, use of this incremental supply can take a few forms: 1) the volume of water can be distributed/redistributed to existing Palos Verdes customers to maintain operational targets in the distribution system; 2) to the extent that existing water demands are met in the Los Angeles County Region, it can translate into deferred capital projects. In other words, Cal Water may be able to avoid seeking other, potentially more expensive, ways of meeting demand in the Palos Verdes area.

Item 3c – Project Overview Summary

The project has been summarized in detail above in Sections 1, 2, and 3. It is also summarized in the table below:

Item No.	Item Description	Item Response
1	Location (city, Hydrologic Region, and IRWMP)	City of Torrance City of Palos Verdes Estates South Coast Hydrologic Region Greater Los Angeles County (GLAC) Integrated Regional Water Management Program (IRWMP)
2	Additional utility plant required for Project and amount proposed to be added to rate base	Total project cost: $12.9 M Cal Water contribution: $2.5 M Addition to rate base: $2.5 M
3	Total amount of recycled water to be produced and/or conveyed by the PVRWP Project in AF per Yr	Total expected demand: 218 AFY (240 AFY including customer sites in City of Torrance)
4	Expected Project start and completion date	2018 January – CEQA 2018 December – Preliminary Design 2022 Third Quarter – Bidding and Board approvals 2022 Fourth Quarter – Construction start 2023 Fourth Quarter – Construction completion
5	Projected start date for recycled water conveyance to customers	2024 First Quarter

6	Lead agency for NEPA / CEQA review and approval and status of NEPA / CEQA review	CEQA – West Basin – Approval January 2018 NEPA – Not Needed
7	Source and wholesale price of recycled water, if applicable	$1,294 / AF from West Basin as of July 2021 $2.9706 / 100 cubic feet; CCF
8	Proposed retail price of recycled water	$5.6309 / 100 cubic feet; CCF $2,453 / AF
9	Public and/or private grants/loans pursued by project proponent, and/or project partners	<u>Public Partners</u> City of Palos Verdes Estates West Basin City of Torrance <u>Private Partners</u> Palos Verdes Golf Club California Water Service Co. Total Public Grants: $2,045,537
10	Status of any grant/loan funding applications	All public grant applications are complete
11	Note Project affiliations with one or more DWR IRWM planning entities	Greater Los Angeles County (GLAC) Integrated Regional Water Management Program (IRWMP) State Water Resources Control Board, Division of Drinking Water (SWRCB, DDW)
12	Status of any applicable permits	<u>Required Permits (Status of these permits is discussed in Section 10)</u> • CalTrans • City of Torrance – Encroachment permit • City of Palos Verdes Estates – Encroachment permit • National Pollutant Discharge Elimination System (NPDES) permit – for discharge of pressure test water • City of Torrance – Building Department permit for the pump station

Section 4

Project Cost-Effectiveness

This section compares project costs against securing the next available source of water supply per Section II, Item 4 of D.14-08-058*, Attachment B*.

Section 4a – Project Cost-Effectiveness

Since this project has long-term benefits relative to freeing-up potable water supplies, there is a direct benefit to potable use customers, with a minimal rate impact to Cal Water (Los Angeles County Region) customers. A very strong incentive and benefit behind this overall project structure is to develop a cost-effective, drought-resistant water supply that can support customer usage, while also offsetting supply stress on the local groundwater and surface water systems. Additionally, since the water supply in the Palos Verdes service area is made up solely of purchased water, there is no alternative to secure the next available source of water supply.

Section 5
Supply Potential

This section addresses the source of recycled water supply and projected availability per Section II, Item 5 of D.14-08-058*, Attachment B*.

Section 5a – Recycled Water Supply and Projected Availability

As noted above in Sections (1a) and (2a), the existing recycled water line serves 12 customers (Entradero Park, West High School, Victor Elementary School, St. James Catholic School, Victor Park, Anza Medians, Paradise Park, Anza Elementary School, Calle Mayor Middle School, South High School, Seaside Heroes Park, and La Paloma Park). The annual demand of these customers is roughly 157 AF. There are other planned and future customers, which are discussed in the Feasibility Study and the PDR. According to the PDR Appendix A, when all existing and future customers are connected the entire project (existing line and the PVRWP lateral) the annual nighttime demand would be 310 AFY.

Section 6
Incentives

This section addresses the following elements of Section II, Item 6 of D.14-08-058*, Attachment B*: (6a) the marketing of incentives and rate discounts, and; (6b) the factors considered to establish any proposed incentives.

Section 6a – Marketing of Incentives

Cal Water proposes to earn a rate of return (ROR) on its $2.5 million in this Recycled Water Project. Since this project has long-term benefits relative to freeing-up potable water supplies, there is a direct benefit to potable use customers. In fact, a very strong incentive and benefit behind this overall project structure is to develop a cost-effective, drought-resistant water supply that can support customer usage, while also offsetting production or supply stress on the local water supply. The incentive for PV Club to use recycled water in lieu of potable water is a 20% discount of the potable non-residential quantity rate offered by Cal Water.

Section 6b – Factors Considered Relative to Establishing Incentives

As noted in Section (6a) above, key factors considered in the overall evaluation relate to the four-way linkage between new water supply development (offsets or deferments in this case), supply sustainability and reliability (drought-resistance), and cost equivalence and/or effectiveness.

Section 7
Due Diligence

This section covers the principal technical and reporting requirements of Section II, Item 7 of D.14-08-058*, Attachment B*. Significant elements covered include: (7a) disclosing

information on existing and planned recycled water operations in the Project's planning area, and; (7b) the efforts made by investor-owned utilities to seek low-cost funding. Each of these points are respectively discussed in the following subsections.

Section 7a – Existing and Planned Recycled Water Operations

This is the only recycled water project that is planned and feasible at this time within the Palos Verdes service area.

Section 7b – Low-Cost Funding Efforts Made by Private Utilities

Given the current drought conditions in California, an alternate water supply for the Palos Verdes service area is critical to implement to help maintain a sustainable, drought-resistant, future water supply. However, it is not cost-effective for any one entity to bear the complete project cost alone ($12.9 million). Because of these concerns, West Basin sought funding partners to complete this project. This solicitation was ultimately successful, and as a result, the partners on this project are collectively willing to invest a significant dollar amount to build the foundation to improve the water supply situation in the future. West Basin and City of Palos Verdes Estates applied for and received grant funding for a total of approximately $2 million. West Basin's due diligence in finding appropriate partners for this project greatly reduces the burden on its Cal Water's customers from $12.9 million to $2.5 million as detailed in Section (2a) and (3a).

Section 8
Project Costs

This section covers the principal technical and reporting requirements of Section II, Item 8 of D.14-08-058*, Attachment B*. Significant elements covered include: (8a) the breakdown of IOWSU utility plant required for the proposed project; (8b) the breakdown of utility plant that will be funded by public monies; (8c) the identification of

one-time and on-going expenses that are borne by IOWSUs, and; (8d) the amount and type of contributions made to the project. Each of these points are respectively discussed in the following subsections.

Section 8a – Breakdown of IOWSU Utility Plant

Of the $12.9 million investment in this project, Cal Water's share of the investment is $2.5 million. Cal Water proposes to include the $2.5 million in utility plant in service. Although Cal Water will not own the entire pipeline from this investment, the project has direct benefits to our customers in the form of shifting water from potable to recycled water, thereby freeing up local potable supply. The benefit to our customers reasonably justifies the request to include Cal Water's investment of $2.5 million in rate base. Additionally, with a three-way partnership, it is challenging to prudently divide the infrastructure across specific entities. West Basin shall own, operate, and maintain all PVRWP Project facilities up to and including the Master Meter. Cal Water will own, operate, and maintain the PVRWP Project facilities downstream of the Master Meter up to and including the Service Meter at the PV Club.

Section 8b – Breakdown of Utility Plant Funded by Public Monies

Of the $12.9 million total project cost, Cal Water is only funding $2.5 million. PV Club and West Basin will fund the balance of $10.4 million. West Basin was able to obtain grant funding of approximately $2 million. West Basin and PV Club fund the remaining balance of $8.4 million through other sources. This breakdown is shown in the table in Section (2a).

Section 8c – IOWSU Expenses

As mentioned in Section (8a), Cal Water will own, operate, and maintain the PVRWP Project facilities downstream of the Master Meter up to and including the Service Meter at the PV Club in accordance with all current and future CPUC orders, rules and

regulations. Cal Water shall be responsible for calibrating the Service Meter, keeping their facilities in working order, and maintain compliance with permits related to the operation of recycled water distribution. The PV Club is currently a customer, and Cal Water believes that there will be minimal incremental administrative costs associated with reading the recycled water meter and producing the monthly water bill.

Section 8d – Type and Amount of Contributions

Cal Water's investment of $2.5 million shall be dedicated to reimbursing West Basin for the completed design and construction of the PVRWP Project. The PV Club shall pay to West Basin a partial reimbursement of PVRWP Project costs, for $1,100,000, reduced by the cost of on-site modifications required to meet regulatory approvals, including but not limited to the construction of recycled water storage, on-site pipe installation, and final connection to the Service Meter separating PV Club and Cal Water.

Section 9
Revenue Requirement, Rates and Rate Design

This section covers the principal technical and reporting requirements of Section II, Item 9 of D.14-08-058*, Attachment B*. Significant elements covered include: (9a) the total rate base increase associated with the project; (9b) the total revenue requirement increase; (9c) existing recycled water rates in the applicable service area; (9d) the recycled water rates that will result from the addition of the proposed project; (9e) the governing rate design, and; (9f) the estimated impact of expanding recycled water service. Each of these points is respectively discussed in the following subsections.

Section 9a – Total Rate Base Increase

Cal Water's financial share of the overall project is $2.5 million. Cal Water proposes to include this full amount in utility plant. Cal Water will own, operate, and maintain the PVRWP Project facilities downstream of the Master Meter up to and including the

Service Meter at the PV Club and the project has direct benefits to ratepayers in the form of shifting water use from potable to recycled water, thereby freeing-up local potable supply. Accordingly, Cal Water contends that partial ownership, resource management and other benefits offered to our customers by this project reasonably justifies the inclusion of Cal Water's investment in rate base.

Section 9b – Total Revenue Requirement Increase

Based on the analysis presented in the table below, the total revenue requirement increase presented by this project is $418,369 per year.

Palos Verdes Lateral Recycled Pipeline Revenue Requirement Calculations			
Description	**Units**	**Remarks**	**Value**
Total Capital Investment	Dollars	Present Worth	$ 2,500,000
Description	**Units**	**Remarks**	**Value**
Delivery Amount	Acre-Feet per Year	Per Agreement	218
Delivery Amount	CCF per Year	Per Agreement	94,961
Delivery Amount	CCF per Month	Average	7,913
Delivery Amount	Cubic Feet per Sec	Average	0.3009
Delivery Amount	Gallons per Minute	Average	135
Description	**Units**	**Remarks**	**Value**
Rate of Return	Percent	Authorized	7.48
Property Tax Rate	Percent	District Specific	1.0114
Depreciation Rate	Percent	District Specific	1.92
Net - Gross Multiplier	---	District Specific	1.40513
Description	**Units**	**Remarks**	**Value**
Revenue Req | Annual	Dollars	Capital Net	$ 187,000
Revenue Req | Annual	Dollars	Capital Gross	$ 262,759
Revenue Req | Annual	Dollars	Property Tax	$ 25,286
Revenue Req | Annual	Dollars	Depreciation	$ 47,919
Revenue Req | Annual	Dollars	Complete | Total	$ 335,964
Description	**Units**	**Remarks**	**Value**
Net Expense	Dollars		$ 82,405
Adopted Revenue Requirement	Dollars		$ 56,560,209
Incremental Revenue Req	Dollars		$ 418,369
Proposed Revenue Requirement	Dollars		$ 56,978,578
Percentage	%		0.740%

Section 9c – Existing Recycled Water Rates

The PVRWP project is the only planned recycled water project in the Palos Verdes service area at this time. West Basin is currently the only wholesale water provider in the area. The wholesale rate for recycled water from West Basin use in this filing is $1,294 / AF.

Cal Water currently has a recycled water tariff rate for its Palos Verdes service area; however, there are currently no customers receiving recycled water at this time. Therefore, for the purposes of the workpapers, Cal Water did not present this as an incremental increase in recycled water rates; rather we present it as a "brand new" recycled water rate.

Section 9d – Resulting or New Recycled Water Rates

As noted above in Section (9c), there are no customers currently receiving recycled water at this time. After discussions with PV Club and West Basin, the parties agree that the recycled water rate should be set at Cal Water's potable non-residential service charges, with a 20% discount off of Cal Water's potable non-residential quantity rate. Under these terms, the impact to all other customers in the ratemaking area is minimal. As shown in the table in Section (9b), the increased revenue impact in the district is less than 1%.

Section 9e – Governing Rate Design

The governing rate design for recycled water service associated with this project revolves around a fixed service (meter) fee, plus a quantity-based fee. Based on the revenue requirement calculations presented in Section (9b), the governing rate design for this (recycled water) service is detailed in the table below.

Rate	Value	Description
Fixed Service Charge – 6"	$1,432.37	Per month
Quantity Rate	$5.6309	Per 100 cubic feet; ccf

This rate design assumes a six-inch (6") service meter.

Section 9f – Estimated Impact of Expanding Recycled Water Service

As noted in Section (9b), the revenue impact to Cal Water's Los Angeles County Region ratemaking area is less than 1%.

Section 10
Environmental Review, Permits and Certifications

This section covers the principal technical and reporting requirements of Section II, Item 10 of D.14-08-058*, Attachment B*. Significant elements covered include: (10a) project compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA); (10b) identification and status of any/all necessary permits and certifications, and; (10c) disclosure of any/all permit and certification limitations. Each of these points is respectively discussed in the following subsections.

Section 10a – Compliance to CEQA and NEPA

The CEQA permitting processes is completed and the NEPA was not needed. **Attachment 5** is a copy of the Notice of Determination which states this project will not have a significant effect of the environment, a Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA, Mitigation Measures were made a condition of the approval of the project, a statement of Overriding Considerations was not adopted for this project and findings were made pursuant to the provisions of CEQA.

Section 10b – Identification and Status of Permits and Certifications

The CEQA permitting process is complete. All other necessary permits have either been secured or are in the process of being secured as follows:

- CalTrans – The alignment will cross the Pacific Coast Highway (PCH) at one intersection (with Anza and Montana Avenue). PCH is under Caltrans jurisdiction.

The permit from Caltrans was obtained and extended through November 30, 2023. Permit Number 07-19-N_UT-2526, Rider permit number 07-22-N-RT-2315.

- City of Torrance – Encroachment permit. Plans were submitted to the City of Torrance for city's design permitting approval. Once contactor is hired, the contractor will pull the final encroachment permit.
- City of Palos Verdes Estates – Encroachment permit. Plans were submitted to the City of Palos Verdes Estates for city's design permitting approval. Once contactor is hired, the contractor will pull the final encroachment permit.
- National Pollutant Discharge Elimination System (NPDES) permit – For discharge of pressure test water. Contractor is being requested to haul off the water used for pressure testing back to West Basin's ECL facility.
- City of Torrance – Building department for the pump station. Plans are still under review by the City.
- State Water Resources Control Board, Division of Drinking Water (SWRCB, DDW) – this is not a permit but rather a letter that West Basin sends to SWRCB, DDW informing them of the project's compliance with their guidelines on potable and recycled water pipeline separation criteria. The SWRCB, DDW responds to West Basin with a letter. Plans for the pipeline have been reviewed by DDW staff. Plans are in compliance with DDW requirements. The final set of plans that will be submitted to DDW in the bid construction package that DDW will use to issue final letter.

Item 10c – Permit and Certification Limitations

As noted in Section (10b), the necessary regulatory permitting is either complete or in the process of being secured. Cal Water and West Basin do not expect any delays that will affect the permitting process at this time.

ATTACHMENT 1

Preliminary Design Report
(Available upon Request)

ATTACHMENT 2

Palos Verdes Lateral Feasibility Study

WEST BASIN MUNICIPAL WATER DISTRICT

PALOS VERDES LATERAL FEASIBILITY STUDY JULY 2016

Submitted to:

West Basin Municipal Water District

17140 South Avalon Boulevard

Carson, CA 90746

Submitted by:

AKM Consulting Engineers

553 Wald, Irvine, CA 92618

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SECTION 1 - SUMMARY

Background

The West Basin Municipal Water District's (West Basin) goal is to maximize the use of recycled water within its service area. Service to Palos Verdes Golf Course (PVGC) was originally planned to be provided by the Palos Verdes Pump Station (Project T22-16), and Palos Verdes Lateral (Lateral 6B, Project T22-15 of CIMP). However, the cost of implementing these projects was estimated at $32,190,000 in 2009, and because of the high cost, it is currently not feasible to construct Lateral 6B and provide service to PVGC.

West Basin initiated the planning of the Anza Lateral Project prior to the preparation of its Capital Implementation Master Plan for Recycled Water Systems (CIMP). Its purpose was to expand recycled water distribution capacity to areas along Del Amo Boulevard and Anza Avenue in the City of Torrance. The CIMP expanded upon the earlier work completed by other consultants and recommended two projects for completion of the Anza Lateral Project. These projects are shown on Figure 9-1 of the CIMP, which is included in this report as Figure 1. Project T22-10 was the Torrance Booster Pump Station, and Project T22-09 was the extension of the lateral along Anza Avenue south of Carson Street and along Calle Mayor west of Anza Avenue as 8-inch diameter pipelines. As shown on this figure, service to Palos Verdes Golf Course (PVGS) was not included in the Anza Lateral Project.

The two capital improvement projects recommended by the CIMP were further evaluated during the preliminary design of Torrance Booster Pump Station, which was documented in the Basis of Design Report completed in August 2010. Figure ES-1 of the Basis of Design Report, which is included herein as Figure 2, shows the recommended pipelines and customers by phase.

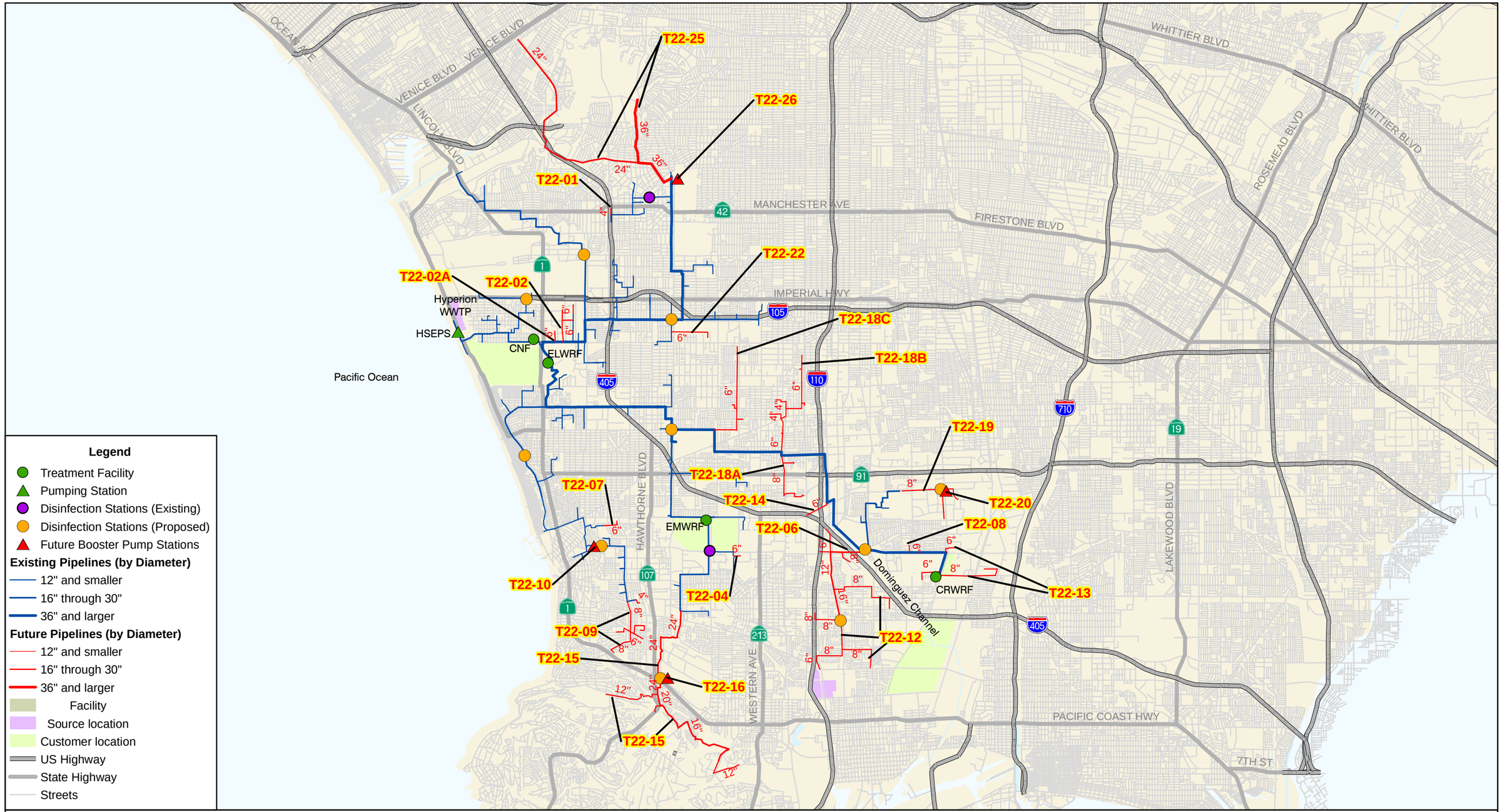
West Basin's Anza Lateral Project included the construction of the Torrance Booster Pump Station (TBPS), and 8-inch and 6-inch diameter pipelines on Del Amo Boulevard and Anza Avenue to provide 230 acre-feet per year (AFY) to 21 customers extended over three (3) phases. Although the pipelines on the discharge side of TBPS were planned as 8-inch diameter facilities, the portion south of Lenore Street was constructed with 6-inch diameter Class 200 pipes to Carson Street, and as Class 150 pipes (DR 18) south of Carson Street. This is likely because the plans for these pipes were originally completed in 2008 and 2009 without the benefit of the subsequent studies, but were not revised prior to construction in 2012. The reduction in the pipe size and pressure class (Class 150) impose constraints on the operation of the Anza Lateral system and its expansion to include other customers.

West Basin identified a possible opportunity to accomplish its goal of maximizing the use of recycled water by serving PVGC utilizing as much of the existing facilities as possible, such as Anza Lateral. Service to PVGC is important not only because of its large demand of approximately 200 acre-feet per year (AFY), but also because recycled water can be delivered to a planned 750,000 gallon reservoir at the golf course during off-peak demand hours, which allows efficient use of the existing facilities.

Study Results

The studies conducted for this evaluation indicate that the existing Torrance Booster Pump Station and the Anza Lateral pipelines can be utilized to extend service to the PVGC. A new booster pump station, referred to in this study as the Lago Seco Booster Pump Station (LSBPS), will be necessary. The project will include:

- A 10-inch diameter Class 200 AWWA C900 PVC pipeline on Anza Avenue from Calle Mayor to 236th Street
- A 10-inch diameter Class 200 AWWA C900 PVC pipeline on 236th Street from Anza Avenue to a booster pump station proposed to be located in Lago Seco Park in Torrance



carollo in association with AKM SPI

West Basin Municipal Water District
Capital Implementation Master Plan For Recycled Water Systems

FIGURE 1
Capital Implementation Master Plan
Title 22 CIP

WB3-250
Entradero Park
G1-100
El. 115'
HALISON ST
NORTON ST
WILMA ST
G1-110
El. 105'
WB3-270
WB3-275
WB3-260
El. 137'
DEL AMO ST
KONYA DR
MICHELLE DR
WB3-290
WB3-300
VINCENT ST
MARIALINDA ST
SARA DR
PROSPECT AVE
EDGEMERE DR
WB3-310
Torrance Booster Pump Station
See Detail A
G1-140
El. 97'
CARMELYNN ST
DEL AMO BLVD
Victor Elementary School
G1-160
El. 93.4'
St James Catholic School
G1-150
El. 91'
HAWTHORNE BLVD
SPENCER ST
GARNET ST
ONYX ST
Victor Park
G1-180
El. 103.4'
G1-170
El. 98.9'
EMERALD ST
ASTERIA ST
MARICOPA ST
Bishop Montgomery High School
POT14-110
El. 95'
G1-190
El. 104'
G1-200
El. 110.1'
TORRANCE BLVD
Paradise Park
G1-220
El. 97'
G1-210
El. 99'
SCOTT ST
LEE ST
Bishop Montgomery Retention Basin
POT14-100
El. 100'
LILLIAN ST
RUBY ST
Anza Elementary School
G1-240
El. 111.2'
G1-230
El. 97.2'
CARMEN ST
DEL AMO CIR
N
0 450 900 1,800 Feet
1" = 900'
Detail A
WB3-280
G1-115
G1-120
G1-130
G1-131
G1-136
G1-135
G1-132
West Torrance High School
G1-137
G1-134
G1-133
Torrance Booster Pump Station
Jefferson Middle School
G1-270
El. 80.2'
G1-250
El. 84'
G1-260
El. 82'
MERRILL ST
Ocean Avenue Retention Basin
POT15-100
El. 88'
JACQUES ST
AVENUE B
AVENUE C
AVENUE D
Lomita Park Extension
POT13-110
El. 100'
Medians/ Frontage
POT13-100
El. 73'
POT13-130
El. 75'
Arnold Elementary School
Sea Aire Golf Course
POT13-190
El. 90'
Seaside Elementary School
POT13-180
El. 90'
La Paloma Park
POT13-120
El. 73'
Lomita Blvd Median
POT13-140
El. 70'
POT13-150
El. 75'
Calle Mayor Middle School
POT13-160
El. 80'
South Torrance High School
POT13-170
El. 85'
226TH ST
227TH ST
230TH ST
231ST ST
234TH ST
LOMITA BLVD

Legend

- Junction with Model ID
- Phase 1 Anza Lateral Potential Customer
- Phase 2 Anza Lateral Potential Customer
- Phase 3 Anza Lateral Potential Customer

Pipe Diameter

- 4 - inch
- 6 - inch
- 8 - inch
- 12 - inch
- 16 - inch

AKM	West Basin Municipal Water District Torrance Booster Pump Station PDR
Project No. 1360951	Anza Lateral Potential Recycled Water Users
Date: August 2010	Figure 2

- Lago Seco Booster Pump Station with two variable frequency drive operated 100 HP, 500 gpm capacity pumps with 500 ft total dynamic head at 1770 rpm
- An 8-inch diameter minimum Class 350 ductile iron pipeline along 236th Street, Anza Avenue, and Vista Montana between the Lago Seco Booster Pump Station and Paseo de Las Tortugas, with a jack and bored casing across Pacific Coast Highway
- An 8-inch Class 200 AWWA C900 PVC pipeline along Paseo de Las Tortugas, Calle de Arboles, and Via Calusa to the Palos Verdes Golf Course, which will connect to the 10-inch diameter pipeline that will be constructed by the Palos Verdes Golf Course, terminating at the future 750,000 gallon reservoir at the golf course
- Replacement of one jockey pump at TBPS with a full size pump is not necessary for service to PVGC. However, it will need to be implemented to serve all future customers.

The existing and proposed facilities are shown on Figure 3.

Project Cost Estimates

The estimated cost of constructing the pipelines, shown in Table 6 is $6,718,000, for a total cost of $9,612,000. The estimated cost of constructing the pump station, including contingencies, design, construction management, and administration is $2,894,000, as shown in Table 7. The cost of the improvements that have been and will be constructed by PVGC is $1,000,000.

The estimated annual power cost to provide service to PVGC is 47,500 including pumping at the Edward Little Water Recycling Facility, TBPS and LSBPS. The cost of pumping to PVGC, Los Arboles Park, and Riviera Elementary School is $213 per acre-foot.

Based on useful lives of 30 years and 50 years, respectively for pump stations and pipelines, the total cost of supplying PVGC is $1,886 per acre foot, including the cost of the facilities to be constructed by PVGC. The cost of connecting the 17 future customers is estimated at $5,743,600, as shown in Table 8.

SECTION 2 - BACKGROUND

2.1 BACKGROUND

A primary goal of West Basin is to maximize the use of recycled water within its service area. The purpose of this project is to evaluate the feasibility of utilizing West Basin's Torrance Booster Pump Station and Anza Lateral to provide tertiary disinfected (Title 22) water service to Palos Verdes Golf Course and other potential customers. The project will require the construction of new pipelines and a second in-line booster pump station, as well as demand scheduling which is required to optimize the use of Title 22 water and implement the CIMP recommended facilities.

The Anza Lateral and its related facilities were originally planned to deliver a total of 239 AFY of Title 22 water to 21 customers in three (3) phases, as illustrated in Table 1. These demands were used in the design of TBPS. The Anza Lateral Project included customers with a conversion possibility of 90% per CIMP completed in 2009. The CIPM adopted a peaking factor of 2.4 for median irrigation, corresponding to an irrigation period of 10 hours. The CIMP adopted a peaking factor of 3.0 for other irrigation demands based upon an irrigation schedule of 8 hours.

When the CIMP was completed, the Palos Verdes Golf Course was assigned a conversion probability of 10%, with an estimated demand of 188 AFY. Further, it was not considered in the planning of the Anza Lateral. Service to the Palos Verdes Golf Course was planned through the Palos Verdes Lateral (Project Lateral 6B System) served by a proposed pump station (Palos Verdes Pump Station, Project T22-16) at the Torrance Municipal Airport and a 12-inch pipeline extending west across Hawthorne Boulevard. AKM Consulting Engineers prepared a Preliminary Design Report for Project Lateral 6B in 2007, which, in addition to the Palos Verdes Golf Course, evaluated providing service to the Palos Verdes Landfill, Green Hills Cemetery, Rolling Hills Golf Course, and the Naval Reservation.

	Customer Site	Connected	Demand		
			Ultimate	Max Month	Peak Hour
			[AFY]	[AF]	[GPM]
1	Entradero Park	Yes	25.0	5.2	116.2
2	West High School	Yes	30.0	4.5	100.5
3	Victor Elementary School	Yes	22.0	2.9	65.4
4	Victor Park	Yes	15.0	2.2	48.0
5	Paradise Park	Yes	12.0	2.6	57.8
8	Anza Elementary School	Yes	15.0	2.3	52.2
7	Anza Avenue Medians	Yes	1.5	0.3	6.7
8	Seaside Heroes Park	Yes	2.06	0.4	8.9
	Subtotal-Existing		**122.6**	**20.4**	**455.9**
9	Saint James School	Planned	3	0.5	10.4
10	La Paloma Park	Planned	0.5	0.1	1.9
11	Calle Mayor Middle School	Planned	5.0	0.8	18.6
12	South High School	Planned	26.0	4.3	96.7
13	Jefferson Middle School	Planned	7.0	1.2	26.0
	Subtotal-Planned		**41.5**	**6.9**	**153.6**
	Subtotal-Existing and Planned		**164.1**	**27.3**	**609.5**
14	Richardson Middle School	Future	3.0	0.5	11.2
15	Riviera Elemantary School	Future	5.0	0.8	18.6
16	Los Arboles Park	Future	7.0	1.2	26.0
17	Lago Seco Park	Future	13.0	2.2	48.4
18	Walteria Park	Future	6.0	1.0	22.3
19	Seaside Elemetary School	Future	6.0	1.0	22.3
20	Sea Aire Golf Course	Future	15.0	2.5	55.8
	Subtotal-Future		**55.0**	**9.2**	**204.6**
	Total-Existing+Planned+Future		**219.1**	**36.5**	**814.1**
21	Lynn Middle School	Other	7	1.2	26.0
22	South Bay Junior Academy	Other	6	1.0	22.3
23	La Romeria Park	Other	13	2.2	48.4
24	Bishop Montgomery High School	Other	12	2.0	44.6
25	Arnold Elementary School	Other	3	0.5	11.2
	Subtotal-Other		**41**	**6.8**	**152.5**
	Total-Existing+Planned+Future+Other		**260.1**	**43.3**	**966.6**

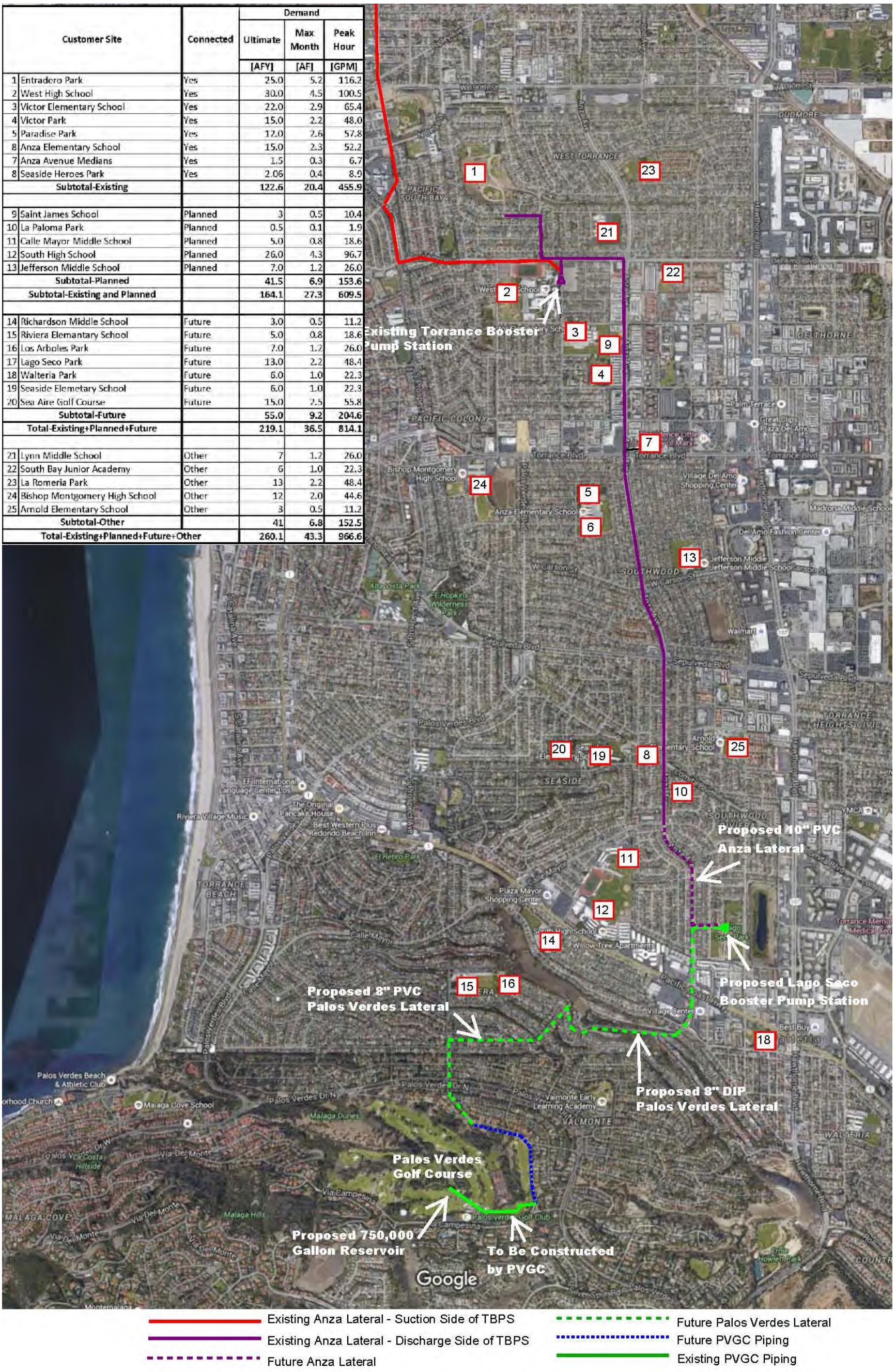


FIGURE 3
Anza Lateral Extension and Proposed Palos Verdes Lateral

TABLE 1
Anza Lateral
Originally Anticipated Customers and Demands

Phase	User Name	Model(1) Node	Total Average (AFY)	Total Average (gpm)	Daily Peaking Factor	Peak Hour (AFY)	Peak Hour (gpm)	Seasonal Peaking Factor	Max Month (AFY)	Max Month (gpm)	Daily Peaking Factor	Max Month Peak Hour (AFY)	Max Month Peak Hour (gpm)
Phase I	Entradero Park	G1-100	25	15.50	3.0	75.0	46.50	2.5	62.5	38.75	3.0	187.5	116.24
	West Torrance High School	G1-137	30	18.60	3.0	90.0	55.80	2.5	75.0	46.50	3.0	225.0	139.49
	Victor Elementary School	G1-160	13	8.06	3.0	39.0	24.18	2.5	32.5	20.15	3.0	97.5	60.45
	St. James Catholic School	G1-150	5	3.10	3.0	15.0	9.30	2.5	12.5	7.75	3.0	37.5	23.25
	Victor Park	G1-180	15	9.30	3.0	45.0	27.90	2.5	37.5	23.25	3.0	112.5	69.75
	Paradise Park	G1-220	9	5.58	3.0	27.0	16.74	2.5	22.5	13.95	3.0	67.5	41.85
	Anza Elementary School	G1-240	9	5.58	3.0	27.0	16.74	2.5	22.5	13.95	3.0	67.5	41.85
	Jefferson Middle School	G1-270	7	4.34	3.0	21.0	13.02	2.5	17.5	10.85	3.0	52.5	32.55
	Medians/Frontage	G1-200	5	3.10	2.4	12.0	7.44	2.5	12.5	7.75	2.4	30.0	18.60
Phase 1 Subtotal			**118**	**73**		**351**	**218**		**295**	**183**		**878**	**544**
Phase	**User Name**	**Model(1) Node**	**Total Average (AFY)**	**Total Average (gpm)**	**Daily Peaking Factor**	**Peak Hour (AFY)**	**Peak Hour (gpm)**	**Seasonal Peaking Factor**	**Max Month (AFY)**	**Max Month (gpm)**	**Daily Peaking Factor**	**Max Month Peak Hour (AFY)**	**Max Month Peak Hour (gpm)**
Phase II	Medians/Frontage	POT13-100	5	3.10	2.4	12.0	7.44	2.5	12.5	7.75	2.4	30.0	18.60
	Calle Mayor Middle School	POT13-160	5	3.10	3.0	15.0	9.30	2.5	12.5	7.75	3.0	37.5	23.25
	Lomita Park Extension	POT13-110	5	3.10	3.0	15.0	9.30	2.5	12.5	7.75	3.0	37.5	23.25
	South Torrance High School	POT13-170	25	15.50	3.0	75.0	46.50	2.5	62.5	38.75	3.0	187.5	116.24
Phase 1 and 2 Subtotal			**158**	**98**		**468**	**290**		**395**	**245**		**1,170**	**725**
Phase III	Arnold Elementary School	POT13-130	5	3.10	3.0	15.0	9.30	2.5	12.5	7.75	3.0	37.5	23.25
	Seaside Elementary	POT13-180	6	3.72	3.0	18.0	11.16	2.5	15.0	9.30	3.0	45.0	27.90
	Sea Aire Golf Course	POT13-190	15	9.30	3.0	45.0	27.90	2.5	37.5	23.25	3.0	112.5	69.75
	Bishop Montgomery High School	POT14-110	14	8.68	3.0	42.0	26.04	2.5	35.0	21.70	3.0	105.0	65.10
	Bishop Montgomery Retention Basin	POT14-100	20	12.40	3.0	60.0	37.20	2.5	50.0	31.00	3.0	150.0	92.99
	Ocean Avenue Retention Basin	POT15-100	18	11.16	3.0	54.0	33.48	2.5	45.0	27.90	3.0	135.0	83.69
	La Paloma Park	POT13-120	2	1.24	3.0	6.0	3.72	2.5	5.0	3.10	3.0	15.0	9.30
	Lomita Blvd Median	POT13-140	1	0.62	2.4	2.4	1.49	2.5	2.5	1.55	2.4	6.0	3.72
Ultimate (Phase 1, 2, and Future) Subtotal			**239**	**148**		**710**	**440**		**598**	**370**		**1,776**	**1,101**

(1) See Figure 2-3 for location

The total cost of implementing the Palos Verdes Pump Station and Project Lateral 6B was estimated to be $32,190,000 in 2009. Due to the high cost of implementation, these projects have a lower priority.

Because the Palos Verdes Golf Course has a large demand which can be supplied to an on-site reservoir during off-peak hours, and the Anza Lateral facilities are in relatively close proximity, West Basin initiated this project to evaluate the feasibility of serving PVGC through the Anza Lateral facilities.

2.2 ANZA LATERAL FACILITIES

The Anza Lateral facilities considered for this study included the following existing facilities:

- Torrance Booster Pump Station,
- 8-inch diameter AWWA C900 Class 200 PVC pipeline on Del Amo Boulevard and Anza Avenue north of Lenore Street
- 6-inch diameter AWWA C900 Class 200 PVC pipeline along Anza Avenue between Lenore Street and Carson Street
- 6-inch diameter AWWA C900 Class 200 PVC pipeline along Anza Avenue between Carson Street and Calle Mayor

- 6-inch diameter AWWA C900 PVC pipeline along Calle Mayor between Anza Avenue and Juan Avenue

Torrance Booster Pump Station

The Torrance Booster Pump Station was designed to supply 21 customers with an average annual demand of 239 AF (maximum month peak hour demand of 1,101 gpm), operating at a minimum suction pressure of 25 psi, and provide a minimum service pressure of 85 psi to all customers. Depending upon the number of future customers, their demands, and schedules, it was determined that the discharge pressure at the Title 22 Pump Station at the Edward Little Water Recycling Facility may need to be increased from 87 psi to up to 105 psi during high demand periods.

The existing Torrance Booster Pump Station contains three (3) main pumps and two (2) jockey pumps to supply the Phase I and Phase II demands. One jockey pump was planned to be replaced with a larger pump matching the existing main pump capacity to provide the firm pumping capacity for the Phase III customers.

Anza Lateral Pipelines

The studies conducted during the design of the Torrance Booster Pump Station were based on main Anza Lateral pipes being 8 inches in diameter, with smaller service laterals to the various customers. However, only a portion of the mainline lateral pipeline, which is between Torrance Booster Pump Station and Lenore Street was constructed as an AWWA C900 Class 200 8-inch diameter pipeline. The reach between Lenore Street and Carson Street was constructed as a 6-inch diameter AWWA C900 PVC Class 200 pipe, and the reach between Carson Street and Calle Mayor was constructed as a 6-inch diameter AWWA C900 Class 150 PVC pipe. The existing facility extends southwesterly along Calle Mayor to Juan Avenue also as a 6-inch diameter AWWA C900 Class 150 PVC pipe, which will provide service to Calle Mayor Middle School and South High School.

2.3 PROPOSED PALOS VERDES LATERAL FACILITIES

The Palos Verdes Lateral being considered for this study will be an extension of the Anza Lateral. West Basin conducted initial studies along two alternative alignments illustrated on Figures 4 and 5, which extended from Calle Mayor and Juan Avenue to the Palos Verdes Golf Course. Common to both alternatives were the portions along Calle Mayor and Via Los Miradores. One continued to Avenida Atezada, and Paseo de Arena/Via Colusa, and then to PVGC at Paseo del Campo. The second alternative extended along Via El Chico, an easement, Calle de Ricardo, Via El Sereno, Calle de Arboles, an easement to Navajo Place, and Via Navajo to PVGC at Paseo del Campo.

West Basin also selected two alternative pump stations locations for further evaluation, which are shown on Figure 6. One was at the northwest corner of the Plaza Mayor Shopping Center parking lot. This location would reduce the shopping center parking by 20 spaces, and is approximately 150 feet from the nearest residential structure. The second location was a 40-foot wide easement between two single family residences to the north of Calle Mayor, approximately 1200 feet east of Pacific Coast Highway. This site is too narrow, and is undesirable due to its closeness to residential properties.

A third alternative is to locate the pump station at Lago Seco Park. For this alternative, the pipeline would be extended south along Anza Avenue to 236th Street, and east to Lago Seco Park to the pump station site. The discharge pipe would follow 236th Street and Anza Avenue, cross Pacific Coast Highway, and continue along Vista Montana, Paseo de Las Tortugas, Calle de Arboles, and Via Colusa to the PVGC at Paseo del Campo.

FIGURE 4
Alternative Alignment

FIGURE 5
Alternative Alignment

FIGURE 6
Alternative Pump Station Locations

SECTION 3 - FEASIBILITY EVALUATION

The scope of work for the basic feasibility study concentrated on formulating a project that could utilize the existing assets to the maximum extent possible in providing service primarily to PVGC, and any other feasible locations.

This task involved the following sub-tasks:

3.1 Meet with the Golf Course to obtain monthly recycled water demands; location, elevation, and volume of existing and future on-site storage facilities

AKM and West Basin met with Mr. Patrick Gradoville, Palos Verdes Golf Club Director of Course and Grounds, on Friday, September 4, 2015. The following information was obtained:

- The PVGC will continue to use potable water for the greens (3 acres), at a rate of 200 gpm when irrigated. There are currently 106 acres of turf, which will use recycled water when available. The turf area will be reduced by 8 acres.
- The PVGC used 1,565,000 cubic feet of water (377,620 gallons per day average) in August 2015. This was subsequently revised to 1,106,600 cubic feet (267,012 gallons per day).
- In 2014, the peak month usage was 467,500 gallons per day, approximately 1250 gpm during 6 hours. The PVGC desires the ability to receive up to 450,000 gallons per day from West Basin.
- The PVGC has a topographic map of the golf course, which will be made available for use in the study.
- The PVGC will construct a 750,000 gallon reservoir for its recycled water irrigation system. It was subsequently found out that this reservoir will be near the existing ponds, which the golf course pumps from, with a high water level of about 450 feet above mean sea level (amsl).

Subsequently, the PVGC provided monthly water use information from January 2009 to August 2015, with the remaining water use for 2015 estimated as shown in Table 2.

In anticipation of future recycled water availability, the PVGC has constructed a 10-inch diameter PVC pipe from Via Navajo to the east side of the Palos Verdes Tennis Club tennis courts. They desire to receive recycled water from West Basin near Via Colusa and Paseo del Campo. The PVGC will extend the service on their property from Via Colusa/Paseo del Campo to the 10-inch pipe that they already constructed, and will construct additional piping to the site of the new 750,000 gallon reservoir. In order to optimize the pipe size and minimize pumping costs, demands to PVGC will be provided over a 15 hour period when there are no other demands on the Anza/Palos Verdes Lateral.

TABLE 2
Palos Verdes Golf Course Historical Water Use

Year	Jan	Feb	Mar	April	May	June	July	August	September	October	November	December
2009	23,381	117,543	24,419	156,382	291,768	280,799	306,752	**416,057**	309,398	299,417	183,509	133,144
2010	38,293	35,396	6,853	152,617	191,560	294,238	304,701	280,717	**321,515**	185,890	16,082	85,344
2011	7,263	32,645	43,336	46,949	195,252	238,413	310,275	292,999	**310,644**	243,148	135,862	51,226
2012	37,545	66,919	79,191	104,545	89,953	349,017	335,321	322,388	**361,907**	268,942	196,973	80,012
2013	14,019	40,739	83,269	104,446	271,958	359,140	305,739	317,972	**391,029**	363,625	124,043	101,463
2014	88,578	130,900	84,090	176,329	289,524	**467,500**	375,375	390,890	353,056	281,731	231,755	155,753
2015	12,137	35,370	73,063	179,794	201,188	201,586	184,997	**267,012**	250,281	232,725	79,388	64,955

3.2 Obtain monthly billing records of the various potential customers, request their irrigation schedules, and document them for subsequent use in the study.

The West Basin Municipal Water District provided annual water use data and maximum month usage for the customers already connected to the system, as well as for planned, potential, and other recycled water customers. These customers are shown on Figure 7, and their demands are listed in Table 3.

Currently, there are eight (8) customers (Entradero Park, West High School, Victor Elementary School, Victor Park, Paradise Park, Anza Elementary School, Anza Medians, and Seaside Heroes Park) with an annual demand of 117.73 acre-feet. The peak month demands of these customers, although they may not all coincide, total 20.85 acre-feet. With scheduling, demands will be even through an 8-hour irrigation period, and the corresponding peak hour demand will be approximately 456 gallons per minute (gpm).

There are five (5) planned recycled water customers (Saint James School, La Paloma Park, Calle Mayor Middle School, South High School, and Jefferson Middle School), with an average demand of 41.5 AFY. The peak hour demand for these customers is estimated at 153.6 gpm based on an 8 hour irrigation schedule. The total peak hour demand for the existing and planned customers will be 609.5 gpm. The firm capacity of existing Torrance Booster Pump Station (750 gpm) is more than this peak hour demand.

West Basin identified seven (7) potential (future) customers (Richardson Middle School, Riviera Elementary School, Los Arboles Park, Lago Seco Park, Walteria Park, Seaside Elementary School and Sea Aire Golf Course) with an average demand of 55.0 AFY. Four (4) of these future customers (Richardson Middle School, Riviera Elementary School, Los Arboles Park, and Walteria Park) are located to the south of Pacific Coast Highway. The peak hour demand for these future customers is estimated at 204.6 gpm based on an 8 hour irrigation schedule. The total peak hour demand for the existing, planned, and future customers will be 814.1 gpm. The firm capacity of Torrance Booster Pump Station (1100 gpm) will be adequate for these demands when one existing jockey pump is replaced with a main pump.

There are five (5) other customers (Lynn Middle School, South Bay Junior Academy, La Romeria Park, Bishop Montgomery High School, and Arnold Elementary School), identified in the City of Torrance's Recycled Water Master Plan as potential recycled water customers. Arnold Elementary School and Bishop Montgomery High School were also included in the Torrance Booster Pump Station design as Phase III customers. While some of these sites are near the Anza Lateral, it will be necessary to construct pipelines varying from 1,300 feet to 3,800 feet in length to serve them.

If all of these customers are provided recycled water service from the Anza Lateral and the future Palos Verdes Lateral, a total of 260.1 AFY will be served at night time, with a peak hour demand of 966.6 gpm.

In summary, when all existing and future customers are connected, the Torrance Booster Pump Station, the downstream Anza Lateral, and proposed Palos Verdes Lateral will deliver up to 966.6 gpm during an 8 hour period, expected to be from 10 pm to 6 am. They will deliver the total demand of PVGC (up to 450,000 gallons per day in a peak month) during the off peak periods, up to 16 hours from 6 am to 10 pm.

	Customer Site	Connected	Demand		
			Ultimate	Max Month	Peak Hour
			[AFY]	[AF]	[GPM]
1	Entradero Park	Yes	25.0	5.2	116.2
2	West High School	Yes	30.0	4.5	100.5
3	Victor Elementary School	Yes	22.0	2.9	65.4
4	Victor Park	Yes	15.0	2.2	48.0
5	Paradise Park	Yes	12.0	2.6	57.8
8	Anza Elementary School	Yes	15.0	2.3	52.2
7	Anza Avenue Medians	Yes	1.5	0.3	6.7
8	Seaside Heroes Park	Yes	2.06	0.4	8.9
	Subtotal-Existing		**122.6**	**20.4**	**455.9**
9	Saint James School	Planned	3	0.5	10.4
10	La Paloma Park	Planned	0.5	0.1	1.9
11	Calle Mayor Middle School	Planned	5.0	0.8	18.6
12	South High School	Planned	26.0	4.3	96.7
13	Jefferson Middle School	Planned	7.0	1.2	26.0
	Subtotal-Planned		**41.5**	**6.9**	**153.6**
	Subtotal-Existing and Planned		**164.1**	**27.3**	**609.5**
14	Richardson Middle School	Future	3.0	0.5	11.2
15	Riviera Elemantary School	Future	5.0	0.8	18.6
16	Los Arboles Park	Future	7.0	1.2	26.0
17	Lago Seco Park	Future	13.0	2.2	48.4
18	Walteria Park	Future	6.0	1.0	22.3
19	Seaside Elemetary School	Future	6.0	1.0	22.3
20	Sea Aire Golf Course	Future	15.0	2.5	55.8
	Subtotal-Future		**55.0**	**9.2**	**204.6**
	Total-Existing+Planned+Future		**219.1**	**36.5**	**814.1**
21	Lynn Middle School	Other	7	1.2	26.0
22	South Bay Junior Academy	Other	6	1.0	22.3
23	La Romeria Park	Other	13	2.2	48.4
24	Bishop Montgomery High School	Other	12	2.0	44.6
25	Arnold Elementary School	Other	3	0.5	11.2
	Subtotal-Other		**41**	**6.8**	**152.5**
	Total-Existing+Planned+Future+Other		**260.1**	**43.3**	**966.6**

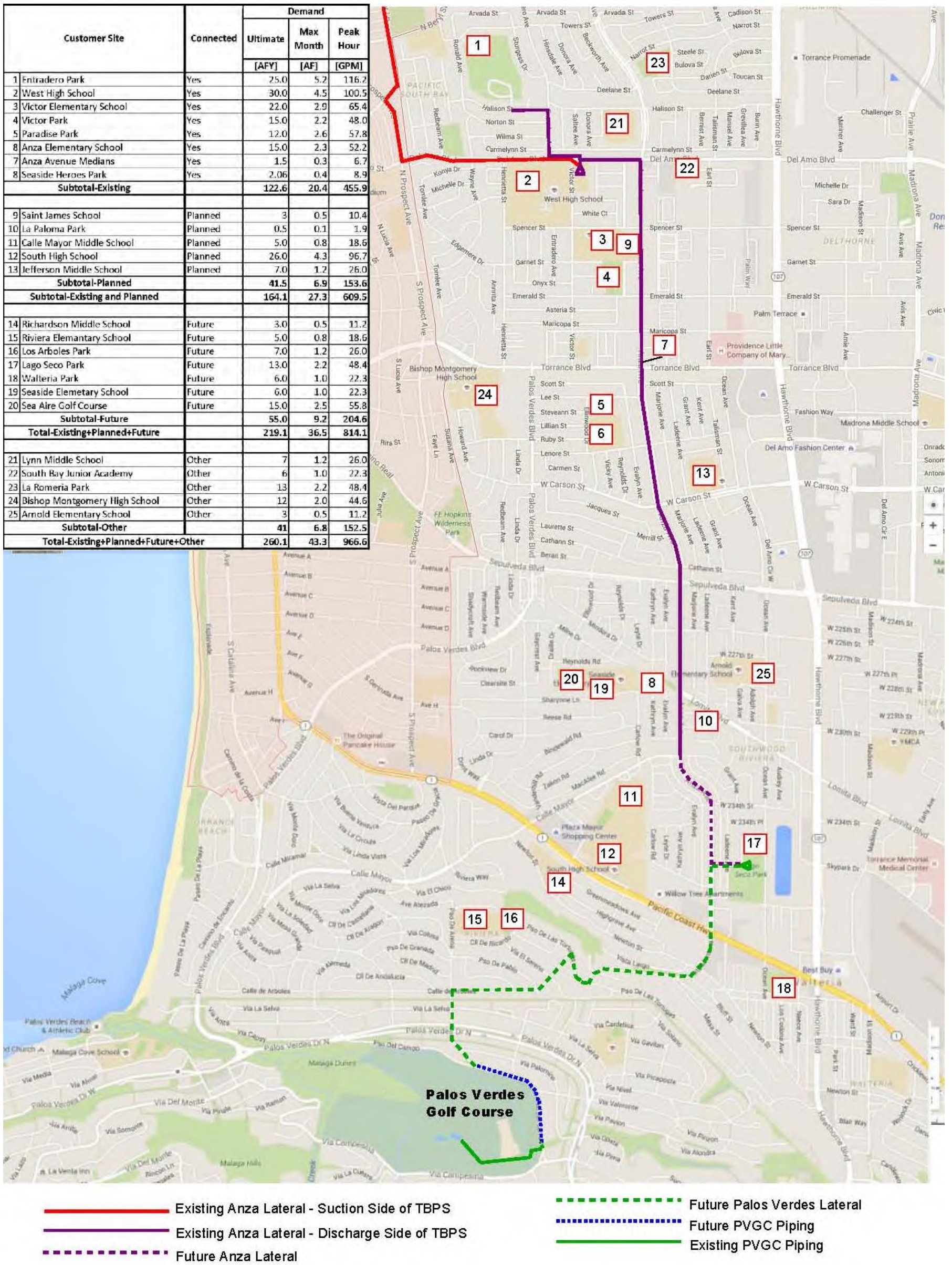


FIGURE 7
Anza Lateral Extension and Proposed Palos Verdes Lateral

TABLE 3
Anza Lateral and Palos Verdes Lateral
Existing, Planned, Future, and Other Demands

Customer Site	Connected	Demand					
		Actual (FY14/15)	Estimated	Max Month	Ultimate	Max Month	Peak Hour
		[AFY]	[AFY]	[AF]	[AFY]	[AF]	[GPM]
Entradero Park	Yes	25.00		5.21	25.0	5.2	116.2
West High School	Yes	29.37		4.41	30.0	4.5	100.5
Victor Elementary School	Yes	20.86		2.78	22.0	2.9	65.4
Victor Park	Yes	13.31		1.91	15.0	2.2	48.0
Paradise Park	Yes	11.02		2.38	12.0	2.6	57.8
Anza Elementary School	Yes	14.63		2.28	15.0	2.3	52.2
Anza Avenue Medians	Yes	1.48		1.48	1.5	0.3	6.7
Seaside Heroes Park	Yes	2.06		0.40	2.06	0.4	8.9
Subtotal-Existing		**117.73**		**20.85**	**122.6**	**20.4**	**455.9**
Saint James School	Planned		3.00	0.50	3	0.5	10.4
La Paloma Park	Planned		0.50	0.08	0.5	0.1	1.9
Calle Mayor Middle School	Planned		5.00	0.83	5.0	0.8	18.6
South High School	Planned		25.00	4.17	26.0	4.3	96.7
Jefferson Middle School	Planned		7.00	1.17	7.0	1.2	26.0
Subtotal-Planned			**40.50**	**6.75**	**41.5**	**6.9**	**153.6**
Subtotal-Existing and Planned			**158.23**	**27.60**	**164.1**	**27.3**	**609.5**
Richardson Middle School	Future		3.00	0.50	3.0	0.5	11.2
Riviera Elemantary School	Future		5.00	0.83	5.0	0.8	18.6
Los Arboles Park	Future		7.00	1.17	7.0	1.2	26.0
Lago Seco Park	Future		13.00	2.17	13.0	2.2	48.4
Walteria Park	Future		6.00	1.00	6.0	1.0	22.3
Seaside Elemetary School	Future		6.00	1.00	6.0	1.0	22.3
Sea Aire Golf Course	Future		15.00	2.50	15.0	2.5	55.8
Subtotal-Future			**55.00**	**9.17**	**55.0**	**9.2**	**204.6**
Total-Existing+Planned+Future			**213.23**	**36.77**	**219.1**	**36.5**	**814.1**
Lynn Middle School	Other				7	1.2	26.0
South Bay Junior Academy	Other				6	1.0	22.3
La Romeria Park	Other				13	2.2	48.4
Bishop Montgomery High School	Other				12	2.0	44.6
Arnold Elementary School	Other				3	0.5	11.2
Subtotal-Other					**41**	**6.8**	**152.5**
Total-Existing+Planned+Future+Other					**260.1**	**43.3**	**966.6**

3.3 Obtain the Torrance Booster Pump Station SCADA records from Cal Water to verify the existing operation, and further calibrate West Basin's model.

The Torrance Booster Pump Station is currently not being used because of existing low demands and sufficient pressure from the Title 22 system to serve the existing customers. It will be utilized to provide the desired pressures at the customer connections as additional customers are added, and for delivering recycled water to PVGC. The Title 22 System model was updated as part of this study to include the demands of all existing and future customers.

3.4 Evaluate Existing System Capacity

Under this task, the capacity of both the Torrance Booster Pump Station, and the Anza Lateral Pipelines were evaluated.

3.4.1 Torrance Booster Pump Station

The Torrance Booster Pump Station was designed to boost service pressures in the Anza Lateral to a minimum of 85 psi under Phase 1 and Phase 2 maximum day peak hour demand conditions. The facility currently has three (3) main pumps (2 duty, 1 standby) and two (2) jockey pumps (1 duty, 1 standby). Each pump is equipped with a variable frequency drive, and is designed to maintain a constant downstream pressure as measured at the pump station discharge header. However, because the piping south of Lenore Street was reduced to 6-inch in diameter, and Class 150 PVC pipe was used south of Carson Street, the pressure at the discharge header of the pump station has to be limited to 132 psi so that the pressure limit of the pipe is not exceeded. This, along with the greater head losses in the smaller pipe, results in service pressures of less than 85 psi at several customer locations during the maximum month peak hour demand periods.

Figure 8 illustrates the head that can be provided by two main pumps at the TBPS with the daytime PVGC demands (500 gpm), and by three main pumps with the nighttime peak hour demands (966.6 gpm).

In order to provide a discharge pressure of 132 psi, the suction pressure at the TBPS has to be approximately 10 psi when pumping to PVGC, and 20 psi during the nighttime peak pumping hours. If the suction pressures available are higher, then the pumps will need to be operated at reduced speed to not exceed the maximum pressure of 132 psi.

With the maximum pressure of 132 psi at the discharge header of TBPS (approximate hydraulic grade elevation of 405 feet), the existing pump station cannot convey flows to the planned PVGC reservoir, which will have a high water elevation of approximately 450 feet amsl.

The Torrance Booster Pump Station can provide the peak hour nighttime demands with three main pumps at a total head of 288 feet with the pumps operating at full speed. It can also provide the daytime flow of 500 gpm to PVGC with two pumps at a total head of 301 feet at full pump speed, as shown on Figure 9. Delivery to PVGC will require a new in-line booster pump station, recommended to be located at Lago Seco Park.

The pump speeds will need to be adjusted to provide a constant pressure on the discharge side based upon the suction pressure. As an example, if the suction pressure is 70 psi, with a maximum discharge pressure of 132 psi, the maximum head added by TBPS would be about 66 psi, accounting for the pump station losses. One main pump operated at approximately 93% of full speed would deliver 500 gpm at a total head of 153 feet, providing a discharge pressure of 132 psi, as shown on Figure 10.

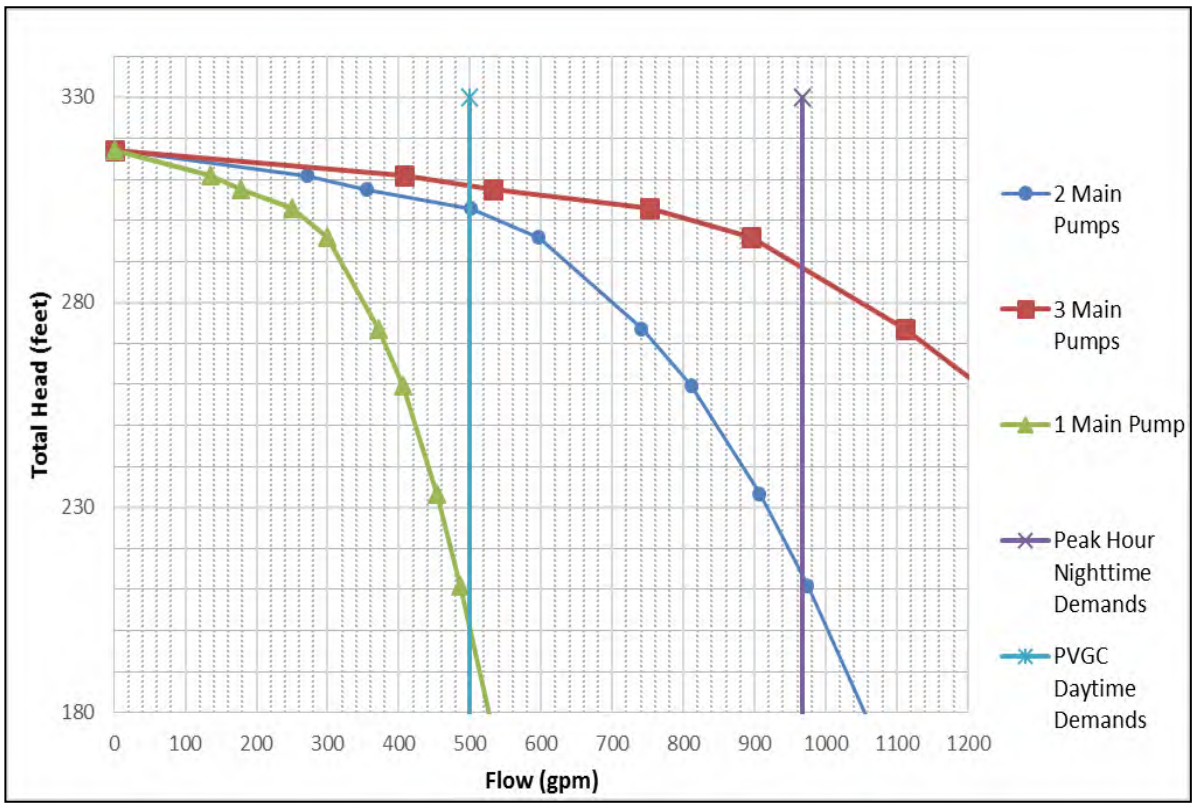


FIGURE 8
Torrance Booster Pump Station Operation with Peak Hour Demands and Palos Verdes Golf Course Demands

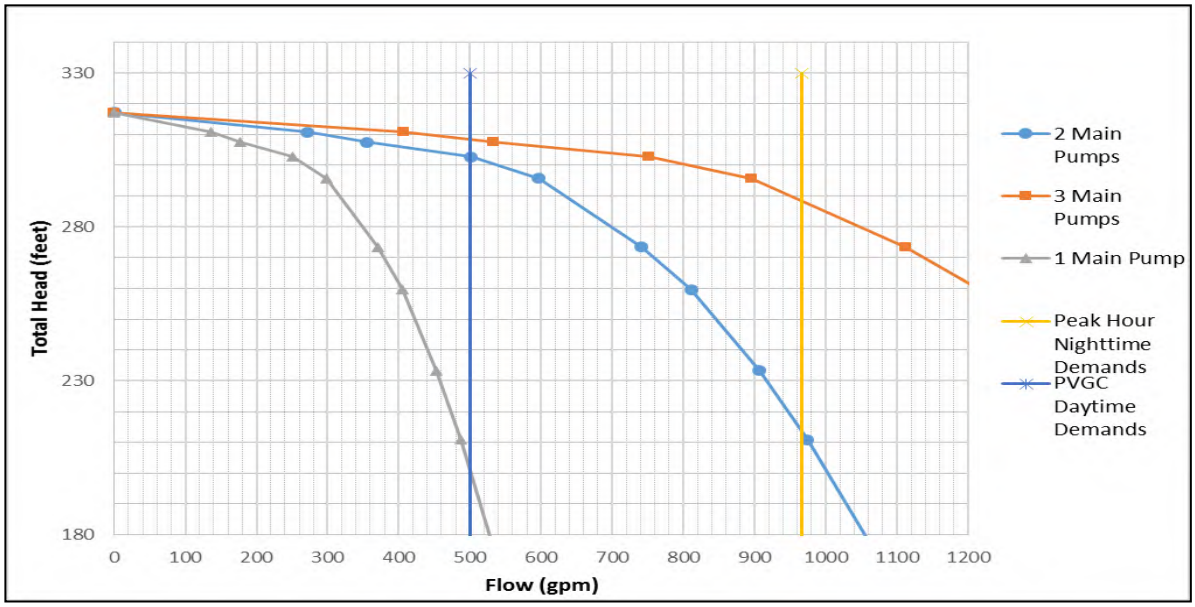


FIGURE 9
Torrance Booster Pump Station Operation at Full Speed for Nighttime Peak Hour and Daytime Demands

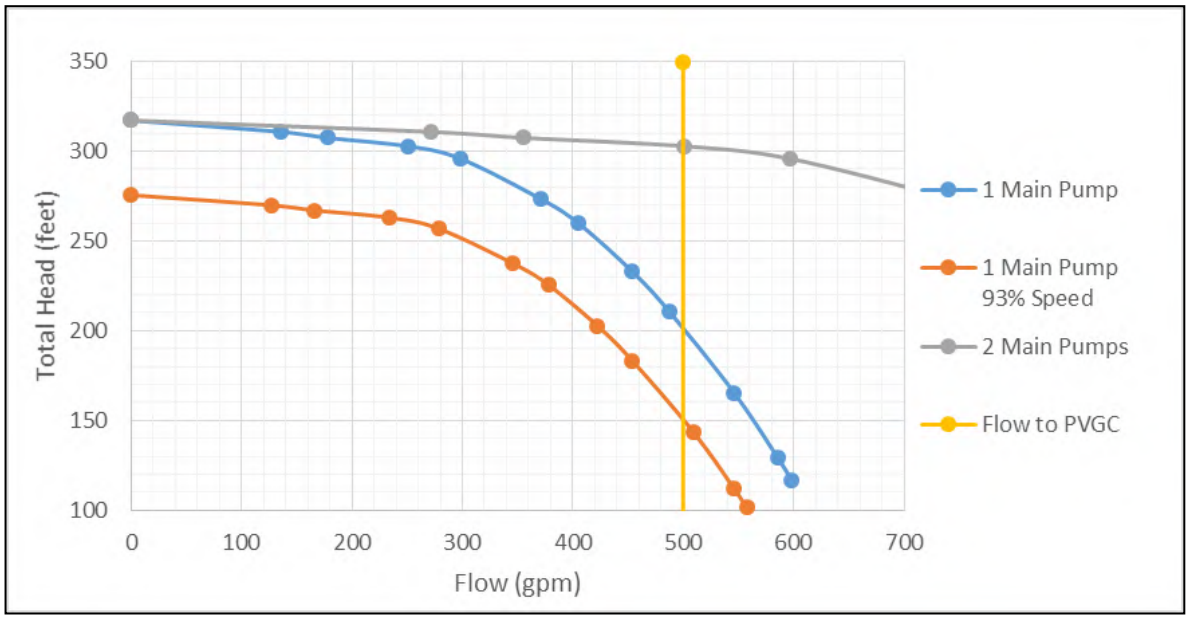


FIGURE 10
Torrance Booster Pump Station - One and Two Pump Operation for Daytime Demands

3.4.2 Anza Lateral Pipelines

West Basin's updated hydraulic model was utilized to evaluate the performance of the system on the discharge side of the TBPS. With the proposed Palos Verdes Lateral, service to Walteria Park would be best provided from the Palos Verdes Lateral in order to avoid a second crossing of the Pacific Coast Highway. Service to Richardson Middle School can also be provided through the Palos Verdes Lateral, which would entail constructing about 3,800 feet of pipe on Newton Street. It can also be served through the lateral that will serve the South High School, but this will require another crossing of Pacific Coast Highway. Because of their high elevation (320 feet amsl), service to Riviera Elementary School and Los Arboles Park will need to be provided from the new pump station at Lago Seco Park through the future Palos Verdes Lateral. The total peak hour demand of these four future customers is 78 gpm over an 8 hour period.

The hydraulic model was used to evaluate the pressures at the customer sites with the peak hour demands with Hazen Williams C factors ranging from 90 to 110 assuming all future potential customers will be connected. The resulting pressures are illustrated in Table 4, and on Figure 11.

The hydraulic model was also used to determine the frictional losses in the Anza Lateral pipelines between the TBPS and proposed pump station at Lago Seco Park with the same range of C factors. The results of these analyses are shown in Table 5 and on Figure 12. In order to provide acceptable suction pressure conditions at the proposed Lago Seco Pump Station, the new pipelines on Anza Avenue and 236th Street will need to be 10-inch in diameter. Alternatively, these new pipes can be 8-inch in diameter, and some of the existing 6-inch pipe between Lenore Street and Calle Mayor can be replaced with 8-inch pipe. This model includes the proposed pump station at the Lago Seco Park, with a rated capacity of 500 gpm and a total dynamic head of 500 feet.

TABLE 4
Anza and Palos Verdes Lateral Peak Hour (Nighttime) Customer Pressures

Model junct_ID	Site/Customer	Pressure C=90	Pressure C=100
G1-100	Entradero Park	92	98
G1-110		103	108
G1-115		115	118
G1-131		131	131
G1-132		131	132
G1-133		132	132
G1-135		115	118
G1-136		113	116
G1-137	West High School	112	115
G1-140		118	120
G1-150	St James Catholic School	109	114
G1-160	Victor Elementary School	106	111
G1-170		97	103
G1-180	Victor Park	94	100
G1-190		89	96
G1-200	Anza Median	85	92
G1-210		86	94
G1-220	Paradise Park	87	95
G1-230		83	92
G1-240	Anza Elementary School	76	85
G1-250		78	89
G1-260		79	89
G1-270	Jefferson Middle School	79	90
J14		65	77
J18		63	77
J20		126	142
J22		265	282
J24		217	233
J26	Richardson Middle School	34	51
J28		155	171
J30	Los Arboles Park	149	166
J34	Riviera Elementary School	151	168
J36	Lago Seco Park	49	66
J38		49	66
J40	Walteria Park	257	274
J42		299	316
J44	Bert Lynn Middle School	115	118
J46	South Bay Junior Academy	118	121
J48		114	117
J50	La Romeria Park	107	110
J52		269	285
POT13-100	Anza Median	54	70
POT13-110	Seaside Heroes Park	42	58
POT13-120	La Paloma Park	54	70
POT13-130	Arnold Elementary School	53	69
POT13-150		49	66
POT13-160	Calle Mayor Middel School	44	61
POT13-170	South Torrance High School	44	61
POT13-180	Seaside Elementary School	46	62
POT13-190	Sea Aire Golf Course	46	62
POT14-100		85	93
POT14-110	Bishop Montgomery High School	87	95

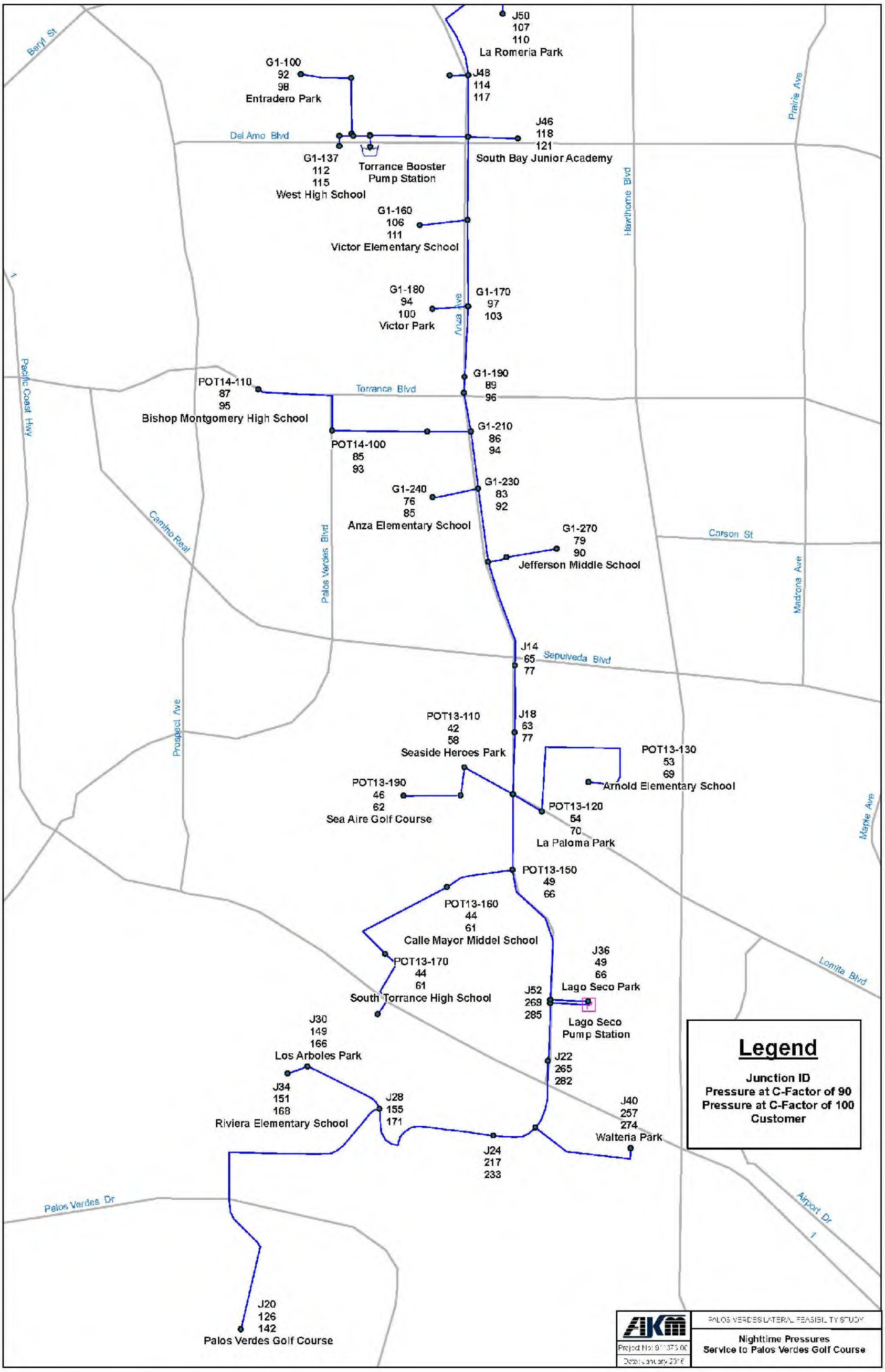


FIGURE 11
Nighttime Pressures – Service to Palos Verdes Golf Course

TABLE 5
Anza and Palos Verdes Lateral Pressures – Pumping to Palos Verdes Golf Course

Model junct_ID	Site/Customer	Pressure C=90	Pressure C=100
G1-100	Entradero Park	123	123
G1-110		128	128
G1-115		132	132
G1-131		132	132
G1-132		132	132
G1-133		132	132
G1-135		132	132
G1-136		131	131
G1-137	West High School	131	131
G1-140		125	126
G1-150	St James Catholic School	121	123
G1-160	Victor Elementary School	120	122
G1-170		111	114
G1-180	Victor Park	109	112
G1-190		103	107
G1-200	Anza Median	99	104
G1-210		101	106
G1-220	Paradise Park	102	107
G1-230		97	103
G1-240	Anza Elementary School	91	97
G1-250		84	93
G1-260		85	94
G1-270	Jefferson Middle School	85	95
J14		58	71
J18		49	65
J20		21	56
J22		210	236
J24		153	180
J26	Richardson Middle School	-1	22
J28		79	108
J30	Los Arboles Park	73	103
J34	Riviera Elementary School	75	105
J36	Lago Seco Park	6	30
J38		8	31
J40	Walteria Park	197	224
J42		239	266
J44	Bert Lynn Middle School	123	124
J46	South Bay Junior Academy	126	127
J48		122	123
J50	La Romeria Park	115	116
J52		219	244
POT13-100	Anza Median	31	51
POT13-110	Seaside Heroes Park	20	39
POT13-120	La Paloma Park	31	51
POT13-130	Arnold Elementary School	30	50
POT13-150		11	34
POT13-160	Calle Mayor Middel School	7	30
POT13-170	South Torrance High School	8	32
POT13-180	Seaside Elementary School	24	43
POT13-190	Sea Aire Golf Course	24	43
POT14-100		100	106
POT14-110	Bishop Montgomery High School	103	108

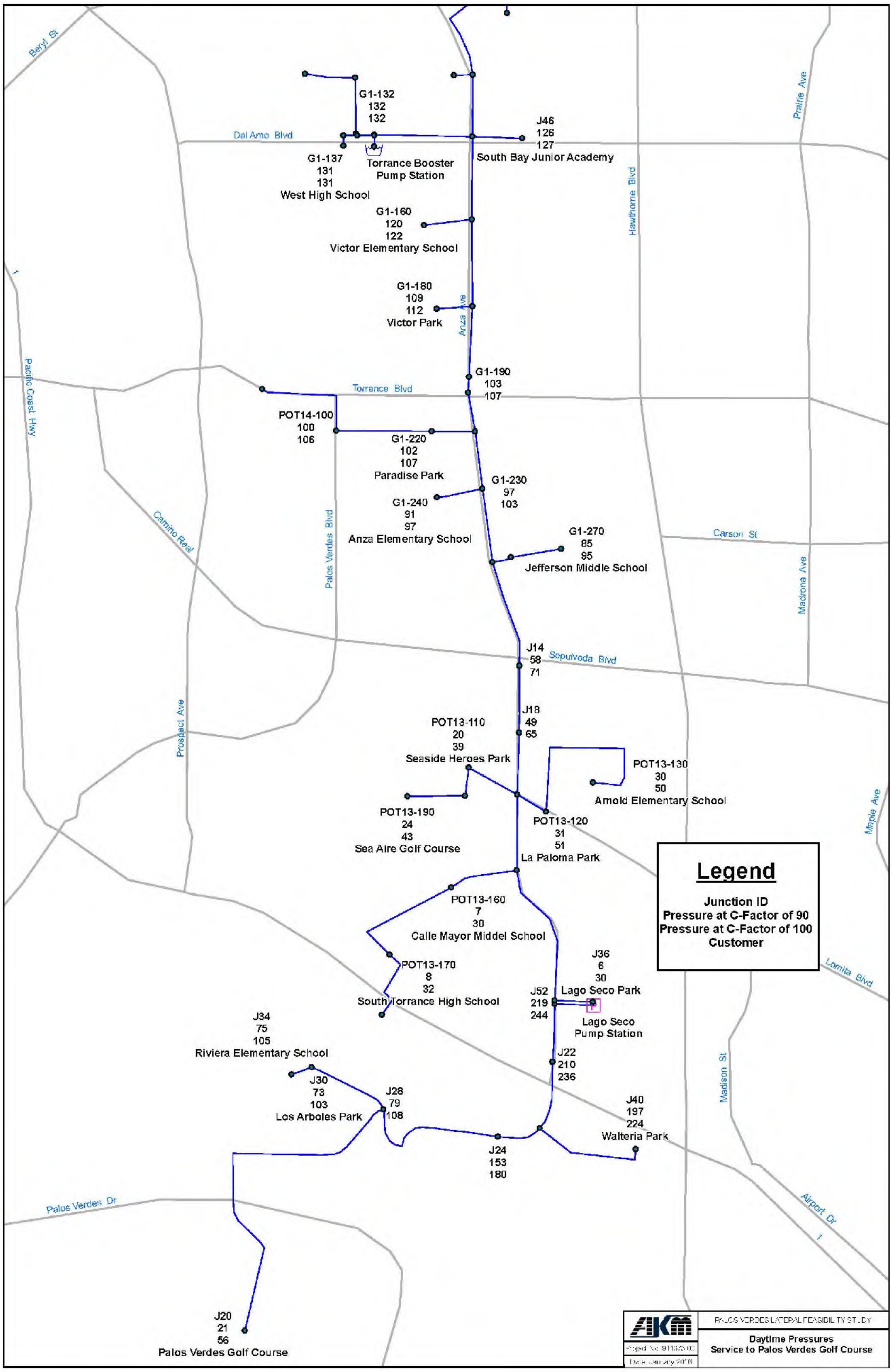


FIGURE 12
Daytime Pressures – Service to Palos Verdes Golf Course

3.4.3 Palos Verdes Lateral

The recommended discharge pipeline between the Lago Seco Pump Station and the Palos Verdes Golf Course, referred to as the Palos Verdes Lateral, is proposed to be an 8-inch diameter pipe. The portions of the pipeline below elevation 250 feet amsl (near Vista Montana and Paseo de Las Tortugas), with a length of approximately 5,200 feet, will experience operating pressures in excess of 175 psi, and should be minimum Class 350 ductile iron. The pipes at the higher elevations (5,100 feet in length), between Vista Montana and the PVGC at Via Colusa and Paseo del Campo can be constructed of Class 200 AWWA C900 PVC. The estimated cost to construct the 10-inch diameter extension of the Anza Lateral and the Palos Verdes Lateral is $7,058,400, including contingencies, design, construction management, and administration, as detailed in Table 6.

TABLE 6
Anza Lateral Extension and Palos Verdes Lateral Pipeline Cost Estimate

Item	Description	Quantity	Unit Cost	Cost
1	Mobilization/Demobilization	1		$200,000
2	Permits	1		$8,000
3	8-inch Class 350 Ductile Iron Pipe	5200	300	$1,665,000
4	8-inch Class 200 AWWA C900 Pipe	5100	240	$1,224,000
5	10-inch Class 200 AWWA C900 Pipe	3550	300	$1,065,000
6	24-inch Casing and Jack & Bore Crossing of PCH	200	750	$150,000
7	Pressure Reducing Valves at Customer Conn.	3	15000	$45,000
	Sub-total Construction			$4,357,000
	Contingency (20%)			$871,400
	Total Construction			$5,228,400
	Design (15%)			$784,300
	Construction Management and Administration (20%)			$1,045,700
	Total			**$7,058,400**

3.4.4 Lago Seco Booster Pump Station

The booster pump station is proposed to be located in an existing unpaved area east of the W 238th Street and Ladeene Avenue intersection at Lago Seco Park. A firm capacity of 500 gpm is selected to minimize the frictional losses in the existing pipes so that sufficient suction pressure can be provided at the proposed pump station with relatively low Hazen-Williams friction factors, reflecting deteriorated pipe conditions. Such capacity can provide the desired maximum day flow of 450,000 gallons within 15 hours.

The firm capacity can be provided with either two (one duty and one standby) or three pumps (two duty and one standby). Lower flows will require the use of higher speed pumps and motors with a reasonable number of pump stages. Because these pumps will operate for extended periods of time daily, higher speed (3600 rpm) pumps are not desirable. Additionally, better pump efficiencies are available with the higher capacity pumps. Further, the pump station building width will be less with two pumps than with three. For this reason, it is proposed to provide two 500 gpm capacity pumps at the pump station.

The required total dynamic head could vary from 350 feet to 500 feet depending upon the condition of the pipes. To accommodate such potential variations it is recommended that the motors be operated by variable frequency drives. Possible selections include a 10 stage Peerless 10LB pump at 1770 rpm

speed, and 11 stage Pentair 10M pump with a rated speed of 1770 rpm, as shown on Figure 13. The motor would be 100 HP, with 125 HP VFDs.

Because chlorine boosting facilities are available at TBPS, they are not expected to be needed at the LSBPS. The pump station is preliminarily sized to be approximately 30 feet wide and 25 feet long. The pump station would have a portable generator connection and a manual transfer switch to operate it during commercial power outages. The proposed location is illustrated on Figure 14. Preliminary plan and mechanical section are shown on Figures 15 and 16.

The estimated cost to construct the pump station is $2,894,000, as detailed in Table 7.

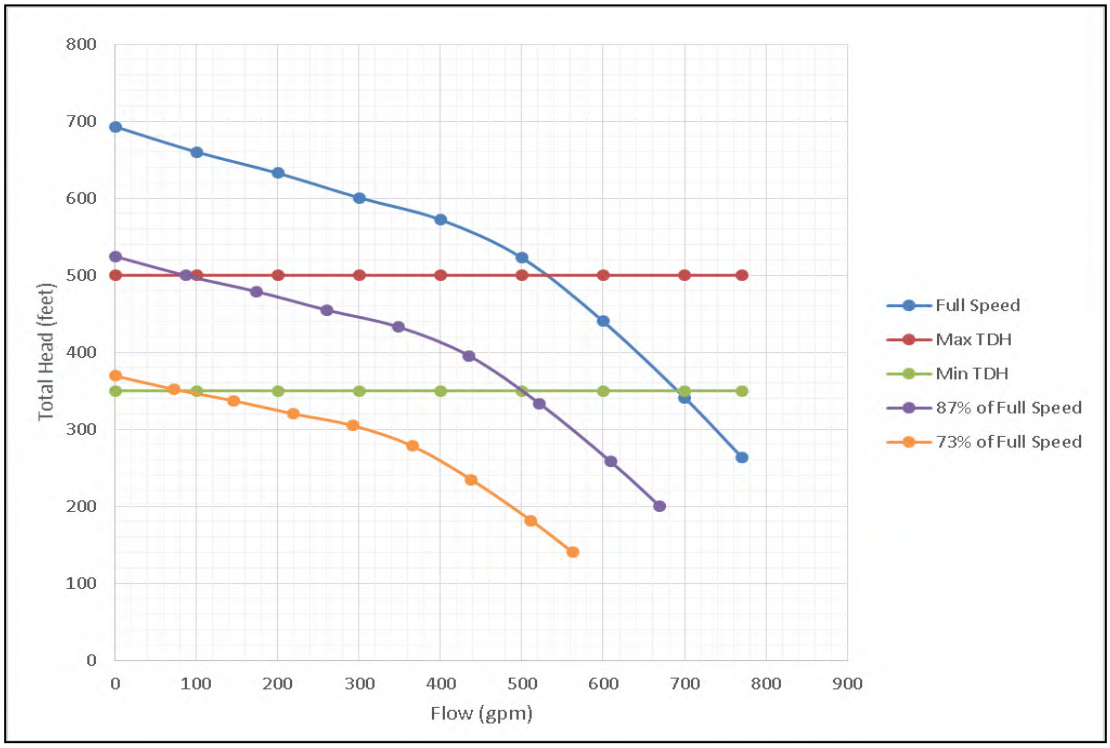


FIGURE 13
Proposed Lago Seco Booster Pump Station with 11 Stage Pentair Pump Operation

TABLE 7
Lago Seco Booster Pump Station Cost Estimate

Item	Description	Cost
1	Mobilization/Demobilization	$120,000
2	Submittals	$8,000
3	Temporary Facilities	$10,000
4	Clearing/Grubbing/Demolition	$15,000
5	Sheeting, Shoring, Trench Excavation Safety	$15,000
6	Suction Piping	$60,000
7	Discharge Piping	$80,000
8	Flow Meter	$10,000
9	Pump Station Building	$300,000
10	Building Sound Proofing	$50,000
11	Building Ventilation	$20,000
12	4" Surge Anticipator Valve and Piping	$20,000
13	4" Pressure Relief Valve and Piping	$20,000
14	2-100 HP, 500 gpm, 500 ft TDH Pumps	$200,000
15	16" Diameter Pump Barrels	$30,000
16	Electric Service and Switchgear	$50,000
17	Motor Control Center, including VFDs	$200,000
18	Electrical Work, including Wire, Conduit, and Equipment	$300,000
19	Pump Station Control Panel	$60,000
20	Telemetry System	$50,000
21	Circuit Breaker Coordination Study	$8,000
22	Third Party Testing of Electrical Systems	$10,000
23	Site Improvements	$150,000
	Sub-total Construction	$1,786,000
	Contingency (20%)	$357,400
	Total Construction	$2,143,400
	Design (15%)	$321,920
	Construction Management and Administration (20%)	$428,680
	Total	**$2,894,000**

CUSTOMER SERVICE LATERALS

The originally planned customers, as well as those desired to be added to the Anza Lateral Project by the City of Torrance are shown on Figures 11 and 12. Table 8 shows the size, length, and cost of implementing these projects. The unit costs shown in Table 8 include 20% for contingencies, 15% for design, and 20% for construction management and administration. The total cost of the 17 projects is estimated at $5,743,600.

TABLE 8
Service Laterals Cost Estimate

Item	Description	Size	Quantity	Unit Cost	Cost
1	Saint James School	4	200	250	$60,000
2	La Paloma Park	6	200	280	$56,000
3	Calle Mayor Middle School	6	400	280	$112,000
4	South High School	6	1000	280	$280,000
5	Jefferson Middle School	4	3200	250	$800,000
6	Richardson Middle School	4	200	250	$50,000
7	Riviera Elementary School	4	100	250	$25,000
8	Los Arboles Park	4	1320	250	$330,000
9	Lago Seco Park	4	100	250	$25,000
10	Walteria Park	4	700	250	$175,000
11	Seaside Elementary School	6	1300	280	$364,000
12	Sea Aire Golf Course	6	1300	280	$364,000
13	Lynn Middle School	4	1200	250	$300,000
14	South Bay Junior Academy	4	1300	250	$325,000
15	La Romeria Park	4	3000	250	$750,000
16	Bishop Montgomery High School	6	3600	280	$1,008,000
17	Arnold Elementary School	6	2570	280	$719,600
	Total				$5,743,600

POWER COST TO PROVIDE SERVICE TO PVGC

A detailed schedule for use of recycled water was developed for each day, as well as by month from the data provided by West Basin's CIMP and PVGC. The demands of the customers served by TBPS have been planned for the period between 10 pm and 6 am. Pumping from LSBPS has been planned outside of this 8 hour period, and have been scheduled to avoid the on-peak pumping period of 12 pm to 6 pm between June 1 and October 1 in order to minimize the pumping cost. Power costs were developed for weekdays and weekends for each month. The current annual cost to pump the demands of PVGC (500 gpm) are:

ELWRF to TBPS:	$9,880
TBPS to LSBPS:	$13,120
LSBPS to PVGC:	$24,480
Total:	$47,480

Based on pumping 223 afy to the golf course, the pumping cost is $213 per acre-foot.

TOTAL COST TO PROVIDE SERVICE TO PALOS VERDES GOLF COURSE

Palos Verdes Golf Course will benefit from the use of the proposed Lago Seco Booster Pump Station, the 10-inch pipe on Anza Avenue and 236th Street, and the discharge pipe of LSBPS. Utilizing the cost estimates developed for these facilities and useful lives of 30 years and 50 years, respectively for the pump station and the pipelines, 3% interest rate, and 223 AFY of use at the golf course, the cost for service to PVGC is $1,719 per acre-foot for the capital improvements, and $213 per acre-foot for power, with a total of $1,932 per acre foot. This total does not include the cost share in the pipelines between ELWRF and the TBPS, the existing Anza Lateral Pipelines, TBPS, and ECLWRF.

40 10 0 40 80

SCALE IN FEET
1" = 40'

N

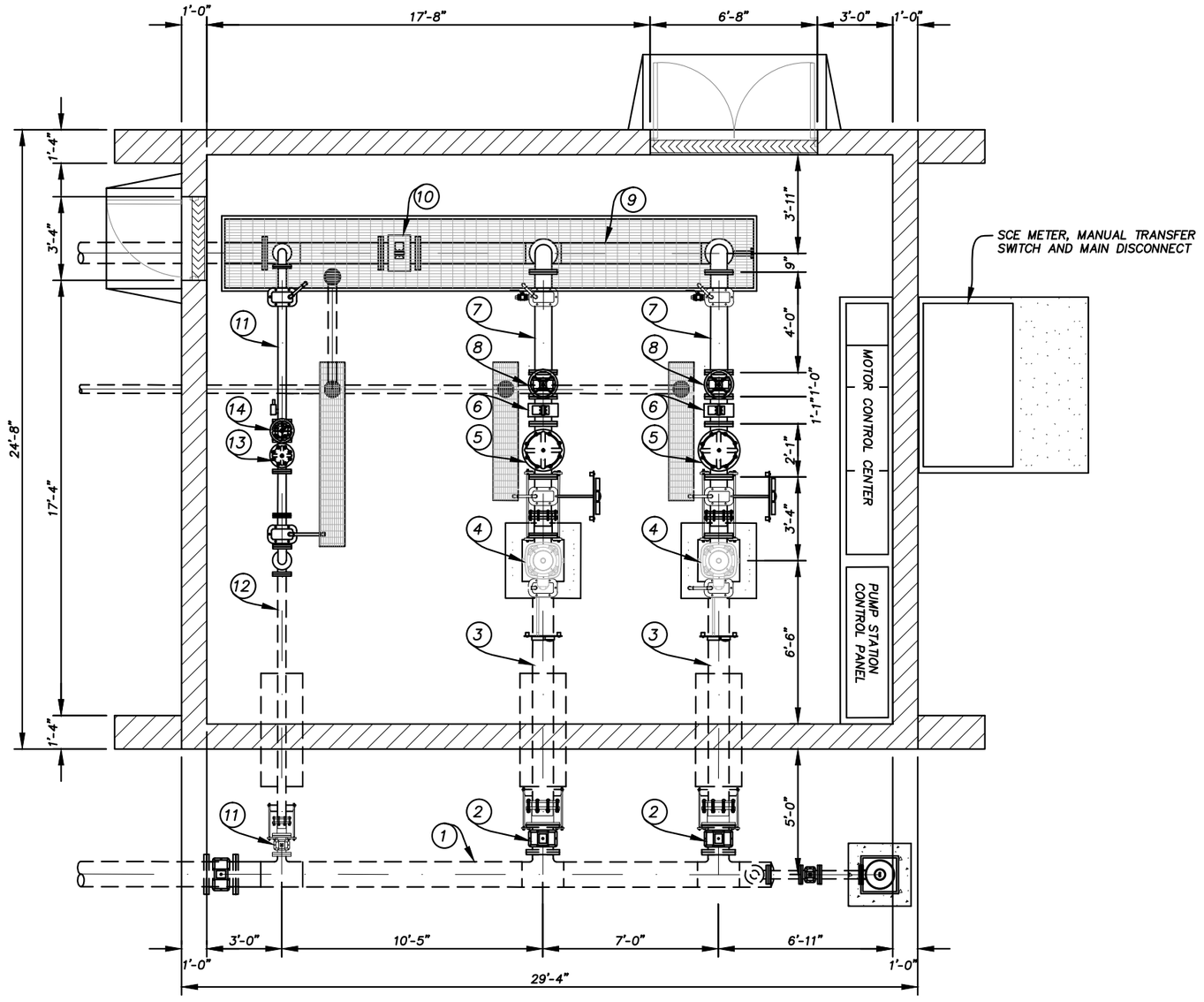
SITE PLAN
SCALE: 1" = 40'

JOB NO.:	XXXXXX.XX
DATE:	APRIL 2016

WBMWD
PALOS VERDES LATERAL

LAGO SECO PUMP STATION
SITE PLAN

FIGURE 14



	LIST OF MATERIALS	SIZE
1	SCH. 40 FBE LINED AND COATED STEEL PIPE	12"
2	RESILIENT GATE VALVE	10"
3	SCH. 40 FBE LINED AND COATED STEEL PIPE	10"
4	VERTICAL TURBINE PUMP Q=500 GPM, TDH=500FT @ 1770 RPM	-
5	HYDRAULICALLI OPERATED GLOVE CHECK VALVE	8"
6	MAGNETIC FLOW METER	8"
7	SCH. 40 FBE LINED AND COATED STEEL PIPE	8"
8	OS&Y RESILIENT GATE VALVE	8"
9	SCH. 40 FBE LINED AND COATED STEEL PIPE	10"
10	MAGNETIC FLOW METER	10"
11	RESILIENT GATE VALVE	4"
12	SCH. 40 FBE LINED AND COATED STEEL PIPE	4"
13	PRESSURE REDUCING SUSTAINING	4"
14	RESILIENT GATE VALVE	4"

2 1 0 2 4

SCALE IN FEET
3/16 inch = 1 ft.

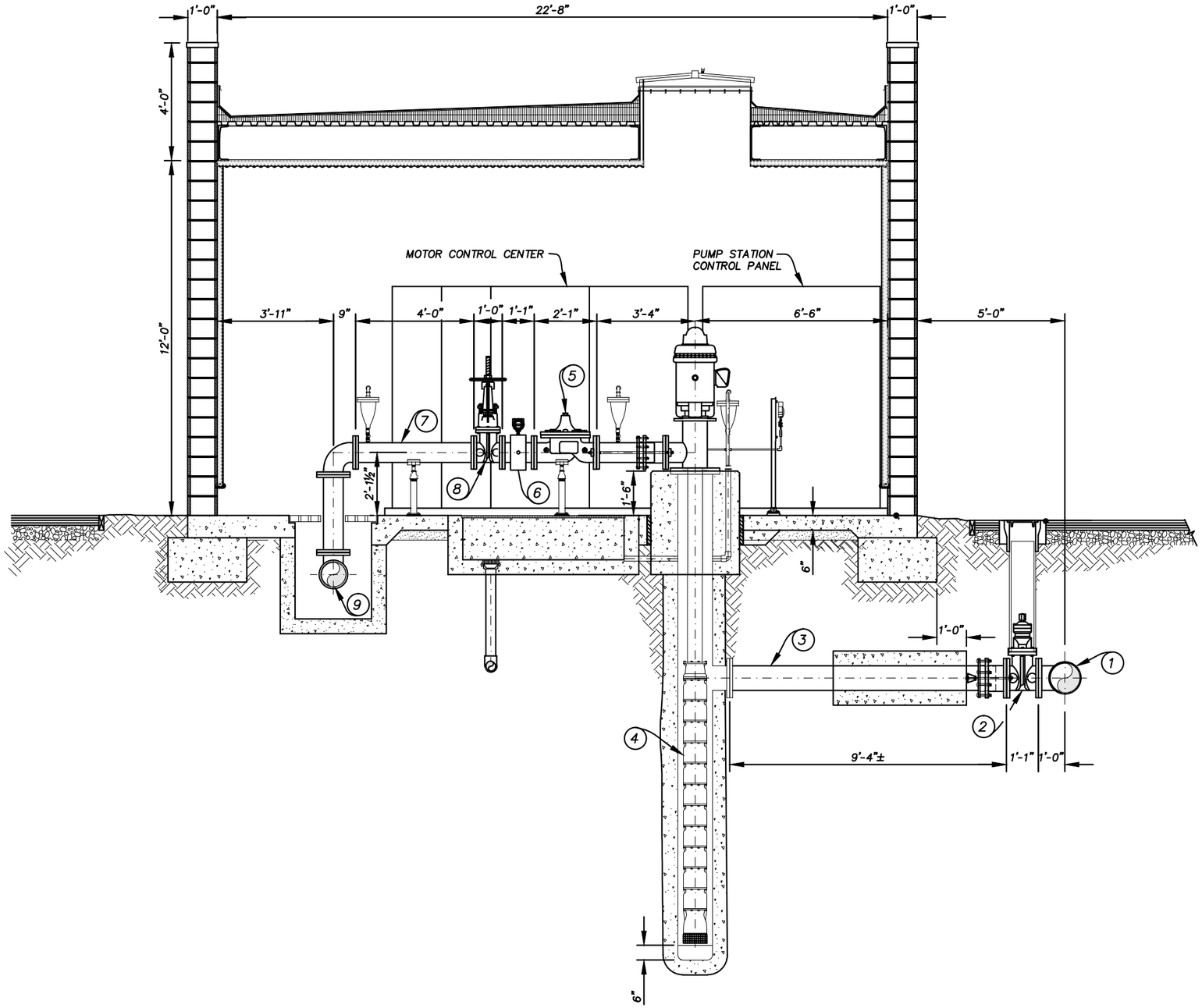
BOOSTER STATION PLAN

SCALE: 3/16" = 1'-0"

N

AKM	WBMWD PALOS VERDES LATERAL
JOB NO.: XXXXXX.XX DATE: APRIL 2016	LAGO SECO PUMP STATION MECHANICAL PLAN FIGURE 15

	LIST OF MATERIALS	SIZE
1	SCH. 40 FBE LINED AND COATED STEEL PIPE	12"
2	RESILIENT GATE VALVE	10"
3	SCH. 40 FBE LINED AND COATED STEEL PIPE	10"
4	VERTICAL TURBINE PUMP Q=500 GPM, TDH=500FT @ 1770 RPM	-
5	HYDRAULICALLI OPERATED GLOVE CHECK VALVE	8"
6	MAGNETIC FLOW METER	8"
7	SCH. 40 FBE LINED AND COATED STEEL PIPE	8"
8	OS&Y RESILIENT GATE VALVE	8"
9	SCH. 40 FBE LINED AND COATED STEEL PIPE	10"



2 1 0 2 4

SCALE IN FEET
3/16 inch = 1 ft.

MECHANICAL SECTION A

SCALE: ¼" = 1'-0"

JOB NO.:	XXXXXX.XX
DATE:	APRIL 2016

WBMWD
PALOS VERDES LATERAL

LAGO SECO PUMP STATION
MECHANICAL SECTION

FIGURE 16

ATTACHMENT 3

Palos Verdes Recycled Water Pipeline Agreement
(Exhibits Available upon Request)

AGREEMENT
by and among
WEST BASIN MUNICIPAL WATER DISTRCT, CALIFORNIA WATER SERVICE COMPANY and THE PALOS VERDES GOLF CLUB for the FUNDING, DESIGN, and CONSTRUCTION of a PALOS VERDES RECYCLED WATER PIPELINE PROJECT

This AGREEMENT for the Funding, Design, and Construction of the Palos Verdes Recycled Water Pipeline Project ("**AGREEMENT**") is dated **May 1 2022 Effective Date**"), and is entered by and among West Basin Municipal Water District ("**West Basin**"), the California
Water Service Company (**"Cal Water"**), and the Palos Verdes Golf Club, Inc., a California non-profit corporation (**"PV Club"**). West Basin, Cal Water, and PV Club shall hereinafter singularly be referred to as a **"Party"** or collectively be referred to as the "**Parties**."

NOW THEREFORE, for good and valuable consideration, the receipt and adequacy of which are acknowledged, the Parties agree as follows:

SECTION 1. PROJECT PURPOSE AND GOALS

1.1 West Basin is an urban water wholesaler, dedicated to providing a safe and reliable supply of water to the communities in the West Basin service area;

1.2 Cal Water is an investor owned utility subject to the jurisdiction of the California Public Utilities Commission ("Commission").

1.3 Cal Water purveys water for residential, industrial, commercial, public agency, irrigation, and other uses, within Cal Water's service areas, which are on file with the Commission.

1.4 The City of Palos Verdes Estates ("City") owns and leases real property to PV Club for the purpose of general recreation, including management and maintenance of a golf course.

1.5 PV Club is located within West Basin's service area.

1.6 PV Club is an existing customer of Cal Water within Cal Water's Palos Verdes service area, and desires to obtain recycled water for landscaping and irrigation at its golf course.

1.7 PV Club has already installed a separate irrigation system to use recycled water and has removed nearly 25% of turfgrass. PV Club's leadership in conservation practices that minimize the reliance on imported water is a benefit to the surrounding community and the region as a whole.

1.8 Cal Water does not own or operate any recycled water facilities in its Palos Verdes service area where PV Club is located.

1.9 West Basin owns and operates a water recycling facility that provides recycled water to its customer agencies, including Cal Water, the urban water retailer for the City and PV Club.

1.10 In May 2016, Governor Edmund Brown issued Executive Order B-37-16 and directed state agencies to bolster drought resilience and preparedness by establishing long term conservation measures. This Executive Order coincides with the California Water Action Plan, which directs urban water retailers to increase regional self-reliance through the development of drought resilient water supplies, including recycled water.

1.11 In response to Executive Order B-37-16, West Basin, Cal Water, and PV Club have agreed to jointly pursue a recycled water project to deliver approximately 218 acre feet per year (AF/y) of recycled water for irrigation at the PV Club (**"Palos Verdes Recycled Water Pipeline Project," or "Project"**). The Project will decrease potable water demand and increase the use of recycled water in the region. The development and use of recycled water is beneficial to West Basin, Cal Water, and PV Club.

1.12 The Project will consist of the design and construction of a conveyance pipeline that extends to the PV Club, a pump station, and lateral pipelines to school and park sites within the City of Torrance, as shown in Exhibit A. The conveyance pipeline will begin at the terminus of West Basin's existing distribution system in Anza Avenue, in the City of Torrance (Torrance), and end at a new service connection at the PV Club. The Project's proposed pump station shall be designed to deliver recycled water to several Torrance sites and the PV Club.

SECTION 2. RESPONSIBILITIES OF AND TASKS TO BE PERFORMED BY WEST BASIN, CAL WATER, AND PV CLUB

2.1 Responsibilities of and tasks to be performed by West Basin.

2.1.1 FUNDING. West Basin has secured grant money in the amount of two million, forty-five thousand five hundred and thirty seven dollars ("$2,045,537") from the State of California Department Water Resources, through its 2015 Proposition 84 Integrated Regional Water Management Implementation Grant agreement with Los Angeles County Flood Control District (Grant Agreement), provided herein as Exhibit C. West Basin may seek additional grant monies. Irrespective of any grant funds that West Basin may obtain, it shall pay any remaining amount up to the current estimate of approximately $12.9 million as reduced by funds paid by another Party consistent with this Agreement, for the design and construction of the Project. Should the cost for the design and construction of the Project exceed the current estimate of $12.9 million, West Basin will have the option, at its sole discretion, to pay the amount necessary for completion, or elect to terminate this Agreement.

2.1.2 DESIGN. West Basin shall be responsible for all design aspects, both preliminary and final, and for ensuring regulatory compliance, including compliance with the California Environment Quality Act. The proposed pump station will be designed to deliver a peak instantaneous flow rate of 500 gallons per minute during a high demand day-time period (from 6:00am to 10:00pm).

2.1.3 POTABLE WATER BACKUP OBLIGATION. West Basin will comply with all applicable State and County recycled water regulations and produce recycled water that meets primary Title 22 requirements. West Basin does not guarantee the instantaneous flow rate, pressure, and water quality at the point of use. Due to required maintenance or operational emergencies, there may be temporary outages of recycled water. PV Club will have a potable water backup supply in the event of a recycled water outage.

2.1.4 CONSTRUCTION.

(a) West Basin shall use best efforts to comply with the schedule set forth in the construction calendar per Exhibit B. If West Basin is unable to strictly comply with the construction calendar, it shall not incur any liability therefor.

(b) Pump Station: West Basin shall make its best efforts to secure a location for the construction of a "pump station."

(c) West Basin shall be responsible for all aspects of construction of the Project as described herein section 1.12 and graphically shown in Exhibit A, including a master meter (Master Meter), a segment of pipeline to be transferred to Cal Water (Cal Water Pipeline), and a service meter to the PV golf club (Service Meter). The Master Meter will be used to determine the quantity of water delivered to Cal Water for West Basin's invoicing purposes. The Service Meter will be used to determine the quantity of water consumed by PV Club for Cal Water's invoicing purposes. The approximate locations of both the Master Meter and Service Meter are depicted in Exhibit A.

(d) Once the construction of the Project is completed, West Basin shall transfer ownership of the Cal Water Pipeline, which extends from the Master Meter to the Service Meter to Cal Water, the value of which is estimated to equal two million five hundred thousand dollars ($2,500,000). The Cal Water Pipeline segment to be owned, operated, and maintained by Cal Water is identified in Exhibit A.

(e) West Basin agrees to provide final record drawings and material submittals to Cal Water prior to water service activation to the Cal Water Pipeline.

(f) West Basin shall comply with all Federal, State and local laws for the Project and is responsible for Project safety and supervision.

2.1.5 LETTER OF SUPPORT. West Basin shall provide Cal Water a letter of support for the California Public Utilities Commission ("CPUC") rate setting hearings and proceedings related to the Project.

2.1.6 CHARGES FOR RECYCLED WATER FROM WEST BASIN. The wholesale rate for recycled water delivered by West Basin to Cal Water will be in accordance to the recycled water rates established by West Basin on an annual basis. The Recycled water rates for fiscal year 2021-22 are attached in Exhibit D.

2.1.7 OWNERSHIP OF FACILITIES. Upon completion West Basin shall own, operate, and maintain all Project facilities to and including the Master Meter, as depicted in Exhibit A. West Basin shall be responsible for the reading the Master Meter and calibrating it in a manner consistent to manufacturer recommendations. Cal Water will own, operate, and maintain the Project facilities downstream of the Master Meter up to and including the Service Meter at PV Club.

2.2 Responsibilities of and tasks to be performed by Cal Water.

2.2.1 FUNDING. Once construction is complete such that recycled water is able to be delivered to the Project and to the Service Meter, West Basin shall invoice and Cal Water shall pay to West Basin, the sum of two million five hundred thousand dollars ($2,500,000). Such funds shall be dedicated to reimbursing West Basin for the completed design and construction of the Project. The sum of $2,500,000 shall not be increased, even if (a) final actual costs exceed, or are less than, the current estimate, (b) PV Club fails to pay, or (c) grant funds are unavailable, absent a written agreement of the Parties. In the event that West Basin elects to terminate this AGREEMENT early as provided herein, no amount shall be owing by Cal Water.

2.2.2 DESIGN. Cal Water shall have no liability or responsibilities related to the design of the Project beyond the review and commenting on the design of Project facilities that are located downstream of the Master Meter, which will be transferred to the ownership of Cal Water.

2.2.3 CONSTRUCTION. Cal Water shall have no responsibilities related to the construction of the Project. Cal Water may provide inspection of facilities that will be transferred to Cal Water. In the event that a contractor provides substandard craftsmanship or deviates from the approved design drawings and specifications of the facilities located downstream of the Master Meter, Cal Water shall immediately contact West Basin and properly notify the deficiency so West Basin can investigate and correct the issue as deemed necessary to the satisfaction of West Basin and Cal Water. Cal Water is responsible for ordering the Service Meter and vault that will be installed at PV Golf Club and provide it to West Basin in a timely manner during construction.

2.2.4 OPERATION AND MAINTENANCE. Cal Water shall own, operate, and maintain their portion of the Project facilities as described above and shown in Exhibit A, in accordance with all current and future CPUC orders, rules and regulations. Cal Water shall be responsible for calibrating the Service Meter in a manner consistent with manufacturer recommendations. Cal Water shall provide recycled water as available from West Basin through the Master Meter and keep the Project facilities that it owns in working order sufficient to enable the delivery of recycled water to PV Club. Cal Water shall maintain compliance with permits related to the operations of recycled water treatment and distribution per permits held by West Basin, including the current West Basin Title 22 permit, and any future revisions to this permit. Cal Water shall be responsible for training all its personnel and complying with all Federal, State, and Local Rules for proper operation and maintenance of its facilities in accordance with Title 22 and other pertinent recycled water regulations. Cal Water shall be responsible for violations resulting from improper and negligent recycled water operations of its facility. Cal Water will be responsible for properly maintaining infrastructure owned by Cal Water; for properly scheduling and performing cross-connection tests with PV Club, West Basin and the corresponding regulatory agencies; and minimizing and containing leakage of recycled water during repairs. During repairs, any recycled water that needs to be drained should not be discharged to the storm drain unless approved by the Los Angeles Regional Water Quality Control Board. CalWater shall not extend the recycled water system they will own without consulting with West Basin in advance to evaluate and determine hydraulic capabilities of West Basin's distribution system.

2.2.5 RECYCLED WATER RATES. Subject to approval by the CPUC, the initial rate that Cal Water will charge to provide recycled water to PV Club shall be equal to 80 percent of Cal

Water's then current potable non-residential tariff rate for its Palos Verde service area. Notwithstanding the foregoing, if the CPUC approves rates that are greater or less than 80 percent of Cal Water's then current potable non-residential tariff rate for its Palos Verde service area, these CPUC approved rates shall be charged to PV Club. Cal Water agrees to apply for the foregoing rate structure in its filings with the CPUC. If the CPUC, its Water Division staff or ratepayer advocates oppose or recommend against the rate structure, Cal Water shall provide notice to PV Club so that it may elect to advocate for the rate structure at the CPUC. Increases in charges for recycled water from West Basin or changes in other Cal Water operating costs will be reflected in the recycled water rate charged to PV Club by Cal Water, as approved by the CPUC.

2.2.6 OWNERSHIP OF FACILITIES. Cal Water shall take ownership of all Project facilities downstream of the Master Meter, and up to and including the Service Meter. West Basin and Cal Water shall timely execute all documentation as reasonable and necessary to receive transfer title and ownership. West Basin shall construct the Project facilities requiring the Contractor to provide a one (1) year warranty for all work and manufactured items, unless otherwise stated. The 1-year Warranty, which will be applied to the facilities to be owned by both West Basin and Cal Water, shall cover parts, labor, and prompt service for repair of defects, performance failure or damage due to normal wear and tear or due to any cause other than acts of God, or intentional or active and extreme abuse of the product. The warranty period shall extend 1 year beyond final acceptance of completed contract by Owner.

2.2.7 CROSS CONNECTION. Cal Water shall implement its internal Cross Connection Control program in accordance with CPUC Rule 16 and internal practices. Cal Water will be responsible for properly scheduling and performing cross-connection tests with PV Club, West Basin and the corresponding regulatory agencies.

2.2.8 GRANT SUPPORT. Cal Water shall provide reasonable and timely support for West Basin's Grant Agreement reporting requirements. A copy of the Grant Agreement reporting requirements is attached under Exhibit C.

2.3 Responsibilities of and tasks to be performed by PV Club.

2.3.1 FUNDING. Once construction is complete such that recycled water is able to be delivered to the Project and to the PV Club property line, PV Club shall pay to West Basin a partial reimbursement of Project costs, in the amount of five hundred

thousand dollars ($500,000). as partial reimbursement for design and construction of the Project

2.3.2 DESIGN. PV Club shall have no responsibilities related to the pipeline and pump station design of the Project. The PV Club shall be responsible for designing the On-Site Modifications in accordance to applicable regulations.

2.3.3 CONSTRUCTION. PV Club shall be responsible for implementing the On-Site Modifications in accordance with regulations, and for paying any and all costs associated with the On-site Modifications. The On-site Modifications will be required to meet regulatory approvals (Los Angeles County Department of Public Health and State of California Division of Drinking Water), including but not limited to the construction of recycled water storage, on-site pipe installation, and final connection to the "service meter" separating PV Club and Cal Water. In no event shall any expenses incurred pursuant to this section exceed $600,000. PV Club is responsible for the submittal of service request to Cal Water.

2.3.4 OPERATION AND MAINTENANCE. PV Club shall not own and shall not be required to operate or maintain any facility or portion of the distribution system constructed as part of the Project, and shall only be responsible for such facilities downstream of the Service Meter. PV Club shall operate and maintain its recycled water facilities in a manner that does not negatively impact West Basin or Cal Water and their facilities. PV Club shall be responsible for operation and maintenance and costs associated with the safe use of recycled water per regulatory requirements. PV Club will comply with all regulatory requirements for the safe use of recycled water, including necessary inspections.

2.3.5 LETTER OF SUPPORT. PV Club shall provide Cal Water a letter of support for the CPUC rate setting hearings and proceedings related to the Project.

2.3.6 RECYCLED WATER RATES. PV Club agrees to purchase recycled water at initial tariff rates pursuant to 2.2.5 and at future tariff rates that PV Club understands are subject to change and approval by the CPUC.

2.3.7 CROSS CONNECTION CONTROL. PV Club shall implement and maintain at its own expense a properly segregated potable and recycled water system on its property that meets any and all cross-connection control requirements of the State Water Resources

Control Board's Division of Drinking Water, the Los Angeles County Department of Public Health Services and Cal Water, and shall be responsible for the installation, testing and maintenance of backflow prevention assemblies as required by Cal Water's Rule 16, as approved by the CPUC. PV Club proposed On-Site modifications to the irrigation system shall be made in accordance to the approvals from the LA County Department of Public Health Services and West Basin. PV Golf Club shall present any proposed On-Site Modifications to Cal Water and West Basin for review in advance of implementing any modification.

2.3.8 PERMITTED USE OF RECYCLED WATER. PV Club understands and acknowledges that failure to comply with regulatory requirements for the safe use of recycled water can result in an interruption of recycled water service to PV Club until the compliance issues are resolved.

2.3.9 HABITAT RESTORATION. PV Club shall comply with the habit restoration requirements listed in the Grant Agreement provided in Exhibit C. PV Club shall be responsible for providing in a timely manner all the corresponding documentation and annual reports as required by the Grant Agreement to West Basin.

SECTION 3. GENERAL PROVISIONS

3.1 Term: This AGREEMENT will become effective on the Effective Date and will continue until construction is complete and West Basin receives reimbursement from Cal Water pursuant to 2.2.1 herein and reimbursement from PV Club pursuant to 2.3.1 herein.

3.2 No Third-Party Beneficiary: There shall be no third-party beneficiaries to this Agreement. The rights and obligations of this Agreement inure solely to the Parties that execute this Agreement including their successors and assigns.

3.3 Construction of Terms: This AGREEMENT is for the sole benefit of the Parties and does not grant rights to any non-party or impose obligations on a Party in favor of any non-party.

3.4 Good Faith: Each Party shall use reasonable efforts and work in good faith for the expeditious completion of the purposes and goals of this AGREEMENT and the satisfactory performance of its terms.

3.5 Governing Law: This AGREEMENT is made under and will be governed by the laws of the State of California. Further, the Parties shall comply with all applicable laws, ordinances, codes and regulations of the federal, state, and applicable local governments.

3.6 Termination: West Basin may elect to terminate this AGREEMENT at any time prior to the expiration of the term provided by Section 3.1 herein.

3.7 Severability: The provisions of this AGREEMENT are severable, and the invalidity, illegality, or unenforceability of any provision of this AGREEMENT will not affect the validity or enforceability of any other provisions. If any provision of this AGREEMENT is found to be invalid, illegal, or unenforceable, the Parties shall endeavor to modify that clause in a manner which gives effect to the intent of the Parties in entering into this AGREEMENT.

3.8 Indemnification: The Parties shall hold harmless, immediately defend at their own respective expense, and indemnify each other Party, their officers, employees, and agents against any and all liability, claims, losses, damages, or expenses, including reasonable attorneys' fees, to the extent arising from a breach of this AGREEMENT or negligent acts or omissions to act, or willful misconduct of a Party relating to that Party's obligations under this AGREEMENT; excluding, however, such liability, claims, losses, damages, or expenses arising from another Party's active negligence or willful acts. This Indemnification Section of the Agreement shall survive the termination of this Agreement and the completion of the terms set forth in the Agreement.

3.8 Force Majeure: If any Party is rendered wholly or partially unable to perform its obligations under this Agreement (other than payment obligations) due to an event, condition or circumstance beyond the reasonable control of, and not due to the fault or negligence of, the Party affected, and which could not have been avoided by due diligence and use of reasonable efforts, which prevents the performance by such affected Party of its obligations under this Agreement ("Force Majeure Event"), the Party affected by such Force Majeure Event shall be excused from whatever performance is impaired by such Force Majeure Event provided that the affected Party promptly, upon learning of such Force Majeure Event and ascertaining that it will affect its performance hereunder, (A) promptly gives notice to the other Parties stating the nature of the Force Majeure Event, its anticipated duration, and any action being taken to avoid or minimize its effect, and (B) uses reasonable efforts to remedy its inability to perform. The suspension of performance shall be of no greater scope or duration than that which is necessary. No obligation to any Party that arose before the current Force Majeure Event causing the suspension to performance and which could and should have been fully performed before such occurrence shall be excused as a result of the current Force Majeure Event.

3.9 Representations and Warranties: Each of the Parties to this AGREEMENT makes the following representations and warranties to the other Parties:

3.9.1 The persons who have executed this AGREEMENT have been authorized to do so by the Party on whose behalf the persons are signing. All documents to be delivered under this AGREEMENT will be executed by an authorized person. Each Party has a good and legal right to enter into this AGREEMENT and to perform all covenants of that Party contained in this AGREEMENT.

3.9.2 None of the warranties, representations, or statements made by any Party in this AGREEMENT contain any untrue statements of material fact or omit a material fact necessary in order to make the statements not misleading. All representations

and warranties of any party shall be true on and as of the Effective Date.

3.10 CPUC Approval: Cal Water shall employ its best efforts to obtain approval from the CPUC a tariff schedule authorizing rates, charges, and conditions to provide Recycled Water service to PV Club and its reimbursement of $2,500,000 made to West Basin in Cal Water's rate. Cal Water shall pursue said approval(s) in a filing with the CPUC upon execution of this Agreement, with final CPUC approval authorization expected to be issued within 12 months. Cal Water shall continue to pursue CPUC approval of rates for subsequent years for the term of this Agreement.

3.10.1CPUC Denial: If, despite its best efforts, Cal Water is unable to obtain approval for any of the foregoing, it shall not be deemed a breach or default of any agreement, but rather, shall be grounds for either Party to terminate this Agreement or any other related agreement without any penalty or liability. Additionally, neither Cal Water nor PV Club shall be required to reimburse West Basin for the Project.

3.10.2CPUC Compliance: This Agreement shall at all times be subject to such changes or modifications that the CPUC shall, from time to time, direct through the exercise of its jurisdiction. Any changes or modifications by the CPUC to this Agreement shall require mutual written agreement of the Parties

3.10 Joint Effort: This AGREEMENT shall be deemed to have been jointly prepared by the Parties and shall not be construed against any of the Parties hereto.

3.11 Time is of the Essence: Time is of the essence in the performance of this AGREEMENT.

3.12 Amendments: This AGREEMENT may be amended or modified only by written consent of all Parties.

3.13 Non-Waiver: A failure by any Party to enforce any provision of this AGREEMENT shall not be construed as a continuing waiver, or as a waiver of the right to compel enforcement of that provision.

3.14 Successors and Assigns: This AGREEMENT shall inure to the benefit of each Party's successors and assigns. Any such successors or assigns shall be approved by written consent by the Parties.

3.15 Notice: Any correspondence, communication, or contact concerning this AGREEMENT must be directed to the Parties at the name and address listed herein.

3.15.1 Notice will be deemed as given upon personal delivery, receipt of e-mail, receipt of fax confirmation, or five days after deposit in U.S. Mail, first-class postage, prepaid, and addressed as follows:

West Basin:

[Address and email]

17140 S. Avalon Blvd.
Carson, CA 90746
westbasinboardsecretary@westbasin.org

Cal Water:

[Address and email]

2632 West 237th Street
Torrance, CA 90505
darmendariz@calwater.com

PV Club:

[Address and email]

3301 Via Campesina
Palos Verdes Estates, CA 90274
gm@pvge.com
President@pvge.com

3.16 Other Instruments: The Parties hereto covenant and agree that they will execute each such other and further instruments and documents as are or may become reasonably necessary or convenient to effectuate and carry out the purposes of this Agreement.

The Parties are signing this AGREEMENT as of the dates opposite their respective signatures.

Dated: 3/30/, 2022	West Basin Municipal Water District By: _____ By: EDWARD J. CALDWELL Its: ~~Int~~ General Manager
Dated: May 10, 2022	California Water Service Company By: Thomas Smegal Its: Vice President, Chief Financial Officer

Dated: 5/17, 2022	Palos Verdes Golf Club By: David Klein Its: President

APPROVED AS TO FORM:

Dated: _____, 2022	~~Olivarez~~ Madruga Lemieux O'Neill By: Steven O'Neill Counsel for West Basin Municipal Water District
Dated: May 10, 2022	Lynne P. McGhee Vice President, General Counsel By: _____ Counsel for California Water Service Company

ATTACHMENT 4

City of Palos Verdes Estates Letter of Support

CITY OF
Palos Verdes Estates

June 9, 2020

Mayor and Members of the Torrance City Council
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90503

Re: Support for Expansion of Recycled Water infrastructure in Torrance

Dear Mayor Furey and Members of the Torrance City Council:

I am writing to respectfully request your support of the recycled water infrastructure in the City of Torrance. Expansion of this infrastructure will allow for the extension of the Anza Lateral to the Palos Verdes Golf Course (PVGC), which is a City of Palos Verdes Estates-owned facility operated under a concession agreement.

The City of Palos Verdes Estates is aware of the challenges of the limited water supply Southern California cities and communities face, and we always envisioned using recycled water to irrigate the golf course. Ten years ago, the golf course invested in construction of a dual plumbed distribution system (including purple pipe) to allow for distribution of recycled water, to increase the sustainability of the PVGC and provide a reliable, long-term source of water for irrigation use. The proposed Palos Verdes Recycled Water Pipeline Project (Project) would facilitate this goal and be the first step in allowing for the opportunity to convert their system from fresh potable water to a recycled water system.

As the owner of the PVGC, the City is an ardent supporter of the Project. PVGC has committed funds for the construction of the pipeline to the golf course and will fund the construction of the systems through which the water will flow throughout the golf course.

Recurrent drought strains available water supplies within Los Angeles County. By extending existing recycled water supplies to the PVGC, the project intends to introduce new water supplies to be used for landscape irrigation. This would help support the long-term needs of municipal and residential users by putting over 60 million gallons of fresh drinking water back into the potable water supply annually.

We understand hard choices need to be made and we thank you and applaud you for your leadership to make the right decision in the best interests of Torrance, the Palos Verdes Peninsula, the greater South Bay region, and the environment overall. We ask you to support the Project and the needed booster pump station proposed at Lago Seco Park. This will allow the first drop of recycled water to come to the Palos Verdes Peninsula and save fresh water for more important uses.

Sincerely,

David A. McGowan, Mayor

Copy: City Council

340 Palos Verdes Drive West, Palos Verdes Estates, California 90274 310-378-0383

ATTACHMENT 5

Notice of Determination

Notice of Determination

To: x Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

x County Clerk
County of Los Angeles
12400 E. Imperial Highway
Norwalk, California 90650

From: West Basin Municipal Water District
17140 S. Avalon Boulevard, Suite 210
Carson, California 90746-1296

2018 022278
FILED
Jan 26 2018
Dean C. Logan, Registrar – Recorder/County Clerk

THIS NOTICE WAS POSTED
ON January 26 2018
UNTIL February 26 2018
REGISTRAR – RECORDER/COUNTY CLERK

Subject: Filing of Notice of Determination for Mitigated-Negative Declaration in compliance with Sections 21083 or 21152 of the Public Resources Code.

Project Title: Palos Verdes Recycled Water Pipeline Project

State Clearinghouse Number/ California Energy Commission Docket Number: 2017091064

Lead Agency Contact Person: Uzi Daniel **Telephone:** (310) 660-6245

Project Location: The proposed project is located in Los Angeles County in the cities of Torrance and Palos Verdes Estates. The project would traverse between the cities beginning at the intersection of Calle Mayor and Anza Avenue in Torrance southward to the Palos Verdes Golf Club, with the primary line following Anza Avenue, Vista Montana, Paseo De Las Tortugas, Torrance Utility Road, Via Las Vegas, Palos Verdes Drive North, Via Navajo, and Paseo Del Campo.

Project Description: The proposed project consists of extending the existing Anza Lateral approximately 20,000 linear feet from the intersection of Anza Avenue and Calle Mayor in Torrance to the Palos Verdes golf Club (PVGC) in Palos Verdes Estates. The expanded recycled water system network would provide approximately 240 total AFY of recycled water from the Hyperion Wastewater Treatment Plant to the golf course and additional municipal West Basin Municipal Water District customers along the pipeline alignment. The pipeline extension would consist of one pipeline alignment with three branch extensions. The primary alignment infrastructure would extend from the intersection of Calle Mayor and Anza Avenue in Torrance southward to the Palos Verdes Golf Club, with the primary line following Anza Avenue, Vista Montana, Paseo De Las Tortugas, Torrance Utility Road, Via Las Vegas, Palos Verdes Drive North, Via Navajo, and Paseo Del Campo. The additional lateral branches would serve other facilities including Pacific Coast Highway medians, Richardson Middle School, Lago Seco Park, Los Arboles Park and Riviera Elementary School. The project would also involve construction of an aboveground pump station in Lago Seco Park, to help convey the water to the golf course. A new water storage tank would be located in the southern portion of the Palos Verdes Golf Club unless it is determined that storage of recycled water in the existing pond is feasible.

As the Lead Agency for this project, **West Basin Municipal Water District - Board of Directors** has approved the above described project on **Monday, January 22, 2018** and has made the following determinations regarding the above described project:

1. The project will not have a significant effect on the environment
2. A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA
3. Mitigation Measures were made a condition of the approval of the project
4. A Statement of Overriding Considerations was not adopted for this project
5. Findings were made pursuant to the provisions of CEQA

This is to certify that the final record of project approval is available to the General Public at: **West Basin Municipal Water District, 17140 S. Avalon Boulevard, Carson, California 90746 attn: Regulatory Compliance** or by contacting

Uzi Daniel, M.S.	Environmental Compliance Supervisor	January 25, 2018
Name	**Title**	**Date**

2018 022278

FILED
Jan 26 2018

Dean C. Logan, Registrar – Recorder/County Clerk

Electronically signed by LILIA MURGUIA

State of California—Natural Resources Agency
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
2018 ENVIRONMENTAL FILING FEE CASH RECEIPT

RECEIPT #	
201801261230007	
STATE CLEARING HOUSE # *(If applicable)*	
2017091064	

SEE INSTRUCTIONS ON REVERSE. TYPE OR PRINT CLEARLY

LEAD AGENCY			DATE
WEST BASIN MUNICIPAL WATER DISTRICT			01/26/2018
COUNTY/STATE AGENCY OF FILING			DOCUMENT NUMBER
LACC			2018022278
PROJECT TITLE			
PALOS VERDES RECYCLED WATER PIPELINE PROJECT			
PROJECT APPLICANT NAME			PHONE NUMBER
UZI DANIEL			(310)660-6245
PROJECT APPLICANT ADDRESS	CITY	STATE	ZIP CODE
17140 S. AVALON BLVD SUITE 210	CARSON	CA	90746-1296

PROJECT APPLICANT *(Check appropriate box):*

☑ Local Public Agency ☐ School District ☐ Other Special District ☐ State Agency ☐ Private Entity

CHECK APPLICABLE FEES:

☐	Environmental Impact Report (EIR)	$3,168.00	$ 0.00
☑	Negative Declaration (ND)(MND)	$2,280.75	$ 2,280.75
☐	Application Fee Water Diversion (State Water Resources Control Board Only)	$850.00	$ 0.00
☐	Projects Subject to Certified Regulatory Programs (CRP)	$1,077.00	$ 0.00
☑	County Administrative Fee	~~$50.00~~	$ 75.00
☐	Project that is exempt from fees		
	☐ Notice of Exemption		
	☐ CDFW No Effect Determination (Form Attached)		
☐	Other _____		$ 0.00

PAYMENT METHOD:

☐ Cash ☐ Credit ☑ Check ☐ Other _____ $ 2,355.75

SIGNATURE	TITLE
X	ITC

ORIGINAL - PROJECT APPLICANT COPY - CDFW/ASB COPY - LEAD AGENCY COPY - COUNTY CLERK FG 753.5a (Rev. 01/17)

APPENDIX B

Notice of Proposed Rate Change for California Water Service's
Los Angeles County Region – Antelope Valley Service Area

On November 30, 2022, California Water Service (Cal Water) filed Advice Letter 2467 with the California Public Utilities Commission (CPUC) regarding construction of a recycled water pipeline from the West Basin Municipal Water District service connection to the Palos Verdes Golf Club, which is part of Cal Water's Los Angeles County Region. This recycled water pipeline will free up limited potable water supplies for the region amid more frequent and worsening droughts by replacing the potable water needed for customers with up to about 71 million gallons of recycled water from West Basin annually.

The CPUC will analyze the costs incurred and determine the revenue increase allowed to recover those costs. The CPUC will take several months to review this request, and any changes to customers' monthly bill will not take effect before construction is complete. The project is expected to be completed in the fourth quarter of 2023, and the increase would be no higher than shown below.

Cal Water's Advice Letter 2467 requests authority to increase annual revenue in the Los Angeles County Region by $418,369, or 0.74%. With this increase, the typical monthly bill for an Antelope Valley residential customer with a 5/8" x 3/4" meter who uses 10 Ccf (about 7,480 gallons) of water per month will increase by $0.47, or 0.66%.

A copy of Advice Letter 2467 will be available online at www.calwater.com/rates-advice-letters (select Antelope Valley – Los Angeles County Region from the drop-down menu) or may be obtained from the utility's local office by calling (800) 680-1160.

Cal Water offers many programs to help customers manage their water bills, including a customer assistance program (CAP), water-conserving device rebates, and other conservation programs. Please visit www.calwater.com to take advantage of these opportunities.

Protests and Responses: Anyone may respond to or protest this filing. A response supports the filing and may contain information that proves useful to the CPUC in its evaluation. A protest objects to the filing in whole or in part and must set forth the specific grounds on which it is based, and shall provide citations or proof where available to allow CPUC staff to properly consider the protest. The grounds for protests are:

1. The utility did not properly serve or give notice of the filing.
2. The relief requested in the filing would violate statute or CPUC order, or is not authorized by statute or CPUC order on which the utility relies.
3. The analysis, calculations, or data in the filing contains material error or omissions.
4. The relief requested in the filing is pending before the CPUC in a formal proceeding, or
5. The relief requested in the filing requires consideration in a formal hearing, or is otherwise inappropriate for the filing process, or
6. The relief requested in the filing is unjust, unreasonable, or discriminatory (provided that such a protest may not be made where it would require relitigating a prior order of the CPUC).

A response or protest must be made in writing and received by the CPUC's Water Division by January 20, 2023, the end of the comment period. The response or protest should be sent to the CPUC by email to water.division@cpuc.ca.gov, or by mail to: Tariff Unit, Water Division, 3rd Floor, CPUC, 505 Van Ness Avenue, San Francisco, CA 94102, and also to Cal Water by email to cwsrates@calwater.com, or by mail to: Rates Department, California Water Service, 1720 North First Street, San Jose, CA 95112.
The advice letter process provides for any responses or protests only within the comment period, except for the utility's reply afterward. If you submit a protest or response and do not receive a reply within 10 business days after the end of the comment period, contact Cal Water at (408) 367-8200 and ask for the Rates Department.

Note: Cities and counties that need Board of Supervisors or Board of Commissioners approval to protest should inform the Water Division within the comment period so that a late-filed protest can be considered, and should include an estimated date on which the proposed protest may be voted.

Notice of Proposed Rate Change for California Water Service's
Los Angeles County Region – Palos Verdes Service Area

On November 30, 2022, California Water Service (Cal Water) filed Advice Letter 2467 with the California Public Utilities Commission (CPUC) regarding construction of a recycled water pipeline from the West Basin Municipal Water District service connection to the Palos Verdes Golf Club, which is part of Cal Water's Los Angeles County Region. This recycled water pipeline will free up limited potable water supplies for the region amid more frequent and worsening droughts by replacing the potable water needed for customers with up to about 71 million gallons of recycled water from West Basin annually.

The CPUC will analyze the costs incurred and determine the revenue increase allowed to recover those costs. The CPUC will take several months to review this request, and any changes to customers' monthly bill will not take effect before construction is complete. The project is expected to be completed in the fourth quarter of 2023, and the increase would be no higher than shown below.

Cal Water's Advice Letter 2467 requests authority to increase annual revenue in the Los Angeles County Region by $418,369, or 0.74%. With this increase, the typical monthly bill for a Palos Verdes residential customer with a 5/8" x 3/4" meter who uses 15 Ccf (about 11,220 gallons) of water per month will increase by $0.88, or 0.82%.

A copy of Advice Letter 2467 will be available online at www.calwater.com/rates-advice-letters (select Rancho Dominguez – Palos Verdes - LAR from the drop-down menu) or may be obtained from the utility's local office by calling (310) 257-1400.

Cal Water offers many programs to help customers manage their water bills, including a customer assistance program (CAP), water-conserving device rebates, and other conservation programs. Please visit www.calwater.com to take advantage of these opportunities.

Protests and Responses: Anyone may respond to or protest this filing. A response supports the filing and may contain information that proves useful to the CPUC in its evaluation. A protest objects to the filing in whole or in part and must set forth the specific grounds on which it is based, and shall provide citations or proof where available to allow CPUC staff to properly consider the protest. The grounds for protests are:

1. The utility did not properly serve or give notice of the filing.
2. The relief requested in the filing would violate statute or CPUC order, or is not authorized by statute or CPUC order on which the utility relies.
3. The analysis, calculations, or data in the filing contains material error or omissions.
4. The relief requested in the filing is pending before the CPUC in a formal proceeding, or
5. The relief requested in the filing requires consideration in a formal hearing, or is otherwise inappropriate for the filing process, or
6. The relief requested in the filing is unjust, unreasonable, or discriminatory (provided that such a protest may not be made where it would require relitigating a prior order of the CPUC).

A response or protest must be made in writing and received by the CPUC's Water Division by January 20, 2023, the end of the comment period. The response or protest should be sent to the CPUC by email to water.division@cpuc.ca.gov, or by mail to: Tariff Unit, Water Division, 3rd Floor, CPUC, 505 Van Ness Avenue, San Francisco, CA 94102, and also to Cal Water by email to cwsrates@calwater.com, or by mail to: Rates Department, California Water Service, 1720 North First Street, San Jose, CA 95112.
The advice letter process provides for any responses or protests only within the comment period, except for the utility's reply afterward. If you submit a protest or response and do not receive a reply within 10 business days after the end of the comment period, contact Cal Water at (408) 367-8200 and ask for the Rates Department.

Note: Cities and counties that need Board of Supervisors or Board of Commissioners approval to protest should inform the Water Division within the comment period so that a late-filed protest can be considered, and should include an estimated date on which the proposed protest may be voted.

Schedule No. AV-LAR-1-R Page 1

Antelope Valley Tariff Area (Los Angeles County Region)

RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service provided to single-family residential customers.

TERRITORY

Antelope Valley Service Area:

A portion of the community of Leona Valley and vicinity, Los Angeles County
A portion of the community of Lancaster and vicinity, Los Angeles County.
The community of Fremont Valley, Kern County and Lake Hughes and vicinity, Los Angeles County.

RATES 1 CCF is 100 cubic feet (approximately 748 gallons)

Quantity Rates:

For 1 - 17 CCF, per CCF	$4.3458	(I)
For 18 to 25 CCF, per CCF	$5.4323	(I)
For over 25 CCF, per CCF	$8.1484	(I)

Service Charge:		Per Meter Per Month	
For	5/8 x 3/4 - inch meter	$28.04	(I)
For	3/4 - inch meter	$42.06	
For	Fire Sprinkler with 1 - inch meter	$28.89	
For	1 - inch meter	$70.10	
For	1-1/2 - inch meter	$140.20	
For	2 - inch meter	$224.32	
For	3 - inch meter	$420.60	
For	4 - inch meter	$701.00	
For	6 - inch meter	$1,402.00	
For	8 - inch meter	$2,243.20	
For	10 - inch meter	$3,224.60	
For	12 - inch meter	$4,626.60	
For	14 - inch meter	$6,308.99	(I)

The service charge is a readiness-to-serve charge which is applicable to all metered service and to which is added the charge for water used computed at the quantity rates.

(Continued)

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street
San Jose, CA 95112
(408) 367-8200

Schedule No. AV-LAR-1-NR

Antelope Valley Tariff Area (Los Angeles County Region)
NONRESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service except that provided to single-family residential customers.

TERRITORY

Antelope Valley Service Area:

A portion of the community of Leona Valley and vicinity, Los Angeles County
A portion of the community of Lancaster and vicinity, Los Angeles County.
The community of Fremont Valley, Kern County and Lake Hughes and vicinity, Los Angeles County.

RATES — 1 CCF is 100 cubic feet (approximately 748 gallons)

Quantity Rates:

Per CCF		$6.0603	(I)

Service Charge:		Per Meter Per Month	
For	5/8 x 3/4 - inch meter	$24.60	(I)
For	3/4 - inch meter	$36.90	
For	1 - inch meter	$61.49	
For	1-1/2 - inch meter	$122.99	
For	2 - inch meter	$196.78	
For	3 - inch meter	$368.97	
For	4 - inch meter	$614.95	
For	6 - inch meter	$1,229.89	
For	8 - inch meter	$1,967.83	
For	10 - inch meter	$2,828.76	
For	12 - inch meter	$4,058.65	
For	14 - inch meter	$5,534.52	(I)

The service charge is a readiness-to-serve charge which is applicable to all metered service and to which is added the charge for water used computed at the quantity rates.

(Continued)

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street
San Jose, CA 95112
(408) 367-8200

Schedule No. PV-LAR-1-R

Palos Verdes Tariff Area (Los Angeles County Region)

RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service provided to single-family residential customers.

TERRITORY

Palos Verdes Service Area:

Palos Verdes Estates, Rolling Hills, Rolling Hills Estates, Lomita, Rancho Palos Verdes, San Pedro, and vicinity, Los Angeles County.

RATES — 1 CCF is 100 cubic feet (approximately 748 gallons)

Quantity Rates:

For 1 - 17 CCF, per CCF	$5.0641	(I)
For 18 to 25 CCF, per CCF	$6.3328	(I)
For over 25 CCF, per CCF	$9.5116	(I)

Service Charge:		Per Meter Per Month	
For	5/8 x 3/4 - inch meter	$32.66	(I)
For	3/4 - inch meter	$48.99	
For	Fire Sprinkler with 1 - inch meter	$33.65	
For	1 - inch meter	$81.65	
For	1-1/2 - inch meter	$163.30	
For	2 - inch meter	$261.28	
For	3 - inch meter	$489.89	
For	4 - inch meter	$816.49	
For	6 - inch meter	$1,632.98	
For	8 - inch meter	$2,612.77	
For	10 - inch meter	$3,755.86	
For	12 - inch meter	$5,388.84	
For	14 - inch meter	$7,348.41	(I)

The service charge is a readiness-to-serve charge that is applicable to all metered service and to which is added the charge for water used computed at the quantity rates.

(Continued)

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street
San Jose, CA 95112
(408) 367-8200

Schedule No. PV-LAR-1-NR

Palos Verdes Tariff Area (Los Angeles County Region)

NONRESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service except that provided to single-family residential customers.

TERRITORY

Palos Verdes Service Area:

Palos Verdes Estates, Rolling Hills, Rolling Hills Estates, Lomita, Rancho Palos Verdes, San Pedro, and vicinity, Los Angeles County.

RATES

1 CCF is 100 cubic feet (approximately 748 gallons)

Quantity Rates:

Per CCF		$7.0386	(I)

Service Charge:

		Per Meter Per Month	
For	5/8 x 3/4 - inch meter	$28.65	(I)
For	3/4 - inch meter	$42.98	
For	1 - inch meter	$71.62	
For	1-1/2 - inch meter	$143.24	
For	2 - inch meter	$229.18	
For	3 - inch meter	$429.72	
For	4 - inch meter	$716.19	
For	6 - inch meter	$1,432.37	
For	8 - inch meter	$2,291.80	
For	10 - inch meter	$3,294.47	
For	12 - inch meter	$4,726.85	
For	14 - inch meter	$6,445.70	(I)

The service charge is a readiness-to-serve charge that is applicable to all metered service and to which is added the charge for water used computed at the quantity rates.

SPECIAL CONDITIONS

1. All bills are subject to the following tariff schedules: **Schedule UF** (CPUC reimbursement fee) and applicable surcharges and surcredits on **Schedule RSF** (Rate Support Fund), **Schedule CAP** (Customer Assistance Program), and **Schedule AS** (Additional Surcharges and Surcredits).

2. Qualifying non-profit group living facilities, agricultural employee housing facilities, and migrant farm worker housing centers are eligible for credits as shown on **Schedule CAP**.

(Continued)

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street
San Jose, CA 95112
(408) 367-8200

Revised Cal. P.U.C. Sheet No. XXXXX-W
Cancelling Cal. P.U.C. Sheet No. XXXXX-W

Schedule No. LAR-PV-6 Page 1
Los Angeles County Region (Palos Verdes Tariff Area) (T)
RECYCLED METERED SERVICE

APPLICABILITY

Applicable to all metered recycled water service. (T)
(D)

TERRITORY (L)

Palos Verdes Service Area:
Palos Verdes Estates, Rolling Hills, Rolling Hills Estates, Lomita, Rancho Palos Verdes, San Pedro and vicinity, Los Angeles County.

RATES 1 CCF is 100 cubic feet (approximately 748 gallons)

Quantity Rates:

Per CCF		$5.6309	(I)

Service Charge:		Per Meter Per Month	
For	5/8 x 3/4 - inch meter	$28.65	(R)
For	3/4 - inch meter	$42.98	
For	1 - inch meter	$71.62	
For	1-1/2 - inch meter	$143.24	
For	2 - inch meter	$229.18	
For	3 - inch meter	$429.72	
For	4 - inch meter	$716.19	
For	6 - inch meter	$1,432.37	
For	8 - inch meter	$2,291.80	
For	10 - inch meter	$3,294.47	
For	12 - inch meter	$4,726.85	
For	14 - inch meter	$6,445.70	(R)

The service charge is a readiness-to-serve charge that is applicable to all metered service and to which is added the charge for water used computed at the quantity rates. (L)

(Continued)

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Sheet Subject Matter	Service Area	Schedule No.	CPUC Sheet No.
Rate Schedules: (continued)			
OROVILLE DISTRICT			
Residential Metered Service		OR-1-R (Pg 1 of 2)	12859-W
		OR-1-R (Pg 2 of 2)	12928-W
Nonresidential Metered Service		OR-1-NR (Pg 1 of 2)	12860-W
Residential Flat Rate Service		OR-2R	9794-W
Limited Flat Rate Service		OR-2UL	10324-W
Irrigation Service		OR-3M	10325-W
Interruptible Irrigation Service		OR-3M-I	10326-W
PALOS VERDES DISTRICT			
Residential Metered Service		PV-LAR-1-R (Pg 1 of 2)	XXXXX-W (C)
		PV-LAR-1-R (Pg 2 of 2)	12850-W
Nonresidential Metered Service		PV-LAR-1-NR (Pg 1 of 2)	XXXXX-W (C)
		PV-LAR-1-NR (Pg 2 of 2)	12852-W
Recycled Water Service		LAR-PV-6 (Pg 1 of 2)	XXXXX-W (C)
		LAR-PV-6 (Pg 2 of 2)	12854-W
Private Fire Hydrant Services on Private Property		PV-4A	10331-W
REDWOOD VALLEY DISTRICT			
Applicable Tariffs now under Bay Area Region			
SALINAS VALLEY REGION			
Includes King City and Salinas			
Residential Metered Service		SVR-1-R (Pg 1 of 2)	12715-W
		SVR-1-R (Pg 2 of 2)	12929-W
Nonresidential Metered Service		SVR-1-NR (Pg 1 of 2)	12716-W
		SVR-1-NR (Pg 2 of 2)	12432-W

(continued)

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Rate Schedules

Sheet Subject Matter	Service Area	Schedule No.	CPUC Sheet No.
Rate Schedules: (continued)			
ANTELOPE VALLEY DISTRICT			
Residential Metered Service		AV-LAR-1-R (Pg 1 of 2)	XXXXX-W (C)
		AV-LAR-1-R (Pg 2 of 2)	12846-W
Nonresidential Metered Service		AV-LAR-1-NR (Pg 1 of 2)	XXXXX-W (C)
		AV-LAR-1-NR (Pg 2 of 2)	12848-W
BAKERSFIELD DISTRICT			
Residential Metered Service		BK-1-R (Pg 1 of 2)	12679-W
		BK-1-R (Pg 2 of 2)	12921-W
Nonresidential Metered Service		BK-1-NR	12681-W
Residential Flat Rate Service		BK-2R	12680-W
BAY AREA REGION			
Includes Bayshore and Redwood Valley			
Residential Metered Service		BAR-1-R (Pg 1 of 6)	12971-W
		BAR-1-R (Pg 2 of 6)	12922-W
		BAR-1-R (Pg 3 of 6)	12972-W
		BAR-1-R (Pg 4 of 6)	12612-W
		BAR-1-R (Pg 5 of 6)	12973-W
		BAR-1-R (Pg 6 of 6)	12974-W
Nonresidential Metered Service		BAR-1-NR (Pg 1 of 5)	12975-W
		BAR-1-NR (Pg 2 of 5)	12976-W
		BAR-1-NR (Pg 3 of 5)	12596-W
		BAR-1-NR (Pg 4 of 5)	12611-W
		BAR-1-NR (Pg 5 of 5)	12977-W
BAYSHORE DISTRICT			
Applicable Tariffs now under Bay Area Region			
BEAR GULCH DISTRICT			
Residential Metered Service		BG-1-R (Pg 1 of 2)	12978-W
		BG-1-R (Pg 2 of 2)	12979-W
Nonresidential Metered Service		BG-1-NR (Pg 1 of 2)	12980-W
		BG-1-NR (Pg 2 of 2)	12981-W
CHICO - HAMILTON CITY DISTRICT			
Residential Metered Service		CH-1-R (Pg 1 of 2)	12682-W
		CH-1-R (Pg 2 of 2)	12924-W
Nonresidential Metered Service		CH-1-NR (Pg 1 of 1)	12683-W

(continued)

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street, San Jose, CA 95112
(408) 367-8200

Revised CPUC Sheet No. XXXXX-W
Canceling CPUC Sheet No. XXXXX-W

Table of Contents - Page 1

The following listed tariff sheets contain all effective rates and rules affecting the rates and service of the Utility together with information relating thereto:

Sheet Subject Matter	Service Area	Schedule No.	CPUC Sheet No.
Title Page			5613-W
Table of Contents			
Page 1	Table of Contents		XXXXX-W (C)
Page 2	Preliminary Statements		13001-W
Page 3	Preliminary Statements		12880-W
Page 4	Preliminary Statements		12894-W
Page 5	Rate Schedules - All Districts		12941-W
Page 6	Rate Schedules - District Specific		XXXXX-W (C)
Page 7	Rate Schedules - District Specific		13007-W
Page 8	Rate Schedules - District Specific		12998-W
Page 9	Rate Schedules - District Specific		XXXXX-W (C)
Page 10	Rate Schedules - District Specific		12934-W
Page 11	Service Area Maps		13004-W
Page 12	Rules		12950-W
Page 13	Rules		12969-W
Page 14	Sample Forms		12553-W
Page 15	Sample Forms		2926-W
Page 16	Sample Forms		12933-W

(continued)

Antelope Valley District (Los Angeles Region)

ADVICE LETTER FILING MAILING LIST
PER SECTION III (G) OF GENERAL ORDER NO. 96-A

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Palos Verdes District (Los Angeles Region)

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Palos Verdes District (Los Angeles Region)

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PER SECTION III (G) OF GENERAL ORDER NO. 96-A

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