



PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

July 9, 2025

BOARD OF DIRECTORS

W. SCOTT KELLERMAN
Division 1

DON WILSON
Division 2

CYNTHIA SANCHEZ
Division 3

KATHY MAC LAREN-GOMEZ
Division 4

VINCENT DINO
Division 5

DENNIS D. LaMOREAUX
General Manager

ALESHIRE & WYNDER LLP
Attorneys



**AGENDA FOR REGULAR MEETING
OF THE BOARD OF DIRECTORS
OF THE PALMDALE WATER DISTRICT
TO BE HELD AT 2029 EAST AVENUE Q, PALMDALE**

MONDAY, JULY 14, 2025

6:00 p.m.

NOTES: To comply with the Americans with Disabilities Act, to participate in any Board meeting please contact Danielle Henry at 661-947-4111 x1059 at least 48 hours prior to a Board meeting to inform us of your needs and to determine if accommodation is feasible.

Additionally, an interpreter will be made available to assist the public in making **comments** under Agenda Item No. 4 and any action items where public input is offered during the meeting if requested at least 48 hours before the meeting. Please call Danielle Henry at 661-947-4111 x1059 with your request. (PWD Rules and Regulations Section 4.03.1 (c))

Adicionalmente, un intérprete estará disponible para ayudar al público a hacer **comentarios** bajo la sección No. 4 en la agenda y cualquier elemento de acción donde se ofrece comentarios al público durante la reunión, siempre y cuando se solicite con 48 horas de anticipación de la junta directiva. Por favor de llamar Danielle Henry al 661-947-4111 x1059 con su solicitud. (PWD reglas y reglamentos sección 4.03.1 (c))

Agenda item materials, as well as materials related to agenda items submitted after distribution of the agenda packets, are available for public review at the District's office located at 2029 East Avenue Q, Palmdale or on the District's website at <https://www.palmdalewater.org/governance/board-activity/2025-meeting-agendas-minutes/> (Government Code Section 54957.5). Please call Danielle Henry at 661-947-4111 x1059 for public review of materials.

PUBLIC COMMENT GUIDELINES: The prescribed time limit per speaker is three-minutes. Please refrain from public displays or outbursts such as unsolicited applause, comments, or cheering. Any disruptive activities that substantially interfere with the ability of the District to conduct its meeting will not be permitted, and offenders will be requested to leave the meeting. (PWD Rules and Regulations, Appendix DD, Sec. IV.A.)

Each item on the agenda shall be deemed to include any appropriate motion, resolution, or ordinance to take action on any item.

- 1) Pledge of Allegiance/Moment of Silence.
- 2) Roll Call.
- 3) Adoption of Agenda.
- 4) Public Comments for Non-Agenda Items.

- 5) Presentations:
 - 5.1) None at This Time.
- 6) Action Items - Consent Calendar (The public shall have an opportunity to comment on any action item on the Consent Calendar as the Consent Calendar is considered collectively by the Board of Directors prior to action being taken.)
 - 6.1) Approval of Minutes of Regular Board Meeting held June 23, 2025.
 - 6.2) Payment of Bills for July 14, 2025.
 - 6.3) Receive and File Semi-Annual Employee Reimbursement Report for the Period Covering January 1, 2025 through June 30, 2025. (No Budget Impact – Finance Manager Hoffmeyer)
 - 6.4) Approval of First Amendment to Communications Site Lease Agreement Between Palmdale Water District and Verizon Wireless. (Finance Manager Hoffmeyer)
- 7) Action Items - Action Calendar (The public shall have an opportunity to comment on any action item as each item is considered by the Board of Directors prior to action being taken.)
 - 7.1) Public Hearing Regarding the Adoption of the 2025 Public Health Goal Report. (No Budget Impact – Operations Manager Marcinko/Water Quality and Regulatory Affairs Supervisor Thompson)
 - 7.2) Consideration and Possible Action on Adoption of 2025 Public Health Goal Report. (No Budget Impact – Operations Manager Marcinko/Water Quality and Regulatory Affairs Supervisor Thompson)
 - 7.3) Consideration and Possible Action on California Special Districts Association Board of Directors Seat B Southern Network Election for the 2026-2028 Term. (No Budget Impact – Assistant General Manager Rogers)
 - 7.4) Consideration and Possible Action on Authorizing the General Manager to Enter Into a Three-Year Contract with Convergent for Maintenance and Support of the Access Control, Video Surveillance Systems, and Alarm Monitoring. (\$162,000.00 – Budgeted – Information Technology Manager Stanton)
 - 7.5) Consideration and Possible Action on Authorizing the General Manager to Enter Into a Five-Year Contract with ProTelesis for Replacing the District Phone System, Call Center, and Providing Annual System Services. (\$342,000.00 – Budgeted – Information Technology Manager Stanton)
 - 7.6) Consideration and Possible Action on Authorizing the General Manager to Enter Into a Contract with SoCal SCADA for Designing and Building the SCADA Network Upgrade. (\$702,000.00 – Non-Budgeted – Project No. 24-616 – Information Technology Manager Stanton)
 - 7.7) Consideration and Possible Action on Authorizing the General Manager to Enter Into an Agreement with Environmental Science Associates (ESA) for Environmental Monitoring of the Palmdale Ditch Conversion Project. (\$1,447,000.00 – Not-to-Exceed – Budgeted – Project No. 21-613 – Engineering Manager Bader)

- 7.8) Consideration and Possible Action on Approval of Contract with Rincon Consultants, Inc. for the Crotch's Bumble Bee Habitat Restoration and Maintenance for the Construction of the Palmdale Ditch Conversion Project. (\$801,390.00 – Budgeted – Project No. 21-613 – Engineering Manager Bader)
- 7.9) Consideration and Possible Action on Approval of Tribal Monitoring Budget for the Palmdale Ditch Conversion Project. (\$160,134.00 – Not-to-Exceed – Budgeted – Project No. 21-613 – Engineering Manager Bader)
- 7.10) Consideration and Possible Action on Authorization of the Following Conferences, Seminars, and Training Sessions for Board and Staff Attendance Within Budget Amounts Previously Approved in the 2025 Budget:
 - a) None at This Time.
- 8) Information Items:
 - 8.1) Reports of Directors:
 - a) Standing Committees; Organization Appointments; Agency Liaisons:
 - 1) Antelope Valley East Kern Water Agency (AVEK) Meetings – June 24 & July 8. (Director Dino, Board Liaison/President Mac Laren-Gomez, Alt.)
 - b) General Meetings Reports of Directors.
 - 8.2) Report of General Manager.
 - a) Department Activity Updates:
 - 1) Customer Care Department. (Customer Care Supervisor Rosati)
 - 8.3) Report of General Counsel.
- 9) Public Comments on Closed Session Agenda Matters.
- 10) Closed Session Under:
 - 10.1) Government Code 54956.9(d)(2):
 - a) Conference With Legal Counsel – Anticipated Litigation in 1 Case.
- 11) Public Report of Any Action Taken in Closed Session.
- 12) Board Members' Requests for Future Agenda Items.
- 13) Adjournment.



SCOTT L. ROGERS,
Assistant General Manager

MINUTES OF REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE PALMDALE WATER DISTRICT, JUNE 23, 2025:

A regular meeting of the Board of Directors of the Palmdale Water District was held Monday, June 23, 2025, at 2029 East Avenue Q, Palmdale, California, in the Board Room of the District Office. President, Kathy Mac Laren-Gomez, called the meeting to order at 6:00 p.m.

1) Pledge of Allegiance/Moment of Silence.

At the request of President Mac Laren-Gomez, Director Kellerman led the Pledge of Allegiance followed by a moment of silence.

2) Roll Call.

Attendance:

Kathy Mac Laren-Gomez, President
Scott Kellerman, Vice President
Don Wilson, Treasurer
Vincent Dino, Secretary
Cynthia Sanchez, Assistant Secretary

Others Present:

Dennis LaMoreaux, General Manager
Scott Rogers, Assistant General Manager
Paul Early, General Counsel
Dennis Hoffmeyer, Finance Manager
Judy Shay, Public Affairs Director
Trisha Guerrero, Management Analyst
4 members of the public

3) Adoption of Agenda.

It was moved by Director Dino, seconded by Director Sanchez, and unanimously carried by all members of the Board of Directors present at the meeting to adopt the agenda, as written.

4) Public Comments for Non-Agenda Items.

There were no public comments for non-agenda items.

5) Presentations:

5.1) None at This Time.

There were no presentations.

6) Action Items – Consent Calendar: (The Public Shall Have an Opportunity to Comment on Any Action Item on the Consent Calendar as the Consent Calendar is Considered Collectively by the Board of Directors Prior to Action Being Taken.)

6.1) Approval of Minutes of Regular Board Meeting held June 9, 2025.

6.2) Ratification of Payment of Bills for June 23, 2025.

6.3) Approval of Resolution No. 25-3 being a Resolution of the Board of Directors of the Palmdale Water District Approving the Antelope Valley State Water Contractors Association General Program Funds Budget for Fiscal Year 2025/2026. (\$10,000.00 – Budgeted – Budget Item No. 1-02-5070-011 – Finance Manager/AVSWCA Controller Hoffmeyer)

President Mac Laren-Gomez announced the items included in the Consent Calendar after which it was moved by Director Kellerman, seconded by Director Wilson, and unanimously carried by all members of the Board of Directors present at the meeting to approve those items included in the Consent Calendar.

Resolution No. 25-3 is hereby made a portion of the minutes of this meeting.

7) Action Items - Action Calendar (The Public Shall Have an Opportunity to Comment on Any Action Item as Each Item is Considered by the Board of Directors Prior to Action Being Taken.)

7.1) Consideration and Possible Action to Receive and File the 2024 Annual Financial Report. (Finance Manager Hoffmeyer/Finance Committee)

Finance Manager Hoffmeyer introduced Mr. Jared Solmonsens, Nigro and Nigro Partner, after which Mr. Solmonsens provided a presentation of the District's 2024 Annual Financial Report and Unmodified Opinion by Nigro & Nigro, including the statement of revenues and expenses, capital additions, debt service, and cash and investments, and after a brief discussion of GASB Statement No. 101 regarding employee leave benefits and GASB Statement No. 102 regarding the District's risk evaluation, it was moved by Director Kellerman, seconded by Director Wilson, and unanimously carried by all members of the Board of Directors present at the meeting to receive and file the 2024 Annual Financial Report.

7.2) Consideration and Possible Action on Resolution No. 25-4 being a Resolution of the Board of Directors of the Palmdale Water District Authorizing the

General Manager or Designee to Sign a Grant Funding Agreement with the State Water Resources Control Board on Behalf of the District for the Alpine Springs Mobile Home Park Consolidation Project. (No Budget Impact – General Manager LaMoreaux)

General Manager LaMoreaux provided a brief overview of the District's history with Alpine Springs Mobile Home Park (MHP) and stated that a grant has been approved by the State Water Resources Control Board to fund the construction to connect Alpine Springs MHP to the District's distribution system, after which it was moved by Director Dino, seconded by Director Sanchez, and unanimously carried by all members of the Board of Directors present at the meeting to approve Resolution No. 25-4 being a Resolution of the Board of Directors of the Palmdale Water District Authorizing the General Manager or Designee to Sign a Grant Funding Agreement with the State Water Resources Control Board on behalf of the District for the Alpine Springs Mobile Home Park Consolidation Project.

Resolution No. 25-4 is hereby made a portion of the minutes of this meeting.

7.3) Adjourn to Palmdale Water District Public Financing Authority Board Meeting. (President Mac Laren-Gomez)

At 6:24 p.m., President Mac Laren-Gomez adjourned the Regular Meeting to the Palmdale Water District Public Financing Authority Meeting. She reconvened the Regular Meeting at 6:26 p.m.

7.4) Consideration and Possible Action on Authorization of the Following Conferences, Seminars, and Training Sessions for Board and Staff Attendance within Budget Amounts Previously Approved in the 2025 Budget:

a) CalPERS Educational Forum to be held October 13-15, 2025 in Palm Desert.

It was moved by Director Wilson, seconded by Director Dino, and unanimously carried by all members of the Board of Directors present at the meeting to approve the following conferences, seminars, and training sessions for Board and staff attendance within budget amounts previously approved in the 2025 Budget: CalPERS Educational Forum to be held October 13-15, 2025 in Palm Desert.

8) Information Items:

8.1) Reports of Directors:

a) Standing Committees; Organization Appointments; Agency Liaisons:

1) Antelope Valley East Kern Water Agency (AVEK) Meeting – June 10. (Director Dino, Board Liaison/President Mac Laren-Gomez, Alt.)

Director Dino reported that on June 10, he attended the AVEK Board Meeting where the AVEK Financing Authority approved the issuance and sale of its water bank revenue bonds for the High Desert Water Bank Program.

2) Antelope Valley State Water Contractors Association (AVSWCA) Meeting – June 12. (President Mac Laren-Gomez/Director Wilson/Director Kellerman, Alt.)

Director Mac Laren-Gomez reported that on June 12, she attended the AVSWCA Meeting where they discussed concerns on subsidence impacts on the State Water Project and requested that copies of the presentation from the meeting be distributed to the Board.

3) Finance Committee Meeting – June 17. (Director Wilson, Chair/Director Kellerman/Director Sanchez, Alt.)

Director Wilson reported that on June 17, he attended the Finance Committee Meeting and that a written report will be distributed.

4) Special Districts Association of North Los Angeles County (SDANLAC) Membership Luncheon – June 18. (Director Dino, CSDA Chapter President)

Director Dino reported that on June 18, he attended the SDANLAC Membership Luncheon and that a written report will be distributed.

b) General Meetings Reports of Directors.

Director Kellerman reported that on June 12, he attended the AVSWCA Meeting; that on June 17, he attended the Finance Committee Meeting; that on June 18, he attended the SDANLAC Membership Luncheon; that on June 19, he attended a Board Briefing; and that on June 23, he attended a Littlerock Reservoir Ad Hoc Meeting.

Director Wilson reported that on June 12, he attended the AVSWCA Meeting; that on June 17, he attended the Finance Committee Meeting; that on June 18, he attended the SDANLAC Membership Luncheon; that on June 19, he attended a Board Briefing; and that on June 21, he attended the Palmdale Fin & Feather Club Meeting which was cancelled and that he was provided a tour of their facilities after which Director Kellerman stated that he also tried to attend the cancelled meeting.

Director Sanchez reported that on June 12, she attended the AV Edge Installation Dinner; that on June 18, she attended the SDANLAC Membership Luncheon and that on June 18, she also attended a Board Briefing.

Director Mac Laren-Gomez reported that on June 12, she attended the AVSWCA Meeting; that on June 12, she also attended the AV Edge Installation Dinner; that on June 18, she attended the SDANLAC Membership Luncheon; that on June 19, she attended a Board Briefing; and that on June 23, she attended a Littlerock Reservoir Ad Hoc Meeting.

Director Dino reported that on June 9, he attended the PWD Regular Board Meeting; that on June 10, he attended an AVEK Meeting; that on June 18, he attended the SDANLAC Membership Luncheon; that on June 19, he attended a Board Briefing; and that on June 23, he is attending the PWD Regular Board Meeting.

8.2) Report of General Manager.

a) June 2025 Written Report of Activities through May 2025.

General Manager LaMoreaux stated that a written report was provided this evening and highlighted the District's groundwater production rights, storage agreements for carryover water, precipitation, and the single mainline leak this year.

He then stated that he will be out of the office beginning June 30 and returning on July 21.

8.3) Report of General Counsel.

General Counsel Early stated that assembly bills previously reported on continue to move forward and then provided a brief overview on AB 362 regarding enhancing water quality protections for California tribal communities, and on AB 1413 and 1466

regarding groundwater adjudication processes with the Sustainable Groundwater Management Act (SGMA).

9) Board Members' Requests for Future Agenda Items.

There were no requests for future agenda items.

10) Adjournment.

There being no further business to come before the Board, the meeting was adjourned at 6:48 p.m.

Secretary



BOARD MEMORANDUM

DATE: July 14, 2025
TO: **BOARD OF DIRECTORS**
FROM: Mr. Dennis Hoffmeyer, Finance Manager/CFO
VIA: Mr. Scott Rogers, Assistant General Manager
 Mr. Dennis D. LaMoreaux, General Manager
RE: ***RECEIVE AND FILE SEMI-ANNUAL EMPLOYEE REIMBURSEMENT REPORT FOR THE PERIOD COVERING JANUARY 1, 2025 THROUGH JUNE 30, 2025. (NO BUDGET IMPACT – FINANCE MANAGER HOFFMEYER)***

Recommendation:

Staff recommends the Board receive and file the Semi-Annual Employee Reimbursement Report for the period covering January 1, 2025 through June 30, 2025.

Background:

Staff reimbursements are based on the approved budget. It is required that the District report to the governing body Employee Reimbursements in excess of \$100.00 on a semi-annual basis.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 4: Financial Health and Stability

This item directly relates to the District's Mission Statement.

Budget:

Receiving and filing the Employee Reimbursement Report will not affect the budget

Supporting Documents:

- Semi-Annual Employee Reimbursement Report for the period covering January 1, 2025 through June 30, 2025.

PALMDALE WATER DISTRICT
Semi-Annual Employee Reimbursement Report
Period Covering January , to June 30, 2024

Employee ID	Employee Name	Pay Date	Item Description	Amount
1778	GLORIA BARRAGAN	01/22/25	EDUCATION EXPENSE REGULAR	375.00
3710	SALVADOR ZUNIGA	01/22/25	BOOT EXPENSE	214.99
4033	DANIEL MALDONADO	01/22/25	EDUCATION EXPENSE ADVANCED	2,800.26
4033	DANIEL MALDONADO	01/22/25	EDUCATION EXPENSE ADVANCED	250.98
4055	ERIK GUSTAFSON	01/22/25	EDUCATION EXPENSE REGULAR	235.00
4111	JOE VELASQUEZ	01/22/25	BOOT EXPENSE	250.00
4054	MIKE CHILDS	02/12/25	BOOT EXPENSE	218.95
4057	DARREN DYKES	02/12/25	BOOT EXPENSE	250.00
4107	ANGEL ARBARCA	02/12/25	EDUCATION EXPENSE REGULAR	249.20
4108	LILLIAN LOPEZ CONTREREAS	02/26/25	EDUCATION EXPENSE REGULAR	167.79
4047	CLAUDIA BOLANOS	03/12/25	TRAVEL EXPENSE	567.35
4047	CLAUDIA BOLANOS	03/26/25	TRAVEL EXPENSE	112.00
4119	ANTHON MEJIA	03/26/25	EDUCATION EXPENSE REGULAR	349.99
4078	DUSTIN ADAMS	04/23/25	EMPLOYEE EXPENSE	135.19
4078	DUSTIN ADAMS	04/23/25	EDUCATION EXPENSE REGULAR	339.04
4078	DUSTIN ADAMS	05/04/25	EDUCATION EXPENSE REGULAR	250.00
4089	BEN MITCHELL	05/07/25	EDUCATION EXPENSE REGULAR	750.00
4116	JESUS RIOS	05/07/25	BOOT EXPENSE	250.00
2100	DENNIS LAMOREAUX	05/21/25	EMPLOYEE EXPENSE	340.22
4033	DANIEL MALDONADO	05/21/25	EMPLOYEE EXPENSE	183.55
4033	DANIEL MALDONADO	06/03/25	EDUCATION EXPENSE ADVANCED	2,198.76
4073	JENNIFER VILLA	06/03/25	TRAVEL EXPENSE	456.75
4114	LANCE BROUGH	06/03/25	EDUCATION EXPENSE REGULAR	494.99
4123	ELIZAMA PENALOZA	06/18/25	EMPLOYEE EXPENSE	322.26
				<u>11,762.27</u>



BOARD MEMORANDUM

DATE: July 14, 2025
TO: BOARD OF DIRECTORS
FROM: Mr. Dennis J. Hoffmeyer, Finance Manager
VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager
RE: ***APPROVAL OF FIRST AMENDMENT TO COMMUNICATIONS SITE LEASE AGREEMENT BETWEEN PALMDALE WATER DISTRICT AND VERIZON WIRELESS. (FINANCE MANAGER HOFFMEYER)***

Recommendation:

Staff recommends that the Board approve the proposed Amendment to the Site Lease Agreement with Verizon Wireless. The key changes are as follows:

- **Lease Revenue Adjustment:** A reduction in annual lease revenue of \$31,200.00, effective September 1, 2025.
- **Annual Rent Escalation:** The annual rent increase will remain at three percent (3%) based on the rent paid in the preceding year.
- **Lease Term Extension:** The lease term will automatically extend for up to seven (7) additional five-year periods.

Alternative Options:

Should the Board choose to deny the proposed Amendment, there is a risk that Verizon will terminate the lease, as the current lease rate is no longer aligned with industry standards for the area. Verizon has the option to terminate the agreement effective September 1, 2025, which is the renewal date for the next lease term.

Impact of Taking No Action:

If the Board takes no action on the proposed Amendment, there is a significant risk that Verizon will terminate the lease. The current lease rate is no longer competitive with market rates in the area, and Verizon may choose not to renew under the existing terms. Termination could occur as early as September 1, 2025.

Background:

In 2016, the District entered into a lease agreement with Verizon Wireless to install a communications site on District property. The agreement generated \$36,000.00 in revenue during its first year, with a built-in annual rent increase of three percent (3%) based on the prior year's payment. The lease also included the option for Verizon to extend the agreement up to four (4) additional five-year terms.

July 14, 2025

Discussions regarding the proposed changes to the leasing terms for this site have been ongoing since March 2025. The matter was presented to the Finance Committee at its April meeting as an informational item. During that discussion, the Committee noted the importance of negotiating favorable terms with Verizon rather than risking the loss of the lease altogether, which could negatively impact the District's Rate Assistance Program (RAP).

More recently, the District worked with Verizon to establish a second lease for a new communications site located at Well 8A. This new lease reflects current market conditions and provides for annual revenue of \$24,000.00, along with the same three percent (3%) annual increase. Verizon has begun development at the Well 8A site, and the first rent payment is expected by September 1, 2025.

Verizon has also expressed interest in a potential third site within the District. While still in the early stages of discussion, staff believe that this site could be feasible if equipment is designed to minimize visual impact and maintain the surrounding area's aesthetics. Further details will be brought to the Board if the proposal progresses.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 4 – Financial Health and Stability.

This item directly relates to the District's Mission Statement.

Budget:

This item may affect the RAP, which provides financial support to qualifying customers, including seniors, veterans, and low-income households. The current interim budget for the RAP in 2025 is \$210,000, serving up to 700 customers annually. Without approval of the new lease terms, the RAP budget for 2026 may need to be reduced to reflect the loss of this funding source.

Supporting Documents:

- First Amendment to Communication Site Lease Agreement Between Palmdale Water District and Verizon Wireless

FIRST AMENDMENT TO COMMUNICATIONS SITE LEASE AGREEMENT

This First Amendment to Communications Site Lease Agreement (“First Amendment”) is made, and shall be effective, as of the last date of the signatures below (“Effective Date”), between Palmdale Water District (“Lessor”), and Los Angeles SMSA Limited Partnership d/b/a Verizon Wireless (“Lessee”). Lessor and Lessee (or their predecessors in interest) entered into that certain Communications Site Lease Agreement dated November 28, 2016, as may have been previously amended and/or assigned, (the “Lease Agreement”), pursuant to which Lessee is leasing or licensing from Lessor a portion of that certain property located at Avenue S & 6th Street, Palmdale, California 93550, as more particularly described in the Lease Agreement. Lessor and Lessee may be referenced in this First Amendment individually as a “Party” or collectively as the “Parties.”

In consideration of the mutual covenants and promises contained in this First Amendment, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the Parties, the Parties agree to amend the Lease Agreement as follows:

1. Term. Notwithstanding anything contained in the Lease Agreement to the contrary, the Lease Agreement shall expire on August 31, 2025. Commencing on September 1, 2025, the Lease Agreement shall be extended for 5 years (“Initial Extension Term”). The term of the Lease Agreement shall thereafter automatically extend for 7 additional terms of 5 years each (each, an “Additional Extension Term”), unless Lessee terminates the Lease Agreement by giving Lessor notice of such termination at least 30 days prior to the expiration of the Initial Extension Term or then-current Additional Extension Term.

2. Rent. Commencing on September 1, 2025, the monthly rent shall be \$2,600.00 to be paid on the first day of the month in advance to Lessor or such other person as Lessor may designate in writing at least 30 days in advance of any rental payment date. Beginning on September 1, 2026, the monthly rent shall increase by 3% over the monthly rent then in effect and by 3% over the then current monthly rent on each one-year anniversary of September 1, 2026 thereafter.

3. Rent Credit. This First Amendment provides for a reduction in rent, effective September 1, 2025. The Parties acknowledge and agree that Lessee shall be entitled to a credit in the event of any overpayment of rent resulting from said reduction in rent. Such credit shall be applied against Lessee’s rent due under the Lease Agreement.

4. Notice Address. The notice address for Lessee in the Lease Agreement is hereby amended as follows:

If to Lessee: Verizon Wireless
Attn: Network Real Estate
180 Washington Valley Road
Bedminster, NJ 07921

With a copy to: Basking Ridge Mail Hub
Attn: Legal Intake
One Verizon Way

Basking Ridge, NJ 07920

5. Right of First Refusal. Notwithstanding anything contained in the Lease Agreement to the contrary, if at any time after the Effective Date, Lessor receives an offer or letter of intent, from any person or entity that is in the business of owning, managing or operating communications facilities or is in the business of acquiring landlord interests in agreements relating to communications facilities, to purchase fee title, an easement, a lease, a license, or any other interest in the Property or any portion thereof or to acquire any interest in the Lease Agreement, or an option for any of the foregoing, Lessor shall provide written notice to Lessee of said offer (“Lessor’s Notice”). Lessor’s Notice shall include the prospective buyer’s name, the purchase price being offered, and any other consideration being offered, the other terms and conditions of the offer, a description of the portion of and interest in the Property and/or the Lease Agreement which will be conveyed in the proposed transaction, and a copy of any letters of intent or form agreements presented to Lessor by the third-party offeror. Lessee shall have the right of first refusal to meet any bona fide offer of sale or transfer on the terms and conditions of such offer or by effectuating a transaction with substantially equivalent financial terms. If Lessee fails to provide written notice to Lessor that Lessee intends to meet such bona fide offer within 60 days after receipt of Lessor’s Notice, Lessor may proceed with the proposed transaction in accordance with the terms and conditions of such third-party offer, in which event the Lease Agreement shall continue in full force and effect and the right of first refusal described in this Section shall survive any such conveyance to a third party. If Lessee provides Lessor with notice of Lessee’s intention to meet the third party offer within 60 days after receipt of Lessor’s Notice, then if Lessor’s Notice describes a transaction involving greater space than the Premises, Lessee may elect to proceed with a transaction covering only the Premises and the purchase price shall be prorated on a square footage basis. Further, Lessor acknowledges and agrees that if Lessee exercises this right of first refusal, Lessee may require a reasonable period of time to conduct due diligence and effectuate the closing of a transaction on substantially equivalent financial terms of the third-party offer. Lessee may elect to amend the Lease Agreement to effectuate the proposed financial terms of the third party offer rather than acquiring fee simple title or an easement interest in the Premises. For purposes of this Section, any transfer, bequest or devise of Lessor’s interest in the Property as a result of the death of Lessor, whether by will or intestate succession, or any conveyance to Lessor’s family members by direct conveyance or by conveyance to a trust for the benefit of family members shall not be considered a sale for which Lessee has any right of first refusal.

6. Continued Effect. Except as amended hereby, all of the other terms and conditions of the Lease Agreement shall remain in full force and effect. In the event of a conflict between any term and provision of the Lease Agreement and this First Amendment, the terms and provisions of this First Amendment shall control. In addition, except as otherwise stated in this First Amendment, all initially capitalized terms shall have the same respective defined meaning stated in the Lease Agreement. All captions are for reference purposes only and shall not be used in the construction or interpretation of this First Amendment.

7. Ratification and Reaffirmation. Lessor and Lessee do hereby ratify, reaffirm, adopt, contract for and agree to be, or continue to be, bound by all of the terms and conditions of the above-referenced Lease Agreement. Except as modified by this First Amendment, all of the terms and conditions of the Lease Agreement are incorporated by reference herein as if set forth

at length. It is acknowledged and agreed that the execution of this First Amendment by the Parties is not intended to and shall not constitute a release of either Party from any obligation or liability which said Party has to the other pursuant to the Lease Agreement.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, this First Amendment is effective and entered into as of the date last written below.

Lessor:

Palmdale Water District

By: _____

Name: _____

Title: _____

Date: _____

Lessee:

Los Angeles SMSA Limited Partnership, a California limited partnership

d/b/a Verizon Wireless

By AirTouch Cellular Inc., Its General Partner

By: _____

Name: _____

Title: _____

Date: _____



BOARD MEMORANDUM

DATE: July 14, 2025
TO: BOARD OF DIRECTORS
FROM: Mr. Joe Marcinko, Operations Manager
VIA: Mr. Dennis D. LaMoreaux, General Manager
RE: ***PUBLIC HEARING AND CONSIDERATION AND POSSIBLE ACTION ON ADOPTION OF 2025 PUBLIC HEALTH GOAL REPORT. (NO BUDGET IMPACT – OPERATIONS MANAGER MARCINKO/WATER QUALITY AND REGULATORY AFFAIRS SUPERVISOR THOMPSON)***

Recommendation:

Staff recommends the adoption of the 2025 Public Health Goal Report.

Alternative Options:

The Board can choose not to adopt the 2025 Public Health Goal Report.

Impact of Taking No Action:

The District will not be compliant with SB 1307.

Background:

SB 1307 (Calderone-Sher; effective 1/1/97) added new provisions to the California Health and Safety Code, which mandate that a Public Health Goal Report be prepared by July 1, 1998, and every three years thereafter. The attached Public Health Goal Report is intended to provide information to the public, in addition to the annual Consumer Confidence Report (CCR) provided to each customer.

The Public Health Goal Report compares the District's drinking water quality with Public Health Goals (PHGs) adopted by California's Environmental Protection Agency's Office of Environmental Health Hazard Assessment and with Maximum Contaminant Level Goals (MCLGs) adopted by the United States Environmental Protection Agency (USEPA). PHGs and MCLGs are not enforceable standards, and no action to meet them is mandated.

The District's water system complies with all health-based drinking water standards and Maximum Contaminant Levels required by the California Division of Drinking Water and the USEPA. No additional actions are required.

July 14, 2025

The law requires that a public hearing be held, which can be part of a regularly scheduled public meeting, for the purpose of accepting and responding to public comment on the Public Health Goal Report.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 6 – Customer Care, Advocacy and Outreach.

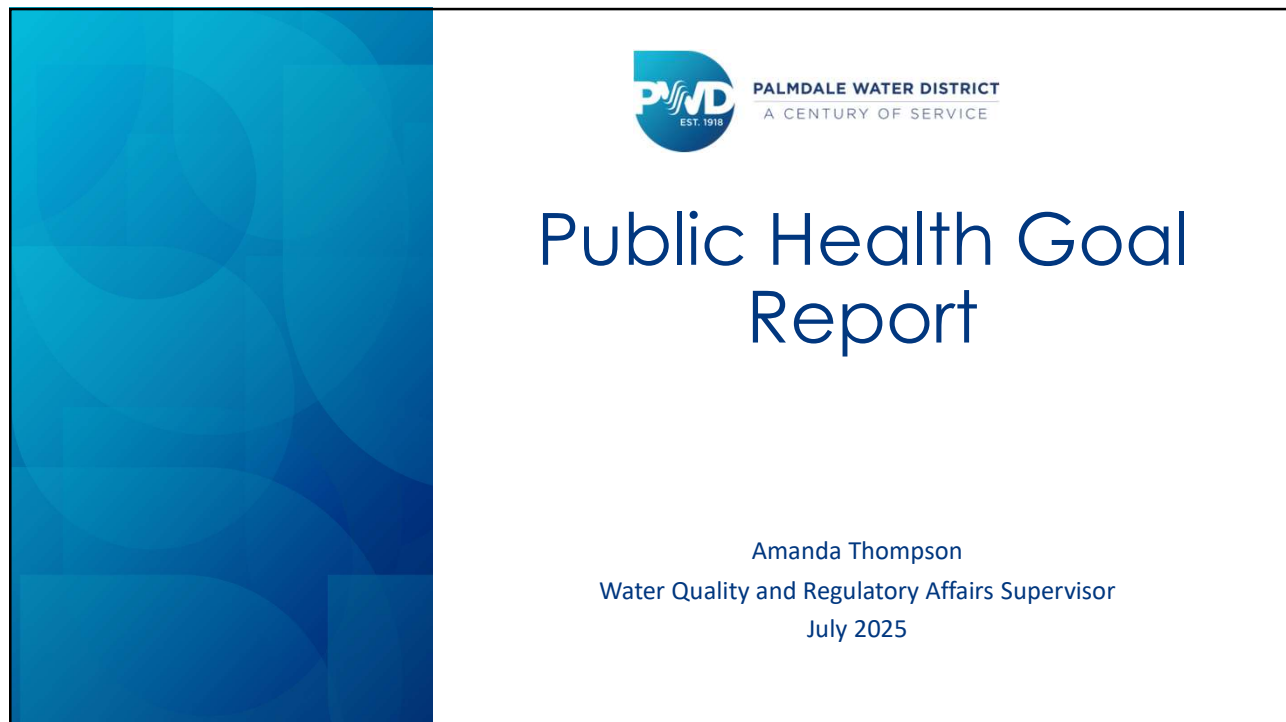
The item directly relates to the District’s Mission Statement.

Budget:

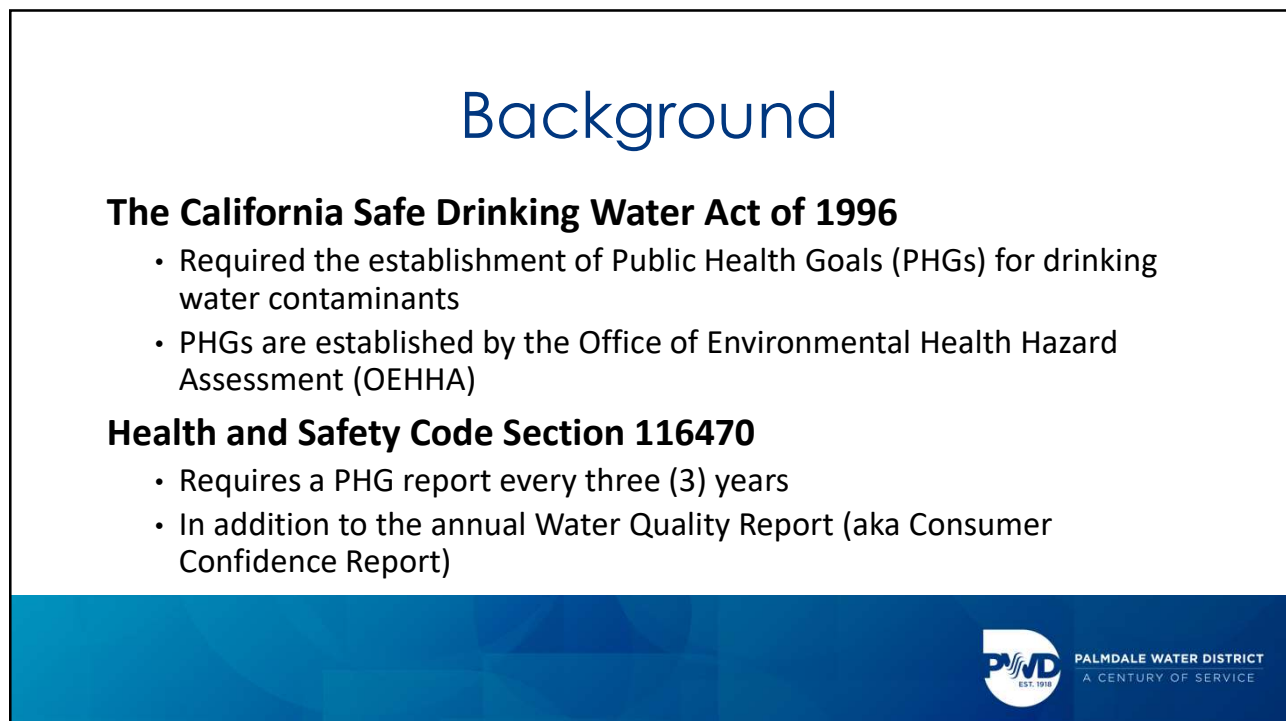
This item does not affect the budget.

Supporting Documents:

- PowerPoint presentation on 2025 Public Health Goal Report
- 2025 Public Health Goal Report
- Notice of Public Hearing published in Antelope Valley Press on June 21 and 28, 2025



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Public Notice

State law requires a Public Hearing so that interested individuals can provide the District with comments on the Public Health Goal report.



Palmdale Water District Notice of Public Hearing published twice in the Antelope Valley Press:

- June 21, 2025
- June 28, 2025



3

What are Public Health Goals?

“...estimates the level of the chemical in drinking water that would pose no significant health risk to individuals, including sensitive populations, **consuming the water on a daily basis over a lifetime.** PHGs represent health-protective goals based solely on public health considerations and are developed based on the best available data in the scientific literature.”



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What Public Health Goals Are Not

- **NOT** regulatory Maximum Contaminant Levels (MCLs)
 - However, they are the scientific basis for establishing the maximum contaminant levels
- **NOT** enforceable under the Safe Drinking Water Act
- **NOT** contaminant levels requiring any further action



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Water Quality Data Considered

- PHG Report is based on all regulatory water quality data collected during the previous three-year period (e.g. 2022, 2023 & 2024)



- Only includes constituents with an established public health goal and are detected at or above its detection level for purposes of reporting (DLR)



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2025 Public Health Goal Report

Constituent	PHG (MCLG)	DLR	TT	PWD Maximum Result
Total Coliform	(0%)	NA	<5.0%	0.8%

- Coliform bacteria are an indicator organism that are naturally present in the environment and are not generally considered harmful.
- The USEPA and California State Treatment Technique (TT) is no more than 5.0% samples total coliform-positive (TC-positive) in a month.



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2025 Public Health Goal Report

Constituent	PHG (MCLG)	DLR	MCL	PWD Maximum Result
Arsenic	0.004 µg/L	2 µg/L	10 µg/L	2.9 µg/L
Chromium, Hexavalent	0.02 µg/L	0.1 µg/L	10 µg/L	8.8 µg/L
Copper	0.30 mg/L	0.05 mg/L	1.3 mg/L	0.42 mg/L
Perchlorate	1 µg/L	1 µg/L	6 µg/L	3.6 µg/L



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2025 Public Health Goal Report

Constituent	PHG (MCLG)	DLR	MCL	PWD Maximum Result
Gross Alpha	(0 pCi/L)	3 pCi/L	15 pCi/L	13 pCi/L
Gross Beta	(0 pCi/L)	4 pCi/L	50 pCi/L	4.6 pCi/L
Uranium	0.43 pCi/L	1 pCi/L	20 pCi/L	3.8 pCi/L

Total Compliance



Palmdale Water District has been 100% in compliance with all primary drinking water standards during 2022 – 2024.

Palmdale Water District continues to produce high-quality drinking water which is in compliance for the first half of 2025.





Public Health Goal Report 2025

Background

Provisions of the California Health and Safety Code, Section 116470(b) specify that Palmdale Water District (PWD), and other water utilities with more than 10,000 service connections, prepare a special report every three years by July 1st if their water quality measurements have exceeded any Public Health Goals (PHGs). PHGs are non-enforceable goals established by the Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA). The law also requires that where OEHHA has not adopted a PHG for a constituent, the water suppliers are to use the Maximum Contaminant Level Goal (MCLG) adopted by United States Environmental Protection Agency (USEPA). Only constituents that have a California primary drinking water standard and for which either a PHG or MCLG has been set are to be addressed.

This report provides information regarding constituents that were detected in PWD's water supply between 2022 and 2024 (3-year data) at a level exceeding an applicable PHG or MCLG. This includes the numerical public health risk associated with the Maximum Contaminant Level (MCL) and the PHG or MCLG, the category or type of risk to health that could be associated with each constituent, the best available treatment (BAT) technology that could be used to reduce the constituent level, and an estimate of the cost to install that treatment if appropriate and feasible.

There are a few constituents that are routinely detected in water systems at levels usually well below the drinking water standards for which no PHG nor MCLG has yet been adopted by OEHHA or USEPA, including Total Trihalomethanes. These will be addressed in a future required report after a PHG has been adopted.

California Health and Safety Code, Section 116470(b) requires water agencies to prepare a brief report and hold a public meeting for the purpose of accepting and responding to public comments on the report.

What Are Public Health Goals?

PHGs are non-enforceable goals set by OEHHA and are based solely on public health risk considerations. A PHG is the level of a chemical contaminant in drinking water that does not pose a significant risk to health. PHGs are not regulatory standards. None of the practical risk-management factors that are considered by the USEPA or the California State Water Resources Control Board (SWRCB) – Division of Drinking Water (DDW) in setting drinking water standards (MCLs) are considered in setting the PHGs. These factors include analytical detection capability, treatment technology available, benefits and costs. The PHGs are not enforceable and are not required to be met by any public water system. MCLGs are the federal equivalent to PHGs.

How does OEHHA Establish a Public Health Goal?

The process for establishing a PHG for a chemical contaminant in drinking water is very rigorous. OEHHA scientists first compile all relevant scientific information available, which includes studies of the chemical's effects on laboratory animals and studies of humans who have been exposed to the chemical. The scientists use data from these studies to perform a health risk assessment, in which they determine the levels of the contaminant in drinking water that could be associated with various adverse health effects. When calculating a PHG, OEHHA uses all the information it has compiled to identify the level of the chemical in drinking water that would not cause significant adverse health effects in people who drink that water every day for 70 years. OEHHA must also consider any evidence of immediate and severe health effects when setting the PHG.

For cancer-causing chemicals, OEHHA typically establishes the PHG at the “one-in-one million” risk level. At that level, not more than one person in a population of one million people drinking the water daily for 70 years would be expected to develop cancer as a result of exposure to that chemical.

Water Quality Data Considered

All the water quality data collected by PWD between 2022 and 2024 for purposes of determining compliance with drinking water standards were considered. These data were all summarized in our 2022, 2023, and 2024 Annual Consumer Confidence Reports, which were made available to all of our customers by July 1st of each year and can be found on PWD’s website.

Guidelines Followed

The Association of California Water Agencies (ACWA) formed a workgroup, which prepared guidelines for water utilities to use in preparing these newly required reports. The ACWA guidelines were used in the preparation of our report. No guidance was available from state regulatory agencies.

Constituents Detected That Exceed a PHG or a MCLG

Water quality during the years 2022, 2023, and 2024 considered for this report contained no constituents that exceeded state or federal compliance standards. However, there were a few that were detected at levels above the PHG or MCLG. The following is a discussion of these constituents.

Total Coliform

Coliform bacteria are an indicator organism that are naturally present in the environment and are not generally considered harmful. They are used because of the ease in monitoring and analysis. The USEPA and California State Treatment Technique trigger level is no more than 5.0% total coliform-positive (TC-positive) samples in a month, and the USEPA MCLG is zero percent TC-positive every single month.

PWD collected and analyzed between 120 and 150 samples per month for coliform bacteria during 2022-2024, and three months had detections above the MCLG. The maximum percentage of TC-positive samples per month was 0.8%. Our water system is in full compliance with the Federal and State Revised Total Coliform Rule.

Coliform bacteria indicate that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. When more than 5.0% samples are TC-positive in a month, PWD would be required to conduct an assessment to identify problems and to correct any problems found.

Although USEPA set the MCLG for total coliform at zero percent positive, there is no commercially available technology that will guarantee zero percent positive every single month; therefore, the cost of achieving the PHG cannot be estimated.

PWD will continue several programs that are currently in place to prevent contamination of the water supply with microorganisms. These include:

- Disinfection using chlorine and maintaining a chlorine residual throughout the distribution system;
- Monitoring throughout the distribution system to verify the absence of total coliform and the presence of a protective chlorine residual;
- Flushing program in which water pipelines known to have little use are flushed to remove stagnant water and bring in fresh water with a chlorine residual;
- Cross-connection control program that prevents the accidental entry of non-disinfected water into the drinking water system; and
- Perform a Watershed Sanitary Survey every five years pursuant to Title 22, Article 7, §64665

Arsenic

The major sources of arsenic in drinking water are erosion of natural deposits, runoff from orchards, glass and electronics production wastes. The USEPA and California State MCL for arsenic is 10 µg/L, and the California PHG is 0.004 µg/L and USEPA MCLG is zero.

PWD collected and analyzed 24 samples for arsenic during 2022-2024, and two sample results were detected above the PHG. Values ranged from non-detect (ND) to 2.9 µg/L, with an average value of non-detect (ND). All sample results were below the MCL.

The category of health risk for arsenic is carcinogenicity. Carcinogenic risk means capable of producing cancer. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or circulatory system problems and may have an increased risk of getting cancer. Cancer risk at the PHG is 1×10^{-6} (one per million) and, at the California MCL, it is 2.5×10^{-3} (2.5 per thousand). The BATs for arsenic reduction are activated alumina, coagulation/filtration, ion exchange, lime softening, reverse osmosis, electrodialysis, and oxidation/filtration. PWD would likely consider reverse osmosis (RO) for reducing arsenic levels.

Hexavalent Chromium

The major sources of hexavalent chromium in drinking water are erosion of natural deposits, transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities. The California State MCL for hexavalent chromium is 10 µg/L, and the California PHG is 0.02 µg/L.

PWD collected and analyzed 19 samples for hexavalent chromium during 2022-2024, and 18 sample results were detected above the PHG. Values ranged from non-detect (ND) to 8.8 µg/L, with an average value of 3.6 µg/L. All sample results were below the MCL.

The category of health risk for hexavalent chromium is carcinogenicity. Carcinogenic risk means capable of producing cancer. Some people who drink water containing hexavalent chromium in excess of the MCL over many years may have an increased risk of getting cancer. Cancer risk at the PHG is 1×10^{-6} (one per million) and at the California MCL it is 5×10^{-4} (five per ten thousand). The BATs for hexavalent

chromium reduction are ion exchange, reverse osmosis, and reduction/coagulation/filtration. PWD would likely consider ion exchange (IX) with weak base anion resin for reducing hexavalent chromium levels.

Lead and/or Copper

The major sources of copper in drinking water are internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. There is no MCL for Lead or Copper. Instead, the 90th percentile value of all samples from household taps in the distribution system cannot exceed an Action Level of 0.015 mg/L for lead and 1.3 mg/l for copper. The PHG for lead is 0.0002 mg/L, and the PHG for copper is 0.3 mg/L.

All of our source water samples for lead in 2024 were less than the PHG. Based on the triennial sampling of residences within our distribution system in 2024, our 90th percentile value for copper was 0.42 mg/L, which exceeded the PHG. The 90th percentile value for lead was below the DLR and, therefore, considered to be non-detect, or zero.

The category of health risk for copper is digestive system toxicity (causes nausea, vomiting, diarrhea). Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. Numerical health risk data on copper have not yet been provided by OEHHA, the State agency responsible for providing that information.

Our water system is in full compliance with the Federal and State Lead and Copper Rule. To reduce the potential that lead or copper values at consumer taps could exceed the PHG, corrosion control treatment was installed at our treated surface water source.

Based on our extensive sampling, it was determined that, according to State Regulatory Requirements, we meet the Action Levels for Lead and Copper. Therefore, we are deemed by DDW to have “optimized corrosion control” for our system.

In general, optimizing corrosion control is considered to be the best available technology to deal with corrosion issues and with any lead or copper findings.

We continue to monitor our water quality parameters that relate to corrosiveness, such as the pH, hardness, alkalinity, and total dissolved solids, and will take action, if necessary, to maintain our system in an “optimized corrosion control” condition.

Since we are meeting the “optimized corrosion control” requirements, additional corrosion control treatment is not necessary. Therefore, no estimate of cost is included in this report.

While our system did not exceed the Lead PHG or Lead Action Level, it is possible that there may be high lead levels in homes as a result of materials in the home’s plumbing. Lead can cause serious health problems, especially for pregnant women and children ages 6 and under. Customers concerned about high lead levels in a home’s water should run the water for 30 seconds to 2 minutes before using tap water. It is also recommended that the water in the home be tested. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/lead>.

Perchlorate

The major sources of perchlorate in drinking water are solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts. The USEPA and California State MCL for perchlorate is 6 µg/L, and the California PHG is 1 µg/L and USEPA MCLG is zero.

PWD collected and analyzed 69 samples for perchlorate during 2022-2024, and four sample results were detected above the PHG. Values ranged from non-detect (ND) to 3.6 µg/L, with an average value of ND. All sample results were below the MCL.

The category of health risk for perchlorate is endocrine toxicity (affects the thyroid) and developmental toxicity (causes neurodevelopmental deficits). Perchlorate has been shown to interfere with uptake of iodide by the thyroid gland, and to thereby reduce the production of thyroid hormones, leading to adverse effects associated with inadequate hormone levels. Thyroid hormones are needed for normal prenatal growth and development of the fetus, as well as for normal growth and development in the infant and child. In adults, thyroid hormones are needed for normal metabolism and mental function. The BATs for perchlorate reduction are biological fluid bed reactor and ion exchange. PWD would likely consider ion exchange (IX) for reducing perchlorate levels.

Gross Alpha Particle Activity

The major source of gross alpha particle activity in drinking water is from the erosion of natural deposits. Certain minerals are radioactive and may emit alpha radiation. The MCL for gross alpha particle activity is 15 pCi/L, and the MCLG is 0 pCi/L.

PWD collected 6 samples for gross alpha particle activity during 2022-2024, and two sample results were detected above the PHG. Values ranged from ND to 13 pCi/L, with an average value of ND. All sample results were below the MCL.

The category of health risk for gross alpha particle activity is carcinogenicity. Carcinogenic risk means capable of producing cancer. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer. Cancer risk at the MCLG is 0 and at the California MCL is 1×10^{-3} (one per thousand). The BAT for gross alpha particle activity reduction is reverse osmosis (RO).

Gross Beta Particle Activity

The major source of beta particles in drinking water is from decay of natural and man-made deposits. Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. The MCL for gross beta particles is 50 pCi/L, and the MCLG is 0 pCi/L.

Palmdale Water District collected eight samples for gross beta particle activity during 2022-2024, and one sample result was detected above the PHG. Values ranged from ND to 4.6 pCi/L, with an average value of ND. All sample results were below the MCL.

The category of health risk for beta particles is carcinogenicity. Carcinogenic risk means capable of producing cancer. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer. Cancer risk at the MCLG is 0 and at California MCL is 2×10^{-3} (two per thousand). The BATs for gross beta reduction are ion exchange and reverse osmosis. PWD would likely consider reverse osmosis (RO) for reducing gross beta particle activity levels.

Uranium

The major source of uranium in drinking water is from erosion of natural deposits. The MCL for uranium is 20 pCi/L, and the PHG is 0.43 pCi/L.

Palmdale Water District collected 19 samples for uranium during 2022-2024, and eight sample results were detected above the PHG. Values ranged from ND to 3.8 pCi/L, with an average value of ND. All sample results were below the MCL.

The category of health risk for uranium is carcinogenicity. Carcinogenic risk means capable of producing cancer. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer. Cancer risk at the PHG is 1×10^{-6} (one per million) and at the California MCL is 5×10^{-5} (five per hundred thousand). The BATs for uranium reduction are ion exchange, reverse osmosis, lime softening, and coagulation/filtration. PWD would likely consider reverse osmosis (RO) for reducing uranium levels.

Best Available Treatment Technology and Cost Estimates

Both the USEPA and DDW adopt what are known as Best Available Technologies (BATs), which are the best-known methods of reducing contaminant levels to the MCL. Costs have been estimated for such technologies. However, since many PHGs and all MCLGs are set much lower than the MCL, it is not always possible nor feasible to determine what treatment is needed to further reduce a constituent downward to or near the PHG or MCLG, many of which are set at zero. Estimating the costs to reduce a constituent to zero is difficult, if not impossible, because it is not possible to verify by analytical means that the level has been lowered to zero. In some cases, installing treatment to try and further reduce very low levels of one constituent may have adverse effects on other aspects of water quality.

The best available technologies (BATs) to lower the level of the above compounds below the PHG are reverse osmosis and ion exchange. Please note that accurate cost estimates are difficult, if not impossible, and are highly speculative and theoretical. All costs, including annualized capital, construction, engineering, planning, environmental, contingency, and O&M are included, but only very general assumptions can be made for most of these items. Cost estimating guides from the Association of California Water Agencies (ACWA) guidance report were used in determining the estimated cost to implement the BAT.

According to the ACWA Cost Estimates for Treatment Technology BAT, to install and operate a RO system would cost approximately \$2.46-\$5.37 per 1,000 gallons of water treated. Based on PWD's 2022-2024 production, PWD's treatment capacity is approximately 13 million gallons per day. The estimated annualized capital and operation and maintenance costs, based on the current capacity of 13 million gallons per day, to install and operate a reverse osmosis system at PWD's water treatment plant and 10 of the 22 active wells would be approximately \$17.5 million/year for the life of the system. The cost per

customer service connection would be approximately \$633 per year. There would be additional costs for water conditioning to ensure water treated by reverse osmosis is optimized for distribution system corrosion control.

According to the ACWA Cost Estimates for Treatment Technology BAT, to install and operate an ion exchange system would cost approximately \$1.30-\$5.68 per 1,000 gallons of water treated. Based on PWD's 2022-2024 production, PWD's treatment capacity is approximately 5 million gallons per day. The estimated annualized capital and operation and maintenance costs, based on the current capacity of 5 million gallons per day, to install and operate an ion exchange system to treat 20 of the 22 active wells would be approximately \$9.4 million/year for the life of the system. The cost per customer service connection would be approximately \$338 per year.

Recommendation for Further Action

Palmdale Water District's drinking water meets all State of California, DDW and USEPA drinking water standards set to protect public health. To further reduce the levels of the constituents identified in this report that are already significantly below the health-based Maximum Contaminant Levels established to provide "safe drinking water", additional costly treatment processes would be required. The effectiveness of the treatment processes to provide any significant reductions in constituent levels at these already low values is uncertain. The health protection benefits of these further hypothetical reductions are not clear and may not be quantifiable. Therefore, no action is proposed.

Attachments

- No.1 Table of Regulated Constituents with MCLs, PHGs or MCLGs
- No.2 Health Risk Information for Public Health Goal Exceedance Reports (Table 1 and Table 2)
- No.3 Cost Estimates for Treatment Technologies (Table 1, Table 2 and Table 3)
- No.4 Title 22 California Code of Regulations: Best Available Technologies (BATs)
- No.5 Palmdale Water District's 2022, 2023 and 2024 Water Quality Data
- No.6 Glossary of terms and abbreviations used in the report



ATTACHMENT NO. 1

MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants

Last Update: November 2024

This table includes:

- California's maximum contaminant levels (MCLs)
- Detection limits for purposes of reporting (DLRs)
- [Public health goals \(PHGs\) from the Office of Environmental Health Hazard Assessment \(OEHHA\)](#)
- The PHGs for NDMA, PFOA and PFOS (which are not yet regulated in California) are included at the bottom of this table.
- The Federal MCLs for PFOA and PFOS are also listed at the end of this table.

Units are in milligrams per liter (mg/L), unless otherwise noted.

Chemicals with MCLs in 22 CCR §64431 – Inorganic Chemicals

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Aluminum	1	0.05	0.6	2001
Antimony	0.006	0.006	0.001	2016
Arsenic	0.010	0.002	0.000004	2004
Asbestos (MFL = million fibers per liter; for fibers >10 microns long)	7 MFL	0.2 MFL	7 MFL	2003
Barium	1	0.1	2	2003
Beryllium	0.004	0.001	0.001	2003
Cadmium	0.005	0.001	0.00004	2006
Chromium, Total	0.05	0.01	withdrawn Nov. 2001	1999
Chromium, Hexavalent	0.01	0.0001	0.00002	2011
Cyanide	0.15	0.1	0.15	1997
Fluoride	2	0.1	1	1997
Mercury (inorganic)	0.002	0.001	0.0012	1999 (rev2005)*
Nickel	0.1	0.01	0.012	2001
Nitrate (as nitrogen, N)	10 as N	0.4	45 as NO ₃ (=10 as N)	2018
Nitrite (as N)	1 as N	0.4	1 as N	2018
Nitrate + Nitrite (as N)	10 as N	--	10 as N	2018
Perchlorate	0.006	0.004	0.001	2015
Selenium	0.05	0.005	0.03	2010
Thallium	0.002	0.001	0.0001	1999 (rev2004)

*OEHHA's review of this chemical during the year indicated (rev20XX) resulted in no change in the PHG.

Radionuclides with MCLs in 22 CCR §64441 and §64443 – Radioactivity

Units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Gross alpha particle activity - OEHHA concluded in 2003 that a PHG was not practical	15	3	none	n/a
Gross beta particle activity - OEHHA concluded in 2003 that a PHG was not practical	4 mrem/yr	4	none	n/a
Radium-226	--	1	0.05	2006
Radium-228	--	1	0.019	2006
Radium-226 + Radium-228	5	--	--	--
Strontium-90	8	2	0.35	2006
Tritium	20,000	1,000	400	2006
Uranium	20	1	0.43	2001

Chemicals with MCLs in 22 CCR §64444 – Organic Chemicals

(a) Volatile Organic Chemicals (VOCs)

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Benzene	0.001	0.0005	0.00015	2001
Carbon tetrachloride	0.0005	0.0005	0.0001	2000
1,2-Dichlorobenzene	0.6	0.0005	0.6	1997 (rev2009)
1,4-Dichlorobenzene (p-DCB)	0.005	0.0005	0.006	1997
1,1-Dichloroethane (1,1-DCA)	0.005	0.0005	0.003	2003
1,2-Dichloroethane (1,2-DCA)	0.0005	0.0005	0.0004	1999 (rev2005)
1,1-Dichloroethylene (1,1-DCE)	0.006	0.0005	0.01	1999
Cis-1,2-Dichloroethylene	0.006	0.0005	0.013	2018
Trans-1,2-Dichloroethylene	0.01	0.0005	0.05	2018
Dichloromethane (Methylene chloride)	0.005	0.0005	0.004	2000
1,2-Dichloropropane	0.005	0.0005	0.0005	1999
1,3-Dichloropropene	0.0005	0.0005	0.0002	1999 (rev2006)
Ethylbenzene	0.3	0.0005	0.3	1997
Methyl tertiary butyl ether (MTBE)	0.013	0.003	0.013	1999
Monochlorobenzene	0.07	0.0005	0.07	2014
Styrene	0.1	0.0005	0.0005	2010
1,1,2,2-Tetrachloroethane	0.001	0.0005	0.0001	2003
Tetrachloroethylene (PCE)	0.005	0.0005	0.00006	2001
Toluene	0.15	0.0005	0.15	1999
1,2,4-Trichlorobenzene	0.005	0.0005	0.005	1999
1,1,1-Trichloroethane (1,1,1-TCA)	0.2	0.0005	1	2006
1,1,2-Trichloroethane (1,1,2-TCA)	0.005	0.0005	0.0003	2006
Trichloroethylene (TCE)	0.005	0.0005	0.0017	2009
Trichlorofluoromethane (Freon 11)	0.15	0.005	1.3	2014
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.2	0.01	4	1997 (rev2011)
Vinyl chloride	0.0005	0.0005	0.00005	2000
Xylenes	1.75	0.0005	1.8	1997

(b) Non-Volatile Synthetic Organic Chemicals (SOCs)

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Alachlor	0.002	0.001	0.004	1997
Atrazine	0.001	0.0005	0.00015	1999
Bentazon	0.018	0.002	0.2	1999 (rev2009)
Benzo(a)pyrene	0.0002	0.0001	0.000007	2010
Carbofuran	0.018	0.005	0.0007	2016
Chlordane	0.0001	0.0001	0.00003	1997 (rev2006)
Dalapon	0.2	0.01	0.79	1997 (rev2009)
1,2-Dibromo-3-chloropropane (DBCP)	0.0002	0.00001	0.000003	2020
2,4-Dichlorophenoxyacetic acid (2,4-D)	0.07	0.01	0.02	2009
Di(2-ethylhexyl) adipate	0.4	0.005	0.2	2003
Di(2-ethylhexyl) phthalate (DEHP)	0.004	0.003	0.012	1997
Dinoseb	0.007	0.002	0.014	1997 (rev2010)
Diquat	0.02	0.004	0.006	2016
Endothal	0.1	0.045	0.094	2014
Endrin	0.002	0.0001	0.0003	2016
Ethylene dibromide (EDB)	0.00005	0.00002	0.00001	2003
Glyphosate	0.7	0.025	0.9	2007
Heptachlor	0.00001	0.00001	0.000008	1999
Heptachlor epoxide	0.00001	0.00001	0.000006	1999
Hexachlorobenzene	0.001	0.0005	0.00003	2003
Hexachlorocyclopentadiene	0.05	0.001	0.002	2014
Lindane	0.0002	0.0002	0.000032	1999 (rev2005)
Methoxychlor	0.03	0.01	0.00009	2010
Molinate	0.02	0.002	0.001	2008
Oxamyl	0.05	0.02	0.026	2009
Pentachlorophenol	0.001	0.0002	0.0003	2009
Picloram	0.5	0.001	0.166	2016
Polychlorinated biphenyls (PCBs)	0.0005	0.0005	0.00009	2007
Simazine	0.004	0.001	0.004	2001
Thiobencarb	0.07	0.001	0.042	2016
Toxaphene	0.003	0.001	0.00003	2003
1,2,3-Trichloropropane	0.000005	0.000005	0.0000007	2009
2,3,7,8-TCDD (dioxin)	3×10^{-8}	5×10^{-9}	5×10^{-11}	2010
2,4,5-TP (Silvex)	0.05	0.001	0.003	2014

Copper and Lead, 22 CCR §64672.3

Values referred to as MCLs for lead and copper are not actually MCLs; instead, they are called "Action Levels" under the lead and copper rule

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Copper	1.3	0.05	0.3	2008
Lead	0.015	0.005	0.0002	2009

Chemicals with MCLs in 22 CCR §64533 – Disinfection Byproducts

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
Total Trihalomethanes	0.080	--	--	--
Bromodichloromethane	--	0.0010	0.00006	2020
Bromoform	--	0.0010	0.0005	2020
Chloroform	--	0.0010	0.0004	2020
Dibromochloromethane	--	0.0010	0.0001	2020
Haloacetic Acids (five) (HAA5)	0.060	--	--	--
Monochloroacetic Acid	--	0.0020	--	--
Dichloroacetic Acid	--	0.0010	--	--
Trichloroacetic Acid	--	0.0010	--	--
Monobromoacetic Acid	--	0.0010	--	--
Dibromoacetic Acid	--	0.0010	--	--
Bromate	0.010	0.0050**	0.0001	2009
Chlorite	1.0	0.020	0.05	2009

**The DLR for Bromate is 0.0010 mg/L for analysis performed using EPA Method 317.0 Revision 2.0, 321.8, or 326.0.

Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.***

Regulated Contaminant	MCL	DLR	PHG	Date of PHG
N-Nitrosodimethylamine (NDMA)	--	--	0.000003	2006
Perfluorooctanoic acid (PFOA)***	--	--	0.00000007	2024
Perfluorooctane sulfonic acid (PFOS)***	--	--	0.000001	2024

***PFOA and PFOS have US EPA MCLGs and MCLs.

PFOA - MCLG is zero. MCL is 4 ng/L

PFOS - MCLG is zero. MCL is 4 ng/L



ATTACHMENT NO. 2

Public Health Goals

Health Risk Information for Public Health Goal Exceedance Reports

February 2025



Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

Health Risk Information for Public Health Goal Exceedance Reports

Prepared by

Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

February 2025

NEW for the 2025 Report: New in this document are newly established Public Health Goals (PHGs) for perfluorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), and five haloacetic acids: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

Background: Under the Calderon-Sher Safe Drinking Water Act of 1996 (the Act), public water systems with more than 10,000 service connections are required to prepare a report every three years for contaminants that exceed their respective PHGs.¹ This document contains health risk information on drinking water contaminants to assist public water systems in preparing these reports. A PHG is the concentration of a contaminant in drinking water that poses no significant health risk if consumed for a lifetime. PHGs are developed and published by the Office of Environmental Health Hazard Assessment (OEHHA) using current risk assessment principles, practices and methods.²

The water system's report is required to identify the health risk category (e.g., carcinogenicity or neurotoxicity) associated with exposure to each contaminant in drinking water that has a PHG and to include a brief, plainly worded description of these risks. The report is also required to disclose the numerical public health risk, if available, associated with the California Maximum Contaminant Level (MCL) and with the PHG for each contaminant. This health risk information document is prepared by OEHHA every three years to assist the water systems in providing the required information in their reports.

¹ Health and Safety Code Section 116470(b)

² Health and Safety Code Section 116365

Numerical health risks: Table 1 presents health risk categories and cancer risk values for chemical contaminants in drinking water that have PHGs.

The Act requires that OEHHA publish PHGs based on health risk assessments using the most current scientific methods. As defined in statute, PHGs for non-carcinogenic chemicals in drinking water are set at a concentration “at which no known or anticipated adverse health effects will occur, with an adequate margin of safety.” For carcinogens, PHGs are set at a concentration that “does not pose any significant risk to health.” PHGs provide one basis for revising MCLs, along with cost and technological feasibility. OEHHA has been publishing PHGs since 1997 and the entire list published to date is shown in Table 1.

Table 2 presents health risk information for contaminants that do not have PHGs but have state or federal regulatory standards. The Act requires that, for chemical contaminants with California MCLs that do not yet have PHGs, water utilities use the federal Maximum Contaminant Level Goal (MCLG) for the purpose of complying with the requirement of public notification. MCLGs, like PHGs, are strictly health based and include a margin of safety. One difference, however, is that the MCLGs for carcinogens are set at zero because the US Environmental Protection Agency (US EPA) assumes there is no absolutely safe level of exposure to such chemicals. PHGs, on the other hand, are set at a level considered to pose no *significant* risk of cancer; this is usually no more than a one-in-one-million excess cancer risk (1×10^{-6}) level for a lifetime of exposure. In Table 2, the cancer risks shown are based on the US EPA’s evaluations.

For more information on health risks: The adverse health effects for each chemical with a PHG are summarized in a PHG technical support document. These documents are available on the OEHHA website (<https://oehha.ca.gov/water/public-health-goals-phgs>).

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Alachlor	carcinogenicity (causes cancer)	0.004	NA ^{5,6}	0.002	NA
Aluminum	neurotoxicity and immunotoxicity (harms the nervous and immune systems)	0.6	NA	1	NA
Antimony	hepatotoxicity (harms the liver)	0.001	NA	0.006	NA
Arsenic	carcinogenicity (causes cancer)	0.000004 (4×10 ⁻⁶)	1×10 ⁻⁶ (one per million)	0.01	2.5×10 ⁻³ (2.5 per thousand)
Asbestos	carcinogenicity (causes cancer)	7 MFL ⁷ (fibers >10 microns in length)	1×10 ⁻⁶	7 MFL (fibers >10 microns in length)	1×10 ⁻⁶ (one per million)
Atrazine	carcinogenicity (causes cancer)	0.00015	1×10 ⁻⁶	0.001	7×10 ⁻⁶ (seven per million)
Barium	cardiovascular toxicity (causes high blood pressure)	2	NA	1	NA

¹ Based on the OEHHA PHG technical support document unless otherwise specified. The categories are the hazard traits defined by OEHHA for California's Toxics Information Clearinghouse (online at: <https://oehha.ca.gov/media/downloads/risk-assessment/gcregtext011912.pdf>).

² mg/L = milligrams per liter of water, equivalent to parts per million (ppm)

³ Cancer Risk = Upper bound estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10⁻⁶ means one excess cancer case per million people exposed.

⁴ MCL = maximum contaminant level.

⁵ NA = not applicable. Cancer risk cannot be calculated.

⁶ The PHG for alachlor is based on a threshold model of carcinogenesis and is set at a level that is believed to be without any significant cancer risk to individuals exposed to the chemical over a lifetime.

⁷ MFL = million fibers per liter of water.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Bentazon	hepatotoxicity and digestive system toxicity (harms the liver, intestine, and causes body weight effects ⁸)	0.2	NA	0.018	NA
Benzene	carcinogenicity (causes leukemia)	0.00015	1×10^{-6}	0.001	7×10^{-6} (seven per million)
Benzo[a]pyrene	carcinogenicity (causes cancer)	0.000007 (7×10^{-6})	1×10^{-6}	0.0002	3×10^{-5} (three per hundred thousand)
Beryllium	digestive system toxicity (harms the stomach or intestine)	0.001	NA	0.004	NA
Bromate	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.01	1×10^{-4} (one per ten thousand)
Cadmium	nephrotoxicity (harms the kidney)	0.00004	NA	0.005	NA
Carbofuran	reproductive toxicity (harms the testis)	0.0007	NA	0.018	NA
Carbon tetrachloride	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.0005	5×10^{-6} (five per million)

⁸ Body weight effects are an indicator of general toxicity in animal studies.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Chlordane	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.0001	3×10^{-6} (three per million)
Chlorite	hematotoxicity (causes anemia) neurotoxicity (causes neurobehavioral effects)	0.05	NA	1	NA
Chromium, hexavalent	carcinogenicity (causes cancer)	0.00002	1×10^{-6}	0.010	5×10^{-4} (five per ten thousand)
Copper	digestive system toxicity (causes nausea, vomiting, diarrhea)	0.3	NA	1.3 (AL ⁹)	NA
Cyanide	neurotoxicity (damages nerves) endocrine toxicity (affects the thyroid)	0.15	NA	0.15	NA
Dalapon	nephrotoxicity (harms the kidney)	0.79	NA	0.2	NA
Di(2-ethylhexyl) adipate (DEHA)	developmental toxicity (disrupts development)	0.2	NA	0.4	NA
Di(2-ethylhexyl) phthalate (DEHP)	carcinogenicity (causes cancer)	0.012	1×10^{-6}	0.004	3×10^{-7} (three per ten million)

⁹ AL = action level. The action levels for copper and lead refer to a concentration measured at the tap. Much of the copper and lead in drinking water is derived from household plumbing (The Lead and Copper Rule, Title 22, California Code of Regulations [CCR] section 64672.3).

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
1,2-Dibromo-3-chloropropane (DBCP)	carcinogenicity (causes cancer)	0.000003 (3×10 ⁻⁶)	1×10 ⁻⁶	0.0002	7×10 ⁻⁵ (seven per hundred thousand)
1,2-Dichloro-benzene (o-DCB)	hepatotoxicity (harms the liver)	0.6	NA	0.6	NA
1,4-Dichloro-benzene (p-DCB)	carcinogenicity (causes cancer)	0.006	1×10 ⁻⁶	0.005	8×10 ⁻⁷ (eight per ten million)
1,1-Dichloro-ethane (1,1-DCA)	carcinogenicity (causes cancer)	0.003	1×10 ⁻⁶	0.005	2×10 ⁻⁶ (two per million)
1,2-Dichloro-ethane (1,2-DCA)	carcinogenicity (causes cancer)	0.0004	1×10 ⁻⁶	0.0005	1×10 ⁻⁶ (one per million)
1,1-Dichloro-ethylene (1,1-DCE)	hepatotoxicity (harms the liver)	0.01	NA	0.006	NA
1,2-Dichloro-ethylene, cis	nephrotoxicity (harms the kidney)	0.013	NA	0.006	NA
1,2-Dichloro-ethylene, trans	immunotoxicity (harms the immune system)	0.05	NA	0.01	NA
Dichloromethane (methylene chloride)	carcinogenicity (causes cancer)	0.004	1×10 ⁻⁶	0.005	1×10 ⁻⁶ (one per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
2,4-Dichlorophenoxyacetic acid (2,4-D)	hepatotoxicity and nephrotoxicity (harms the liver and kidney)	0.02	NA	0.07	NA
1,2-Dichloropropane (propylene dichloride)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.005	1×10^{-5} (one per hundred thousand)
1,3-Dichloropropene (Telone II®)	carcinogenicity (causes cancer)	0.0002	1×10^{-6}	0.0005	2×10^{-6} (two per million)
Dinoseb	reproductive toxicity (harms the uterus and testis)	0.014	NA	0.007	NA
Diquat	ocular toxicity (harms the eye) developmental toxicity (causes malformation)	0.006	NA	0.02	NA
Endothall	digestive system toxicity (harms the stomach or intestine)	0.094	NA	0.1	NA
Endrin	neurotoxicity (causes convulsions) hepatotoxicity (harms the liver)	0.0003	NA	0.002	NA
Ethylbenzene (phenylethane)	hepatotoxicity (harms the liver)	0.3	NA	0.3	NA
Ethylene dibromide (1,2-Dibromoethane)	carcinogenicity (causes cancer)	0.00001	1×10^{-6}	0.00005	5×10^{-6} (five per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Fluoride	musculoskeletal toxicity (causes tooth mottling)	1	NA	2	NA
Glyphosate	nephrotoxicity (harms the kidney)	0.9	NA	0.7	NA
Haloacetic acids: dibromoacetic acid	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.06*	2×10^{-3} (two per thousand) ¹⁰
Haloacetic acids: dichloroacetic acid	carcinogenicity (causes cancer)	0.0002	1×10^{-6}	0.06*	3×10^{-4} (three per ten thousand) ¹¹
Haloacetic acids: monobromoacetic acid	musculoskeletal toxicity (causes muscular degeneration)	0.025	NA	0.06*	NA
Haloacetic acids: monochloroacetic acid	general toxicity (causes body and organ weight changes ⁸)	0.053	NA	0.06*	NA
Haloacetic acids: trichloroacetic acid	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.06*	6×10^{-4} (six per ten thousand) ¹²
Heptachlor	carcinogenicity (causes cancer)	0.000008 (8×10^{-6})	1×10^{-6}	0.00001	1×10^{-6} (one per million)

* For total haloacetic acids (the sum of dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, and trichloroacetic acid). There are no MCLs for individual haloacetic acids.

¹⁰ Based on 0.060 mg/L dibromoacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

¹¹ Based on 0.060 mg/L dichloroacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

¹² Based on 0.060 mg/L trichloroacetic acid; the risk will vary with different combinations and ratios of the other haloacetic acids in a particular sample.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Heptachlor epoxide	carcinogenicity (causes cancer)	0.000006 (6×10 ⁻⁶)	1×10 ⁻⁶	0.00001	2×10 ⁻⁶ (two per million)
Hexachloro-benzene	carcinogenicity (causes cancer)	0.00003	1×10 ⁻⁶	0.001	3×10 ⁻⁵ (three per hundred thousand)
Hexachloro-cyclopentadiene (HCCPD)	digestive system toxicity (causes stomach lesions)	0.002	NA	0.05	NA
Lead	developmental neurotoxicity (causes neurobehavioral effects in children) cardiovascular toxicity (causes high blood pressure) carcinogenicity (causes cancer)	0.0002	<1×10 ⁻⁶ (PHG is not based on this effect)	0.015 (AL ⁹)	2×10 ⁻⁶ (two per million)
Lindane (γ-BHC)	carcinogenicity (causes cancer)	0.000032	1×10 ⁻⁶	0.0002	6×10 ⁻⁶ (six per million)
Mercury (inorganic)	nephrotoxicity (harms the kidney)	0.0012	NA	0.002	NA
Methoxychlor	endocrine toxicity (causes hormone effects)	0.00009	NA	0.03	NA
Methyl tertiary-butyl ether (MTBE)	carcinogenicity (causes cancer)	0.013	1×10 ⁻⁶	0.013	1×10 ⁻⁶ (one per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Molinate	carcinogenicity (causes cancer)	0.001	1×10^{-6}	0.02	2×10^{-5} (two per hundred thousand)
Monochloro-benzene (chlorobenzene)	nephrotoxicity (harms the kidney)	0.07	NA	0.07	NA
Nickel	developmental toxicity (causes increased neonatal deaths)	0.012	NA	0.1	NA
Nitrate	hematotoxicity (causes methemoglobinemia)	45 as nitrate	NA	10 as nitrogen (=45 as nitrate)	NA
Nitrite	hematotoxicity (causes methemoglobinemia)	3 as nitrite	NA	1 as nitrogen (=3 as nitrite)	NA
Nitrate and Nitrite	hematotoxicity (causes methemoglobinemia)	10 as nitrogen ¹³	NA	10 as nitrogen	NA
N-nitroso-dimethyl-amine (NDMA)	carcinogenicity (causes cancer)	0.000003 (3×10^{-6})	1×10^{-6}	none	NA
Oxamyl	general toxicity (causes body weight effects)	0.026	NA	0.05	NA

¹³ The joint nitrate/nitrite PHG of 10 mg/L (10 ppm, expressed as nitrogen) does not replace the individual values, and the maximum contribution from nitrite should not exceed 1 mg/L nitrite-nitrogen.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Pentachlorophenol (PCP)	carcinogenicity (causes cancer)	0.0003	1×10^{-6}	0.001	3×10^{-6} (three per million)
Perchlorate	endocrine toxicity (affects the thyroid) developmental toxicity (causes neurodevelopmental deficits)	0.001	NA	0.006	NA
Perfluorooctane sulfonic acid (PFOS)	carcinogenicity (causes cancer)	1×10^{-6}	1×10^{-6}	NA	NA
Perfluorooctanoic acid (PFOA)	carcinogenicity (causes cancer)	7×10^{-9}	1×10^{-6}	NA	NA
Picloram	hepatotoxicity (harms the liver)	0.166	NA	0.5	NA
Polychlorinated biphenyls (PCBs)	carcinogenicity (causes cancer)	0.00009	1×10^{-6}	0.0005	6×10^{-6} (six per million)
Radium-226	carcinogenicity (causes cancer)	0.05 pCi/L	1×10^{-6}	5 pCi/L (combined Ra ²²⁶⁺²²⁸)	1×10^{-4} (one per ten thousand)
Radium-228	carcinogenicity (causes cancer)	0.019 pCi/L	1×10^{-6}	5 pCi/L (combined Ra ²²⁶⁺²²⁸)	3×10^{-4} (three per ten thousand)
Selenium	integumentary toxicity (causes hair loss and nail damage)	0.03	NA	0.05	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Silvex (2,4,5-TP)	hepatotoxicity (harms the liver)	0.003	NA	0.05	NA
Simazine	general toxicity (causes body weight effects)	0.004	NA	0.004	NA
Strontium-90	carcinogenicity (causes cancer)	0.35 pCi/L	1×10^{-6}	8 pCi/L	2×10^{-5} (two per hundred thousand)
Styrene (vinylbenzene)	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.1	2×10^{-4} (two per ten thousand)
1,1,2,2-Tetrachloroethane	carcinogenicity (causes cancer)	0.0001	1×10^{-6}	0.001	1×10^{-5} (one per hundred thousand)
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD, or dioxin)	carcinogenicity (causes cancer)	5×10^{-11}	1×10^{-6}	3×10^{-8}	6×10^{-4} (six per ten thousand)
Tetrachloroethylene (perchloroethylene, or PCE)	carcinogenicity (causes cancer)	0.00006	1×10^{-6}	0.005	8×10^{-5} (eight per hundred thousand)
Thallium	integumentary toxicity (causes hair loss)	0.0001	NA	0.002	NA

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Thiobencarb	general toxicity (causes body weight effects) hematotoxicity (affects red blood cells)	0.042	NA	0.07	NA
Toluene (methylbenzene)	hepatotoxicity (harms the liver) endocrine toxicity (harms the thymus)	0.15	NA	0.15	NA
Toxaphene	carcinogenicity (causes cancer)	0.00003	1×10^{-6}	0.003	1×10^{-4} (one per ten thousand)
1,2,4-Trichlorobenzene	endocrine toxicity (harms adrenal glands)	0.005	NA	0.005	NA
1,1,1-Trichloroethane	neurotoxicity (harms the nervous system), reproductive toxicity (causes fewer offspring) hepatotoxicity (harms the liver) hematotoxicity (causes blood effects)	1	NA	0.2	NA
1,1,2-Trichloroethane	carcinogenicity (causes cancer)	0.0003	1×10^{-6}	0.005	2×10^{-5} (two per hundred thousand)
Trichloroethylene (TCE)	carcinogenicity (causes cancer)	0.0017	1×10^{-6}	0.005	3×10^{-6} (three per million)

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Trichlorofluoromethane (Freon 11)	accelerated mortality (increase in early death)	1.3	NA	0.15	NA
1,2,3-Trichloropropane (1,2,3-TCP)	carcinogenicity (causes cancer)	0.0000007 (7×10^{-7})	1×10^{-6}	0.000005 (5×10^{-6})	7×10^{-6} (seven per million)
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	hepatotoxicity (harms the liver)	4	NA	1.2	NA
Trihalomethanes: Bromodichloromethane	carcinogenicity (causes cancer)	0.00006	1×10^{-6}	0.080 [#]	1.3×10^{-3} (1.3 per thousand) ¹⁴
Trihalomethanes: Bromoform	carcinogenicity (causes cancer)	0.0005	1×10^{-6}	0.080 [#]	2×10^{-4} (two per ten thousand) ¹⁵
Trihalomethanes: Chloroform	carcinogenicity (causes cancer)	0.0004	1×10^{-6}	0.080 [#]	2×10^{-4} (two per ten thousand) ¹⁶

[#] For total trihalomethanes (the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane). There are no MCLs for individual trihalomethanes.

¹⁴ Based on 0.080 mg/L bromodichloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

¹⁵ Based on 0.080 mg/L bromoform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

¹⁶ Based on 0.080 mg/L chloroform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

Table 1: Health Risk Categories and Cancer Risk Values for Chemicals with California Public Health Goals (PHGs)

Chemical	Health Risk Category ¹	California PHG (mg/L) ²	Cancer Risk ³ at the PHG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Trihalomethanes: Dibromochloromethane	carcinogenicity (causes cancer)	0.0001	1×10 ⁻⁶	0.080 [#]	8×10 ⁻⁴ (eight per ten thousand) ¹⁷
Tritium	carcinogenicity (causes cancer)	400 pCi/L	1×10 ⁻⁶	20,000 pCi/L	5×10 ⁻⁵ (five per hundred thousand)
Uranium	carcinogenicity (causes cancer)	0.43 pCi/L	1×10 ⁻⁶	20 pCi/L	5×10 ⁻⁵ (five per hundred thousand)
Vinyl chloride	carcinogenicity (causes cancer)	0.00005	1×10 ⁻⁶	0.0005	1×10 ⁻⁵ (one per hundred thousand)
Xylene	neurotoxicity (affects the senses, mood, and motor control)	1.8 (single isomer or sum of isomers)	NA	1.75 (single isomer or sum of isomers)	NA

[#] For total trihalomethanes (the sum of bromodichloromethane, bromoform, chloroform, and dibromochloromethane). There are no MCLs for individual trihalomethanes.

¹⁷ Based on 0.080 mg/L dibromochloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category ¹	US EPA MCLG ² (mg/L)	Cancer Risk ³ at the MCLG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Disinfection byproducts (DBPs)					
Chloramines	acute toxicity (causes irritation) digestive system toxicity (harms the stomach) hematotoxicity (causes anemia)	4 ^{5,6}	NA ⁷	none	NA
Chlorine	acute toxicity (causes irritation) digestive system toxicity (harms the stomach)	4 ^{5,6}	NA	none	NA
Chlorine dioxide	hematotoxicity (causes anemia) neurotoxicity (harms the nervous system)	0.8 ^{5,6}	NA	none	NA
Radionuclides					

¹ Health risk category based on the US EPA MCLG document or California MCL document unless otherwise specified.

² MCLG = maximum contaminant level goal established by US EPA.

³ Cancer Risk = Upper estimate of excess cancer risk from lifetime exposure. Actual cancer risk may be lower or zero. 1×10^{-6} means one excess cancer case per million people exposed.

⁴ California MCL = maximum contaminant level established by California.

⁵ Maximum Residual Disinfectant Level Goal, or MRDLG.

⁶ The federal Maximum Residual Disinfectant Level (MRDL), or highest level of disinfectant allowed in drinking water, is the same value for this chemical.

⁷ NA = not available.

Table 2: Health Risk Categories and Cancer Risk Values for Chemicals without California Public Health Goals

Chemical	Health Risk Category ¹	US EPA MCLG ² (mg/L)	Cancer Risk ³ at the MCLG	California MCL ⁴ (mg/L)	Cancer Risk at the California MCL
Gross alpha particles ⁸	carcinogenicity (causes cancer)	0 (²¹⁰ Po included)	0	15 pCi/L ⁹ (includes radium but not radon and uranium)	up to 1×10^{-3} (for ²¹⁰ Po, the most potent alpha emitter)
Beta particles and photon emitters ⁸	carcinogenicity (causes cancer)	0 (²¹⁰ Pb included)	0	50 pCi/L (judged equiv. to 4 mrem/yr)	up to 2×10^{-3} (for ²¹⁰ Pb, the most potent beta-emitter)

⁸ MCLs for gross alpha and beta particles are screening standards for a group of radionuclides. Corresponding PHGs were not developed for gross alpha and beta particles. See the OEHHA memoranda discussing the cancer risks at these MCLs at <http://www.oehha.ca.gov/water/reports/grossab.html>.

⁹ pCi/L = picocuries per liter of water.



ATTACHMENT NO. 3

Table 1 - Cost Estimates for Treatment Technologies (2012 ACWA PHG Survey)

No.	Treatment Technology	Source of Information	Estimated Cost 2012 Survey Indexed to 2024* (\$/1,000 gallons treated)
1	Ion Exchange	Coachella Valley WD, for GW, to reduce Arsenic concentrations. 2011 costs.	2.68
2	Ion Exchange	City of Riverside Public Utilities, for GW, for Perchlorate treatment.	1.30
3	Ion Exchange	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO ₃ . Design finished water concentration: 45 mg/L NO ₃ . Does not include concentrate disposal or land cost.	0.98
4	Granular Activated Carbon	City of Riverside Public Utilities, GW sources, for TCE,DBCP (VOC, SOC) treatment.	0.65
5	Granular Activated Carbon	Carollo Engineers, anonymous utility, 2012 costs for treating SW source for TTHMs. Design source water concentration: 0.135 mg/L. Design finished water concentration: 0.07 mg/L. Does not include concentrate disposal or land cost.	0.47
6	Granular Activated Carbon, Liquid Phase	LADWP, Liquid Phase GAC treatment at Tujunga Wellfield. Costs for treating 2 wells. Treatment for 1,1 DCE (VOC). 2011-2012 costs.	1.99
7	Reverse Osmosis	Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO ₃ . Design finished water concentration: 45 mg/L NO ₃ . Does not include concentrate disposal or land cost.	1.05
8	Packed Tower Aeration	City of Monrovia, treatment to reduce TCE, PCE concentrations. 2011-12 costs.	0.58
9	Ozonation+ Chemical addition	SCVWD, STWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations. 2009-2012 costs.	0.12
10	Ozonation+ Chemical addition	SCVWD, PWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations, 2009-2012 costs.	0.26
11	Coagulation/ Filtration	Soquel WD, treatment to reduce manganese concentrations in GW. 2011 costs.	0.98
12	Coagulation/ Filtration Optimization	San Diego WA, costs to reduce THM/Bromate, Turbidity concentrations, raw SW a blend of State Water Project water and Colorado River water, treated at Twin Oaks Valley WTP.	1.12
13	Blending (Well)	Rancho California WD, GW blending well, 1150 gpm, to reduce fluoride concentrations.	0.93
14	Blending (Wells)	Rancho California WD, GW blending wells, to reduce arsenic concentrations, 2012 costs.	0.76
15	Blending	Rancho California WD, using MWD water to blend with GW to reduce arsenic concentrations. 2012 costs.	0.91
16	Corrosion Inhibition	Atascadero Mutual WC, corrosion inhibitor addition to control aggressive water. 2011 costs.	0.11

* Costs were adjusted from date of original estimates to present using the Engineering News Record (ENR) 20-City average Construction Cost Index of 13,571 for 2024.

Table 2 - Cost Estimates for Treatment Technologies (Other Agencies)

No.	Treatment Technology	Source of Information	Estimated Cost 2012 Survey Indexed to 2024* (\$/1,000 gallons treated)
1	Reduction - Coagulation - Filtration	February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	2.14 - 13.38
2	IX - Weak Base Anion Resin	February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.	2.19 - 9.16
3	IX	Golden State Water Co., IX w/disposable resin, 1MGD, Perchlorate removal, built in 2010.	0.67
4	IX	Golden State Water Co., IX w/disposable resin, 1000 gpm, perchlorate removal (Proposed; O&M estimated).	1.47
5	IX	Golden State Water Co., IX with brine regeneration, 500 gpm for Selenium removal, built in 2007.	9.59
6	GFO/Adsorption	Golden State Water Co., Granular Ferric Oxide Resin, Arsenic removal, 600 gpm, 2 facilities, built in 2006.	2.51 - 2.67
7	RO	Inland Empire Utilities Agency : Chino Basin Desalter. RO cost to reduce 800 ppm TDS, 150 ppm Nitrate (as NO ₃); approx. 7 mgd.	3.28
8	IX	Inland Empire Utilities Agency : Chino Basin Desalter. IX cost to reduce 150 ppm Nitrate (as NO ₃); approx. 2.6 mgd.	1.82
9	Packed Tower Aeration	Inland Empire Utilities Agency : Chino Basin Desalter. PTA-VOC air stripping, typical treated flow of approx. 1.6 mgd.	0.55
10	IX	West Valley WD Report, for Water Recycling Funding Program, for 2.88 mgd treatment facility. IX to remove Perchlorate, Perchlorate levels 6-10 ppb. 2008 costs.	0.76 - 1.08
11	Coagulation Filtration	West Valley WD, includes capital, O&M costs for 2.88 mgd treatment facility - Layne Christensen packaged coagulation Arsenic removal system. 2009-2012 costs.	0.50
12	FBR	West Valley WD/Envirogen design data for the O&M + actual capital costs, 2.88 mgd fluidized bed reactor (FBR) treatment system, Perchlorate and Nitrate removal, followed by multimedia filtration & chlorination, 2012. NOTE: The capital cost for the treatment facility for the first 2,000 gpm is \$23 million annualized over 20 years with ability to expand to 4,000 gpm with minimal costs in the future. \$17 million funded through state and federal grants with the remainder funded by WVWD and the City of Rialto.	2.26 - 2.38

* Costs were adjusted from date of original estimates to present using the Engineering News Record (ENR) 20-City average Construction Cost Index of 13,571 for 2024.

Table 3 - Cost Estimates for Treatment Technologies (Updated 2012 ACWA Cost of Treatment)

No.	Treatment Technology	Source of Information	Estimated Cost 2012 Survey Indexed to 2024* (\$/1,000 gallons treated)
1	Granular Activated Carbon	Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	0.77 – 1.47
2	Granular Activated Carbon	Carollo Engineers, estimate for VOC treatment (PCE), 95% removal of PCE, Oct. 1994, 1900 gpm design capacity	0.36
3	Granular Activated Carbon	Carollo Engineers, est. for a large No. Calif. surf. water treatment plant (90 mgd capacity) treating water from the State Water Project, to reduce THM precursors, ENR construction cost index = 6262 (San Francisco area) - 1992	1.69
4	Granular Activated Carbon	CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility for VOC and SOC removal by GAC, 1990	0.66 – 0.96
5	Granular Activated Carbon	Southern California Water Co. - actual data for “rented” GAC to remove VOCs (1,1-DCE), 1.5 mgd capacity facility, 1998	3.03
6	Granular Activated Carbon	Southern California Water Co. - actual data for permanent GAC to remove VOCs (TCE), 2.16 mgd plant capacity, 1998	1.96
7	Reverse Osmosis	Malcolm Pirnie estimate for California Urban Water Agencies, large surface water treatment plants treating water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, 1998	2.28 – 4.35
8	Reverse Osmosis	Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	5.37
9	Reverse Osmosis	Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 1.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	3.31
10	Reverse Osmosis	Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 40% of design flow, high brine line cost, May 1991	3.58
11	Reverse Osmosis	Boyle Engineering, RO cost to reduce 1000 ppm TDS in brackish groundwater in So. Calif., 10.0 mgd plant operated at 100% of design flow, high brine line cost, May 1991	2.77
12	Reverse Osmosis	Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 40% of design capacity, Oct. 1991	8.99
13	Reverse Osmosis	Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 100% of design capacity, Oct. 1991	5.31
14	Reverse Osmosis	Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 40% of design capacity, Oct. 1991	3.97

* Costs were adjusted from date of original estimates to present using the Engineering News Record (ENR) 20-City average Construction Cost Index of 13,571 for 2024.

Table 3 (Continued) - Cost Estimates for Treatment Technologies (Updated 2012 ACWA Cost of Treatment)

No.	Treatment Technology	Source of Information	Estimated Unit Cost 2012 ACWA Survey Indexed to 2024* (\$/1,000 gallons treated)
15	Reverse Osmosis	Arsenic Removal Study, City of Scottsdale, AZ – CH2M Hill, for a 10.0 mgd plant operated at 100% of design capacity, Oct. 1991	2.46
16	Reverse Osmosis	CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility with RO to remove nitrate, 1990	2.48 – 4.35
17	Packed Tower Aeration	Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 1.4 mgd facility operating at 40% of design capacity, Oct. 1991	1.42
18	Packed Tower Aeration	Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 14.0 mgd facility operating at 40% of design capacity, Oct. 1991	0.76
19	Packed Tower Aeration	Carollo Engineers, estimate for VOC treatment (PCE) by packed tower aeration, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.38
20	Packed Tower Aeration	Carollo Engineers, for PCE treatment by Ecolo-Flo Enviro-Tower air stripping, without off-gas treatment, O&M costs based on operation during 329 days/year at 10% downtime, 16 hr/day air stripping operation, 1900 gpm design capacity, Oct. 1994	0.39
21	Packed Tower Aeration	CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility – packed tower aeration for VOC and radon removal, 1990	0.63 – 1.01
22	Advanced Oxidation Processes	Carollo Engineers, estimate for VOC treatment (PCE) by UV Light, Ozone, Hydrogen Peroxide, O&M costs based on operation during 329 days/year at 10% downtime, 24 hr/day AOP operation, 1900 gpm capacity, Oct. 1994	0.75
23	Ozonation	Malcolm Pirnie estimate for CUWA, large surface water treatment plants using ozone to treat water from the State Water Project to meet Stage 2 D/DBP and bromate regulation, <i>Cryptosporidium</i> inactivation requirements, 1998	0.17 – 0.36
24	Ion Exchange	CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility – ion exchange to remove nitrate, 1990	0.82 – 1.08

* Costs were adjusted from date of original estimates to present using the Engineering News Record (ENR) 20-City average Construction Cost Index of 13,571 for 2024.



ATTACHMENT NO. 4

[Home Table of Contents](#)**§ 64447. Best Available Technology (BAT)--Microbiological Contaminants.**

22 CA ADC § 64447

Barclays Official California Code of Regulations

Barclays California Code of Regulations
 Title 22. Social Security
 Division 4. Environmental Health
 Chapter 15. Domestic Water Quality and Monitoring Regulations
 Article 12. Best Available Technologies (BAT)

22 CCR § 64447

§ 64447. Best Available Technology (BAT)--Microbiological Contaminants.**Currentness**

The technologies identified by the State Board as the best available technology (for a public water system serving more than 10,000 persons), affordable technology (for a public water system serving 10,000 or fewer persons), treatment techniques, or other means available for achieving compliance with the *E. coli* MCL are as follows:

- (a) Protection of wells from fecal coliform contamination by appropriate placement and construction;
- (b) Maintenance of a disinfectant residual throughout the distribution system;
- (c) Proper maintenance of the distribution system including appropriate pipe replacement and repair procedures, main flushing programs, proper operation and maintenance of storage tanks and reservoirs, cross connection control, and continual maintenance of positive water pressure in all parts of the distribution system;
- (d) Filtration and/or disinfection of approved surface water, in compliance with Section 64650, or disinfection of groundwater, in compliance with Section 64430, using strong oxidants such as chlorine, chlorine dioxide, or ozone; and
- (e) For a system using groundwater, compliance with the groundwater portion of a Drinking Water Source Assessment and Protection Program, conducted according to the Drinking Water Source Assessment Protection Program, California Department of Health Services, January 2000, which is incorporated by reference.

Credits

NOTE: Authority cited: Sections 116271 and 116375, Health and Safety Code. Reference: Sections 116350 and 116370, Health and Safety Code.

HISTORY

1. Repealer of article 5.6 heading and section, new article 12, and renumbering and amendment of former section 64430 to section 64447 filed 9-8-94 as an emergency; operative 9-8-94 (Register 94, No. 36). A Certificate of Compliance must be transmitted to OAL by 1-6-95 or emergency language will be repealed by operation of law on the following day. For prior history, see Register 88, No. 51.
2. Repealer of article 5.6 heading and section, new article 12, and renumbering and amendment of former section 64430 to section 64447 refilled 1-3-95 as an emergency; operative 1-3-95 (Register 95, No. 1). A Certificate of Compliance must be transmitted to OAL by 5-3-95 or emergency language will be repealed by operation of law on the following day.
3. Repealer of article 5.6 heading and section, new article 12, and renumbering and amendment of former section 64430 to section 64447 refilled 4-26-95 as an emergency; operative 4-26-95 (Register 95, No. 17). A Certificate of Compliance must be transmitted to OAL by 8-24-95 or emergency language will be repealed by operation of law on the following day.
4. Certificate of Compliance as to 4-26-95 order transmitted to OAL 5-5-95 and filed 6-19-95 (Register 95, No. 25).
5. Change without regulatory effect amending first paragraph and NOTE filed 6-2-2015 pursuant to section 100, title 1, California Code of Regulations (Register 2015, No. 23).
6. Amendment of section and NOTE filed 5-28-2021; operative 7-1-2021 (Register 2021, No. 22).

This database is current through 5/30/25 Register 2025, No. 22.

Cal. Admin. Code tit. 22, § 64447, 22 CA ADC § 64447

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§ 64447.2. *Best Available Technologies (BATs) -- Inorganic Chemicals.*

22 CA ADC § 64447.2

Barclays Official California Code of Regulations
Effective: October 1, 2024

Barclays California Code of Regulations
Title 22. Social Security
Division 4. Environmental Health
Chapter 15. Domestic Water Quality and Monitoring Regulations
Article 12. Best Available Technologies (BAT)

Effective: October 1, 2024
22 CCR § 64447.2

§ 64447.2. *Best Available Technologies (BATs) -- Inorganic Chemicals.*

[Currentness](#)

The technologies listed in Table 64447.2-A are the best available technology, treatment techniques, or other means available for achieving compliance with the MCLs in Table 64431-A for inorganic chemicals.

Table 64447.2-A
Best Available Technologies (BATs) Inorganic Chemicals

<i>Chemical</i>	<i>Best Available Technologies (BATs)</i>
Aluminum	10
Antimony	2, 7
Arsenic	1, 2, 5, 6, 7, 9, 13
Asbestos	2, 3, 8
Barium	5, 6, 7, 9
Beryllium	1, 2, 5, 6, 7
Cadmium	2, 5, 6, 7
Chromium (hexavalent)	5, 7, 14
Chromium (total)	2, 5, 6 ^a , 7
Cyanide	5, 7, 11
Fluoride	1
Mercury	2 ^b , 4, 6 ^b , 7 ^b
Nickel	5, 6, 7
Nitrate	5, 7, 9
Nitrite	5, 7
Perchlorate	5, 12
Selenium	1, 2 ^c , 6, 7, 9
Thallium	1, 5
^a BAT for chromium III (trivalent chromium) only.	
^b BAT only if influent mercury concentrations <10 µg/L.	
^c BAT for selenium IV only.	

Key to BATs in Table 64447.2-A:

1 = Activated Alumina

2 = Coagulation/Filtration (not BAT for systems <500 service connections)

3 = Direct and Diatomite Filtration

4 = Granular Activated Carbon

5 = Ion Exchange

6 = Lime Softening (not BAT for systems <500 service connections)

7 = Reverse Osmosis

8 = Corrosion Control

9 = Electrodialysis

10 = Optimizing treatment and reducing aluminum added

11 = Chlorine oxidation

12 = Biological fluidized bed reactor

13 = Oxidation/Filtration

14= Reduction/Coagulation/Filtration

Credits

NOTE: Authority cited: Sections 116271, 116293(b), 116350 and 116375, Health and Safety Code. Reference: Section 116370, Health and Safety Code.

HISTORY

1. New section filed 9-8-94 as an emergency; operative 9-8-94 (Register 94, No. 36). A Certificate of Compliance must be transmitted to OAL by 1-6-95 or emergency language will be repealed by operation of law on the following day. For prior history, see Register 88, No. 51.

2. New section refiled 1-3-95 as an emergency; operative 1-3-95 (Register 95, No. 1). A Certificate of Compliance must be transmitted to OAL by 5-3-95 or emergency language will be repealed by operation of law on the following day.

3. New section refiled 4-26-95 as an emergency; operative 4-26-95 (Register 95, No. 17). A Certificate of Compliance must be transmitted to OAL by 8-24-95 or emergency language will be repealed by operation of law on the following day.

4. Certificate of Compliance as to 4-26-95 order including amendment of section heading, first paragraph and Table 64447.2-A transmitted to OAL 5-5-95 and filed 6-19-95 (Register 95, No. 25).

5. Amendment of Table and NOTE filed 4-17-2000; operative 5-17-2000 (Register 2000, No. 16).

6. Amendment of section and NOTE filed 9-18-2007; operative 10-18-2007 (Register 2007, No. 38).

7. Amendment of Table 64447.2-A and amendment of NOTE filed 10-29-2008; operative 11-28-2008 (Register 2008, No. 44).

8. Amendment of section and NOTE filed 5-28-2014; operative 7-1-2014 (Register 2014, No. 22).

9. Change without regulatory effect amending Table 64447.2-A filed 9-11-2017 pursuant to section 100, title 1, California Code of Regulations (Register 2017, No. 37).

10. Amendment of section and NOTE filed 7-24-2024; operative 10-1-2024 (Register 2024, No. 30).

This database is current through 5/30/25 Register 2025, No. 22.

Cal. Admin. Code tit. 22, § 64447.2, 22 CA ADC § 64447.2

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[Home Table of Contents](#)§ 64447.3. *Best Available Technologies (BATs) -- Radionuclides.*

22 CAADC § 64447.3

Barclays Official California Code of Regulations

Barclays California Code of Regulations
 Title 22. Social Security
 Division 4. Environmental Health
 Chapter 15. Domestic Water Quality and Monitoring Regulations
 Article 12. Best Available Technologies (BAT)

22 CCR § 64447.3

§ 64447.3. *Best Available Technologies (BATs) -- Radionuclides.*[Currentness](#)

The technologies listed in tables 64447.3-A, B and C are the best available technology, treatment technologies, or other means available for achieving compliance with the MCLs for radionuclides in tables 64442 and 64443.

Table 64447.3-A
Best Available Technologies (BATs) Radionuclides

Radionuclide	Best Available Technology
Combined radium-226 and radium-228	Ion exchange, reverse osmosis, lime softening
Uranium	Ion exchange, reverse osmosis, lime softening, coagulation/filtration
Gross alpha particle activity	Reverse osmosis
Beta particle and photon radioactivity	Ion exchange, reverse osmosis

Table 64447.3-B
Best Available Technologies (BATs) and Limitations for Small Water Systems Radionuclides

Unit Technologies	Limitations (see footnotes)	Operator Skill Level Required	Raw Water Quality Range and Considerations
1. Ion exchange	(a)	Intermediate	All ground waters; competing anion concentrations may affect regeneration frequency
2. Point of use, ion exchange	(b)	Basic	All ground waters; competing anion concentrations may affect regeneration frequency
3. Reverse osmosis	(c)	Advanced	Surface waters usually require pre-filtration
4. Point of use, reverse osmosis	(b)	Basic	Surface waters usually require pre-filtration
5. Lime softening	(d)	Advanced	All waters

6. Green sand filtration	(e)	Basic	All ground waters; competing anion concentrations may affect regeneration frequency
7. Co-precipitation with barium sulfate	(f)	Intermediate to advanced	Ground waters with suitable quality
8. Electrodialysis/electrodialysis reversal	(g)	Basic to intermediate	All ground waters
9. Pre-formed hydrous manganese oxide filtration	(h)	Intermediate	All ground waters
10. Activated alumina	(a), (i)	Advanced	All ground waters; competing anion concentrations may affect regeneration frequency
11. Enhanced coagulation/filtration	(j)	Advanced	Can treat a wide range of water qualities

Limitation Footnotes:

^a The regeneration solution contains high concentrations of the contaminant ions, which could result in disposal issues.

^b When point of use devices are used for compliance, programs for long-term operation, maintenance, and monitoring shall be provided by systems to ensure proper performance.

^c Reject water disposal may be an issue.

^d The combination of variable source water quality and the complexity of the water chemistry involved may make this technology too complex for small systems.

^e Removal efficiencies can vary depending on water quality.

^f Since the process requires static mixing, detention basins, and filtration, this technology is most applicable to systems with sufficiently high sulfate levels that already have a suitable filtration treatment train in place.

^g Applies to ionized radionuclides only.

^h This technology is most applicable to small systems with filtration already in place.

ⁱ Chemical handling during regeneration and pH adjustment may be too difficult for small systems without an operator trained in these procedures.

^j This would involve modification to a coagulation/filtration process already in place.

Table 64447.3-C
Best Available Technologies (BATs) for Small Water Systems by System Size Radionuclides

<i>Compliance Technologies for System Size Categories Based On Population Served</i>				
	<i>25-500</i>	<i>501-3,300</i>	<i>3,301-10,000</i>	
		<i>Unit Technologies</i>		
<i>Contaminant</i>	<i>(Numbers Correspond to Table 64447.3-B)</i>			
Combined radium-226 and radium-228	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	1, 2, 3, 4, 5, 6, 7, 8, 9	
Gross alpha particle activity	3, 4	3, 4	3, 4	
Beta particle activity and photon radioactivity	1, 2, 3, 4	1, 2, 3, 4	1, 2, 3, 4	
Uranium	1, 2, 4, 10, 11	1, 2, 3, 4, 5, 10, 11	1, 2, 3, 4, 5, 10, 11	

Credits

NOTE: Authority cited: Section 116370, Health and Safety Code. Reference: Section 116350, Health and Safety Code.

HISTORY

1. New section filed 5-12-2006; operative 6-11-2006 (Register 2006, No. 19).

This database is current through 5/30/25 Register 2025, No. 22.

Cal. Admin. Code tit. 22, § 64447.3, 22 CA ADC § 64447.3

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ATTACHMENT NO. 5



Palmdale Water District
2029 East Avenue Q
Palmdale, CA 93550
661-947-4111

PRSRT STD
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PALMDALE WATER DISTRICT

A CENTURY OF SERVICE

Annual Consumer Confidence Report 2022 Results

Our mission is to provide high-quality water to our current and future customers at a reasonable cost.

Questions or comments on the contents of this report are encouraged. Please contact Operations Manager Mynor Masaya at 661-947-4111 x1185 or Water Quality & Regulatory Affairs Supervisor Amanda Thompson at 661-947-4111 x1178, Monday through Thursday, 8:00 a.m. to 6:00 p.m.

ATTENCION RESIDENTES!

Esta publicación está disponible en español en nuestro sitio web en palmdalewater.org. Para obtener una copia impresa en español, visite nuestra oficina o llame al 661-947-4111.



STATE OF OUR WATER

For the first time since 2006, the Department of Water Resources' State Water Project (SWP) allocation is at 100%. It is the result of epic rain and snowstorms that started this past winter and continued into the spring. The snow levels in the mountains of northern California, where the SWP water originates, have set records and erased the drought in the state.

What does this mean for Palmdale Water District (PWD)? With 100% SWP allocation, PWD will receive 21,300 acre-feet (AF), or 6.8 billion gallons, of water this year. Annually, PWD customers require an average of a little less than 20,000 AF. Unlike a year ago when SWP allocation was 5% and nearly the entire state of California was in a severe drought, PWD is pleased with the availability of water. Along with surface water from the SWP, the Littlerock Reservoir is supplying PWD with water. This is helping the local aquifer and wells recover from extensive pumping due to the lack of surface water in the past few years.

PWD is fortunate to have the Littlerock Reservoir, which stores rain and snowmelt from the San Gabriel Mountains. It is always the first choice of use because the only cost is in its treatment. Since the beginning of January, water from the reservoir has been flowing via the 8.5-mile Palmdale Ditch to Lake Palmdale where it is stored before entering the Leslie O. Carter Water Treatment Plant.

It is our hope that you will thoroughly review this annual report that gives you transparency into the quality of the water provided by PWD. We are proud to use granular activated carbon at the Leslie O. Carter Water Treatment Plant as an additional treatment process to remove certain chemicals that may form carcinogens or give the water an unfavorable taste or smell. It is a process almost identical to a Brita® filter, improving the quality of your drinking water while being less expensive than bottled water.

While we are no longer in a drought and PWD has rescinded all water conservation mandates, we ask you to keep water conservation in mind and continue using water wisely. The extreme weather conditions that have become the norm can easily leave us with parched reservoirs sooner than expected.

Let's pledge to continue to *Save Water Today for Our Tomorrow*.

Don Wilson (PWD Board President)

Dennis D. LaMoreaux (PWD General Manager)

The Palmdale Water District is pleased to announce 100% regulatory compliance in 2022 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2022 water quality and will provide you with a better understanding of the excellent quality of your drinking water. This report includes details about where your water comes from, what it contains, and how it compares to drinking water standards as set by the state of California. We are committed to providing you with this information because informed customers are our best allies. Stringent water-quality testing is performed before the water is delivered to consumers. Last year, PWD completed more than 18,000 tests for over 80 regulated contaminants. Only ten primary standard contaminants were detected in 2022, and all were at levels below the Maximum Contaminant Level allowed by the state.

Last year, PWD
completed more than
18,000
tests for over 80
regulated
contaminants.

Please take the time to review this Consumer Confidence Report and Water Quality Data Chart to become an informed consumer. The Water Quality Data Chart is divided into two standards – Primary and Secondary. Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. Secondary standards govern aesthetic qualities of water, such as taste, mineral content, odor, color, and turbidity.



How to contact PWD:

- Attend Board of Directors meetings the second and fourth Mondays of each month. Board meetings start at 6:00 p.m. and are held at the PWD office, 2029 East Avenue Q, Palmdale.
- Call 661-947-4111 with questions about PWD or to file a water quality complaint.
- Call 661-947-4111 x5002 for information on water-use efficiency, including conservation and water education.

For more information, visit our website at palmdalewater.org.



OUR WATER SUPPLY

PWD acquires its water from one of three sources or a combination of these sources.

1. Surface water from the State Water Project (SWP/CA Aqueduct)

This water source begins in northern California, flows into the Delta near Sacramento, and is pumped south to Lake Palmdale. PWD is entitled to take a maximum of 21,300 acre-feet, or 6.9 billion gallons of water, per year. Based on the amount of rain & snowfall in the Sierra Nevada mountains and the amount of water stored in northern California reservoirs, PWD is granted a percentage of the annual entitlement. In 2022, PWD received 4,204 acre-feet from the SWP/CA Aqueduct. The water is drawn from the SWP/CA Aqueduct and stored in Lake Palmdale prior to treatment.

2. Surface water from Littlerock Reservoir

Littlerock Dam was built in 1924 and renovated in 1994 to strengthen the dam and increase the reservoir capacity to 3,500 acre-feet, or 1.1 billion gallons of water. In 2022, PWD diverted 3,619 acre-feet from this source. Littlerock Reservoir is fed by natural runoff from snowpacks in the local San Gabriel Mountains and from rainfall. The water is then transferred from Littlerock Reservoir to Lake Palmdale through a ditch connecting the two bodies of water for storage prior to treatment.

3. Groundwater

Groundwater is pumped from the Antelope Valley groundwater basin through 22 wells. In 2022, PWD pumped 8,540 acre-feet. This water is treated with chlorine before being pumped directly into the distribution system.

All three sources are constantly tested and treated in compliance with all applicable regulations to ensure high-quality water and dependability of the water system. The Palmdale Water District delivered approximately 53% surface water and 47% groundwater to its consumers in 2022.

SOURCES OF DRINKING WATER

The sources of drinking water, both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM

Palmdale Water District's Sanitary Survey, including a Source Water Assessment of surface waters, was updated in 2017 in compliance with state of California regulations. The assessment of surface water sources included Littlerock Reservoir and Lake Palmdale. A Groundwater Assessment and Protection Program was completed in January of 1999, and a Wellhead Protection Plan was completed in November 2000.

PWD's drinking water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: illegal activities, such as unauthorized dumping;

recreation; highways; railroads; and sewer collection systems. A comprehensive source water protection program can prevent contaminants from entering the public water supply, reduce treatment costs, and increase public confidence in the quality, reliability and safety of drinking water.

You can help prevent water contamination and pollution by properly disposing of trash and waste materials.

Remember, many common household products can contaminate surface and groundwater supplies. Anything you throw in the trash, dump on the ground, pour down the drain, or wash down the driveway can eventually reach water sources and cause contamination.

The Sanitary Survey, Source Water Assessment, Groundwater Assessment, and Wellhead Protection Plan are available for review on PWD's website at palmdalewater.org or at PWD's office by calling Assistant General Manager Adam Ly at 661-947-4111 x1062.

THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2022 CALENDAR YEAR.

The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. PWD tests for many contaminants in addition to those listed in the chart. Test results for these additional contaminants were all “Non-Detected” (ND) and are not required to be included in the chart. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative of the water quality, is more than one year old. Unless otherwise notes, the data presented in this chart is from testing performed January 1 to December 31, 2022.

Parameter Treatment Techniques		Regulation		Meets Standard?	MRL	Sample Frequency		Water Treatment Plant		PHG (MCLG)		Typical Source of Contaminant				
								Level Found								
Turbidity		TT = 1 NTU		Y	0.1	Continuous		0.1		NA		Soil Runoff				
		TT = 95% of monthly samples ≤0.3 NTU		Y	NA			100% ≤ 0.3 NTU								
Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system.																
Disinfection Byproduct Precursors																
Control of DBP Precursor (TOC)		TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1		Y	1	Monthly		2.2 - 3.2		2.8	NA		Various natural and manmade sources			
Parameter Primary Standards		MCL or [MRDL]		Meets Standard?	MRL	Sample Frequency		Distribution System		PHG (MCLG) [MRDLG]		Typical Source of Contaminant				
Microbiological								Highest Monthly Percentage								
Total Coliform Bacteria (State Revised Total Coliform Rule)		No more than 5.0% of monthly samples are positive		Y	NA	Weekly		0.8%		(0)		Naturally present in the environment				
Disinfectant Residual								All Sample Range		RAA						
Chlorine (as Cl2)		[4.0 mg/L]		Y	0.1	Weekly		ND - 2.0		1.0		[4]		Drinking water disinfectant added for treatment		
Disinfection Byproducts (DBPs)								All Sample Range		Highest RAA						
TTHMs (Total Trihalomethanes)		80 µg/L		Y	0.5	Quarterly		3 - 89		55		NA		Byproduct of drinking water disinfection		
HAA5 (Sum of 5 Haloacetic Acids)		60 µg/L		Y	2	Quarterly		ND - 13		8						
Parameter Primary Standards		MCL	Meets Standard?	DLR	Sample Frequency* Surface Water / Groundwater	Treated Surface Water Plant Effluent Summary Sampled in 2022		Groundwater Summary Results from Wells Sampled in 2022		PHG (MCLG)	Typical Source of Contaminant					
						Range	Average	Range	Average							
Inorganic Chemicals																
Arsenic		10 µg/L	Y	2	Annually / Triennially	NA		ND		ND - 3		ND	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes		
Chromium (Total)		50 µg/L	Y	10	Annually / Triennially	NA		ND		ND - 20		ND	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits		
Fluoride (naturally occurring)		2.0 mg/L	Y	0.1	Quarterly/ Quarterly	NA		0.2		ND - 0.6		0.2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories		
Nitrate (as Nitrogen)		10 mg/L	Y	0.4	Quarterly/ Quarterly	NA		ND		ND - 6		1	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits		
Radioactivity																
Gross Alpha Particle Activity		15 pCi/L	Y	3	**See comment		NA		13		ND - 6		ND	(0)	Erosion of natural deposits	
Uranium		20 pCi/L	Y	1	***See comment		NA		ND		ND - 4		2	0.43		
Tap Monitoring Lead & Copper	Action Level	Meets Standard?	DLR	Lead and Copper Rule Sampled in 2021		Lead Testing in Schools Sampled in 2018			PHG	Typical Source of Contaminant						
				Range	90th Percentile	No. of schools requesting lead sampling	Range	Average								
Lead	15 µg/L	Y	5	50 sites sampled; 0 sites over AL		ND		29		88 sites sampled; 0 sites over AL		ND	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		
Copper	1.3 mg/L	Y	0.05	50 sites sampled; 0 sites over AL		0.5		NA		NA		NA	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		

Parameter	MCL	Meets Standard?	DLR	Sample Frequency* Surface Water/ Groundwater	Treated Surface Water Plant Effluent Summary Sampled in 2022		Groundwater Summary Results from Wells Sampled in 2022		Typical Source of Contaminant
					Range	Average	Range	Average	
Secondary Standards - Inorganic Chemicals									
Chloride	500 mg/L	Y	5	Quarterly/ Quarterly	88 - 110	101	ND - 109	28	Runoff; leaching from natural deposits; seawater influence
Odor-Threshold	3 units	Y	1	Weekly / Triennially	NA	1	ND - 2	ND	Naturally occurring organic materials
Specific Conductance	1600 µS/cm	Y	2	Annually / Triennially	NA	620	240 - 820	424	Substances that form ions when in water; seawater influence
Sulfate	500 mg/L	Y	5	Quarterly/ Quarterly	51 - 80	66	18 - 147	42	Runoff; leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	1000 mg/L	Y	10	Annually / Triennially	NA	340	150 - 470	255	Runoff/leaching of natural deposits
Turbidity	5 units	Y	0.1	Annually / Triennially	NA	0.2	ND - 0.4	ND	Soil Runoff
Additional Constituents Analyzed									
Boron	NL = 1 mg/L	Y	0.1	Annually / Triennially	NA	0.2	NA	ND	Erosion of natural deposits
Vanadium	NL = 50 µg/L	Y	3	Annually / Triennially	NA	ND	8 - 34	16	
Alkalinity	(NA) mg/L	NA	20	Weekly / Triennially	51 - 85	72	76 - 180	117	Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds
Calcium	(NA) mg/L	NA	1	Annually / Triennially	NA	32	11 - 72	39	Dissolved as water passes through limestone deposits
Chromium (Hexavalent)	(NA) µg/L	NA	1	Quarterly / Quarterly	NA	ND	ND - 13	4	Steel and pulp mill discharges, chrome plating, natural erosion
Hardness	(NA) gpg	NA	0.1	Weekly / Triennially	6 - 7	7	2 - 13	7	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Magnesium	(NA) mg/L	NA	0.1	Annually / Triennially	NA	7	0.4 - 13	6	Dissolved as water passes through magnesium-bearing minerals
pH	(NA) units	NA	0.1	Continuous / Triennially	6.9 - 7.3	7.0	7.3 - 8.4	8.0	Generally natural changes due to interactions with the environment
Potassium	(NA) mg/L	NA	1	Annually / Triennially	NA	2	ND - 3	ND	Leaching from natural deposits
Sodium	(NA) mg/L	NA	1	Annually / Triennially	NA	74	19 - 79	40	Generally naturally occurring salt present in water
Special Testing	MCL	Meets Standard?	MRL	Sample Frequency	Effluent & Dist. System		Groundwater		Environmental Source
					Range	Average	Range	Average	
UCMR 4 (Sampled in 2018 - 2019)									
HAA5	(NA) µg/L	NA	NA	Special	0.4 - 8.9	5.2	-	-	Byproduct of drinking water disinfection
HAA6Br	(NA) µg/L	NA	NA	Special	ND - 20	12	-	-	Byproduct of drinking water disinfection
HAA9	(NA) µg/L	NA	NA	Special	0.4 - 22	13	-	-	Byproduct of drinking water disinfection
Manganese	50 µg/L	Y	0.4	Special	ND - 3.4	1.4	ND - 2.1	ND	Leaching from natural deposits

* Wells are sampled every 3 years except for Chloride, Fluoride, Nitrate and Sulfate, which are sampled quarterly.
 ** Sampled between 2014 and 2022. Individual sites are sampled every 6 or 9 years. Range is from individual sample results.
 *** Sample collected only when Gross Alpha Activity exceeds 5 pCi/L.

EDUCATIONAL INFORMATION AND POSSIBLE DRINKING WATER CONTAMINANTS:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

NITRATE: In the Primary Standards Inorganic Chemicals section of the chart for Nitrate (as Nitrogen), treated surface water is ND . In the groundwater column, the range is ND to 6 mg/L, and the average is 1 mg/L. The State Water Board requires annual sampling if results are less than 50% of the MCL. If the result from any one source is greater than 50% of the MCL, then sampling must be done quarterly at that source. PWD samples all its wells on a quarterly basis (4 times per year) even when they test below 50% of the MCL. The numbers expressed on the chart are derived from quarterly sampling of all PWD wells, except those that are out of service.

Health effects of Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

DEFINITIONS:

The following definitions of key terms are provided to help you understand the data used in this report.

Detection Limit for purposes of Reporting (DLR): The smallest concentration of a contaminant that can be measured and reported. DLRs are set by State Water Board (same as MRL, Minimum Reporting Level, set by USEPA).

Locational Running Annual Average (LRAA): The running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of samples taken at a particular monitoring location.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Minimum Reporting Level (MRL): A set concentration that is acceptable to the data user and the laboratory as long as reliable measurement is achieved.

Notification Level (NL): State guidelines developed by State Water Board that addresses the concentration of a contaminant which, if exceeded, triggers public notification.

Primary Drinking Water Standard (PDWS): MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or

Lead and Copper: Palmdale Water District is required to draw new sample sets of tap samples for lead and copper every 3 years. The last samples were taken in 2021 (50 samples). The 90th percentile results of ND for lead and 0.5 ppm for copper are well within the AL of 15 ppb for lead and the AL of 1.3 ppm for copper. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. PWD is responsible for providing high-quality drinking water, but is unable to control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

Health Effects of Lead: Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Health Effects of Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

expected risk to health. PHGs are set by the California EPA.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Running Annual Average (RAA): The running annual arithmetic average, computed quarterly, of quarterly arithmetic averages of all samples collected.

Secondary Drinking Water Standard (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL level.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminant Monitoring (UCMR): Unregulated contaminant monitoring helps USEPA and the State Water Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

ADDITIONAL ABBREVIATIONS USED IN WATER QUALITY DATA CHART:

< Less Than	mg/L: milligrams per liter or parts per million (ppm)
> Greater Than	NTU: Nephelometric Turbidity Units
NA: Not Applicable	pCi/L: picocuries per liter (a measure of radiation)
ND: Not detectable or Non-Detected at testing limit (DLR or MRL)	µg/L: micrograms per liter or parts per billion (ppb)
TOC: Total Organic Carbon	µS/cm: microsiemens per centimeter (a measure for conductivity)
gpg: grains per gallon (a unit of water hardness)	





PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

Annual Consumer Confidence Report

2023 Results

Our mission is to provide high-quality water to our current and future customers at a reasonable cost.

Questions or comments on the contents of this report are encouraged. Please contact Operations Manager Joseph Marcinko at 661-947-4111 x1185 or Water Quality & Regulatory Affairs Supervisor Amanda Thompson at 661-947-4111 x1178, Monday through Thursday, 8:00 a.m. to 5:00 p.m.

ATTENCION RESIDENTES!

Esta publicación está disponible en español en nuestro sitio web en palmdalewater.org. Para obtener una copia impresa en español, visite nuestra oficina o llame al 661-947-4111.



Palmdale Water District
2029 East Avenue Q
Palmdale, CA 93550
661-947-4111

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THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2023 CALENDAR YEAR.

The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. PWD tests for many contaminants in addition to those listed in the chart. Test results for these additional contaminants were all “Non-Detected” (ND) and are not required to be included in the chart. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative of the water quality, is more than one year old. Unless otherwise noted, the data presented in this chart is from testing performed January 1 to December 31, 2023.

Parameter Treatment Techniques		Regulation		Meets Standard?	MRL	Sample Frequency		Water Treatment Plant		PHG (MCLG)		Typical Source of Contaminant			
								Level Found							
Turbidity		TT = 1 NTU		Y	0.1	Continuous		0.1		NA		Soil Runoff			
		TT = 95% of monthly samples ≤0.3 NTU		Y	NA			100% ≤ 0.3 NTU							
Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system.															
Disinfection Byproduct Precursors															
Control of DBP Precursor (TOC)		TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1		Y	1	Monthly		2.2 - 3.2		2.8		NA		Various natural and man-made sources	
Parameter Primary Standards		MCL or [MRDL]		Meets Standard?	MRL	Sample Frequency		Distribution System			PHG (MCLG) [MRDLG]		Typical Source of Contaminant		
Disinfectant Residual								All Sample Range		RAA					
Chlorine (as Cl2)		[4.0 mg/L]		Y	0.1	Weekly		ND - 2.0		1.1		[4]		Drinking water disinfectant added for treatment	
Disinfection Byproducts (DBPs)								All Sample Range		Highest RAA					
TTHMs (Total Trihalomethanes)		80 µg/L		Y	1	Quarterly		2 - 79		65		NA		Byproduct of drinking water disinfection	
HAA5 (Sum of 5 Haloacetic Acids)		60 µg/L		Y	2	Quarterly		ND - 12		10					
Parameter Primary Standards		MCL	Meets Standard?	DLR	Sample Frequency Surface Water / Groundwater	Treated Surface Water Plant Effluent Summary Sampled in 2023			Groundwater Summary Results from Wells Sampled in 2021-2023			PHG (MCLG)	Typical Source of Contaminant		
						Range		Average		Range				Average	
Inorganic Chemicals															
Arsenic		10 µg/L	Y	2	Annually / Triennially	NA		ND		ND - 3		ND	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes	
Chromium (Total)		50 µg/L	Y	10	Annually / Triennially	NA		ND		ND - 20		ND	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits	
Fluoride (naturally occurring)		2.0 mg/L	Y	0.1	Quarterly/ Quarterly	0.1 - 0.2		0.2		ND - 0.5		0.2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories	
Nitrate (as Nitrogen)		10 mg/L	Y	0.4	Quarterly/ Quarterly	NA		ND		ND - 7		2	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits	
Perchlorate		6 µg/L	Y	2	Annually/ Annually	NA		ND		ND - 4		ND	1	Used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries	
Radioactivity															
Gross Alpha Particle Activity		15 pCi/L	Y	3	Varied¹	NA		13		ND - 3		ND	(0)	Erosion of natural deposits	
Gross Beta Particle Activity³		50 pCi/L	Y	4	Quarterly / WAIVED	ND - 5		ND		NA		ND	(0)	Decay of natural and man-made deposits	
Uranium		20 pCi/L	Y	1	Varied²	NA		ND		ND - 4		ND	0.43	Erosion of natural deposits	
Tap Monitoring Lead & Copper	Action Level	Meets Standard?	DLR	Lead and Copper Rule Sampled in 2021		Lead Testing in Schools Sampled in 2018			PHG	Typical Source of Contaminant					
				Range		90th Percentile	No. of schools requesting lead sampling				Range	Average			
Lead	15 µg/L	Y	5	50 sites sampled; 0 sites over AL		ND		29		88 sites sampled; 0 sites over AL	ND	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		
Copper	1.3 mg/L	Y	0.05	50 sites sampled; 0 sites over AL		0.5		NA		NA	NA	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		

Parameter	MCL	Meets Standard?	DLR	Sample Frequency Surface Water/ Groundwater	Treated Surface Water Plant Effluent Summary Sampled in 2023		Groundwater Summary Results from Wells Sampled in 2021-2023		Typical Source of Contaminant
					Range	Average	Range	Average	
Secondary Standards - Inorganic Chemicals									
Chloride	500 mg/L	Y	5	Quarterly/ Quarterly	61 - 100	79	ND - 105	29	Runoff; leaching from natural deposits; seawater influence
Odor-Threshold	3 units	Y	1	Weekly / Triennially	NA	1	ND - 2	ND	Naturally occurring organic materials
Specific Conductance	1600 µS/cm	Y	2	Annually / Triennially	NA	590	240 - 820	417	Substances that form ions when in water; seawater influence
Sulfate	500 mg/L	Y	5	Quarterly/ Quarterly	19 - 60	38	12 - 143	40	Runoff; leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	1000 mg/L	Y	10	Annually / Triennially	NA	300	150 - 470	251	Runoff/leaching of natural deposits
Turbidity	5 units	Y	0.1	Annually / Triennially	NA	0.3	ND - 0.4	ND	Soil Runoff
Additional Constituents Analyzed									
Boron	NL = 1 mg/L	Y	0.1	Annually / Triennially	NA	0.2	NA	ND	Erosion of natural deposits
Vanadium	NL = 50 µg/L	Y	3	Annually / Triennially	NA	ND	8 - 36	17	
Alkalinity	(NA) mg/L	NA	20	Weekly / Triennially	55 - 74	63	76 - 180	115	Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds
Calcium	(NA) mg/L	NA	1	Annually / Triennially	NA	31	11 - 72	38	Dissolved as water passes through limestone deposits
Chromium (Hexavalent)	(NA) µg/L	NA	1	Quarterly / Quarterly	NA	ND	ND - 12	4	Steel and pulp mill discharges, chrome plating, natural erosion
Hardness	(NA) gpg	NA	0.1	Weekly / Triennially	5 - 6	5	2 - 13	7	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Magnesium	(NA) mg/L	NA	0.1	Annually / Triennially	NA	8	0.4 - 13	6	Dissolved as water passes through magnesium-bearing minerals
pH	(NA) units	NA	0.1	Continuous / Triennially	6.8 - 7.4	7.1	8.0 - 8.4	8.2	Generally natural changes due to interactions with the environment
Potassium	(NA) mg/L	NA	1	Annually / Triennially	NA	3	ND - 3	ND	Leaching from natural deposits
Sodium	(NA) mg/L	NA	1	Annually / Triennially	NA	72	19 - 79	40	Generally naturally occurring salt present in water
Special Testing	MCL	Meets Standard?	MRL	Sample Frequency	Effluent & Dist. System		Groundwater		Environmental Source
					Range	Average	Range	Average	
UCMR 4 (Sampled in 2018 - 2019)									
HAA5	(NA) µg/L	NA	NA	Special	0.4 - 8.9	5.2	NA	NA	Byproduct of drinking water disinfection
HAA6Br	(NA) µg/L	NA	NA	Special	ND - 20	12	NA	NA	Byproduct of drinking water disinfection
HAA9	(NA) µg/L	NA	NA	Special	0.4 - 22	13	NA	NA	Byproduct of drinking water disinfection
Manganese	50 µg/L	Y	0.4	Special	ND - 3.4	1.4	ND - 2.1	ND	Leaching from natural deposits

¹ Sampled between 2015 and 2023. Individual sites are sampled every 3, 6 or 9 years. Range is from individual sample results.

² Sampled at least once every 9 years and when Gross Alpha Activity exceeds 5 pCi/L.

³ The State Water Resources Control Board considers 50 pCi/L to be the level of concern for beta particles.

EDUCATIONAL INFORMATION AND POSSIBLE DRINKING WATER CONTAMINANTS:

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

NITRATE: In the Primary Standards Inorganic Chemicals section of the chart for Nitrate (as Nitrogen), treated surface water is ND . In the groundwater column, the range is ND to 7 mg/L, and the average is 2 mg/L. The State Water Board requires annual sampling if results are less than 50% of the MCL. If the result from any one source is greater than 50% of the MCL, then sampling must be done quarterly at that source. PWD samples all its wells on a quarterly basis (4 times per year) even when they test below 50% of the MCL. The numbers expressed on the chart are derived from quarterly sampling of all PWD wells, except those that are out of service.

Health Effects of Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

DEFINITIONS:

The following definitions of key terms are provided to help you understand the data used in this report.

Detection Limit for purposes of Reporting (DLR): The smallest concentration of a contaminant that can be measured and reported. DLRs are set by State Water Board (same as MRL, Minimum Reporting Level, set by USEPA).

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Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

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Secondary Drinking Water Standard (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL level.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminant Monitoring (UCMR): Unregulated contaminant monitoring helps USEPA and the State Water Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

ADDITIONAL ABBREVIATIONS USED IN WATER QUALITY DATA CHART:

< Less Than	mg/L: milligrams per liter or parts per million (ppm)
> Greater Than	NTU: Nephelometric Turbidity Units
NA: Not Applicable	pCi/L: picocuries per liter (a measure of radiation)
ND: Not detectable or Non-Detected at testing limit (DLR or MRL)	µg/L: micrograms per liter or parts per billion (ppb)
TOC: Total Organic Carbon	µS/cm: microsiemens per centimeter (a measure for conductivity)
gpg: grains per gallon (a unit of water hardness)	

Lead and Copper: Palmdale Water District is required to draw new sample sets of tap samples for lead and copper every 3 years. The last samples were taken in 2021 (50 samples). The 90th percentile results of ND for lead and 0.5 ppm for copper are well within the AL of 15 ppb for lead and the AL of 1.3 ppm for copper. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. PWD is responsible for providing high-quality drinking water, but is unable to control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.

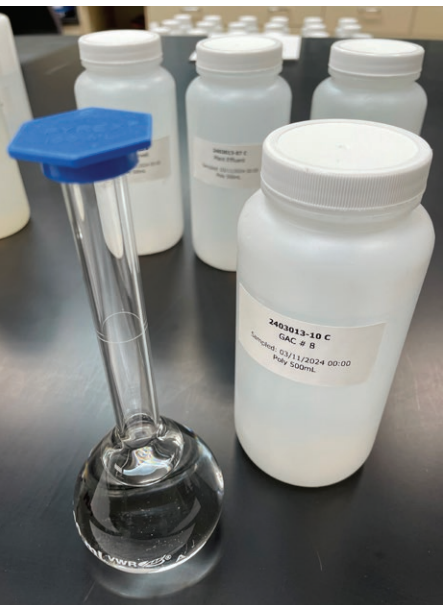
If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

Health Effects of Lead: Infants and children who drink water containing lead in excess of the action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Health Effects of Copper: Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time may experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years may suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.



STATE OF OUR WATER



As a Palmdale Water District (PWD) customer, you are receiving clean, high-quality water for you and your family. During 2023, the water provided to you met all federal and state safe drinking water regulations. This Consumer Confidence Report, which is updated and published annually, gives you detailed information about required water quality testing and their results.

This report also gives a snapshot of PWD's water sources and the amount supplied by each during the year. Last year, when 100% of the State Water Project allocation was received, PWD had more than enough to meet customers' needs. The excess allowed for over 6,000 acre-feet to be rolled over to 2024. With the State Water Project allocation at 40%, a full Littlerock Reservoir, and groundwater wells, there will be no shortage of water for the remainder of this year.

Fortunately, storms these past two winters have restored much of the state's reservoirs, including the Littlerock Reservoir, that were nearly depleted during the severe droughts. For PWD, it has depended on the reservoir at the Littlerock Dam for part of its water supply for the past 100 years. Since June 1, 1924, when the Littlerock Dam was completed, it has supplied water to PWD and the Littlerock Creek Irrigation District (LCID).

For the past century, the Littlerock Dam and Reservoir has played an important role in the growth and success of Palmdale, Littlerock and other communities in the southern Antelope Valley. On June 1, 2024, PWD and LCID celebrated the foresight of its predecessors who had the vision to build a monumental structure that still serves its original purpose of storing water and controlling floods.

We are thankful for the Littlerock Dam and Reservoir, a healthy water supply, and for your trust in us as we continue to provide you with high-quality water.

Kathy Mac Laren-Gomez (PWD Board President)

Dennis D. LaMoreaux (PWD General Manager)

The Palmdale Water District is pleased to announce 100% regulatory compliance in 2023 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2023 water quality and will provide you with a better understanding of the excellent quality of your drinking water. This report includes details about where your water comes from, what it contains, and how it compares to drinking water standards as set by the state of California. We are committed to providing you with this information because informed customers are our best allies. Stringent water-quality testing is performed before the water is delivered to consumers. Last year, PWD completed more than 15,000 tests for over 80 regulated contaminants. Only 11 primary standard contaminants were detected in 2023, and all were at levels below the Maximum Contaminant Level allowed by the state.

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completed more than
15,000
tests for over
80 regulated
contaminants.

Please take the time to review this Consumer Confidence Report and Water Quality Data Chart to become an informed consumer. The Water Quality Data Chart is divided into two standards – Primary and Secondary. Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. Secondary standards govern aesthetic qualities of water, such as taste, mineral content, odor, color, and turbidity.



How to contact PWD:

- Attend Board of Directors meetings the second and fourth Mondays of each month. Board meetings start at 6:00 p.m. and are held at the PWD office, 2029 East Avenue Q, Palmdale.
- Call 661-947-4111 with questions about PWD or to file a water quality complaint.
- Call 661-947-4111 x5002 for information on water-use efficiency, including conservation and water education.

For more information, visit our website at palmdalewater.org.



OUR WATER SUPPLY

PWD acquires its water from one of three sources or a combination of these sources.

1. Surface water from the State Water Project (SWP/CA Aqueduct)

This water source begins in northern California, flows into the Delta near Sacramento, and is pumped south to Lake Palmdale. PWD is entitled to take a maximum of 21,300 acre-feet, or 6.9 billion gallons of water, per year. Based on the amount of rain & snowfall in the Sierra Nevada mountains and the amount of water stored in northern California reservoirs, PWD is granted a percentage of the annual entitlement. In 2023, PWD received 7,268 acre-feet from the SWP/CA Aqueduct. The water is drawn from the SWP/CA Aqueduct and stored in Lake Palmdale prior to treatment.

2. Surface water from Littlerock Reservoir

Littlerock Dam was built in 1924 and renovated in 1994 to strengthen the dam and increase the reservoir capacity to 3,500 acre-feet, or 1.1 billion gallons of water. In water year 2023 (October 2022 - September 2023), PWD diverted 4,827 acre-feet from this source. Littlerock Reservoir is fed by natural runoff from snowpacks in the local San Gabriel Mountains and from rainfall. The water is then transferred from Littlerock Reservoir to Lake Palmdale through a ditch connecting the two bodies of water for storage prior to treatment.

3. Groundwater

Groundwater is pumped from the Antelope Valley groundwater basin through 22 wells. In 2023, PWD pumped 4,177 acre-feet. This water is treated with chlorine before being pumped directly into the distribution system.

All three sources are constantly tested and treated in compliance with all applicable regulations to ensure high-quality water and dependability of the water system. The Palmdale Water District delivered approximately 75% surface water and 25% groundwater to its consumers in 2023.

SOURCES OF DRINKING WATER

The sources of drinking water, both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Water Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM

Palmdale Water District's Sanitary Survey, including a Source Water Assessment of surface waters, was updated in 2023 in compliance with state of California regulations. The assessment of surface water sources included Littlerock Reservoir and Lake Palmdale. A Groundwater Assessment and Protection Program was completed in January of 1999, and a Wellhead Protection Plan was completed in November 2000.

PWD's drinking water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: illegal activities, such as unauthorized dumping;

recreation; highways; railroads; and sewer collection systems. A comprehensive source water protection program can prevent contaminants from entering the public water supply, reduce treatment costs, and increase public confidence in the quality, reliability and safety of drinking water.

You can help prevent water contamination and pollution by properly disposing of trash and waste materials.

Remember, many common household products can contaminate surface and groundwater supplies. Anything you throw in the trash, dump on the ground, pour down the drain, or wash down the driveway can eventually reach water sources and cause contamination.

The Sanitary Survey, Source Water Assessment, Groundwater Assessment, and Wellhead Protection Plan are available for review on PWD's website at palmdalewater.org or at PWD's office by calling Assistant General Manager Adam Ly at 661-947-4111 x1062.



PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

Annual Consumer Confidence Report

2024 Results

Our mission is to provide high-quality water to our current and future customers at a reasonable cost.

Questions or comments on the contents of this report are encouraged. Please contact Operations Manager Joe Marcinko at 661-947-4111 x1185 or Water Quality & Regulatory Affairs Supervisor Amanda Thompson at 661-947-4111 x1178, Monday through Thursday, 8 a.m. to 5 p.m.

ATTENCION RESIDENTES!

Esta publicación está disponible en español en nuestro sitio web en palmdalewater.org. Para obtener una copia impresa en español, visite nuestra oficina o llame al 661-947-4111.



Palmdale Water District
2029 East Avenue Q
Palmdale, CA 93550
661-947-4111

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Division 1

Don Wilson
Division 2

Cynthia Sanchez
Division 3

Kathy Mac Laren-Gomez
Division 4

Vincent Dino
Division 5

General Manager
Dennis D. LaMoreaux

THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2024 CALENDAR YEAR.

The presence of these contaminants in the water does not necessarily indicate the water poses a health risk. PWD tests for many contaminants in addition to those listed in the chart. Test results for these additional contaminants were all “Non-Detected” (ND) and are not required to be included in the chart. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. As a result, some of the data, though representative of the water quality, is more than one year old. Unless otherwise noted, the data presented in this chart is from testing performed January 1 to December 31, 2024.

Parameter		Regulation		Meets Standard?	MRL	Sample Frequency	Water Treatment Plant			PHG (MCLG)		Typical Source of Contaminant		
Filter Turbidity							Maximum Result							
Turbidity		TT = 1 NTU		Y	0.1	Continuous	0.1			NA		Soil Runoff		
		TT = 95% of monthly samples ≤0.3 NTU		Y	NA		100% ≤ 0.3 NTU							
Turbidity is a measure of the cloudiness of the water. We measure it because it is a good indicator of the effectiveness of our filtration system.														
Disinfection Byproduct Precursors														
Control of DBP Precursor (TOC)		TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1		Y	NA	Monthly	2.0 - 3.3		2.7		NA		Various natural and man-made sources	
Parameter		Regulation or MCL		Meets Standard?	MRL	Sample Frequency	Distribution System			PHG (MCLG) [MRDLG]		Typical Source of Contaminant		
Microbiological							Highest Monthly Percentage							
Total Coliform Bacteria		TT = No more than 5.0% of monthly samples are positive		Y	NA	Weekly	0.8%			0		Naturally present in the environment		
Disinfectant Residual							Range		RAA					
Chlorine (as Cl2)		MRDL = 4.0 mg/L		Y	0.1	Weekly	0.4 - 1.9		1.2		[4]		Drinking water disinfectant added for treatment	
Disinfection Byproducts (DBPs)							Range		Highest LRAA					
TTHMs (Total Trihalomethanes)		80 µg/L		Y	1	Quarterly	ND - 75		59		NA		Byproduct of drinking water disinfection	
HAA5 (Sum of 5 Haloacetic Acids)		60 µg/L		Y	2	Quarterly	ND - 13		9					
Parameter	Regulation	Meets Standard?	DLR	Sample Frequency			Customer Taps				PHG	Typical Source of Contaminant		
Lead and Copper Rule						No. Samples		90th Percentile						
Lead	AL = 15 µg/L	Y	5	Triennially			50; none over AL		ND		0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits		
Copper	AL = 1.3 mg/L	Y	0.05	Triennially			50; none over AL		0.4		0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives		
Parameter	MCL	Meets Standard?	DLR	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024		Groundwater Sampled in 2022-2024		PHG (MCLG)	Typical Source of Contaminant				
					Range	Average	Range	Average						
Inorganic Chemicals														
Arsenic	10 µg/L	Y	2	Annually / Triennially	NA	ND	ND - 3	ND	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes				
Chromium (Total)	50 µg/L	Y	10	Annually / Triennially	NA	ND	ND - 20	ND	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits				
Chromium (Hexavalent)	10 µg/L	Y	0.1	Annually / Triennially	NA	ND	0.5 - 9	4	0.02	Erosion of natural deposits; transformation of naturally occurring trivalent chromium to hexavalent chromium by natural processes and human activities such as discharges from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities				
Fluoride (naturally occurring)	2.0 mg/L	Y	0.1	Quarterly/Quarterly	0.1 - 0.2	0.1	ND - 0.5	0.2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories				
Nitrate (as Nitrogen)	10 mg/L	Y	0.4	Quarterly/Quarterly	NA	ND	ND - 7	2	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits				
Perchlorate	6 µg/L	Y	2	Annually/ Annually	NA	ND	ND - 1	ND	1	Used in solid rocket propellant, fireworks, explosives, flares, matches, and a variety of industries. It usually gets into drinking water as a result of environmental contamination from historic aerospace or other industrial operations that used or use, store, or dispose of perchlorate and its salts.				
Radioactivity														
Gross Alpha Particle Activity	15 pCi/L	Y	3	Varied ¹	NA	13	ND - 5	ND	0	Erosion of natural deposits				
Uranium	20 pCi/L	Y	1	Varied ²	NA	ND	ND - 4	ND	0.43	Erosion of natural deposits				

Parameter	MCL	Meets Standard?	DLR	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024		Groundwater Sampled in 2022-2024		PHG (MCLG)	Typical Source of Contaminant
					Range	Average	Range	Average		
Inorganic Chemicals										
Chloride	500 mg/L	Y	5	Quarterly/ Quarterly	60 - 79	68	ND - 64	25	NA	Runoff; leaching from natural deposits; seawater influence
Odor-Threshold	3 units	Y	1	Weekly / Triennially	1 - 2	1	ND - 2	ND	NA	Naturally occurring organic materials
Specific Conductance	1600 µS/cm	Y	2	Annually / Triennially	NA	440	240 - 820	419	NA	Substances that form ions when in water; seawater influence
Sulfate	500 mg/L	Y	5	Quarterly/ Quarterly	19 - 30	26	10 - 101	38	NA	Runoff; leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS)	1000 mg/L	Y	10	Annually / Triennially	NA	250	150 - 470	251	NA	Runoff/leaching of natural deposits
Turbidity	5 units	Y	0.1	Annually / Triennially	NA	0.2	ND - 0.4	ND	NA	Soil Runoff
Additional Constituents Analyzed										
Vanadium	NL = 50 µg/L	Y	3	Annually / Triennially	NA	ND	8 - 48	18	NA	Erosion of natural deposits
Alkalinity	(NA) mg/L	NA	20	Weekly / Triennially	64 - 78	70	76 - 180	115	NA	Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds
Calcium	(NA) mg/L	NA	1	Annually / Triennially	NA	30	11 - 72	37	NA	Dissolved as water passes through limestone deposits
Hardness	(NA) gpg	NA	0.1	Weekly / Triennially	5.0 - 6.6	5.9	1.7 - 13	6.9	NA	Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
Magnesium	(NA) mg/L	NA	0.1	Annually / Triennially	NA	9.1	0.4 - 13	6.1	NA	Dissolved as water passes through magnesium-bearing minerals
pH	(NA) units	NA	0.1	Continuous / Triennially	6.8 - 7.8	7.2	8.0 - 8.4	8.2	NA	Generally natural changes due to interactions with the environment
Potassium	(NA) mg/L	NA	1	Annually / Triennially	NA	3	ND - 3	ND	NA	Leaching from natural deposits
Sodium	(NA) mg/L	NA	1	Annually / Triennially	NA	44	19 - 79	40	NA	Generally naturally occurring salt present in water
UCMR 5	Regulation	Meets Standard?	MRL	Sample Frequency Surface Water / Groundwater	Treated Surface Water Sampled in 2024 - 2025		Groundwater Sampled in 2024		PHG (MCLG)	Typical Source of Contaminant
					Range	Average	Range	Average		
PFBS [Perfluorobutanesulfonic acid]	NL = 500 ng/L	NA	3	Special	NA	ND	ND - 5	ND	NA	PFAS are a group of synthetic chemicals used in a wide range of consumer products and industrial applications including: non- stick cookware, water-repellent clothing, stain-resistant fabrics and carpets, cosmetics, firefighting foams, electroplating, and products that resist grease, water, and oil.
PFHxA [Perfluorohexanoic acid]	(NA) ng/L	NA	3	Special	NA	ND	ND - 6	ND	NA	
PFPeA [Perfluoropentanoic acid]	(NA) ng/L	NA	3	Special	NA	ND	ND - 5	ND	NA	

¹ Sampled between 2016 and 2024. Individual sites are sampled every 3, 6, or 9 years. Range is from individual sample results.

² Sampled at least once every 9 years and when Gross Alpha Activity exceeds 5 pCi/L.

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Health Effects of Nitrate: Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

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Secondary Drinking Water Standard (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL level.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Unregulated Contaminant Monitoring (UCMR): Unregulated contaminant monitoring helps USEPA and the State Water Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

Lead and Copper: Palmdale Water District is required to draw new sample sets of tap samples for lead and copper every three years. The last samples were taken in 2024 (50 samples). The 90th percentile results of ND for lead and 0.4 ppm for copper are well within the AL of 15 ppb for lead and the AL of 1.3 ppm for copper. Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. Palmdale Water District is responsible for providing high-quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period.

If you are concerned about lead in your water and wish to have your water tested, contact Palmdale Water District (661-947-4111). Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <https://www.epa.gov/safewater/lead>.

PWD has prepared a Lead Service Line Inventory and information can be found on our website: <https://www.palmdalewater.org/water-quality/lsl/>

ADDITIONAL ABBREVIATIONS USED IN WATER QUALITY DATA CHART:

≤ Less Than or Equal To

≥ Greater Than or Equal To

NA: Not Applicable

ND: Not detectable or Non-Detected at testing limit (DLR or MRL)

TOC: Total Organic Carbon

gpg: grains per gallon (a unit of water hardness)

mg/L: milligrams per liter or parts per million (ppm)

NTU: Nephelometric Turbidity Units

pCi/L: picocuries per liter (a measure of radiation)

µg/L: micrograms per liter or parts per billion (ppb)

µS/cm: microsiemens per centimeter (a measure for conductivity)



STATE OF OUR WATER

Once again, Palmdale Water District (PWD) is proud to share with the 127,000-plus people it serves that they received clean, high-quality water in 2024. Based on numerous tests throughout the year, our water met all federal and state safe drinking water regulations. This positive news is what our team strives for every day while ensuring water flows uninterrupted to each of you in our District.

As government regulations increase, PWD is committed to doing its part to meet guidelines. We have staff collecting and testing water throughout our 187-square-mile boundaries nearly every day. These consistent samplings ensure that there is always a watchful eye on the quality of the water you are receiving.

The charts in this Consumer Confidence Report (CCR) may not be the easiest to understand due to their scientific nature. If you need clarification or assistance, please know that PWD's laboratory staff are available to answer your questions. Our hope is that more of our customers take an interest in understanding their water quality and the origins of the water supply.

This CCR also serves as a platform for us to inform you of PWD's sources of water. As of spring, the allocation from the State Water Project is 50%. Although we did not have a wet winter locally, the northern Sierra Nevada had a snowy season, and heavy rain in Northern California filled many reservoirs. With the state's allocation, pumping rights, Littlerock Reservoir's supply and carryover water from last year, PWD will not be restricting water use this year.

The last time drought restrictions were enforced was in 2022, following three straight years of dry weather. But the unpredictable climate has become the norm and planning for our water future is critical. We are currently constructing the Pure Water Antelope Valley (AV) Demonstration Facility, which will purify recycled water for potable use.

We look forward to introducing you to Pure Water AV and showing you the technology that will make it possible for us to use a new source of water to continue serving you the clean water you need and expect.

Kathy Mac Laren-Gomez (PWD Board President)

Dennis D. LaMoreaux (PWD General Manager)



The Palmdale Water District is pleased to announce 100% regulatory compliance in 2024 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2024 water quality and will provide you with a better understanding of the excellent quality of your drinking water. This report includes details about where your water comes from, what it contains, and how it compares to drinking water standards as set by the state of California. We are committed to providing you with this information because informed customers are our best allies. Stringent water-quality testing is performed before the water is delivered to consumers. Last year, PWD completed more than 15,000 tests for over 80 regulated contaminants. Only 12 primary standard contaminants were detected in 2024, and all were at levels below the Maximum Contaminant Level allowed by the state.

Last year, PWD
completed more than
15,000
tests for over
80 regulated
contaminants.

Please take the time to review this Consumer Confidence Report and Water Quality Data Chart to become an informed consumer. The Water Quality Data Chart is divided into two standards – Primary and Secondary. Primary standards are set to protect public health from contaminants in water that may be immediately harmful to humans or affect their health if consumed for long periods of time. Secondary standards govern aesthetic qualities of water, such as taste, mineral content, odor, color, and turbidity.



How to contact PWD:

- Attend Board of Directors meetings the second and fourth Mondays of each month. Board meetings start at 6 p.m. and are held at the PWD office, 2029 East Avenue Q, Palmdale.
- Call 661-947-4111 with questions about PWD or to file a water quality complaint.
- Call 661-947-4111 x5002 for information on water-use efficiency, including conservation and water education.

For more information, visit our website at palmdalewater.org.



OUR WATER SUPPLY

PWD acquires its water from one of three sources or a combination of these sources.

1. Surface water from the State Water Project (SWP/CA Aqueduct)

This water source begins in northern California, flows into the Delta near Sacramento, and is pumped south to Lake Palmdale. PWD is entitled to take a maximum of 21,300 acre-feet, or 6.9 billion gallons of water, per year. Based on the amount of rain & snowfall in the Sierra Nevada mountains and the amount of water stored in northern California reservoirs, PWD is granted a percentage of the annual entitlement. In 2024, PWD received 7,196 acre-feet from the SWP/CA Aqueduct. The water is drawn from the SWP/CA Aqueduct and stored in Lake Palmdale prior to treatment.

2. Surface water from Littlerock Reservoir

Littlerock Dam was built in 1924 and renovated in 1994 to strengthen the dam and increase the reservoir capacity to 3,500 acre-feet, or 1.1 billion gallons of water. In water year 2024 (October 2023 - September 2024), PWD diverted 5,326 acre-feet from this source. Littlerock Reservoir is fed by natural runoff from snowpacks in the local San Gabriel Mountains and from rainfall. The water is then transferred from Littlerock Reservoir to Lake Palmdale through a ditch connecting the two bodies of water for storage prior to treatment.

3. Groundwater

Groundwater is pumped from the Antelope Valley groundwater basin through 22 wells. In 2024, PWD pumped 5,362 acre-feet. This water is treated with chlorine before being pumped directly into the distribution system.

All three sources are constantly tested and treated in compliance with all applicable regulations to ensure high-quality water and dependability of the water system. The Palmdale Water District delivered approximately 71% surface water and 29% groundwater to its consumers in 2024.

SOURCES OF DRINKING WATER

The sources of drinking water, both tap and bottled, include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides that may come from a variety of sources, such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Water Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

DRINKING WATER SOURCE ASSESSMENT AND PROTECTION PROGRAM

Palmdale Water District's Sanitary Survey, including a Source Water Assessment of surface waters, was updated in 2023 in compliance with state of California regulations. The assessment of surface water sources included Littlerock Reservoir and Lake Palmdale. A Groundwater Assessment and Protection Program was completed in January of 1999, and a Wellhead Protection Plan was completed in November 2000.

PWD's drinking water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: illegal activities, such as unauthorized dumping; recreation;

highways; railroads; and sewer collection systems. A comprehensive source water protection program can prevent contaminants from entering the public water supply, reduce treatment costs, and increase public confidence in the quality, reliability and safety of drinking water.

You can help prevent water contamination and pollution by properly disposing of trash and waste materials.

Remember, many common household products can contaminate surface and groundwater supplies. Anything you throw in the trash, dump on the ground, pour down the drain, or wash down the driveway can eventually reach water sources and cause contamination.

The Sanitary Survey, Source Water Assessment, Groundwater Assessment, and Wellhead Protection Plan are available for review on PWD's website at palmdalewater.org or at PWD's office by calling Assistant General Manager Scott Rogers at 661-947-4111 x1020.



ATTACHMENT NO. 6

GLOSSARY OF TERMS AND ABBREVIATIONS

ACWA:	Association of California Water Agencies
BAT:	Best Available Technology to achieve compliance with an MCL
DDW:	Division of Drinking Water
DLR:	Detection Limit for Reporting Purposes; set by SWRCB
MCL:	Maximum Contaminant Level; set by SWRCB and USEPA
MCLG:	Maximum Contaminant Level Goal; set by USEPA
MGD:	Million Gallons per Day
OEHHA:	Office of Environmental Health Hazard Assessment (State of California)
PHG:	Public Health Goal; set by OEHHA
SWRCB:	State Water Resources Control Board
USEPA:	United States Environmental Protection Agency
mg/L:	milligrams per liter or parts per million
pCi/L:	picocuries per liter
µg/L:	micrograms per liter or parts per billion

PALMDALE WATER DISTRICT
2029 East Avenue Q
Palmdale, CA 93550

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the Board of Directors of the Palmdale Water District will hold a Public Hearing on Monday, July 14, 2025 at 6:00 p.m. during the Palmdale Water District's Regular Board Meeting to consider the report on the District's water quality relative to Public Health Goals.

State law requires this Public Hearing so that interested individuals can provide the District with comments on the Public Health Goals Report. Customers who wish to comment on the Report can attend the Public Hearing or submit written remarks to the Palmdale Water District General Manager prior to the Hearing. A copy of the Public Health Goals Report is available for inspection at 2029 East Avenue Q, Palmdale, CA 93550 and at https://www.palmdalewater.org/wp-content/uploads/2025/06/2025_PHG_Report_Final_Web.pdf.

Dated: June 9, 2025 by Dennis D. LaMoreaux, General Manager

Publish: June 21, 2025 and June 28, 2025



BOARD MEMORANDUM

DATE: July 14, 2025
TO: BOARD OF DIRECTORS
FROM: Scott L. Rogers, Assistant General Manager
RE: *CONSIDERATION AND POSSIBLE ACTION ON CALIFORNIA SPECIAL DISTRICTS ASSOCIATION BOARD OF DIRECTORS SEAT B SOUTHERN NETWORK ELECTION FOR THE 2026-2028 TERM. (NO BUDGET IMPACT – ASSISTANT GENERAL MANAGER ROGERS)*

Background:

Each of the California Special Districts Association's (CSDA) six networks has three seats on the Board. Candidates for these seats must either be a Board Member or management-level employee of a member district located in Network. Candidates for the election of Seat B Southern Network for the 2026-2028 Term are listed below. The ballot, candidate statements, and information sheets for each are attached. The District is asked to vote for one candidate by July, 25, 2025.

The candidates are as follows:

- Don Bartz (incumbent), Phelan Pinon Hills Community Services District
- Jason Dafforn, Valley Sanitary District
- John Skerbelis, Director, Rubidoux Community Services District

Supporting Documents:

- CSDA Ballot
- Candidate Statements/Information Sheets



Home

How It Works

Logout **Dennis LaMoreaux**

CSDA Board of Directors Election Ballot - Term 2026 - 2028; Seat B - Southern Network

Please vote for your choice

Choose **one** of the following candidates:

- Don Bartz, General Manager, Phelan Pinon Hills Community Services District (Incumbent)
- Jason Dafforn, General Manager, Valley Sanitary District
- John Skerbelis, Director, Rubidoux Community Services District

☐

Don Bartz [[view details](#)]

☐

Jason Dafforn [[view details](#)]

☐

John Skerbelis [[view details](#)]

Continue

Cancel



**California Special
Districts Association**
Districts Stronger Together

2026-2028 TERM - CSDA BOARD CANDIDATE INFORMATION SHEET

The following information **MUST** accompany your nomination form and Resolution/minute order:

Name: Don Bartz

District/Company: Phelan Pinon Hills CSD

Title: General Manager

Elected/Appointed/Staff: Staff

Length of Service with District: 17 years

- 1. Do you have current involvement with CSDA (such as committees, events, workshops, conferences, Governance Academy, etc.):**

I am currently on the Executive Committee as Treasurer for CSDA, attend the Annual Conference, Governance Academy and the General Managers Summit.

- 2. Have you ever been associated with any other state-wide associations (CSAC, ACWA, League, etc.):**

I have been involved with ACWA, AWWA for the past 30 years. _____

- 3. List local government involvement (such as LAFCo, Association of Governments, etc.):**

Local government involvement includes Local City Planning Commissioner, Technical Advisory Committee for local water agency and Sub-Area Committee for local water basins.

- 4. List civic organization involvement:**

_____ |

I work with youth archery programs for Mojave Archers, provide assistance for a local Homeless Shelter and participate in Local Government within my community

****Candidate Statement – Although it is not required, each candidate is requested to submit a candidate statement of no more than 300 words in length. Any statements received in the CSDA office after the nomination deadlines will not be included with the ballot.**

Candidate Statement Don Bartz CSDA Board

I kindly seek your support for my candidacy for the CSDA Board Member in the Southern section. I have been the General Manager of the Phelan Pinon Hills Community Services District since its inception 17 years ago. Currently, I am in my second term on the CSDA Board, where I also hold the position of Board Treasurer and have also been Board Secretary. My commitment to CSDA is strong, as I regularly participate in its events and have contributed to various committees in recent years. I am prepared to invest the necessary time to fulfill the responsibilities of Board Member. I believe my experience equips me well for this role, enabling me to assist in establishing and reviewing budgets and expenses while collaborating with others to ensure CSDA's financial stability. CSDA is an outstanding organization, and I am eager to contribute to its ongoing success. Thank you for considering my application for the Board Member position. Please feel free to contact me if you have any questions.

Don Bartz



California Special
Districts Association
Districts Stronger Together

2026-2028 TERM - CSDA BOARD CANDIDATE INFORMATION SHEET

The following information **MUST** accompany your nomination form and Resolution/minute order:

Name: Jason Dafforn

District/Company: Valley Sanitary District

Title: General Manager

Elected/Appointed/Staff: Staff

Length of Service with District: 2 years

1. Do you have current involvement with CSDA (such as committees, events, workshops, conferences, Governance Academy, etc.):

Attend CSDA Conference and Leadership Academy

2. Have you ever been associated with any other state-wide associations (CSAC, ACWA, League, etc.):

ACWA, CASA, NACWA

3. List local government involvement (such as LAFCo, Association of Governments, etc.):

N/A

4. List civic organization involvement:

Desert Recreation Foundation Board of Directors

****Candidate Statement – Although it is not required, each candidate is requested to submit a candidate statement of no more than 300 words in length. Any statements received in the CSDA office after the nomination deadlines will not be included with the ballot.**



JASON DAFFORN

for CSDA Board of Directors – Southern Network

My name is **Jason Dafforn** and I am honored to be a candidate for the CSDA Board of Directors, representing the Southern Network, which includes Los Angeles, Orange, San Diego, San Bernardino, Riverside and Imperial counties.

As a Licensed Civil Engineer with more than 30 years of experience in the water and wastewater industry, I bring a deep understanding of the vital services special districts provide. I have spent 17 years as a utility manager for California local governments, including over eight years with a special district. I currently serve as General Manager at Valley Sanitary District in Indio, California.

Throughout my career, I have remained committed to improving water and wastewater systems, building safe and reliable infrastructure and leading teams to find innovative, effective solutions to complex challenges. I am passionate about the essential roles our diverse special districts play, including water, wastewater, irrigation, parks and recreation, cemeteries, fire protection, libraries, harbors, healthcare and community services.

During my spare time, I also serve on the Board of Directors of the Desert Recreation Foundation, a non-profit organization that collaborates with the Desert Recreation District, California's largest park and recreation district. There I work behind the scenes to ensure all residents in the Coachella Valley have access to quality recreational resources, facilities, parks and programs that serve today's needs and those of generations to come.



If elected, I will bring a strategic and forward-thinking perspective to the Board. I will advocate for our collective interests and help CSDA remain a strong resource for its members. Together, we can strengthen California's special districts and continue to enhance the quality of life for the communities we serve.

Thank you for your support and your vote!

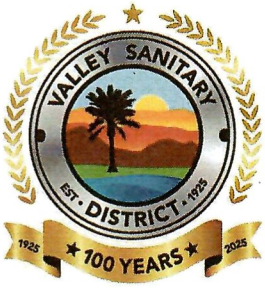
Jason Dafforn, PE
General Manager, Valley Sanitary District, Indio, California

Valley Sanitary District



jdafforn@valley-sanitary.org





45500 Van Buren Street
Indio, CA 92201

760.238.5400

www.valley-sanitary.org

June 10, 2025

I'm thrilled to share some exciting news on behalf of the Valley Sanitary District Board of Directors in Indio—our General Manager, Jason Dafforn, is running for a spot on the California Special Districts Association (CSDA) Board of Directors for the Southern Network, Seat B!

Jason has an impressive background working with Special Districts, and his knack for bringing people together to achieve shared goals is truly exceptional. We're incredibly lucky to have him, and now we'd love for him to bring his skills and vision to benefit Special Districts across the state, especially in Southern California.

We've attached his candidate statement so you can learn more about his experience and his plans for the future of Special Districts.

Starting June 10, you'll receive an email with your electronic ballot from CSDA, and you'll have until July 25 to vote. It's super easy—just follow the instructions in the email to make your voice heard.

We'd really appreciate your support in this election. Let's work together to strengthen and grow California's Special Districts! If you have any questions or need more details, don't hesitate to reach out to me.

Thanks so much for considering Jason Dafforn for this important role!

Sincerely,

Debra Canero
Board President
Valley Sanitary District

Board of Directors

Debra A. Canero
President

Mike L. Duran
Vice President

Edgar Santana
Secretary/Treasurer

Gerardo R. Jimenez
Director

Ruben M. Vasquez
Director

Executive Management

Jason Dafforn, PE
General Manager



**California Special
Districts Association**

Districts Stronger Together

2026-2028 TERM - CSDA BOARD CANDIDATE INFORMATION SHEET

The following information **MUST** accompany your nomination form and Resolution/minute order:

Name: JOHN SKERBELIS

District/Company: RUBIDOUX COMMUNITY SERVICES DISTRICT

Title: DIRECTOR

Elected/Appointed/Staff: ELECTED

Length of Service with District: 12 YEARS

1. Do you have current involvement with CSDA (such as committees, events, workshops, conferences, Governance Academy, etc.):

NONE.

2. Have you ever been associated with any other state-wide associations (CSAC, ACWA, League, etc.):

CALIFORNIA ASSOCIATION OF REALTORS.

3. List local government involvement (such as LAFCo, Association of Governments, etc.):

RIVERSIDE COUNTY SOLID WASTE ADVISORY COMMITTEE - MAP OUT AND INSPECT FOR APPROVED STREET SWEEPING ROUTES FOR NEW DEVELOPMENTS.

4. List civic organization involvement:

RIVERSIDE COUNTY COMMUNITY CLEAN UPS FOR ALL COUNTY-WIDE DISTRICTS/STAKEHOLDER IN COUNTY-WIDE ILLEGAL DUMPING PROGRAM.

****Candidate Statement – Although it is not required, each candidate is requested to submit a candidate statement of no more than 300 words in length. Any statements received in the CSDA office after the nomination deadlines will not be included with the ballot.**



CANDIDATE STATEMENT

JOHN SKERBELIS

Elect John Skerbelis to the CSDA Board of Directors – Southern Network

Rubidoux Community Services District (Rubidoux) holds a unique place in history as California's first community services district, established in 1952. Today, Rubidoux serves 40,000 residents with essential services, including water, sewer, fire protection, trash collection, weed abatement, and street lighting. These services helped enable regional growth, ultimately leading to the incorporation of Jurupa Valley in 2011. As a CSDA Member, Rubidoux values CSDA's advocacy, education, and resources that support special districts statewide.

Experienced Leadership, Proven Results

Director John Skerbelis, a committed public servant and business owner, is seeking election to the CSDA Board of Directors – Southern Network. His extensive experience in local government, environmental health, and infrastructure funding makes him a strong advocate for special districts.

A Record of Service

- ✓ Rubidoux CSD Board of Directors – Elected in 2007; Board President four times.
- ✓ Riverside County Solid Waste Management Advisory Council – Served seven years shaping waste policies.
- ✓ Environmental & Public Health Leadership – Eight years with Riverside County Environmental Health.
- ✓ Illegal Dumping Prevention Champion – Recognized by Riverside County Board of Supervisors for efforts supporting AB 1822 and AB 1924.
- ✓ Advocate for Federal Funding – Worked with Congressmen Calvert & Takano to secure FEMA funds for Rubidoux.
- ✓ Local Business Owner – Brings strong fiscal oversight and economic development experience.

Priorities on the CSDA Board

- ✓ Stronger Advocacy for Special Districts – Protecting funding & resources.
- ✓ Fiscal Responsibility – Promoting sound financial management.
- ✓ Emergency Preparedness & Resilience – Enhancing response & funding support.
- ✓ Collaboration & Innovation – Modernizing operations & integrating technology.

Your Vote Matters – Support John Skerbelis

With proven leadership and a results-driven approach, John Skerbelis is the right choice for CSDA Board of Directors – Seat B, Southern Network. Vote for a dedicated advocate for special districts and the communities they serve!

Thank you for your support!



BOARD MEMORANDUM

DATE: July 14, 2025
TO: BOARD OF DIRECTORS
FROM: Mr. Jim Stanton, Information Technology Manager
VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis LaMoreaux, General Manager
RE: *CONSIDERATION AND POSSIBLE ACTION ON AUTHORIZING THE GENERAL MANAGER TO ENTER INTO A THREE-YEAR CONTRACT WITH CONVERGINT FOR MAINTENANCE AND SUPPORT OF THE ACCESS CONTROL, VIDEO SURVEILLANCE SYSTEMS, AND ALARM MONITORING. (\$162,000.00 – BUDGETED – INFORMATION TECHNOLOGY MANAGER STANTON)*

Recommendation:

Staff recommends that the Board approve authorization of the General Manager to enter into a three-year contract with Convergent for the maintenance and support of the access control, video surveillance systems, and alarm monitoring.

Alternative Options:

Based on received vendor quotes, the replacement of the existing access control and video surveillance systems ranges from \$800,000 to \$1,000,000.

Impact of Taking No Action:

Continue paying the current provider \$65,000.00 annually plus a minimum charge of \$5,000, or more, for service calls.

Background:

The District implemented the current access control and video surveillance systems and alarm monitoring in 2013 with the current vendor.

The support from the current vendor has been problematic and an RFP was completed in search of a company to take over the existing systems. All of the respondents wanted to replace the entire existing system, which is cost prohibitive.

Using cooperative purchasing contracts from public agencies and trusted national sources, staff reached out to Convergent technologies and requested the attached proposals to take over the existing systems and provide alarm monitoring, resulting in annual savings of approximately \$10,000.00 from our current vendor.

July 14, 2025

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 3 – Systems Efficiency.

This item directly relates to the District's Mission Statement.

Budget:

This item is budgeted and has a cost of approximately \$54,000.00 annually for three years.

Supporting Documents:

- Palmdale Water District 3yr Customer Support Program Revised 6.2.2025
- Palmdale Water District CSP Monitoring Proposal 6.2.2025

Palmdale Water District

Customer Support Program

6/3/2025

convergent

Jake Bargas

Business Development Manager

CUSTOMER INFORMATION

Date: 6/3/2025

Quotation #: JB29762543CSP

To: Palmdale Water District
2029 E Ave Q
Palmdale, California 93550

Attn: Palmdale Water District

We are pleased to provide this proposal for your consideration. This quotation is valid for THIRTY (30) days.

CUSTOMER SUPPORT PROGRAM OVERVIEW

The intent of this Customer Support Program (CSP) is to partner with you in maintaining your system(s), reducing malfunctions and associated downtime. Convergent is committed to providing long-term customer satisfaction and support throughout the service partnership.

A properly planned Customer Support Program can help improve the performance and integrity of your systems and help extend the life of the systems.

As you walk through this proposal, you will see that the recommended services have been tailored to your unique needs and above business objectives.

PROPOSED SERVICES

Software Support Agreement (SSA):

☒ Included ☐ Excluded

The Software Support Agreement provides access to product manufacturer firmware and software updates, which helps keep systems operating with the latest software and secured with the latest patches. It also provides access to the product manufacturer technical support team if technical support is required for system troubleshooting. **Labor associated with applying firmware and software updates is not included, and requires the PPM option, below.** This option does not include any computer operating system updates or any software or system upgrades.

Password and Patch Management (PPM):

☐ Convergent ☒ Customer

Password Management:

Default, weak, and reused passwords pose a significant vulnerability to your security systems. Convergent offers unique password management solutions to protect your systems from compromise. By setting unique passwords on each system and site, we not only protect your security systems, but we also protect access to connected networks. Convergent utilizes an industry-leading password management system with 256-bit AES encryption to help ensure that each system has unique, highly complex passwords that restrict access according to the principles of least privilege. Additionally, there is no integration or direct connection between the database of passwords and on-premises systems.

Software and Firmware Maintenance:

Convergent periodically provides software updates and patches to help maintain your systems in accordance with manufacturers' recommendations and operating with the latest features, fixes, and vulnerability patches. Firmware, which controls the operation of network-connected devices, is also maintained in accordance with manufacturers' recommendations. Our specialists will install any compatible software and firmware patch releases to the system at the time of password change to help ensure system functionality and security. Systems and frequencies are identified in the Scope of Work section of this proposal.

Limitations:

Please note that this offering does not include "user" passwords or settings and only covers specific security system devices. If the customer is self-performing PPM, please review the *Cybersecurity Services Coverage* page in this proposal.

Preventive Maintenance

☒ Included ☐ Excluded

On a scheduled basis, Convergent will provide systems preventive services for components listed within the equipment list contained herein. All preventive maintenance testing will be performed in accordance with manufacturer's recommendations and will address areas that can adversely affect system performance. Preventive maintenance will include a visual inspection and functional test of system components.

iCare Executive

☐ Included ☒ Excluded

This valuable online service tool includes all the features of iCare Manager plus: real-time status, metric and custom report, access to "My Document Library" (i.e., document sharing platform), administrative privileges, and customized email notification.

Comprehensive Labor Coverage

☐ Included ☒ Excluded

For these customers seeking to manage their financial risk associated with service and repair labor, this option provides system labor coverage on (1) Service Calls (2) System Troubleshooting & Diagnostics, and (3) Component Repair Labor. A one-time billable Pre-contract System Test is required to ensure that the system components are in good working condition prior to Convergent assuming responsibility for system labor coverage. Any components found to be deficient will either need to be replaced or excluded from the comprehensive equipment list.

Comprehensive Equipment Coverage

☐ Included ☒ Excluded

Comprehensive equipment coverage includes the replacement of failed system components noted in the bill of material at no additional cost. This allows customers to mitigate potential financial risk that can be associated with unexpected repairs and/ or failed components.

Please note that failed or damaged equipment is based on the conditions noted in the terms and conditions of this proposal and excludes such items as natural causes or intentional damage. A one-time billable Pre-contract System Test is required to ensure that the system components are in good working condition prior to Convergent assuming responsibility for system equipment coverage. Any components found to be deficient will either need to be replaced or excluded from the comprehensive equipment list.

Note: Components will be replaced with same or similar technology available at the time of such replacement. Technology upgrades or system enhancements are not included as part of this coverage option. *Preventive Maintenance must also be included to qualify for equipment coverage.*

Remote Online Diagnostics

☒ Included ☐ Excluded

Utilization of industry standard authentication technology to remotely access your system and resolve technical issues in real time resulting in a savings of both time and system downtime. A Convergent Support Specialist, with the support of a screen sharing session, will work directly with your personnel for initial call support and troubleshooting. If the issue cannot be resolved online, a more refined service response will result including the dispatching of a service representative.

Embedded Specialist

☐ Included ☒ Excluded

The Embedded System Specialist will report directly to Convergent, with day-to-day accountability to our customer. Specific goals will be established and progress against these goals will be measured quarterly during a formal goal review meeting. The Embedded System Specialist shall manage and administer standard, operational procedures, and assist personnel in day-to-day system operations. This option provides a dedicated resource ensuring system integrity, standardization, and continuity

Minor Software Upgrade

☒ Included ☐ Excluded

To keep up with changes in infrastructure and environment, software upgrades may help keep systems running at an optimal level. Our expertise covers various aspects of upgrades, including server migration, integration support, resource allocation, scheduled downtime management, and risk mitigation. This is for service pack and patch upgrades only. Major version upgrades are not included.

System Administration

☐ Included ☒ Excluded

Convergint will supplement your internal system administration support by providing valued front-end database management services. Services may include:

1. System programming changes
2. Standard & custom report set- up and report generation
3. General front-end system diagnostics

Battery Testing

☒ Included ☐ Excluded

Over time, the batteries lose their ability to provide standby power required by the system in the event of primary power failure. Batteries should be replaced at specified intervals from date of manufacture or in accordance with manufacturer requirements. The only way to be assured the batteries will work is through proper load testing, which will be performed as required during a scheduled Test and Inspection or Preventive Maintenance visit. Battery replacement is not included and will be billable.

Online Asset and Inspection Reporting

☒ Included ☐ Excluded

Customer asset reporting includes the process of applying registered barcodes to system devices and loading their relevant information into a web-based database. Convergint's web-based reporting system provides immediate documentation that the system and devices are being tested according to manufacturer's and/or code requirements.

Storage Analysis

☒ Included ☐ Excluded

Systems are installed based on calculations provided during the design of the original project. Over time, variables can impact the storage of your system records (e.g., scene complexity, amount of motion, light levels). This option includes an analysis of the recording to verify you receive the storage you require. If the storage is lower than desired, Convergint will discuss the available options. Upgrade of the system storage may require additional pricing.

Priority Emergency Service Response

☐ Included ☒ Excluded

We realize that many customers require a more immediate response to service calls deemed to be priority one. By selecting this Priority On- Site Response option, Convergint will commit to responding to these service calls in (4) hours instead of the standard (8), subject to the exclusions set forth below.

COVERED EQUIPMENT

Bill of Materials (The Equipment)

The following bill of materials is intended to establish the baseline for this proposal. Equipment not listed is excluded from scope.

Line	Qty	Annual Freq	Description
1	36	1	Access Control Door
2	9	1	Access Control Panel
3	6	1	Intercom (Slave/Field Station)
4	9	1	Power Supplies
5	6	1	Alarm Control Panel
6	6	1	Cellular Backup Unit
7	10	1	Duress Buttons
8	5	1	Keypads
9	60	1	Motion Sensors
10	5	1	Power Supplies
11	48	2	Exterior Camera (mounted higher than 18 ft/5.5 m)
12	2	2	Server
13	2	2	Workstation

Software Support Agreement (SSA/SUSP)

The following bill of materials is intended to establish the baseline for this proposal. Software not listed is excluded from scope. This bill of materials is not intended to be a comprehensive list of all system parts

Line	Qty	Description
1	1	Software Support License - Access Control
2	1	Software Support License - Video Surveillance

CONVERGINT: UNIQUELY QUALIFIED

Our people, culture, technologies, and service differentiate us from our competitors. Convergent is committed to being our customers' best service provider with a culture of integrity, accountability, and excellence.



Our People | At Convergent, our greatest strength is our people. We hire and develop the industry's most dedicated and qualified service colleagues and provide an aggressive certification plan in the latest technology innovations, industry trends, and regulations.



Our Technologies | Convergent maintains strong relationships with the world's leading technology partners. Instead of being limited to one manufacturer, we support a variety of systems, thus enabling you to avoid sole source dependency while ensuring long-term system and service flexibility and cost-effectiveness. We have service

technicians certified across a wide range of systems, giving you the ultimate in peace of mind.



Our Services | Convergent designs service programs to meet each customer's specific business goals by leveraging dedicated, certified colleagues to ensure system integrity and uptime. Convergent's customer portal, iCare®, gives you real-time access to your service work orders, status, metrics reporting, and service spend by site. iCare is a fully integrated tool connected to all aspects of the Convergent enterprise, from customers to schedulers to technicians in the field. Our iCare portal promotes transparency, visibility, and accountability to you, our customer.



Our Programs | Our Customer Support Programs are customized *to you* based on industry best practices, and your individual site and business objectives. Through this program, you will be given **priority on emergency service calls** along with **preferred service discounts on labor rates** in accordance with Convergent's published Standard Rates.



Our Commitment | Our commitment to service excellence starts with supporting you where you are and meeting your internal compliance needs. Telephone diagnostic support is available for all Customer Support Program customers. Our on-call technicians will provide diagnostic and troubleshooting support to help reduce your costs by trying to resolve issues prior to our arrival.



Our Reach | Convergent delivers services across cities, countries, and continents - but focuses on serving you where you are. When you call us, you reach the local market office - not a centralized call center. When delivering complex services or projects for our customers, we excel at connecting partners and subcontracting partners to serve you the way you want to be served.

V's & B's

Our Culture | Convergent operates on a set of core Values and Beliefs that express our responsibility to our customers, colleagues, and communities. Our V's & B's are not just words on a page but are the very fabric of Convergent culture. Our daily commitment to these ideas is one key reason why our customers choose to do business with Convergent.

TOTAL INVESTMENT

Hourly Service Rates			
	Business Hours (8:00am to 5:00pm)	After Hours (Monday - Saturday)	Sunday & Holiday
Standard Rates	\$231	\$346	\$462
CSP Rates	10% off Current Standard Rate	10% off Current Standard Rate	10% off Current Standard Rate

All Service Calls:

- Subject to a two-hour minimum
- Priority 1 (P1) emergency service calls during normal business hours will be billed at After Hours Rates
- Billed based on technician travel time from portal to portal, including time on site

- Include a trip charge
- May include battery disposal fees

Clarifications:

- Service Rates above are subject to change over the course of this agreement and any change will be applied at the time of service.

Agreement Details					
Agreement Start Date	8/1/2025				
Agreement Duration	3 Years				
	Year 1	Year 2	Year 3	Year 4	Year 5
Total Investment	\$ 48,558.20	\$ 50,014.95	\$ 51,515.39		
Sales Tax	Price excludes applicable sales tax				
Payment Schedule	The agreement will be invoiced annually in the first month of the agreement period (Net 30 days) unless mutually agreed otherwise.				

Proposal Attachments:

- Clarifications, Qualifications, and Exclusions
- Convergent Technologies Terms and Conditions (Customer Support Program)

By signing below or accepting the services described in this proposal, Customer accepts and agrees to this proposal, including the enclosed Terms and Conditions, along with any addendums or exhibits that may be attached or referenced therein. Any additional or contrary terms, including on a Customer PO, are expressly rejected. By signing, you represent and warrant that you have authority to accept this proposal on behalf of Customer.

Customer Name

Date

Authorized Signature

Printed Name and Title

CLARIFICATIONS, QUALIFICATIONS, & EXCLUSIONS

Software Support Agreement (SSA) and Password & Patch Management (PPM):

Customer has been advised of the SSA and PPM services described above. These services may vary depending on the specific devices involved, but typically include periodically updating device passwords to meet complexity and password rotation requirements; securely managing those passwords on behalf of Customer; and periodically updating device firmware to incorporate vulnerability patches, enhancements, and bug fixes made available by the device manufacturer. Please ask your Convergent point of contact for more details on the specific PPM services available for your devices. **These services reduce the risk of cyber vulnerabilities.**

Convergent cannot guarantee the security of the devices it installs or of Customer's IT environment, no networked system can be completely secure, and Customer remains ultimately responsible for its IT environment. However, these services reduce the risk of cyber vulnerabilities for the devices being installed. IF CUSTOMER DECLINES THESE SERVICES, CUSTOMER (AND NOT CONVERGINT) IS RESPONSIBLE FOR PERFORMING THESE SERVICES.

Pricing Assumptions

1. The Equipment listed are approximate quantities that were estimated during the site walk. Customer must provide the final Equipment list to be included in this Agreement, which may result in adjustment of the fees.
2. For comprehensive coverage on systems not installed by Convergent, parts and/or labor coverage will not take effect until the system has been fully inspected by Convergent and all deficiencies have been corrected by Customer.
3. Unless specifically included in this Agreement or Customer has separately contracted with Convergent for the work, all other work related to the Equipment will be billed separately at Convergent's then current billing rates and material prices.
4. Customer agrees to provide any necessary equipment to reach inaccessible or limited access equipment. Waivers may be required prior to operating customer's lift or heavy equipment. If equipment is not provided, additional charges may apply.

Customer Responsibilities

1. Customer agrees to maintain at its expense, any software licensing agreements and installed software media required for the operation and or diagnostics of the Equipment.
2. Customer agrees that when service must be provided where cash, negotiable securities, and other valuables are readily accessible, Convergent employees and representatives shall always be accompanied by Customer's employee or representative.
3. Customer agrees to obtain and pay for all permits and licenses, and to discharge any fines, imposed by any governmental body or agency relating to the Equipment, its operation or malfunction.
4. If any Equipment is modified or serviced by a third party during the term of this Agreement, then Convergent has the right to inspect the Equipment, and Customer agrees to pay Convergent at its then current billing rates and material prices for the costs of inspection plus parts and/or labor required to align the Equipment with this Agreement. If Customer refuses such inspection or additional services, then Convergent has the option to delete such Equipment from this Agreement.

Exclusions

The following are excluded from the scope of services:

1. Convergent has no obligation to perform service, repair or replacement in the event of a Equipment failure or malfunction due to: burglary, storm, power surge or fluctuation, power failure, abnormal environmental conditions (such as extreme temperatures), fire, flood, war, riot, civil commotion, other acts of God, rodent/insect issues, settling of walls or foundation, abuse, usage of Equipment for purposes other than designed and/or intended, or the negligence or acts or omissions of Customer or any third party. Service, repairs or replacement necessitated by these conditions are billable to the Customer at Convergent's then current billing rates and material prices.
2. Any work required by new or retroactive code changes, or violations or deficiencies identified prior to the effective date of this Agreement.
3. Testing, if applicable, of the system does not include troubleshooting of pre-existing system conditions (ground faults, etc.).
4. For coverage on systems not installed by Convergent, parts and/or labor coverage will not take effect until the systems have been fully inspected and all deficiencies corrected.

NOTE: REVIEW IMPORTANT PRODUCT SAFETY AND SERVICE INFORMATION PRIOR TO USING A CONVERGENT-INSTALLED SYSTEM: See "IMPORTANT PRODUCT SAFETY AND SERVICE INFORMATION" documentation, available at convergent.com/terms.

IMPORTANT NOTICE

You requested that Convergent provide you with certain security and safety products and services. By using these products and services, you acknowledge that:

- **Under no circumstances should Convergent-provided products and services be your sole method of security or safety.** Effective security and safety require a multi-layered approach involving people, processes, and technologies. Convergent-provided products and services do not guarantee security or safety, will not detect or prevent all threats or risks all the time (including threats they are designed to detect), and will not ensure overall safety and security. You are ultimately responsible for your people, premises, and property, including for maintaining an effective response plan and promptly implementing your response plan in response to alarms or threats.
- **All security products and services have limitations.** No product or service can guarantee safety or security. It is your responsibility to ensure you are informed about product or service limitations and that you regularly test and validate the products and safety plans. Reach out to your Convergent account executive to learn how our support services can help. And if you have a service plan, you are responsible for promptly notifying Convergent in the event of any defect, malfunction, or performance issue with the products and services.
- **Various factors can impact product performance.** Selecting products and settings may involve tradeoffs between the level of security and safety on the one hand and speed, convenience, and cost on the other hand. Convergent can give you guidance, but you are ultimately responsible for selecting products and settings based on your organization's risk profile and tolerance.
- **The products are made by third-party manufacturers, not Convergent.** You are bound by and must use, test, and maintain the products in accordance with the manufacturer's terms and instructions. Convergent does not independently validate the accuracy of claims or statements made by manufacturers, and makes no assurances regarding their accuracy. You are responsible for using the products and services in compliance with laws and regulations applicable to you or as permitted in your jurisdiction.
- **All products and services are governed exclusively by a final agreement.** No advertisement, literature, brochure, website, or statements made during the sale process or otherwise (whether orally or in writing) should be interpreted as a promise, warranty, or other assurance.
- **You have reviewed the "IMPORTANT PRODUCT SAFETY AND SERVICE INFORMATION" documentation, available at convergent.com/terms.**

Convergent Technologies Terms and Conditions (Customer Support Program)

Version 3.1 (US AND CANADA) September 2024

Throughout this Proposal, including these Terms and Conditions and any attachments, (together, "Agreement") the term "Convergent" refers to the Convergent Technologies affiliate operating in the state/province in which the Services is being performed and "Convergent Related Parties" means Convergent and its contractors, subcontractors, third party product manufacturers or providers.

SECTION 1. THE SERVICES

This Agreement takes precedence over and supersedes all prior proposals, correspondence, and oral or written agreements or representations relating to the services set forth in the accompanying Proposal ("Services") and, subject to any changes or addendums, represents the entire agreement between Convergent and Customer. This Agreement applies to the exclusion of any other terms that the Customer seeks to impose or incorporate (such as Customer's purchase order form) which are in addition to or inconsistent with the terms and conditions of this Agreement, or which are implied by trade, custom, practice or course of dealing, all of which are deemed expressly rejected and will not be binding.

This Agreement is made without regard to compliance with any special sourcing and/or manufacturing requirements, minority or disadvantaged supplier requirements, or similar government procurement laws. Should such requirements be applicable to this Agreement, Convergent reserves the right to modify and/or withdraw its Agreement.

Customer understands that Convergent is an authorized distributor or reseller and not the manufacturer or developer ("OEM") of software, hardware and equipment (collectively, "Third Party Products") being maintained under this Agreement.

This Agreement assumes the systems and Third Party Products covered are in maintainable condition. If repairs are found necessary upon initial inspection by Convergent, a separate proposal for repair will be submitted for approval. Should this separate proposal be declined, all non-maintainable items will be removed from this Agreement and the CSP Costs adjusted accordingly.

Customer agrees at no cost to Convergent:

- To provide access to all areas of the site for the equipment identified in and/or relating to the List of Covered Equipment (as specified in the accompanying Proposal);
- To supply suitable electrical service as required by Convergent;
- To remove site obstacles and job safety hazards; and
- That in the event of any emergency or systems failure, reasonable safety precautions will be taken by Customer to protect life and property during the period from when Convergent is first notified of the emergency or failure and until such time that Convergent notifies the Customer that the systems are operational or that the emergency has cleared.

It is understood that repair, replacement and emergency service provisions apply only to the systems and Third Party Products covered by this Agreement and identified in the Agreement. Repair or replacement of non-maintainable parts of the systems such as, but not limited to, unit cabinets, insulating materials, electrical wiring, structural supports and other non-moving parts, are not included in this Agreement.

In the event that the systems or Third Party Products included in this Agreement are modified, repaired, have a peripheral device attached to them, or are adjusted (hardware or software) by someone other than a Convergent representative after the Start Date of this Agreement (hereinafter "Modification Event"), Convergent shall have the right to exercise any or all of the following options in response to this Modification Event:

- Require that the systems or Third Party Products impacted by the Modification Event be subject to reacceptance testing by Convergent;
- Require removal of the equipment impacted by the Modification Event from the scope of this Agreement, so that the Services hereunder will not apply to such equipment;
- Require termination of this Agreement upon thirty (30) days' notice to Customer, at Convergent's option.

THE SERVICES AND/OR THIRD PARTY PRODUCTS ARE DESIGNED TO HELP REDUCE, BUT NOT ELIMINATE RISKS OF LOSS RELATING TO PEOPLE, PREMISES, OR PROPERTY. THE AMOUNTS BEING CHARGED BY CONVERGENT ARE NOT SUFFICIENT TO GUARANTEE THAT LOSS OR DAMAGE WILL DECREASE OR BE ELIMINATED. Customer acknowledges that proper safety and security requires a multi-layered approach of people, processes, safety, and technologies. The Services, including Third Party Products, provided by Convergent are not sufficient to ensure overall safety and security. Customer acknowledges and agrees that it is responsible for its overall safety and security, including testing and maintenance of the Third Party Products (except to the extent contracted to Convergent by written agreement) and training of its personnel. Customer acknowledges and agrees that it has a duty of care and is solely responsible for its compliance with applicable laws, rules, and regulations, including but not limited to export and re-export restrictions and regulations, privacy and data protection regulations, applicable OEM instructions, terms and conditions, EULAs, and proper product usage.

Risk of loss, including any materials comprising the Services, shall pass to Customer as the materials are incorporated at Customer's site subject to any end user license agreements. If materials are earlier stored on Customer's site pursuant to agreement between Customer and Convergent, risk of loss with respect to such materials shall pass to Customer upon delivery to Customer's site.

Applicable to Monitoring Services Only: If Monitoring Services are identified in the Proposal, the parties agree that (a) these Terms and Conditions are not applicable, and (b) Monitoring Services are governed by the Monitoring Services Terms and Conditions effective on the Effective Date of the Proposal and available at <https://www.convergent.com/terms>, which is incorporated by reference as if set forth herein in full. "Monitoring Services" is defined as "Services" in the Monitoring Services Terms and Conditions.

SECTION 2. TERM

This Agreement will commence on the Services start date ("Start Date") and continue for the

period of time specified in the accompanying Proposal ("Initial Term"). At the end of the Initial Term, this Agreement will renew automatically for successive terms of one year ("Renewal Term") and together with the Initial Term, the "Term"). Either party may terminate this Agreement by giving the other party no less than thirty (30) days written notice prior to the expiration date of the Initial Term or the then current Renewal Term.

SECTION 3. PRICING

Pricing and amounts proposed shall remain valid for 30 days unless otherwise specified. CSP Costs includes only the Services, including Third Party Products, set forth on Convergent's Proposal, unless noted otherwise. Additional services or Third Party Products, unless negotiated prior to order placement, will be billed accordingly. Sales taxes (or as applicable GST, PST, VAT or similar tax) and any other taxes assessed on Customer shall be added to the CSP Costs upon invoice to Customer.

SECTION 4. INVOICE REMITTANCE AND PAYMENT

Customer agrees to pay the amount due to Convergent as invoiced, within thirty (30) days of the date of such invoice. If Customer is overdue in any payment, Convergent shall be entitled to suspend the Services without liability until paid, charge Customer an interest rate 1 and 1/2% percent per month (or the maximum rate permitted by law, whichever is less), and may avail itself of any other legal or equitable remedy. Customer shall reimburse Convergent costs incurred in collecting any amounts that become overdue, including attorney fees, court costs and any other reasonable expenditure.

SECTION 5. WARRANTY

Warranties for Convergent's Services and Third Party Products are described in the Limited Warranty for Products and Services available at <https://www.convergent.com/terms/>, which is in effect as of the effective date of this Agreement and is incorporated by reference as if set forth herein in full.

SECTION 6. CHANGES

Without invalidating this Agreement or any bond given hereunder, Customer or Convergent may request changes in the Services with a change order signed by both parties. If Customer orders (i) any changes to the Services (e.g. change in objective, deliverables, tasks or hours), (ii) changes to schedule (e.g. frequency of visits), or (iii) causes any material interference with Convergent's performance of the Services, Convergent shall be entitled to an equitable adjustment in the time for performance and in the CSP Costs, including a reasonable allowance for overhead and profit.

SECTION 7. FORCE MAJEURE

Neither Customer nor Convergent shall be liable for any delay or failure in the performance of their respective obligations pursuant to this Agreement due to circumstances beyond their reasonable control ("Force Majeure") and without the fault or negligence of the party experiencing such delay. A Force Majeure event shall include, but not be limited to: acts of God, pandemic or epidemic, diseases, quarantines, unavoidable casualties, concealed conditions, acts of any civil or military authority; riot, insurrections, and civil disturbances; war, invasion, act of foreign enemies, hostilities (regardless of whether or not war is declared), rebellion, revolution, terrorist activities; strikes, lockouts or other labor disputes; embargoes; shortage or unavailability of labor, supplies, materials, equipment or systems; accident, fire, storm, water, flooding, negligence of others, vandalism, power failure, installation of incompatible equipment, improper operating procedures, source current fluctuations or lighting, transportation contingencies; laws, statutes, regulations, and other legal requirements, orders or judgements; acts or order of any government or agency or official thereof, other catastrophes or any other similar occurrences. If performance by either party is delayed due to Force Majeure, the time for performance shall be extended for a period of time reasonably necessary to overcome the effect of the delay and Convergent shall be entitled to an equitable adjustment of the CSP Costs.

SECTION 8. INSURANCE

In lieu of any Customer insurance requirements, for Services performed in the United States, Convergent shall maintain the following insurance coverages during the term of this Agreement and upon request, shall provide certificates of insurance to the Customer:

Worker's Compensation	Statutory Limits
Employer's Liability	\$1,000,000 per occurrence/aggregate
Commercial General Liability	\$1,000,000 per occurrence
	\$2,000,000 general aggregate
Automobile Liability	\$1,000,000 per occurrence/aggregate
Excess/Umbrella Liability	\$3,000,000 per occurrence/aggregate

Convergent shall not provide loss runs or copies of its insurance policies. Convergent shall provide to the Customer no less than thirty (30) days' notice prior to the termination or cancellation of any such insurance policy. For services performed in Canada, Convergent shall maintain similar insurance coverage dependent upon the local requirements in Canada and upon the insurance available under Convergent's insurance program. All required insurance coverage shall be reasonable in the circumstances and compliant with local regulations.

SECTION 9. INDEMNIFICATION

To the fullest extent allowed by law, Convergent shall indemnify and hold Customer harmless from and against claims, damages, losses, and expenses (excluding loss of use) attributable to bodily injury, sickness, disease or death, or to destruction of tangible property, but only to the extent caused by the negligent acts or omissions of Convergent or Convergent's employees or subcontractors while on Customer's site.

If Convergent is providing products or services for intrusion detection, detection of specific threats to people or property (including gunshot, or drone detection), mass notification, ballistics or explosives protection, or processing of biometric, health, financial, or government identifier data (collectively, "Special Offerings"), then to the fullest extent allowed by law (i) Convergent's indemnification obligations under the Agreement do not

apply whatsoever and Convergent Related Parties have no liability to Customer for any losses or damages caused by any Special Offerings; and (ii) Customer shall indemnify, defend, and hold harmless Convergent Related Parties, from and against all claims, demands, actions, liabilities, damages, and costs (including reasonable attorneys' fees) relating to Special Offerings provided by Convergent, except to the extent of Convergent's gross negligence installing such Special Offerings. Any waiver of damages or limitation of liability contained in the Agreement and as modified herein shall not apply to Customer's indemnification, hold harmless and defense obligations herein.

Applicable to Weapons Detection Only: If Convergent provides Weapons Detection Systems or Services, then such Systems and Services are further governed by the Weapons Detection Addendum effective on the Effective Date of this Proposal and available at <https://www.convergent.com/terms>, which is incorporated by reference as if set forth herein in full. "Weapons Detection Systems or Services" means any "Systems" and/or "Services" as each are defined in the Weapons Detection Addendum.

SECTION 10. LIMITATION OF LIABILITY

EXCEPT AS PROVIDED HEREIN, TO THE FULLEST EXTENT ALLOWED BY LAW: (A) IN NO EVENT SHALL EITHER CONVERGENT RELATED PARTIES, OR CUSTOMER BE LIABLE UNDER OR IN CONNECTION WITH THIS PROPOSAL FOR SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, LIQUIDATED OR CONSEQUENTIAL DAMAGES, INCLUDING COMMERCIAL LOSS, LOSS OF USE OR LOST PROFITS, EVEN IF THAT PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES AND (B) THE AGGREGATE LIABILITY OF CONVERGENT RELATED PARTIES ARISING OUT OF OR RELATED TO THIS AGREEMENT SHALL NOT EXCEED THE AMOUNTS PAID BY CUSTOMER TO CONVERGENT UNDER THIS AGREEMENT DURING THE 12 MONTH PERIOD IMMEDIATELY PRECEDING THE DATE OF THE FIRST INCIDENT GIVING RISE TO THE LIABILITY. THE EXISTENCE OF MORE THAN ONE CLAIM WILL NOT ENLARGE THIS LIMIT. THE LIMITATION SET FORTH IN THIS SECTION SHALL APPLY WHETHER THE CLAIM IS BASED ON CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHER LEGAL THEORY.

SECTION 11. COMPLIANCE WITH LAW, SAFETY, & SITE CONDITIONS

Convergent agrees to comply with all laws, rules and regulations applicable to its provision of the Services. Customer will comply with all applicable laws and agreements applicable to its use and operation of the Services. Convergent shall comply with all safety related laws and regulations and with the safety program of the Customer, provided such program is supplied to Convergent prior to beginning Services.

If during the course of its Services, Convergent encounters conditions at the site that are subsurface, differ materially from what is represented in the contract documents, or otherwise concealed physical conditions, Convergent shall be entitled to an extension of time and additional costs for the performance of its work.

If Convergent discovers or suspects the presence of hazardous materials or unsafe working conditions at Customer's site where the Services are to be performed, Convergent is entitled to stop the Services at that site if such hazardous materials, or unsafe working conditions were not provided by or caused by Convergent. Convergent in its sole discretion shall determine when it is "safe" to return to perform the Services at Customer's site. Convergent shall have no responsibility for the discovery, presence, handling, removing or disposal of or exposure of persons to hazardous materials in any form at the Customer's site. To the fullest extent allowed by law, Customer shall indemnify and hold harmless Convergent from and against claims, damages, losses and expenses, including but not limited to, reasonable attorney's fees, arising out of or resulting from undisclosed hazardous materials or unsafe working conditions at Customer's site.

SECTION 12. PERSONAL DATA & SECURITY

Convergent's obligations and liabilities regarding Processing of Personal Data and information security shall be limited solely to Processing performed by Convergent's personnel. Processing by OEMs or Third Party Products are governed by any applicable OEM end user licensing agreements or terms and conditions. Customer represents and warrants that it will comply with all applicable Data Protection Laws. Although certain products delivered by Convergent may be capable of processing Biometric Information, Personal Health Information, financial information, or government identifiers ("Sensitive Information"), Customer acknowledges that Convergent is not Processing Sensitive Information (or to the extent it is Processing Sensitive Information, it is doing so strictly in accordance with Customer's instructions) and Customer is solely responsible for compliance of all such Processing with Data Protection Laws. To the fullest extent allowed by law, Customer shall indemnify, defend and hold harmless Convergent from and against all claims, demands, actions, liabilities, damages, and costs (including reasonable attorneys' fees) asserted by a third party arising out of or relating to failure to comply with applicable Data Protection Laws including but not limited to those related to Sensitive Information. Convergent's obligations and liabilities regarding information security and Processing of customer information or data, including Personal Data, are limited to Processing performed by Convergent (if any). OEM and Third Party Product information security and Processing is governed by applicable OEM end user licensing agreements or terms. "Personal Data", "Processing", "Biometric Information", and "Personal Health Information" shall be interpreted in accordance with, and shall include analogous terminology as used in, applicable laws and regulations relating to data privacy, information security, data protection, data breaches, cross-border data flows, and/or the rights and obligations of persons or entities regarding personal information ("Data Protection Laws").

To the extent Convergent accesses Customer's information systems, Convergent will not be responsible or liable for losses or harms caused by following Customer's instructions, caused by Third Party Products, caused by third party or Customer-specified remote access software, or that are otherwise not due to the fault of Convergent. Customer-authorized changes to Customer information systems are at Customer's own risk and Customer acknowledges it is responsible for the overall security of its information systems.

SECTION 13. INTELLECTUAL PROPERTY

Convergent shall retain title and ownership of all intellectual property rights relating to the

drawings, technical documentation, or other technical information ("Documentation") delivered under this Agreement. The OEMs shall retain title and ownership of all intellectual property rights relating to the Third Party Products and will grant any license and right to use in connection with the Third Party Product through the OEM's end user license agreement or other terms and conditions. Customer shall not use any Documentation supplied by Convergent for any purposes other than those directly related to this Agreement or for the use and/or maintenance of the Third Party Product.

SECTION 14. PRICE ADJUSTMENT

Beginning on the one (1) year anniversary of the Start Date and annually thereafter for the Term of this Agreement, Convergent may automatically adjust the CSP Costs and Rates set forth in this Agreement: (i) by a percentage equal to the annual percent change in the Consumer Price Index ("CPI") for "All Cities, All Urban Consumers" as published by the Bureau of Labor Statistics of the U.S. Department of Labor (if the Services are performed in the United States) or Statistics Canada (if the Services are performed in Canada) for the 12-month period ending December 31 of the prior year; or (ii) with five (5) days prior written notice, in excess of the CPI if based on: (a) changes by its vendors to the cost of materials or Third Party Products to be provided and/or labor costs related to personnel responsible for performing the Services, (b) macroeconomic conditions, such as taxes, tariffs or duties, natural disasters, labor shortages/strikes, etc., (c) market conditions such as price volatility or availability limitations, or (d) other events not within Convergent's control that impact the cost of performing the Services, and (e) such adjustment is supported by documentation or other evidence. The effective date of this adjustment shall be the first invoice in each new anniversary year. Convergent reserves the right to add periodic surcharges, including without limitation, adjustments for the then current price of fuel, such surcharges to be specified and invoiced by Convergent.

SECTION 15. TERMINATION

If a party materially breaches this Agreement, the other party shall provide written notice of the breach and a reasonable time to cure the breach, but in no event less than 30 days. If the breaching party fails to cure the breach within the specified time period, the non-breaching party may terminate this Agreement upon 15 days written notice to the other party. If Convergent notifies Customer of a material breach pursuant to this paragraph, Convergent may temporarily suspend its services without liability until Customer cures the breach.

SECTION 16. GOVERNING LAW AND DISPUTES

The parties agree that this Agreement shall be governed by the laws of the state/province where the Services are being performed, and venue for disputes shall be located in that state/province.

In the event of any dispute between Convergent and Customer, Convergent and Customer shall first attempt to resolve the dispute in the field, but if that is not successful, then in a meeting between authorized officers of each company. If settlement attempts are not successful, unless the dispute requires injunctive relief, then the dispute shall be decided exclusively by arbitration. Such arbitration shall be conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association (if the Services are performed in the United States) or Arbitration Rules of the ADR Institute of Canada, Inc. (if the Services are performed in Canada) currently in effect by a single arbitrator and shall be a final binding resolution of the issues presented between the parties. The prevailing party shall be entitled to recover its reasonable attorneys' fees and costs. Any award by the arbitrator may be entered as a judgment in any court having jurisdiction.

SECTION 17. MISCELLANEOUS

The parties have required that this Agreement be written in English and have also agreed that all notices or other documents required by or contemplated in this Agreement be written in English. Les parties ont requis que cette convention soit rédigée en anglais et ont également convenu que tout avis ou autre document exigé aux termes des présentes ou découlant de l'une quelconque de ses dispositions sera préparé en anglais.

Any changes to this Agreement shall be in writing signed by both Customer and Convergent.

In the event any provision of this Agreement is held to be invalid or unenforceable, the remaining provisions of this Agreement shall remain in full force and effect.

Customer waives all claims against Convergent arising from or related to suspension of services pursuant to this Agreement.

Customer and Convergent are independent contractors, and nothing in this Agreement creates any agency, joint venture, partnership, or other form of joint enterprise, employment, or fiduciary relationship between them. Nothing contained in this Agreement shall be deemed to create a relationship of employee or employer between the parties, and neither party shall be entitled to any benefits that the other party provides for its own employees, including workers compensation and unemployment insurance. Each party shall have exclusive control over its own employees, agents, and subcontractors, its labor and employee relations, and its policies relating to wages, hours, working conditions, or other conditions.

Neither party to this Agreement shall assign this Agreement without the prior written consent of the other party hereto. Notwithstanding the foregoing, Convergent may assign this Agreement without notice or consent (i) to any of its parents, subsidiaries or affiliated companies or any entity majority owned by Convergent; or (ii) in connection with a merger, acquisition, reorganization, sale of all of the equity interests of Convergent, or a sale of all or substantially all of the assets of Convergent to which this Agreement relates.

If Customer transfers ownership or management of the Customer's site to a third party, Customer will promptly provide Convergent with the new owner's or manager's contact information and take all such actions as are necessary to assign this Agreement to the third party.

Notices shall be in writing and addressed to the other party, in accordance with the names and addresses of the parties as shown in the Proposal. All notices shall be effective upon receipt by the party to whom the notice was sent.

In no event will Convergent be obligated to comply with any project labor agreements or other collective bargaining agreements.

A waiver of the terms hereunder by one party to the other party shall not be effective unless in writing and signed by a person with authority to commit the Customer and Convergent. No waiver by Customer or Convergent shall operate as a continuous waiver, unless the written waiver specifically states that it is a continuous waiver of the terms stated in that waiver.

The Sections regarding invoicing, warranty, indemnity, limitation of liability, confidentiality and disputes shall survive the termination of this Agreement.

Convergent provides additional product safety and service information at <https://www.convergent.com/terms/> (see "IMPORTANT PRODUCT SAFETY AND SERVICE INFORMATION"), which it encourages Customer to review prior to use.

Palmdale Water District

Monitoring Services Proposal

6/2/2025

convergent®

Jake Bargas

Business Development Manager

MONITORING SERVICES ORDER FORM

Subscriber Information

SUBSCRIBER:	Palmdale Water District
Contact Name/Email/Phone:	Proposal Prepared For: Palmdale Water District
Subscriber Physical Address (the "Premises")	Headquarters and Treatment Plant
Site Street Address:	2029 E Ave Q
Suite, if applicable:	
City:	Palmdale
Province/State:	California
Postal/Zip Code:	93550

Billing Information

Billing Entity:	Fill in billing entity, if different than Physical Address above
Street Address:	
Suite, if applicable:	
City:	
Province/State:	
Postal/Zip Code:	
Billing Contact (Attn):	
Work Phone:	
Cell Phone (Direct):	

PROPOSED SERVICES

Services to be provided by Convergent (the “**Services**”):

☒ Intrusion Alarm Monitoring ☐ Fire Alarm Monitoring

Select Communication Type:	
☐ Cellular Communication (includes up to 24 Hour/Daily Test) Cellular communicator primary form of communication w/backup (secondary source)	\$ /year
☒ Cellular Communication (includes up to 24 Hour/Daily Test) Cellular communicator as SOLE source of communication (no backup)	\$3,600/year
☐ IP Communication (includes up to 24 Hour/Daily Test) IP communicator as sole source of communication. Customer is responsible for network/internet connectivity.	\$ /year
☐ AES Mesh Radio (Includes 24-hour Test Timer and Standard Open/Close)	\$ /year
☐ Other:	\$ /year
Select Additional Options:	
☐ UL Listed Fire Monitoring	\$ /year
☐ UL 2050 – Department of Defense Monitoring	\$ /year
☐ Advanced Monitoring (for accounts with more than 75 zones)	\$ /year
☐ Supervised Open/Close	\$ /year
☐ Unsupervised Open/Close (Log Only)	\$ /year
☐ Remote account access through mobile application and website	Included
☐ Other/Multiple Accounts (add list of locations to appendix):	\$ /year

Clarifications:

- Pricing does not include additional equipment, programming, or installation (to be provided as a separate one-time Time & Material quote).

MONITORED EQUIPMENT

List of Monitored Equipment:

Qty.	Mfgr.	Model #	Equipment	Primary Communicator	Secondary (if applicable)
6	Bosch	TBD	Commercial Intrusion	Cellular Communicator	None

AGREEMENT

Agreement Details					
Effective Date:	TBD				
Initial Monitoring Service Term (“ <i>Initial Term</i> ”)	3 Years				
Investment Details					
System Activation Fee (One-time)	\$3,600				
	Year 1	Year 2	Year 3	Year 4	Year 5
Monitoring Service Fees (Recurring Annually)	\$ 3,600	\$ 3,600	\$ 3,600		
Other Fees					
Other Fees, if Applicable	\$ <i><u>Does not include programming or installation</u></i>				
Total Fees					
Monitoring Services	\$10,800 <i>Total Contract Price for Term</i>				
One-Time Fees:	\$3,600				
Payment Schedule	The agreement will be invoiced annually in the first month of the agreement period (Net 30 days) unless mutually agreed otherwise.				

This quotation is valid for THIRTY (30) days.

Proposal Attachments:

- Clarifications, Qualifications, and Exclusions
- Appendix of Sites, if applicable

By signing below, the subscriber listed above (“**Subscriber**”), and Convergent Technologies LLC (“**Convergent**” or “**CT**”) agree through their duly authorized representatives to the terms set forth above, and further agree that the Services are subject to the Monitoring Services Terms and Conditions effective on the Effective Date shown above and available at <https://www.convergent.com/terms>, which is incorporated by reference as if set forth herein in full. The fees presented on this Order Form are Convergent Confidential Information.

Convergent Technologies LLC

Subscriber:

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

CLARIFICATIONS, QUALIFICATIONS, & EXCLUSIONS

Customer Responsibilities

1. Customer agrees to cooperate in the care of the Equipment and to promptly notify Convergent in the event of any malfunction in the operation of the Equipment. Requests for service are accepted by phone or online at iCare.convergent.com
2. Customer agrees to maintain at its expense, any software licensing agreements and installed software media required for the operation and or diagnostics of the Equipment.
3. Convergent shall be provided unobstructed access to the building to execute contracted services.
4. This proposal pricing is based on a 3 Years agreement period.
5. Customer agrees to obtain and pay for all permits and licenses, and to discharge any fines, imposed by any governmental body or agency relating to the Equipment, its operation or malfunction.
6. Customer acknowledges that it is its sole responsibility to determine the nature and extent of alarms and other fire or security devices and measures necessary to protect its Equipment and other property, which is not in the possession of Company. Company shall not be liable for losses made possible or arising out of Customer's or any of its contractor's failure to provide, maintain, use or properly monitor and respond to alarms and other fire or security devices necessary to protect Customer's Equipment and other property.

IMPORTANT NOTICE

You requested that Convergent provide you with certain security and safety products and services. By using these products and services, you acknowledge that:

- **Under no circumstances should Convergent-provided products and services be your sole method of security or safety.** Effective security and safety require a multi-layered approach involving people, processes, and technologies. Convergent-provided products and services do not guarantee security or safety, will not detect or prevent all threats or risks all the time (including threats they are designed to detect), and will not ensure overall safety and security. You are ultimately responsible for your people, premises, and property, including for maintaining an effective response plan and promptly implementing your response plan in response to alarms or threats.
- **All security products and services have limitations.** No product or service can guarantee safety or security. It is your responsibility to ensure you are informed about product or service limitations and that you regularly test and validate the products and safety plans. Reach out to your Convergent account executive to learn how our support services can help. And if you have a service plan, you are responsible for promptly notifying Convergent in the event of any defect, malfunction, or performance issue with the products and services.
- **Various factors can impact product performance.** Selecting products and settings may involve tradeoffs between the level of security and safety on the one hand and speed, convenience, and cost on the other hand. Convergent can give you guidance, but you are ultimately responsible for selecting products and settings based on your organization's risk profile and tolerance.
- **The products are made by third-party manufacturers, not Convergent.** You are bound by and must use, test, and maintain the products in accordance with the manufacturer's terms and instructions. Convergent does not independently validate the accuracy of claims or statements made by manufacturers, and makes no assurances regarding their accuracy. You are responsible for using the products and services in compliance with laws and regulations applicable to you or as permitted in your jurisdiction.
- **All products and services are governed exclusively by a final agreement.** No advertisement, literature, brochure, website, or statements made during the sale process or otherwise (whether orally or in writing) should be interpreted as a promise, warranty, or other assurance.

You have reviewed the "IMPORTANT PRODUCT SAFETY AND SERVICE INFORMATION" documentation, available at convergent.com/terms.

APPENDIX

Attach list of site locations to be monitored (**only if more than one site**). This proposal is applicable to monitoring at US sites only.

Headquarters- 2029 E Ave Q Palmdale, CA 93550

Water Treatment Plant- 700 East Avenue S. Palmdale, CA 93550



BOARD MEMORANDUM

DATE: July 14, 2025

TO: **BOARD OF DIRECTORS**

FROM: Mr. Jim Stanton, Information Technology Manager

VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis LaMoreaux, General Manager

RE: ***CONSIDERATION AND POSSIBLE ACTION ON AUTHORIZING THE GENERAL MANAGER TO ENTER INTO A FIVE-YEAR CONTRACT WITH PROTELESIS FOR REPLACING THE DISTRICT PHONE SYSTEM, CALL CENTER, AND PROVIDING ANNUAL SYSTEM SERVICES. (\$342,000.00 – BUDGETED – INFORMATION TECHNOLOGY MANAGER STANTON)***

Recommendation:

Staff recommends that the Board approve authorization of the General Manager to enter into a contract with ProTelesis for the replacement of the District phone system, call center, and providing annual system services and support. The one-time cost for implementation and equipment is \$11,400.00 with a monthly recurring cost of \$5,500.00.

Alternative Options:

The alternative is to keep the recording server that no longer functions and does not record calls. The part to make the server operational costs \$45,000.00.

Impact of Taking No Action:

No support for our existing end-of-life system. System and component failures will continue to the point where we will not have a phone system.

Background:

The District last upgraded the telephone system in 2011 and that system is now at the end of its useful life. The existing call recording server (Oasys) died back in March of 2025 and the cost to repair the server is \$45,000.

For the past several years, IT and Customer Care staff have demonstrated several different phone systems looking for features that will make our Customer Care personnel more efficient and ensure our customers receive the same message every time. There were two companies that came close to giving Customer Care what they were looking for in a user-friendly manner, including the ability to play approximately 12 pre-recorded messages, in either English or Spanish, during a call. The message, or messages, would depend on the nature of the call and would be played by the customer care representative, as needed, during the call. The proposal from

July 14, 2025

ProTelesis (attached) was evaluated by staff and determined to be the best fit and most cost effective.

The new phone system will be a hosted (up in the cloud) solution consisting of 160 user licenses with Teams integration, physical desk and conference room phones, and call recording with 12-month archiving.

Additional features the new phone system will be capable of include the ability to seamlessly move an active call from a desktop phone to a mobile device and vice versa, SMS, video conferencing, conference bridge, screen sharing, file sharing, file backup, web fax, cradle-to-grave recording of all calls, as well as high reliability and reduced latency with redundant East / West data centers.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 3 – Systems Efficiency.

This item directly relates to the District's Mission Statement.

Budget:

This item is budgeted and has a cost of approximately \$65,000.00 annually for five years, plus a one-time, non-recurring implementation and equipment charge of approximately \$11,400.00, with a monthly recurring cost of \$5,500.00.

Supporting Documents:

- XTLQ51694_QuoteValet_2025-06-01T15-33.39Z
- Palmdale Water District Elevate SOW
- Fanvil V64 Phone
- ProTelesis ProCloud Elevate Solution PowerPoint-Palmdale Water District

Service Proposal for ProCloud> Elevate

*TAKE YOUR BUSINESS COMMUNICATIONS TO
THE CLOUD WITH PROTELESIS*



5/21/2025

Jim Stanton

Palmdale Water District

2029 East Avenue Q

Palmdale, CA 93590

Dear Jim,

Within this proposal you will find the following:

- ProTelesis Corporate Overview
- ProCloud> Elevate Unified Communications
- Elevate Unified Communications
- Benefits to Your Business
- The Business-Class Features You Deserve
- Apps/Productivity Included with Elevate
- Pricing and Solution Summary
- Terms and Conditions
- Acceptable Use Policy (AUP)
- VOIP 911 Service Disclaimer
- Customer Acknowledgement

Upon review, if you would like us to modify any of the items in this proposal please contact me and we will address your requests. We look forward to working with you!

Sincerely,

Bill Markow

ProTelesis

bmarkow@protelesis.com

About ProTelesis

Our Mission is to make a material difference for our customers' organizations.

We are a full-service IT provider, specializing in Unified Communications (UC), either on premises or in the cloud. We have hundreds of man-years of experience designing, deploying and managing complex UC and CC (contact center) environments for thousands of customers.

We also provide a full suite of Technology Solutions for the entire organization with start to finish IT Infrastructure Design and Implementation.

Our Solutions areas are: **ProCloud, ProData, ProManage, ProSecure, ProVoice.**

Let the Pros support all of your IT needs.

Testimonials

"We at Gerber California would like to acknowledge ProTelesis's commitment to its customers. When calling you can always count on being greeted by a friendly voice and having any inquiries dealt with in an efficient manner by your knowledgeable staff. It is a pleasure working with a company that responds quickly and professionally."

— **Shanna Decker,**
Controller Gerber California

"We want to take this opportunity to thank you for your commitment and professionalism. While facing some challenging issues at our company, it is nice to know that we could rely on you for your prompt action as promised.

Things went according to plan and James even called to follow up with me."

— **Tina Tharp,**
*Director of Human Resources & Special Projects,
Hamilton Accountancy Corp*

OVER 6000 ORGANIZATIONS TRUST THE PROS



ProCloud> Elevate Unified Communications

Elevate is an easy-to-use cloud based unified communications system that helps employees to be more productive and collaborative.

It includes a full-featured phone system combined with chat, web/video conferencing, and file collaboration and backup capabilities.



ELEVATE INCLUDES

- Includes 90+ enterprise-grade calling features
- Free local and long distance calling to anywhere in North America & Puerto Rico
- The Elevate Mobile App makes any smart phone an essential collaboration tool
- The Elevate Desktop App integrates with company directory, showing employee availability and enabling click-to-call
- Powerful video conferencing, screen sharing and file sharing features facilitate better collaboration

Benefits to Your Business



INCREASED PRODUCTIVITY

Elevate makes a more productive workforce

- Allows a user's mobile devices to interact seamlessly with the corporate phone system
- Virtually anywhere, anytime, and on any device - creates a more flexible workforce
- Integrated chat, video conferencing, screen sharing, file sharing, file backup and integrations extends reach and facilitates collaboration



LOWER COSTS

No phone system infrastructure hardware to buy, install, manage, upgrade or replace

- Reduces infrastructure and operating costs
- Consolidates voice and data onto one network
- 90+ enterprise-grade calling features INCLUDED in the service



HIGH RELIABILITY

Elevate's voice network is purpose-built for reliability

- Redundant East/West datacenters increase reliability and reduce latency

Benefits to Your Business (continued)



SIMPLIFIED SCALING & MANAGEMENT

Elevate scales according to the needs of any business

- Mix and Match packages according to user needs: Essentials, Pro and Enterprise
- Order service according to the number of users; no guessing number of lines needed
- Ordering additional service is easy & can be done online; no technician or special expertise required
- Manage service and features using user-friendly HostPilot™ portal
- Scales to a large number of users per business



BUSINESS CONTINUITY

Never miss an important business call

- Elevate automatically rings all your end points (desk phone, mobile, etc.) with every call and in the event that you don't answer, it routes the call to any number you choose (branch office, automated attendant, mobile number, etc.)



ENHANCED CUSTOMER EXPERIENCE

- Option to add Elevate Contact Center at any time
- Contact Center delivers more responsive, informed, and positive customer experiences
- Plans for businesses of all sizes, industries, and levels of sophistication

The Business-Class Features You Deserve



90+ ENTERPRISE-LEVEL FEATURES INCLUDED

- Call Forwarding
- Call Park
- Call Transfer
- Do Not Disturb
- Call Recording
- 3-way Calling
- Caller ID
- Extension Dialing
- HD Audio
- Call Waiting
- Receptionist Routing
- Music on Hold
- Spam Caller Protection
- ... And many more



VOICEMAIL

- Voicemail to email via WAV file
- SMS notifications
- Auto-delete of voicemail after 90 days
- Change personal greeting
- Remote voicemail access
- Voicemail transcription (Included with Pro and Enterprise packages only)



CONFERENCE BRIDGE

- Includes a unique local phone number
- Gather up to 200 participants
- Start conferences at any time with Always-On conferencing
- Ability to add video and screen sharing to your conference, if desired



BUSY LAMP FIELD (BLF)

- Indicates presence - whether another user's phone is currently in use
- Other user extension and name information is presented as virtual "buttons" on the desk phone LCD display
- The BLF display can be used for speed dials, and also to make or take calls on behalf of another user



VIDEO CONFERENCING

- HD video conferencing eliminates unnecessary travel and empowers teams with remote members to be more productive
- Share your computer desktop with team members in real time, improving collaboration and speed of decision making
- Includes a conference dial-in number and custom URLs for meetings

The Business-Class Features You Deserve (continued)



CALL FLIP

- Allows the user to seamlessly move an active call from the desktop phone to a mobile phone or vice versa
- Called party will hear hold music while the caller utilizing the Call Flip feature switches devices mid-call



TEAM CHAT

- Pin favorite contacts to the top of your list
- Chat messages automatically sync across desktop and mobile devices
- View free/busy/away statuses of all your contacts
- Chat messages are securely encrypted in transit and at rest

Included with Pro and Enterprise packages only



FILE COLLABORATION

- Easy and secure file sharing
- Access the most current version of files from any device
- Co-edit in real time
- Access file server content from mobile devices without a VPN



WEBFAX

- Users receive, view, manage faxes via the web, or as email attachments
- Users may send faxes from any Internet-connected PC
- Does not require an additional phone line



OPTIONAL: CONTACT CENTER (ADD-ON)

- Smart queueing technology tells customers their position in line, plus wait time
- Deep analytics and reporting help you visualize gaps and improve performance
- Omni-channel capabilities help you connect with customers through their preferred modes of communication

Apps/Productivity Included with Elevate



ELEVATE MOBILE APP

This powerful mobile application transforms your phone into an essential collaboration tool, making teamwork on-the-go easier than ever. See who is available, send chats and SMS messages, place calls and see voicemails - anytime, anywhere.

Never miss important calls

Extend your business phone number and extension to your mobile phone, so you can place and receive calls on-the-go or even transfer calls from your desktop phone to your mobile device—seamlessly, without interruption.

Easily collaborate from anywhere

Your full desktop chat history is synchronized with your mobile device so you can stay connected and continue conversations no matter where you are.



ELEVATE DESKTOP APP

Our desktop app brings essential collaboration tools together, making teamwork easier than ever. See who is available, send chat, place and receive calls, share screens, start video calls and share files - all from one application.*

Communicate your way

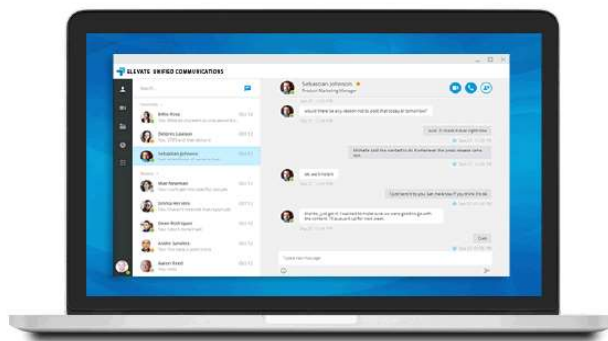
Have the flexibility to use your desktop application to place and receive calls in two ways, either as a call controller for your associated desk phone or as a softphone from your PC or Mac.

One application for collaboration

One place to see the availability of coworkers, place a phone call, start team chat and launch a video conference.

Stay connected on-the-go

With the Elevate desktop and mobile applications, you take your contacts, files and conversations with you—wherever you are.



*Pro and Enterprise packages add SMS messaging to the Desktop App

Apps/Productivity Included with Elevate (continued)



ONLINE MEETING VIDEO CONFERENCING & SCREEN SHARING

Online Meeting® is an easy-to use, reliable video collaboration tool.

- **HD video conferencing:** Face to face meetings eliminate unnecessary travel and empowers teams with remote members to be more productive
- **Screen sharing:** The computer desktop can be shared in real-time, improving collaboration and speed of decision making
- **Screen annotation:** Meeting participants can call out important points on a shared screen in during a meeting.
- Includes a conference dial-in number, and custom URLs for meetings

Elevate Pro includes up to 100 participants and up to 30 simultaneous video feeds

Elevate Enterprise includes up to 200 participants and up to 30 simultaneous video

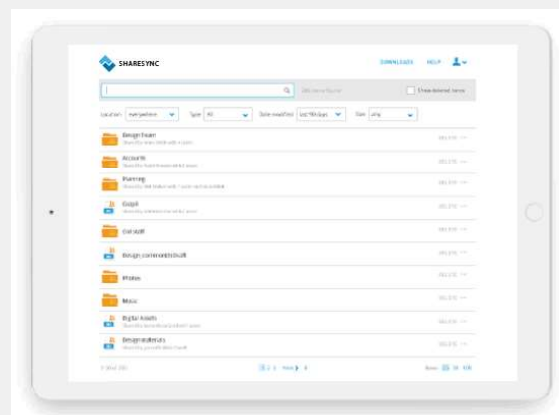


SHARESYNC® FILE SHARING & SECURITY (Included with Pro And Enterprise Packages only)

File sync and share with backup for desktops, mobile devices, and file servers.

- Includes 10 GB/user of storage for ShareSync Backup and File Sharing

- The most current version of files from any device
- Easy and secure file sharing
- Reduced downtime from ransomware and other types of data loss
- Integration with Windows file server, Exchange Email, Active Directory, Outlook, Office, and Office 365®
- Full control over files, users, devices, and sharing activities





ELEVATE INTEGRATIONS

- Elevate Integrations is a platform that connects powerful voice, chat, video conferencing and contact center functionalities into everyday business applications like Google®, Microsoft®, Salesforce®, and more — driving higher productivity and increasing customer retention with no heavy costs.



Increase Employee Productivity

Embed communications into everyday business applications across various teams to streamline business workflows and maximize employee efficiency.



Drive customer retention and increase revenue

Combine powerful communication capabilities with relevant customer data to ensure sales and support teams have the right information at the right time.



No heavy IT investment

Our integrations are easy to use and easy to deploy, with no heavy training or implementation costs required.

INTEGRATION PACKAGES:

ELEVATE ESSENTIALS +	Office 365 Outlook slack G Suite Microsoft Teams
ELEVATE PRO +	ZOHO sugarcrm zendesk
ELEVATE ENTERPRISE	servicenow Microsoft Dynamics 365 ORACLE[®] NETSUITE salesforce

Desktop Phones and What's Included

ENTERPRISE CLASS HARDWARE

- Easy-to-use interfaces, rich audio quality and productivity features
- Phones are pre-programmed to work seamlessly with Elevate
- Phones are plug and play, and can be used anywhere there is an internet connection*



Yealink T4 series



Yealink DECT
Cordless Phones



Polycom SoundStation
Conference Phones



Polycom VVX

BUSINESS ESSENTIALS INCLUDED

Each user receives:

- Local phone number with unique extension
- Ability to have up to five endpoints
- Inbound/Outbound Caller ID
- Fax to Email
- Voicemail box with transcription services
- Elevate Mobile App & Desktop App
- Online Meeting with up to 4 participants (30 with Elevate Pro)
- 2GB per user ShareSync file share and backup (100Gb per user with Elevate Pro)

Each account receives:

- Centralized management of all locations
- Auto Attendant with a direct inward dial phone number
- Ability to configure up to 10 hunt groups
- Conferencing: 200 toll-free minutes / month
- Active directory integration for easy configuration of users
- Hunt Group reporting
- Enable/Disable call recording

COMMUNICATION FEATURES

System Features

- Voicemail with Transcription
- Auto Attendant
- Caller ID
- Custom Hold Music & Greetings
- Direct Inbound Dialing (DID)
- Call Flip
- Conference Bridge
- Hunt Groups
- Hunt Group Call Reporting
- Email and SMS notifications
- Busy Lamp Field / Call Presence

Phone Features

- Call Forward
- Call Hold
- Call Recording
- Call History
- Call Transfer
- Call Waiting
- 3-way Calling
- Do Not Disturb
- Extension Dialing
- Configurable Ring Options
- Voicemail

Phone Features (cont)

- Administrator Password
- Named Ring Groups
- Page all Phones
- Call Park
- Inbound Caller Name
- Call Flip
- Configurable Line Keys
- Speakerphone
- On-Hook Dialing
- Remote Line Key
- Transfer to Voicemail

*Some restrictions apply to countries outside the US

Pricing and Solution Summary

SERVICE ORDER SUMMARY

DESCRIPTION	NON RECURRING CHARGES	MONTHLY RECURRING CHARGES
Services & Fees	\$8,991.67	\$5,479.17
Equipment	\$2,319.00	
Sales Tax	\$0.00	(see notes below)
Total to Pay Today	\$11,378.67	

SERVICES & FEES (Monthly Recurring Charges)

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
160	ProCloud>Elevate Pro User License Includes: Unlimited local and long distance calling (domestic US and Canada), up to 5 devices, Chat, SMS, File Sharing (10 GB/user), Online Meeting (100 web and 200 audio attendees), 30 participant HD Video Sharing, Web Fax, All Standard Integrations	\$15.83	\$2,532.80
3	ProCloud>Elevate Resource user for the Break/Conference/Lobby room license with 500 minutes of Use	\$11.98	\$35.94
6	ProCloud>Elevate Resource user for the Break/Conference/Lobby room license with 0 minutes of use (pay per minute)	\$4.80	\$28.80
7	ProCloud>Elevate user for a fax machine with 500 Minutes of Use MUST COME WITH AN ATA	\$11.98	\$83.86
176	ProCloud>Elevate administrative surcharge	\$1.49	\$262.24
176	ProCloud>Elevate regulatory compliance fee	\$1.49	\$262.24
176	ProCloud>Elevate emergency compliance fee	\$1.99	\$350.24
10	ProCloud>Elevate Additional Auto Attendant	\$8.20	\$82.00
4	ProCloud>Elevate Company Messaging on Local Number. Allows customers to engage with text and picture messaging directly to your main company phone number while seamlessly being connected to subject matter experts who can provide fast and customized responses.	\$17.00	\$68.00

1	ProCloud>Elevate Toll Free Number Monthly Charge 1,000 Minutes Included (overage billed at 39 cents per minute)	\$29.09	\$29.09
12	ProCloud>Elevate Recording Storage (30 days)	\$0.00	\$0.00
12	ProCloud>Elevate Contact Center Elite License. Integrates with Elevate PBX or stand alone "over the top" Contact Center. Ominchannel (voice, email, webchat, sms text queueing).	\$88.33	\$1,059.96
160	ProCloud>Elevate Voice, Chat and SMS Archiving - 1 year rentention	\$3.60	\$576.00
12	ProCloud>Elevate Contact Center Archiving - 1 year rentention	\$9.00	\$108.00

SERVICES & FEES (Non-Recurring Charges)

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
174	ProCloud>Elevate Local Number Portability Fee	\$0.00	\$0.00
1	ProCloud>Elevate Toll Free Number Portability Fee	\$0.00	\$0.00
1	ProCloud>Elevate 1YR Term White Glove Installation and training services Includes all project management, unboxing and placing phones, full system configuration and training of all users	\$8,991.67	\$8,991.67

EQUIPMENT (Non-Recurring Charges)

QTY	DESCRIPTION	UNIT PRICE	TOTAL PRICE
160	ProCloud>Elevate Fanvil V64 Business Phone (PROMO) One Year Warranty replacement on all Elevate phones	\$0.00	\$0.00
3	ProCloud>Elevate Yealink CP925 Conference Phone One Year Warranty replacement on all Elevate phones	\$549.00	\$1,647.00

2	Grandstream VoIP Gateway - 1 x RJ-45 - 2 x FXS - PoE Ports - Fast Ethernet 	\$55.00	\$110.00
1	Grandstream High Density FXS Analog VoIP Gateway - 1 x RJ-45 - 16 x FXS - Gigabit Ethernet 	\$262.00	\$262.00
1	ProCloud>Elevate Miscellaneous Voice Material	\$300.00	\$300.00

Notes:

- Taxes and Fees are not included with this quote and will be added to your invoice. Taxes and Fees are based on your location(s) and usage charges.
- Your first bill may look different than other bills. It may include: (1) one-time fees and prorated charges for new services added during the prior month, (2) full charges for the next month, (3) applicable usage charges, (4) associated shipping costs as well as (5) telecommunication taxes and fees that are based on service address and can differ by address.
- Hardware provided on promotion is amortized over a 12-month period. Early account termination fees are calculated based on the percentage of the term remaining at the time of cancellation.
- Shipping charges may be estimates only and are subject to change. Actual shipping charges will be calculated at the time the order is placed.
- Each account comes with 1 Auto Attendant, 10 Hunt Groups and 1 Conference Bridge (200 minutes) at no additional cost.

Terms and Conditions

These General Terms and Conditions are between ProTelesis ("PROTELESIS") and the individual or entity identified as the customer ("Customer") in the Service Proposal executed by PROTELESIS and Customer, each individually referred to as a "Party" and collectively referred to as the "Parties". This "Agreement" consists of (i) the Service Proposal and any forms or authorizations attached thereto and/or incorporated therein by reference, (ii) these General Terms and Conditions, (iii) VOIP 911 Service Disclaimer and Customer Acknowledgement ("911 Notice") and (iv) Acceptable Use Policy ("AUP"). This Agreement sets forth general terms and conditions under which Customer is purchasing PROTELESIS services pursuant to the Service Proposal. The Parties agree to be bound by this Agreement as of the day the Service Proposal is fully executed by the Parties (the "Effective Date"), and affirm that each have caused this Agreement to be executed by their respective duly authorized representatives on the dates written below their names on the Service Proposal.

1. **Services and Definitions.** PROTELESIS Broadband Phone Service is an enhanced voice communications service which uses a data network (like the Internet) to transport voice communications that have been converted into data packets. The term "Service" shall mean PROTELESIS broadband phone service including all software, equipment, and other features, products and services provided by PROTELESIS under the pricing plan(s) selected by the Customer in the applicable Service Proposal(s). PROTELESIS will provide the Services referenced on the Service Proposal(s) in accordance with the terms of this Agreement. PROTELESIS reserves the right, at its sole discretion, to decline orders and require Customer to post appropriate advanced deposits for new and existing Services.
2. **Obligations of the Customer.** The Customer agrees to provide all information, access, and support for timely installation and proper use of the Service and to comply with all the terms and conditions of this Agreement. The Customer also agrees that Customer's use of the Service will at all times be consistent with the terms outlined in the PROTELESIS Communication's AUP and will not be used in an unlawful manner and will be used in such a manner as to prevent damage to PROTELESIS network and equipment.
3. **Customer Representations.** The Customer represents and warrants that: (i) their primary residence or business address is in the United States, (ii) they are at least eighteen (18) years of age and possesses the legal right and ability to enter into this Agreement, and (iii) the Customer name, contact information and registered location are true and correct and, if for business use, the Customer is authorized to act on behalf of such business. Customer acknowledges and agrees that PROTELESIS relies on the information supplied by Customer and that providing false or incorrect information may result in delays in the provision and delivery of the Services, the suspension or termination of the Services, additional fees or charges, and the inability of a 911-dialed call to be correctly routed to emergency service personnel (as further described in the 911 Notice executed by Customer contemporaneously with the Service Proposal). Customer agrees to promptly notify PROTELESIS whenever personal or billing information changes, including, but not limited to, Customer's name, address, e-mail address, telephone number, and credit card information.
4. **Term Commitment.** For each Service, THE SERVICE WILL BEGIN THE DAY WHEN ALL OR ANY PORTION OF THE SERVICE IS FIRST INSTALLED AND MADE AVAILABLE TO THE CUSTOMER OR 30 DAYS FROM THE DATE THE SERVICE ORDER IS EXECUTED, WHICHEVER IS EARLIER ("Commencement Date"). The Service will begin on the Commencement Date and continue for the number of months/years set forth in the applicable Service Proposal (the "Initial Service Term"). Upon expiration of the Initial Service Term, the Service automatically renews for successive one (1) year terms (the "Renewal Service Terms") at the rates in Customer's Service Proposal unless either Party provides notice of intent to terminate the Service at least thirty (30) days prior to the end of the Initial Service Term or the Renewal Service Terms, whichever is applicable (the Initial Service Term and Renewal Service Terms may be collectively referred to hereinafter as, the "Term" or the "Service Term").
5. **Fees and Charges.** Customer shall pay for all Services that PROTELESIS supplies to Customer. Each Service Proposal specifies the fee that the Customer will pay for each Service during the Service Term. The charges and fees for PROTELESIS services are categorized on the applicable Invoice as (1) "Monthly Recurring Charges", (2) "Non-Recurring Charges", (3) "Usage Charges", and (4) "Equipment Charges". ONLY THE RECURRING CHARGES WILL BE BILLED MONTHLY TO CUSTOMER BEGINNING ON THE COMMENCEMENT DATE. Non-Recurring shall be billed as they occur. Usage Charges for international and toll-free inbound calls will be billed based on the duration of each call with a one-minute minimum and then in six-second increments after the first minute. Equipment Charges will be billed upon receipt of actual equipment when purchased from PROTELESIS. In addition, PROTELESIS may bill the Customer for other legally applicable charges, including, but not limited to, Federal and State Universal Service Fund (USF), 911 and E911 Fees, LNP Administration Fees, and any other applicable state and federal taxes or fees. The charges for the Services, not including the taxes and regulatory charges, are hereby referred to as the "Rate(s)". The Rates set out on the Customer's Service Proposal will vary depending on the Customer's Initial Term commitment and do not include taxes and other regulatory charges. PROTELESIS may modify its Rates at any time. Customer will be liable for all reasonable charges, including, but not limited to attorneys' fees and costs, incurred by PROTELESIS to enforce the terms of this Agreement or due to Customer's non-compliance with the terms herein.
6. **Payment.** PROTELESIS will provide to Customer monthly invoices covering thirty (30) day periods which will be due and payable upon receipt of the invoice. All Monthly Recurring Charges are billed one (1) month in advance and Usage Charges are billed in arrears. A late payment fee will be applied on balances that remain unpaid thirty (30) days following the date of the invoice. Customer and PROTELESIS hereby acknowledge and agree that PROTELESIS shall have 1.5 % per month of the amount of the unpaid balance from the date of invoice or the maximum interest amount allowed by applicable law. Customer and PROTELESIS hereby acknowledge and agree that PROTELESIS shall have no liability to Customer resulting from any termination of Services due to non-payment by Customer in accordance with the terms of this Agreement. PROTELESIS reserves the right to bill Customer retroactively for any Services Customer received which PROTELESIS had not billed. In addition to the remedies contained in this Agreement, PROTELESIS reserves its rights in law and equity, including, but not limited to, its rights under the Uniform Commercial Code.
7. **Taxes.** Customer hereby acknowledges and agrees that all pricing for Services and other charges due hereunder are exclusive of all applicable taxes, including without limitation, value added tax, sales taxes, duties, fees, levies or surcharges (including where applicable any Universal Service Fund or similar surcharges) imposed by, or pursuant to the laws, statutes or regulations of any governmental agency or authority, all of which shall be the sole responsibility of Customer and paid promptly when due by Customer, and furthermore, Customer agrees to indemnify and hold PROTELESIS harmless from any liability therefor. Except as set forth herein, all amounts payable by Customer under this Agreement shall be made without any deduction or withholding and, except to the extent required by any law or regulation, free and clear of any deduction or withholding on account of any tax, duty or other charges of whatever nature imposed by any taxing or governmental authority. If Customer is required by any law or regulation to make any such deduction or withholding Customer shall, together with the relevant payment, pay such additional amount as will ensure that PROTELESIS actually receives and is entitled to retain, free and clear of any such deduction or withholding, the full amount which it would have received if no such deduction or withholding had been required. Notwithstanding the foregoing, a monthly Universal Service Fund charge shall be added to each invoice for Services based upon the total billed revenues, the amount of which shall be based upon the Federal Communications Commission assessment.

8. Unauthorized Use of the Services. The Customer accepts full responsibility for the charges, taxes and fees invoiced for PROTELESIS' provision of all Services to Customer, including, but not limited to, outbound and toll free Services, regardless of whether Customer authorized the use of the Services and Customer agrees that it is solely responsible for the security of all user names and passwords associated with the Service and that Customer will be responsible for any fees, costs or expenses associated with any theft or unauthorized access, use, or disclosure of such username or passwords. Customer shall indemnify, defend and hold PROTELESIS harmless from any and all costs, expenses, damages, claims or actions arising from any fraudulent or unauthorized use of the Services. Customer shall not be excused from paying PROTELESIS for Services provided to Customer or any portion thereof on the basis that fraudulent use of the Services comprised a corresponding portion of the Services for which charges, taxes and fees are invoiced. In the event PROTELESIS discovers or reasonably believes that the Services are being used fraudulently, nothing contained herein shall prohibit PROTELESIS from taking immediately any and all reasonable actions to prevent the fraudulent use of the Services, including without limitation, suspension or termination of Services.
9. Inappropriate Use / Back-Up Power. Customer acknowledges that the services are not designed, manufactured, intended, or recommended for use for any high-risk or fail-safe purpose or activity or in any environment where failure, interruption, malfunction, error, or unavailability could result in any liability or damages, physical harm or personal injury, death or dismemberment, or property or environmental damage. Customer represents and warrants that customer and its end users will not use services for any such purpose or activity or in any such environment. In addition, Customer acknowledges and agrees that, if access to and use of the Services (including, but not limited to, emergency 911 and E911 Services) is desired or required during a power outage, Customer is solely responsible for providing appropriate back-up power to any equipment located on Customer's premises to the extent such equipment may be used to access and use or is otherwise related to the use of the Services. PROTELESIS shall not be responsible or liable to Customer or any third party for Customer's the unavailability of the Services during a power outage as a result of Customer's failure to provide necessary back-up or secondary power facilities for use of the Services.
10. Toll-Free Service. Customer is responsible for all charges for toll free Services provided by PROTELESIS. PROTELESIS assumes no liability where any claim arises out of Customer being provided with any toll-free number(s) other than the toll-free number(s) requested by Customer. PROTELESIS shall not be liable whatsoever for the use, misuse or abuse of a Customer's toll-free service by third parties, including without limitation, the Customer's employees or members of the public who dial the Customer's toll free number by mistake and Customer will be responsible for all such charges.
11. Interruption of Service Credit. In the event that there is any defect, error, omission, delay, mistake, interruption, suspension, or other failure in connection with furnishing the Services or maintenance of the Services and the same is reported to and confirmed by PROTELESIS (an "Interruption"), the liability, if any, of PROTELESIS shall in no event exceed an amount equivalent to the proportionate charge to Customer for the affected Service for the time period during which the interruption occurred (the "Interruption Credit"). PROTELESIS shall not be liable nor shall any Interruption Credit be given to a Customer, for any Interruption which is: 1) caused by the wilfulness or negligence of a third-party or any other entity other than PROTELESIS; 2) due to failure of equipment, systems provided by PROTELESIS, Customer or any other entity; (3) due to a force majeure event as set forth in Section 26 below; or (4) during periods when the Customer elects to use the Service on an impaired basis. Customer hereby acknowledges and agrees that its sole and exclusive remedy for an Interruption shall be an Interruption Credit. Customer will not be entitled to any Interruption Credits or other damages related to any delay in installing the Service.
12. Termination by PROTELESIS. In the event that Customer is in breach of any terms of this Agreement, PROTELESIS may provide written or emailed notice to Customer of such a breach, upon receipt of which Customer shall have ten (10) days to cure such a breach. If such breach is not cured by Customer to PROTELESIS' satisfaction, in its sole discretion, within the applicable cure period set forth above, PROTELESIS may terminate any and all Services provided to Customer under any Agreements between the Parties, effective immediately, without liability to Customer and Customer will be responsible for all obligations and unpaid amounts under those Agreements, including without limitation, Early Termination Charges. Notwithstanding the foregoing, in the event that the Customer's use of the Services violates PROTELESIS' AUP, PROTELESIS may, upon email, fax, telephonic or written notice, terminate any and all Services provided to Customer under any Agreements between the Parties, effective immediately, without liability to Customer and Customer will be responsible for all obligations and unpaid amounts under those Agreements, including without limitation, Early Termination Charges.
13. Termination by Either Party. Either Party shall have the right to terminate the Service(s) without liability, including Early Termination Charges, (i) if PROTELESIS is prohibited from furnishing the Service(s) under this Agreement, (ii) if any material rate or term contained herein is substantially changed by order of the highest court of competent jurisdiction to which the matter is appealed, the Federal Communications Commission, or other local, State or other federal government authority or (iii) upon expiration of the initial Service Term if a Party provides thirty (30) days prior notice of such termination to the other Party.
14. Early Termination Charges. If a Service is terminated prior to the end of the Service Term, then, commencing on the effective date of such termination, Customer will be subject to Early Termination Charges equal to one hundred percent (100%) of the Monthly Recurring Charges times the number of months remaining in the Service Term, plus any waived installation charges and discounts from PROTELESIS standard rates times the number of months of discounts applied ("Early Termination Charges"). Customer and PROTELESIS acknowledge and agree that (i) the Early Termination Charges are a fair and reasonable estimate of damages that would occur in the event that the Service is terminated prior to the end of the Service Term; (ii) actual damages incurred by PROTELESIS as a result of the early termination of the Service would be difficult to determine ; (iii) and the provisions regarding the Early Termination Charges in this paragraph are reasonable and appropriate measures of the damages for such early termination and not a penalty. Customer agrees to pay all such Early Termination Charges within 30 days of Customer's notice of termination of Services immediately upon written receipt of PROTELESIS' last invoice to Customer ("Final Invoice"). All requests to terminate Services must be received, in writing to PROTELESIS thirty (30) days prior to the termination effective date. A minimum of thirty (30) days will always be billed to Customer from the date that the termination notice is submitted.
15. Bill Disputes. Customer's billing disputes or request for adjustments, together with all supporting documentation, must be made in good faith, and must be received in writing by PROTELESIS within thirty (30) days from the date of the invoice, or Customer's right to raise such billing disputes is waived. Customer shall otherwise timely pay any undisputed amount. If PROTELESIS determines that a disputed charge was billed in error, PROTELESIS will issue a credit to reverse the amount that was incorrectly billed. If PROTELESIS determines that the disputed amount was billed correctly, PROTELESIS will inform Customer of such determination and provide Customer proof of correct billing. If Customer does not accept such proof as definitive, the dispute will be escalated for an officer review/resolution with PROTELESIS and Customer in accordance with this Agreement. In the event that the escalated dispute is resolved against Customer, or in the event that Customer accepts the foregoing proof as definitive (or if Customer fails to notify PROTELESIS within thirty (30) days that Customer does not accept proof as definitive), Customer shall pay the previously disputed amount within ten (10) days thereafter.
16. Resolution of Disputes. Except as otherwise provided herein, any disputes, controversy or claim (individually and collectively referred to hereinafter as a "Dispute") arising under this Agreement shall be resolved in accordance with the procedures set forth herein. In the event of a dispute, and upon the written request of either Party, each of the Parties shall appoint, within five (5) business days after a Party's receipt of such request, a designated representative who has authority to settle the Dispute and who is at the higher level of management than the persons with the direct responsibility for administration of the Agreement. The designated representatives shall meet as often as they reasonably deem necessary in order to discuss the Dispute and negotiate in good faith in an effort to resolve such Dispute. The specific format for such discussions will be left to the discretion of the designated representatives; however, all reasonable requests for relevant information made by one Party to the other shall be honored. If the Parties are unable to resolve issues related to the Dispute within thirty (30) days after a Party's request is made for appointment of designated representatives as set forth above, either Party may seek any relief to which it is entitled, whether at law or in equity.

17. Upgrades and Downgrades. An "Upgrade" is defined as a change to Customer's existing Services, agreed to by PROTELESIS that will result in the increase in Customer's Monthly Recurring Charges and/or Non-Recurring Charges. If the Customer Upgrades the Services, Early Termination Charges will not be assessed. However, Customer will be required to purchase the Upgrade for a term commitment that extends at least to the end of Customer's existing Service Term. A "Downgrade" is defined as a change to Customers' existing Services or partial disconnect, agreed to by PROTELESIS, that results in a decrease in Customers Monthly Recurring Charges. If Customer Downgrades the Services before the end of the Service Term, and the Downgrade results in more than a twenty-five percent (25%) decrease in the Monthly Recurring Charges on the Services for which a Downgrade occurred, PROTELESIS, in its sole discretion, may charge Customer Early Termination Charges. Customer shall provide PROTELESIS with thirty (30) days prior written request for all Downgrades and PROTELESIS may, in its sole discretion agree to or deny such request. Any Downgrade of a Service must have a Term that extends at least to the end of Customer's existing Service Term.
18. PROTELESIS Owned Customer Premise Equipment. Any equipment installed by PROTELESIS to perform the Services under this Agreement and associated software, which was not purchased by the Customer, is the sole property of PROTELESIS, and is referred to as "Customer Premise Equipment" or "CPE". For the Service Term, PROTELESIS grants Customer a limited, personal, revocable, non-exclusive license to use the CPE provided in conjunction with the Service solely for Customer's own internal business use that may not be assigned, sold, sublicensed or transferred. Upon termination of the Service, all of Customer's rights with respect to CPE will immediately terminate. Except as expressly provided herein, the limited license granted to Customer does not convey any ownership or other rights, express or implied in the CPE or in any Intellectual Property. PROTELESIS has the right to access, maintain, remove, replace or take any other action in connection with the CPE at any time for any reason. At all times Customer shall: (1) refrain from physically tampering with or modifying CPE, or authorizing another to do the same; and (2) provide PROTELESIS with reasonable, sufficient, and necessary access to Customer's facilities in order for PROTELESIS to fulfill its obligations under this Agreement. Customer shall provide PROTELESIS reasonable and necessary access to PROTELESIS CPE at all reasonable times in the event PROTELESIS needs to retrieve the CPE during, or upon the expiration or termination of the applicable Service Term. Customer also agrees to cooperate with PROTELESIS in all communications with the landlord at the Customer's premises if requested by PROTELESIS even after the expiration or termination of the applicable Service Term so that PROTELESIS may retrieve physical possession of the CPE. Customer shall be responsible for any and all damages to the CPE, caused by Customer or its end-users. Furthermore, PROTELESIS will not be responsible for any interference or interruption in Services that are related to or caused by CPE. Customer is responsible for the initial and ongoing configuration of any equipment provided by Customer. If any equipment provided by Customer is not compatible or may not be used with the Services, and Customer terminates the Service as a result, Customer will be responsible for all Non-Recurring Charges for the Services that are noted on the Service Proposal, as well as Early Termination Charges and any third-party costs PROTELESIS may have incurred.
19. Limitation of Liability. PROTELESIS AND ITS OFFICERS, DIRECTORS, EMPLOYEES, AFFILIATES, AGENTS, VENDORS AND SUPPLIERS ("PROTELESIS ENTITIES") SHALL NOT BE LIABLE FOR ANY OF THE FOLLOWING: (1) THE CONTENT OF THE INFORMATION PASSING OVER PROTELESIS NETWORK; (2) UNAUTHORIZED ACCESS TO CUSTOMER TRANSMISSION FACILITIES OR TO CUSTOMER OWNED EQUIPMENT; (3) UNAUTHORIZED ACCESS OR DAMAGE TO, ALTERATION, THEFT, DESTRUCTION OR LOSS OF CUSTOMER RECORDS OR DATA; (4) CLAIMS FOR DAMAGES CAUSED BY CUSTOMER, THROUGH FAULT, NEGLIGENCE OR FAILURE TO PERFORM CUSTOMER'S RESPONSIBILITIES; (5) CLAIMS AGAINST CUSTOMER BY ANY OTHER PARTY; (6) ANY ACT OR OMISSION OF ANY OTHER PARTY FURNISHING SERVICES TO CUSTOMER, OR THE INSTALLATION AND /OR REMOVAL OF ANY AND ALL EQUIPMENT SUPPLIES BY ANY OTHER SERVICES PROVIDER, INCORRECT PUBLICATION LISTINGS OR ADVERTISEMENTS OF PHONE NUMBERS; (7) CLAIMS FOR ANY LOSS OR DAMAGES RELATED TO ANY DELAY IN INSTALLING OR TERMINATING THE SERVICE, OR (8) CLAIMS FOR ANY DAMAGES, INCLUDING BUT NOT LIMITED TO, PERSONAL INJURY, WRONGFUL DEATH, PROPERTY DAMAGE ARISING OUT OF OR IN CONNECTION WITH THE USE OR INABILITY TO USE THE SERVICE. NOTWITHSTANDING ANYTHING TO THE CONTRARY, THE AGGREGATE LIABILITY OF ALL PROTELESIS ENTITIES, IF ANY, ARISING OUT OF THIS AGREEMENT, INCLUDING WITHOUT LIMITATION, MISTAKES, OMISSIONS, INTERRUPTIONS, DELAYS, ERRORS, OR DEFECTS IN THE SERVICE OR EQUIPMENT PROVIDED BY PROTELESIS ENTITIES SHALL IN NO EVENT EXCEED THE MONTHLY RECURRING CHARGES FOR THE SERVICE PAID BY THE CUSTOMER DURING THE AFFECTED TIME PERIOD (NOT TO EXCEED 12 MONTHS) THAT IS THE SUBJECT OF THE CLAIM AND CUSTOMER WAIVES ANY AND ALL CLAIMS FOR SUMS IN EXCESS OF THAT AMOUNT. IF ANY LIABILITY IS IMPOSED ON PROTELESIS ENTITIES, SUCH LIABILITY SHALL BE LIMITED AS PROVIDED IN THIS AGREEMENT, WHICH SHALL BE PROTELESIS ENTITIES' SOLE AND EXCLUSIVE LIABILITY REGARDLESS OF WHETHER LOSS OR DAMAGE IS CAUSED BY PERFORMANCE, NON-PERFORMANCE, OR NEGLIGENCE OF PROTELESIS ENTITIES UNDER THIS AGREEMENT. PROTELESIS ENTITIES SHALL HAVE NO LIABILITY TO CUSTOMER OR ANY THIRD-PARTY WITH RESPECT TO ANY SPECIAL, INCIDENTAL, INDIRECT, CONSEQUENTIAL, OR PUNITIVE DAMAGES OF ANY NATURE OR FOR THE LOSS OF REVENUE, LOST PROFITS, LOSS OF BUSINESS, LOSS OF POTENTIAL BUSINESS, REPLACEMENT COST OR COVER, OR ECONOMIC LOSS OF ANY KIND FOR ANY REASON WHATSOEVER, HOWEVER CAUSED AND WHETHER ARISING UNDER CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE OR STRICT LIABILITY), OR ANY OTHER THEORY OF LIABILITY, EVEN IF PROTELESIS ENTITIES HAVE BEEN INFORMED IN ADVANCE OF THE POSSIBILITY OF - OR COULD HAVE FORESEEN SUCH COSTS, LOSSES, OR DAMAGES.
20. Liability of Customer. To the maximum extent permitted by law, Customer shall indemnify, defend and hold harmless, individually and collectively, PROTELESIS Entities from and against any and all liability, claims, losses (including loss of profits, revenue and goodwill), damages, fines, penalties, injuries to persons or property, costs, and expenses (including reasonable attorneys' fees and dispute resolution expenses) made or asserted against PROTELESIS Entities by any third-party that arises out of, or is directly or indirectly related to: (i) breach of the Agreement or Service by Customer or any users of the Service; (ii) breach of any representations or warranties by Customer; (iii) use of or reliance upon the Service by Customer or any third party; (iv) any negligent acts, omissions to act or willful misconduct by Customer or any users of the Service; (v) the inability to use the Services or failure or outage of the Service for any reason, including but not limited to those related to calling 911, E911 or other emergency responders; (vi) use of the Services in connection with a violation of any applicable Laws (defined below); (vii) misappropriation, breach, violation, or infringement of any right, title or interest of any third party, including but not limited to, contractual rights, Intellectual Property rights, rights of privacy, and rights of publicity and personality; or any act or omission of Customer, its users or customers. Additionally, the Customer shall reimburse PROTELESIS Entities for damage to PROTELESIS facilities or due to any malfunction of any facilities or equipment provided by an entity other than PROTELESIS for the damages to the extent of such payment.
21. Warranties. PROTELESIS DOES NOT WARRANT UNINTERRUPTED OPERATION, DEGRADATION, DELAY, INTERRUPTION, ERROR OR OMISSION OF THE SERVICES, SOFTWARE OR EQUIPMENT OR LOSS OF CONTENT, DATA OR INFORMATION. PROTELESIS COMMUNICATIONS SPECIFICALLY DISCLAIMS AND CUSTOMER WAIVES ALL WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF TITLE, MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT OR ANY WARRANTIES ARISING OUT OF USAGE OF TRADE, COURSE OF DEALING OR COURSE OF PERFORMANCE.
22. Letters of Authorization. Customer will be required to execute a Letter of Authorization ("LOA") in the event Customer seeks PROTELESIS to act as an authorized agent for ordering and coordination of local and long-distance access circuits for services outside of this Agreement. The LOA, when executed, shall be incorporated into this Agreement by reference.
23. E911 Disclosure Statement. CUSTOMER ACKNOWLEDGES AND AGREES THAT THE VOIP TELEPHONY SERVICES MAY, UNDER CERTAIN CIRCUMSTANCES, HAVE SIGNIFICANT LIMITATIONS WITH RESPECT TO 911 AND E911. THE 911 NOTICE DESCRIBES SOME OF THOSE CIRCUMSTANCES AND CONTAINS SIGNIFICANT INFORMATION, REQUIREMENTS AND LIMITATIONS OF LIABILITY WITH RESPECT TO 911 AND E911. CUSTOMER AGREES TO ALL OF THE TERMS AND CONDITIONS OF THE 911 NOTICE, THAT IT IS A MATERIAL PART OF THIS AGREEMENT AND THAT PROTELESIS WOULD NOT ENTER INTO THIS AGREEMENT WITHOUT CUSTOMER READING AND AGREEING TO IT.

24. Deposit. PROTELESIS reserves the right to withhold initiation of full implementation of the Services until PROTELESIS has conducted a credit review of Customer. Depending on the credit review, PROTELESIS may require Customer to provide PROTELESIS a security deposit. If Services are being provided to Customer without a security deposit and then Customer fails to pay any sums when due, PROTELESIS may require that Customer provide a security deposit as a condition for continued Service and if Customer refuses to provide the requested deposit PROTELESIS may terminate any or all Services to Customer and Customer will be responsible for any Early Termination Charges as a result of such termination.
25. Transfer and Assignment. Customer may not sell, assign or transfer any of Customers rights or obligations under this Agreement without PROTELESIS prior written consent. PROTELESIS may assign this Agreement upon notice to customer.
26. Force Majeure. Any delay, interruption, or non-performance of any provision of this Agreement on the part of PROTELESIS caused by conditions beyond PROTELESIS Communication's reasonable control shall not constitute a breach of the Agreement, and the time for performance of such provision shall be deemed to extend for a period equal to the duration of the conditions preventing performance. Such examples include but are not limited to, acts of god, elements, weather conditions, earthquakes, settlements, fire, accidents, power failures, cable cuts caused by third-parties, acts or omissions of governmental authorities, moratoriums or injunctions related to the construction and shortage of labor and materials.
27. Installation Requested Information. In order to install Customer's Service, PROTELESIS may need Customer to provide PROTELESIS with certain information to enable the Services to be provisioned. Customer will be required to provide the requested information in a timely fashion, as time is of the essence with respect to this information. If PROTELESIS does not receive the required information in a commercially reasonable time frame, and Customer terminates the Service, Customer will continue to be responsible for all Non-Recurring and Early Termination Charges.
28. Press Release Announcements, Publicity and/or Trademarks. Customer agrees that PROTELESIS may issue a press release announcing the relationship between the parties and may use, copy, transmit, display, and distribute Customer name, logo, quotes, case studies and testimonials in connection with PROTELESIS services. Such use shall include but not be limited to sales materials, websites, advertising and other associated activities involving applicable external communications, using all media known and hereafter developed following effectiveness of this Agreement, provided that any press releases, public announcements, postings or other advertising or public relations activities concerning this Agreement or the relationship between Customer and PROTELESIS must be reviewed and approved by both parties in advance. Customer agrees to provide comments of approval or changes within forty-eight (48) hours of receipt or request for such approval. Customer hereby grants to PROTELESIS a non-exclusive, non-transferable license, without the right to sublicense, to use Customer's name and logo in connection with publicity and marketing materials, provided that any use of Customer's name or logo must be approved in writing by Customer in advance and used in accordance with Customer's guidelines for logo use.
29. Notices. Except as otherwise provided herein, all notices, with the exception of invoices and requests for payment, given in connection with this Agreement shall be made in writing and either delivered in person, or by recognized overnight courier service, or sent via first class, postage prepaid, certified mail, return receipt requested. All notices will be sent to the address set out on the Service Proposal. Invoices and requests for payment may be delivered in writing or electronically, including email or email attachments, and such email or email attachment will be deemed delivered when sent. All notices, including but not limited to invoices, will be deemed served relative to the date of personal delivery, the first business day after the date notice is sent via overnight mail, on the third (3rd) business day after notice is sent via first class U.S. main Delivery. All notices to PROTELESIS should be addressed to ProTelesis Corp, 4686 Mission Gorge Place, San Diego, CA 92120, attention Customer Care. All legal notices and copies of notices shall be sent to ProTelesis Corp, 4686 Mission Gorge Place, San Diego, CA 92120, attention Legal Department. The notice addresses as provided above may be changed by written notice given as provide above.
30. Governing Law and Venue. This Agreement shall be construed and governed in accordance with the laws of the state of California and venue for any actions arising under this Agreement shall be in the courts of San Diego County, California.
31. Entire Agreement. This Agreement is the complete agreement between the parties concerning any telecommunications services provided by PROTELESIS hereunder and replaces any prior oral or written communications between the parties. Except for prior obligations of confidentiality and/or nondisclosure, there are no conditions, understandings, agreements, representations, or warranties, expressed or implied, which are not specified in this Agreement.
32. Addition/Modification. Except as set forth in the Agreement, the Agreement can only be modified, amended or waived through a writing signed by an authorized employee of each party. PROTELESIS reserves the right to change its fees and charges upon notice to Customer provided that such changes will not affect any Service Orders until expiration of the then-current Service Term. PROTELESIS further reserves the right to alter or eliminate Services or to change or eliminate areas where PROTELESIS provides service upon thirty (30) days prior written notice to Customer provided that such changes will not affect any Service Orders until expiration of the then-current Service Term.
33. Severability. In the event that any of the terms of this Agreement or the applications of any such term shall be invalid by any court of any competent jurisdiction, the remaining terms of this Agreement or their application shall not be affected thereby and shall remain in full force and effect.
34. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one Agreement. Facsimile signatures and electronic signatures (including electronically transmitted signed documents) shall be accepted and treated the same as an original.
35. Compliance with Laws. Customer represents and warrants that Customer and all use of the Service will at all times comply with all applicable laws, rules and regulations including but not limited to the rules, policies and regulation of the Federal Communications Commission ("FCC"), and all laws relating to Do- Not-Call provisions; unsolicited marketing; faxing; telemarketing; email marketing; spamming or phishing; data security or privacy; international communications; account or debt collection; recording of calls or conversations; export control; export of technical or personal data; end user, end-use, and destination restrictions imposed by the United States or foreign governments; consumer protection; pornography; trade practices; false advertising; unfair competition; anti-discrimination; harassment; defamation; intellectual property; or securities ("Laws"). Customer agrees to indemnify, defend and hold harmless PROTELESIS and any third-party provider(s) from any and all claims, losses, damages, fines, or penalties arising out of Customer's or its user's violation or alleged violation of any Laws.
36. Recording Calls. Certain Services may enable Customer and its users of the Service to record calls or other communications and that the recording of such calls is solely under Customer and its users' control. Customer acknowledges that certain Laws impose requirements, restrictions and prohibitions with respect to recording calls or communications, including without limitation, notice and consent from all of the entities on the call prior to recording the call or communication and Customer acknowledges that it is solely responsible for informing itself and its users of the Service of such Laws. Customer represents and warrants that Customer and all other users of the Service will, at all times, comply with all Laws with respect to recording calls.
37. No Storage of Personal Health Information. Customer acknowledges and agrees that the Services are not designed, intended, or recommended to store "protected health information," as defined under the Health Insurance Portability and Accountability Act of 1996, the Health Information Technology for Economic and Clinical Health Act, and similar legislation in other jurisdictions, and the regulations promulgated pursuant thereto (such laws and regulations, "HIPAA"; such information, "PHI") and Customer represents and warrants that its Services will not be used for such purpose.

Acceptable Use Policy (AUP)

This AUP is part of the Agreement between ProTelesis ("PROTELESIS") and Customer. All capitalized terms not otherwise defined in this AUP are defined in the General Terms and Conditions.

1. Unlimited Voice Services. Customer agrees to use the unlimited service plans ("Unlimited Plan") for traditional voice or fax calling of duration comparable to that of an average residential or business customer and not for commercial purposes where telecommunications is the primary purpose or significant cost for the business. Customer agrees that they will not employ methods, devices or procedures to take advantage of Unlimited Plans by using the voice or fax services excessively or for means not intended by PROTELESIS. Excessive use is defined by PROTELESIS as use that substantially exceeds the average call volume or duration per hosted PBX or SIP Trunk used by all other PROTELESIS's Unlimited Plan customers. PROTELESIS has the right to terminate Customer's Unlimited Plan or change Customer's Service plan if, in its sole discretion, PROTELESIS determines that Customer's use of the Unlimited Plan violates this prohibition or is otherwise unreasonable or results in abuse of the Unlimited Plan, including, but not limited to, the following:

- Excessive local number conference calling
- Monitoring services
- Data transmissions
- Transmissions of broadcasts or transmission of recorded material
- Re-selling, re-branding, re-supplying, re-marketing or commercially exploiting the Unlimited Plan, without written consent, in order to aggregate traffic from more than one customer over a line or trunk that serves an Unlimited Plan
- Setting up routing functionality such that only outbound long-distance traffic is sent over the Unlimited Plan
- Using the Unlimited Plan for call-centers, hotlines, or chat rooms
- Engaging in any other conduct which is fraudulent or results in significant network congestion, or degradation
- Autodialing
- Continuous, repetitive or extensive call forwarding
- Continuous call session connectivity
- Fax broadcasting Fax blasting
- Telemarketing, or

Any other activity that would be inconsistent with reasonable personal, residential and business use that may cause network congestion or jeopardizes the integrity of PROTEL's network.

2. Lawful purposes only. Customer may use Services for lawful purposes only. The Customer may not use PROTELESIS's Service or equipment in any way that is illegal, improper, or inappropriate, including, but not limited to, the following:

- Interfering with the ability to provide Service to the Customer or other customers, or avoiding the obligation to pay for the Service within the time frame designated for payment.
- Use of the Service to threaten, abuse, harass, defame, deceive, defraud, interfere or invade another's privacy or engage in any similar behavior.
- Use of the Service for auto-dialing, continuous, repetitive or extensive call forwarding, telemarketing (including charitable or political solicitation or polling), fax or voicemail broadcasting or blasting.
- Use of the Service to impersonate another person, send bulk unsolicited messages, use data mining techniques, or other automated devices or programs to catalog, download, store, or otherwise reproduce or distribute information from PROTELESIS or use any automated means to manipulate the Service
- Use the Service for transmitting or receiving any communication or material of any kind which would constitute a criminal offense, give rise to a civil liability, or otherwise violate any applicable local, state, national or international law or encourage conduct that would constitute a criminal offense, give rise to a civil liability, or otherwise violate any applicable local, state, national or international law.

3. Right of Termination. PROTELESIS reserves the right to terminate the Service immediately and without advance notice if PROTELESIS, in its sole discretion, believes that the Customer has violated any of the terms of this AUP and Customer will be responsible for all fees and charges through the end of the Service Term, including without limitation, Early Termination Fees, unbilled charges, and disconnect fees, all of which immediately become due and payable, and PROTELESIS will not be liable for any damages incurred by Customer or any third-party as a result of such disconnection.

4. Monitoring. PROTELESIS may monitor the use of the Service for violations of the Agreement, including this AUP. PROTELESIS may, without liability, remove or block all communications if PROTELESIS suspects a violation of the Agreement, including this AUP, or if PROTELESIS finds it necessary to protect the Services, other customer's services or PROTELESIS.

5. Providing information to authorities and third parties. If PROTELESIS believes that the Customer has used the Service for unlawful purposes, PROTELESIS may, to the extent permitted by law, forward the relevant communication and other information, including Customer's identity, to the appropriate authorities for investigation and prosecution and Customer consents to the forwarding of any such communications and information to the authorities. In addition, to the extent permitted by law, PROTELESIS may disclose the Customers' personal information, any communications sent or received by the Customer, and any other information that PROTELESIS may have about the Customer's account, including but not limited to, types of Service, length of Service, MAC addresses, IP addresses, email addresses, registered 911 address, and all other account information, as deemed necessary by PROTELESIS, including, but not limited to the following: In response to law enforcement or other governmental agency requests; as required by law, regulation, rule, subpoena, search warrant, or court order; as necessary to identify, contact, or bring legal action against someone who may be misusing the Service; to protect PROTELESIS rights and property; or in emergency situation where disclosure of such information is necessary to protect PROTELESIS, other PROTELESIS customers or third parties from harm or damage.

6. Use of Service or Telephone Device by Customer Outside of the United States. PROTELESIS services are designed to originate calls within the United States and work with unencumbered high-speed Internet Connections. If the high-speed Internet connection is not within PROTELESIS's service area or the ISP or broadband provider places restrictions on using VoIP services, Service may be unavailable and Customer will not be entitled to any Interruption Credits. The Customer will be solely responsible for any violations of local laws and regulations or violations of ISP and broadband provider terms of service because of the Customers' use of the service. All use of PROTELESIS's service to or from areas outside the United States is at your own risk.

7. No Transfer of Service. The Customer may not resell or transfer the Service without first obtaining prior written consent from PROTELESIS.

8. No Alterations or Tampering. If Customer copies or alters or has someone else copy or alter the firmware or software of the equipment or device in any way that facilitates a compromise of the Service, Customer is responsible for any charges that result. Customer may not attempt to hack or otherwise disrupt the Service or make any use of the Service that is inconsistent with its intended purpose.

9. Theft of Service. No one may use or obtain a service in any manner that avoids entering into an Agreement with PROTELESIS and using it in compliance with all of PROTELESIS's policies and procedures. Customer will notify PROTELESIS immediately by telephone, email, text or similar real-time method (and subsequently confirm it in writing) if Customer believes or should have known the Service has been stolen, used fraudulently, or is otherwise being used in an unauthorized manner and will provide an account number and a detailed description of the circumstances of theft, fraudulent use, or unauthorized use of the Service. PROTELESIS may suspend or disconnect the Service if such Service has been used in violation of this section and Customer will remain liable for all fees and charges for use of the Service until PROTELESIS is notified by Customer of such unauthorized use and has had a reasonable opportunity to prevent such use.

10. Revisions to this Acceptable Use Policy

PROTELESIS reserves the right to revise, amend, or modify this AUP at any time and in any manner. Any revision, amendment, or modification will be effective when PROTELESIS publishes such revision, amendment, or modification. Your continued use of our services after such revision, amendment, or modification shall constitute your acceptance of the modifications to this AUP. Therefore, it is important that you review this AUP from time to time. If you have questions about the AUP, or about your rights and responsibilities as a PROTELESIS customer, please contact us at support@protelesis.com.

IT IS YOUR RESPONSIBILITY TO CHECK THIS WEBSITE REGULARLY, AS ALL OR ANY PART OF THIS AUP MAY CHANGE WITHOUT NOTICE.

VOIP 911 Service Disclaimer and Customer Acknowledgement

This VOIP 911 Service Disclaimer and Customer Acknowledgement ("911 Disclaimer") constitutes a part of your Agreement with PROTELESIS ("PROTELESIS"). By signing this 911 Disclaimer Customer and anyone using the Service ("You" or "User") agree to be bound by the terms and conditions set forth herein. All capitalized terms are as defined herein or as otherwise defined in the Agreement as described in the General Terms and Conditions.

1. GENERAL INFORMATION.

Thank you for selecting PROTELESIS as your Voice-Over-Internet Protocol ("VoIP") telephony provider. Before you begin using PROTELESIS's VOIP Service, there are a few important things to understand about the Service and its emergency calling (911 and enhanced 911 ("E911")) limitations as compared to traditional 911 and E911 service. Portable interconnected VOIP services can be used anywhere from virtually any internet connected device, such as VOIP enabled handsets, headsets, conference calling stations, computers, smartphone, tablet or any device capable of communicating over the internet ("Softphone"), which raises challenges for the emergency services community in determining the location from which a 911 call has originated. With basic 911, the public safety answering point operator (or "911 Operator") will NOT have automatic access to your telephone number or location so you must be prepared to give the basic 911 Operator this information. With E911, your telephone number and registered address will be automatically provided to the 911 Operator located in or near the city or county of your registered address to assist them in responding to your emergency call, regardless of your actual location so it is critical that your registered address reflect your actual location. Some locations do not support E911 (i.e., automatically providing your telephone number and registered location) so you should always be prepared to provide your telephone number and actual location when dialing 911.

2. VOIP LIMITATIONS

2.1 EMERGENCY CALLING (911 AND E911) AND SERVICE LIMITATIONS. 911 and E911 Service may be limited or unavailable in the following circumstances:

- 2.1.1 Power outage or disruption to the equipment or Softphone providing Your Service (following a power outage, you must reset or reconfigure the terminal adapter equipment prior to utilizing the Service, including 911 and E911 Service);
 - 2.1.2 Broadband outage, interruption or malfunction that affects Your Service;
 - 2.1.3 Relocating Your Softphone to a location other than to the location that you registered with us;
 - 2.1.4 Delays in making Your Registered Location available to the database accessed by the 911 Operator;
 - 2.1.5 Using a telephone number other than the one that is registered for Your Device, using a non- native telephone number or blocking your caller ID;
 - 2.1.6 Network congestion, disruptions, or other problems with Your ISP or PROTELESIS's network;
 - 2.1.7 VoIP Service interruption or termination any reason, including the suspension or termination of your account with PROTELESIS for non-payment or improper use of the Service;
 - 2.1.8 Changing your phone number or adding a new phone numbers to your account without updating the location you have registered with us;
 - 2.1.9 Delays or disruptions of Service in the network or Services of PROTELESIS's underlying E911 provider;
 - 2.1.10 You cannot text a 911 Operator using the Service;
 - 2.1.11 If Your Softphone is used in an office environment with multiple other Users located in the same office then: (1) the registered location for your Softphone will be the location of your office so if you remove your Softphone from that location and call 911 from another location, the location of the office will still appear to the 911 Operator as your Registered Location regardless of your actual location and (2) If your telephone number is not the 911 TN from your office (defined below), you will need to register your telephone number as a 911 TN for an additional charge - If you do not know whether the 911 Operator has E911 capabilities, you should always be prepared to provide your call- back telephone number and actual location;
 - 2.1.12 Internet viruses that affect your Softphone or internet connectivity and speed;
 - 2.1.13 In certain geographic areas where PROTELESIS's underlying E911 provider has limited access (or no access at all) to the 911 Operator's facilities.
- 2.2 Non-VoIP Devices. Home alarm systems, fax machines and other equipment that attach to your home computers, local telephone service, cable system or other networks may not work with the Service and PROTELESIS MAKES NO REPRESENTATION OR WARRANTY, WHETHER EXPRESS OR IMPLIED, WHATSOEVER THAT THE SERVICE WILL WORK WITH THOSE DEVICES.

Except as otherwise described in the General Terms and Conditions, PROTELESIS will have no obligations or liability with respect to any Service outages, interruptions or degradations for any reason. Additional Service limitations can be found on the FCC's website at: <https://www.fcc.gov/file/15356/download>

3. USER OBLIGATIONS.

3.1 You Must Register the Location of your Softphone.

- 3.1.1 Single Softphone/Telephone Number. If you are using a single Softphone and telephone number, then prior to using any telephone numbers provided to you by PROTELESIS, the current physical location of your Softphone and telephone number must be registered with PROTELESIS ("Registered Location") so that if a 911 call is made from that Softphone, the telephone number and the Registered Location of the Softphone will be available to the E911 Operator.

- 3.1.2 Multiple Softphones/Telephone Numbers. (i) Single Location/Office: If multiple Softphones are used in a single location or office, the Registered Location for Your Softphone will be the location of your office. If you remove Your Softphone from that location and call 911 from another location, the Registered Location of the office will appear as your location regardless of your actual location. (ii) Multiple Locations/Offices: If you have Softphones in multiple offices, the Registered Location of each Softphone must correspond to the office where that Softphone is located and being used. You may not use a single office location as the Registered Location for Softphones located in other offices or locations. (iii) The Office 911 Telephone Number. Multiple Softphones located in an office will likely only have one telephone number (the "911 TN") from that office that is able to register its location with PROTEL's 911 provider so if any other User from that office calls 911, the Registered Location of the 911 TN will be provided to the 911 Operator (the User's actual telephone number will still be provided to the 911 Operator provided caller-ID is not blocked). If you intend to use Your Softphone at a location other than your office, you will need to upgrade your telephone number to a 911 TN and register the actual location where your softphone is being used each time it is moved.
- 3.1.3 "Registered Location" Process. (i) If you have an office administrator that manages your telecommunications Services, contact that administrator for their then-current procedures for registering Your Softphone and location. (ii) If you manage the telecommunications Services for yourself and/or others, contact PROTELESIS at support@protelesis.com and follow their then-current procedures for registering Your Softphone(s) and location(s). If you have a non-hosted Service and manage the private branch exchange server or its generic server or technological equivalent (the "PBX"), this will include loading the 911 TN(s) that correspond to the location and telephone number of each Softphone onto Your PBX.
- 3.2 Moving a Softphone. If a Softphone in a Registered Location is moved to another location, before using the Service you must register the new location of that. If you do not register the new location of your Softphone, any calls you make using E911 will be sent to the 911 Operator near your old address and register an incorrect location for that Softphone. For example, if Your Softphone is registered to an address in San Diego and you take the Softphone to New York and call 911, the call will be routed to the 911 Operator in San Diego rather than New York and it will identify the San Diego address as your Registered Location. Consequently, IT IS CRITICALLY IMPORTANT THAT THE NEW LOCATION FOR ANY SOFTPHONE THAT IS MOVED IS PROPERLY REGISTERED.
- 3.3 Mobile Softphones. Unless you are in Your Registered Location, IF YOU NEED TO DIAL 911 WITH A MOBILE DEVICE (LIKE A SMARTPHONE, COMPUTER OR TABLET) YOU SHOULD ALWAYS USE YOUR CELLULAR NETWORK AND NOT PROTELESIS'S 911 SERVICE. Unless you are using your cellular network, if you call 911 to an E911 enabled 911 Operator your mobile Softphone will only provide the Registered Location to the 911 Operator regardless of Your actual location so if you are using a mobile Softphone in a location other than its Registered Location or while in motion (e.g. driving or walking), E911 service will provide inaccurate information to the 911 Operator so you must provide your actual location to the 911 Operator. In addition, please note that some forms of wireless service do not support automatic location identification or have other E911 calling limitations so you must be prepared to provide your actual location when calling 911.
- 3.4 Alternative 911 Access. Customer acknowledges the limitations of VOIP telephony as discussed above (e.g., power outages, internet access outages, overloading, registration requirements, etc.) and, given those limitations, Customer agrees that all users of PROTELESIS Services will have access to 911 or E911 through an alternative service or device other than through the Services provided by PROTELESIS.
- 3.5 Broadband Access. To use PROTELESIS VOIP telephony Services you must have a broadband internet connection provided to you through a third-party ISP or broadband service provider. Also, PROTELESIS is not a traditional telecommunications carrier and provides only VOIP telephony that relies on your broadband internet connection rather than traditional telephone lines. PROTELESIS is not responsible for any Service outage, interruption or degradations related to your internet connectivity.
- 3.6 Power Outages. Following a power outage, you must reset or reconfigure the terminal adapter equipment prior to utilizing the Service, including 911 and E911 Service.
- 3.7 Customer Obligation to Give Others Notice of VoIP Service and Emergency 911 Limitations. Customer agrees to be fully responsible at all times during the term of this agreement for notifying anyone that uses the Services of (i) the EMERGENCY CALLING (911 AND E911) LIMITATIONS described above, (ii) VoIP Service limitations described above, (iii) User Obligations described above and (iv) PROTELESIS's Limitation of Liability described below. It is especially important that Users understand that the loss of internet connectivity, loss of power to their Softphone or failure to provide a current Registered Location could result in losing the ability to call 911 and that they must have an alternative method for call 911.
- 3.8 Multi-story Offices or Campus. In a multi-story building be prepared to give the 911 Operator the floor you are on and the location within that floor (e.g., office number, break room, etc.). On a campus or in a multi-building office-park, be prepared to give the 911 Operator your exact location on the campus (e.g., cafeteria, gym, etc.) or office-park building number and location within that building.
4. LIMITATION OF LIABILITY.

TO THE EXTENT PERMITTED BY LAW, YOU AGREE THAT IN NO EVENT WILL PROTELESIS OR ITS MEMBERS, DIRECTORS, OFFICERS, EMPLOYEES, CONTRACTORS, OR AGENTS (COLLECTIVELY "PROTELESIS PARTIES") BE LIABLE FOR ANY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION, DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES (COLLECTIVELY, "DAMAGES") ARISING, DIRECTLY OR INDIRECTLY, FROM OR IN CONNECTION WITH ANY USE OF (OR INABILITY TO USE) THE SERVICE OR WITH ANY USE OF (OR INABILITY TO USE) EMERGENCY 911 OR E911 SERVICES IN CONNECTION THEREWITH. YOU ALSO AGREE TO RELEASE, DISCHARGE AND HOLD HARMLESS PROTELESIS PARTIES FROM ANY AND AGAINST ALL ACTIONS, LAWSUITS, CLAIMS, DAMAGES, JUDGMENTS, LIABILITIES AND EXPENSES, INCLUDING WITHOUT LIMITATION REASONABLE ATTORNEY' FEES, WHATSOEVER THAT YOU MAY OTHERWISE HAVE IN CONNECTION WITH THE USE (OR INABILITY TO USE) THE SERVICES (WHETHER BY YOU OR BY ANY OTHER PERSON) THAT ARE PROVIDED TO YOU UNDER THIS AGREEMENT (COLLECTIVELY, "CLAIMS"). TO THE FULLEST EXTENT PERMITTED BY LAW, YOU WAIVE YOUR RIGHT AND COVENANT NOT TO SUE FOR SAID CLAIMS AGAINST PROTELESIS PARTIES.

PROTELESIS has no physical control over whether, or the manner in which, calls using our 911 Service are delivered by our underlying 911 provider or whether or if they are properly answered or addressed by any local emergency response center. Also, PROTELESIS relies on its underlying 911 provider and other third parties to route 911 Emergency calls to the proper emergency response center. ACCORDINGLY, YOU AGREE TO RELEASE, DISCHARGE AND HOLD HARMLESS PROTELESIS PARTIES FROM ANY AND ALL CLAIMS AND DAMAGES THAT DIRECTLY, INDIRECTLY OR ARISE OUT OF THE HANDLING OF SUCH CALLS BY ANY THIRD PARTY OR FOR ANY OTHER CONDUCT OF THE LOCAL EMERGENCY RESPONSE CENTER, THE PUBLIC SAFETY ANSWERING POINT OR OF THE NATIONAL EMERGENCY CALLING CENTER USED BY PROTELESIS'S UNDERLYING 911 PROVIDER. BY USING THE SERVICES, YOU AGREE THAT PROTELESIS PARTIES WILL NOT HAVE ANY SUCH LIABILITY OR RESPONSIBILITY AND, TO THE FULLEST EXTENT PERMITTED BY LAW, YOU HEREBY WAIVE YOUR RIGHT TO BRING ANY CLAIM AGAINST PROTELESIS PARTIES, ARISING FROM OR IN CONNECTION WITH THE EMERGENCY 911 SERVICE, EXCEPT WHERE SUCH CLAIMS RESULT FROM PROTELESIS'S (OR ITS EMPLOYEES' OR AGENTS') WILLFUL MISCONDUCT. FURTHERMORE, TO THE EXTENT PERMITTED BY LAW, YOU AGREE TO DEFEND, INDEMNIFY AND HOLD PROTELESIS PARTIES HARMLESS FROM ANY CLAIMS AND DAMAGES BROUGHT, ASSERTED OR THREATENED BY ANY THIRD PARTY AGAINST PROTELESIS PARTIES ARISING, DIRECTLY OR INDIRECTLY, FROM OR IN CONNECTION WITH ANY USE OF (OR INABILITY TO USE) THE SERVICE, INCLUDING WITHOUT LIMITATION, 911 AND E911 SERVICE, AND ANY OTHER CONDUCT REFERRED TO IN THIS SECTION UNLESS CAUSED BY PROTEL'S (OR ITS EMPLOYEES' OR AGENTS') WILLFUL MISCONDUCT.

YOU SHOULD NOT SIGN UP FOR THE SERVICE UNLESS YOU FULLY UNDERSTAND AND AGREE WITH THESE LIMITATIONS AND DISCLAIMERS. BY ENTERING INTO THIS AGREEMENT, YOU AGREE TO ASSUME THE RISK OF LOSING EMERGENCY 911 DIALING CAPABILITIES AND CONSENT TO THE DISCLOSURE OF YOUR TELEPHONE NUMBER AND OTHER IDENTIFYING INFORMATION TO EMERGENCY 911 AUTHORITIES AS PROTELESIS DEEMS NECESSARY IN ITS SOLE OPINION AND DISCRETION.

5. CUSTOMER ACKNOWLEDGEMENT

By signing this 911 Disclaimer, Customer acknowledges and agrees to the VoIP Service 911 and E911 limitations, Customer Obligations and PROTELESIS Parties limitations of liability described above. In addition, Customer agrees that, prior to use of any PROTELESIS Services, all Users of PROTELESIS Services have been made aware of the VoIP Service 911 and E911 limitations and Customer Obligations. Customer agrees to obtain an acknowledgement from each User of PROTELESIS Services of the VoIP 911 and E911 limitations and to forward such acknowledgement to PROTELESIS. PROTELESIS reserves the right to not provide the Service to you until PROTELESIS has received your signature below. If you have questions, please contact us at support@protelesis.com.

CUSTOMER SIGNATURE:

Signature

Date

Name

Title

PROTELESIS:

Signature

Date

Name

Title

Palmdale Water District

Elevate SOW

Overview

Customer currently has a Mitel/ShoreTel Connect System that they are looking to replace. They have Call Recording that is very important to them and have had many issues with the Oaisys over the years. They want Archiving for One Year for compliance and CYA purposes. They will utilize a custom app from Intermedia to conference in a prerecorded message(s) to inform the customer of special circumstances (late fees, outages, etc.) in Spanish or English and record this transaction with the Agent on the line.

- Install (160) ProUsers with Teams Integration with No Charge Promo Fanvil V64 Phones.
- (7) Resource Fax-500 Licenses for Physical Fax Machines.
- (3) Resource-500 User Licenses and Yealink CP925 Conference Phones to replace existing ShoreTel IP655 Conference Units.
- Install (2) HT802/2-Port ATA's and (1) GXW4216/16 Port ATA's to accommodate (7) Fax Machines, (3) Gate Controls, (1) Elevator Phone, and (2) Paging Ports.
- (6) Resource Licenses with no minutes for (3) Gate Controls, (1) Elevator Phone, and (2) Paging Ports.
- (11) Auto Attendants (1 comes with the Elevate Solution).
- (174) LNP.
- (1) TFP with 1000 Minute pre-paid minutes.
- (4) Company Messaging.
- (12) Call Center Elite Users.
- One-Year Archiving for (160) UC Users and (12) Call Center Elite Users.

***Additional billable items may be necessary to connect the existing Gate Controls, paging, and door box controls. A ProTelesis Engineer will determine what is required prior to installation and a Change Order will be presented to the customer.**

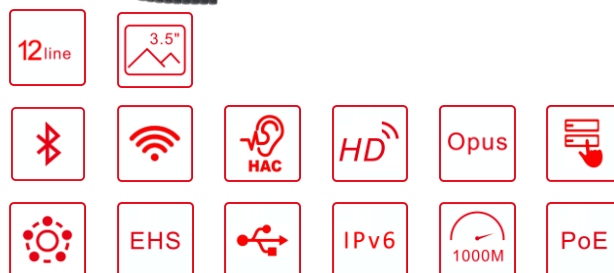


V64 Prime Business Phone

V64 is more than an efficient telephone but a delicate work of art, providing a smart and smooth business communication experience for enterprises. As the prime business phone featuring a color LCD screen and built-in Bluetooth 4.2 and 2.4G/5G Wi-Fi, V64 is a perfect combination of elegant outside and powerful inside.

Highlights

- ☑ 3.5" color LCD screen
- ☑ Support audio codec G.722 and Opus, HD audio on speakerphone and handset
- ☑ Support 6-party local conference
- ☑ Available to link with security products, can be easily customized into various security solutions for reducing investment
- ☑ Built-in 2.4GHz/5G WiFi and Bluetooth 4.2, realizing more flexible connectivity
- ☑ Dual Gigabit ports, integrated PoE
- ☑ Two installation methods of desktop stand and wall mountable
- ☑ Up to 21 DSS keys, every DSS key can be set as Line/BLF/ Speed Dial Key



Generic

- 12 SIP lines
- HD voice
- PoE enabled
- 3.5-inch (480x320) color screen
- Handset / hands-free / headset mode
- Intelligent DSS keys
- Desktop Stand / Wall-mounted (need an additional wall hanging parts)
- Optional external power supply

Phone Features

- Local Phonebook (1000 entries)
- Remote Phonebook (XML/LDAP, 1000 entries)
- Call logs (In/out/missed, 1000 entries)
- Blocked list/Allowed list
- Screen saver
- Voice Message Waiting Indication (VMWI)
- Programmable DSS/Soft keys
- Network Time Synchronization
- Built-in Bluetooth 4.2: Support Bluetooth headset/ Pairing mobile devices
- Built-in Wi-Fi
 - ✓ 2.4GHz, 802.11 b/g/n
 - ✓ 5GHz, 802.11 a/n/ac
- Support Poly wireless headset (Through Poly APD-80 EHS Cable)
- Support Jabra wireless headset (Through Fanvil EHS20 EHS Cable)

- Support Recording(through server)
- Action URL / Active URI
- uaCSTA
- SIP Hotspot
- Multicast
- Action Plan
- Group listening

Call Features

- Call out / Answer / Reject
- Mute / Unmute (Microphone)
- Call Hold / Resume
- Call Waiting
- Intercom
- Caller ID Display
- Speed Dial
- Anonymous Call (Hide Caller ID)
- Call Forwarding (Always/Busy/No Answer)
- Call Transfer (Attended/Unattended)
- BLF
- Call Parking/Pick-up (Depending on server)
- Redial
- Do-Not-Disturb
- Auto-Answering
- Voice Message (With server)

- 6-way Conference
- Hot Line
- Hotdesking

Audio

- HD Voice Microphone/Speaker (Handset/Hands-free, 0 ~ 7KHz Frequency Response)
- HAC handset
- Wideband ADC/DAC 16KHz Sampling
- Narrowband Codec: G.711a/u, G.723.1, G.726, G.729A/B, iLBC
- Wideband Codec: G.722, Opus
- Full-duplex Acoustic Echo Cancellation (AEC)
- Voice Activity Detection (VAD) / Comfort Noise Generation (CNG) / Background Noise Estimation (BNE) / Noise Reduction (NR) / Automatic Gain Control (AGC)
- Packet Loss Concealment (PLC)
- Dynamic Adaptive Jitter Buffer
- DTMF: In-band, Out-of-Band (RFC2833/ SIP INFO)
- VQM voice quality monitoring

Network

- Physical: 10/100/1000 Mbps Ethernet, dual bridged port for PC bypass
- IP Mode: IPv4/IPv6/IPv4&IPv6
- IP Configuration: Static IP / DHCP / PPPoE
- Network Access Control: 802.1x
- VPN: OpenVPN/L2TP
- VLAN
- LLDP
- CDP
- QoS
- RTCP-XR (RFC3611), VQ-RTCPXR (RFC6035)
- WIFI: Wi-Fi Security Mode: WPA / WPA2-PSK/802.X EAP

Protocols

- SIP2.0 over UDP/TCP/TLS
- RTP/RTCP/SRTP
- STUN
- DHCP
- CDP
- LLDP
- PPPoE
- 802.1x
- OpenVPN
- SNTP
- FTP/TFTP
- HTTP/HTTPS
- TR-069

- AES128 & AES256

Deployment & Management

- Auto-Provisioning via FTP/TFTP/HTTP/HTTPS/DHCP OPT66/SIP PNP/TR-069
- Web Management Portal
- Web-based Packet Dump
- Configuration Export / Import
- Phonebook Import/Export
- Firmware Upgrade
- Syslog

Physical Specifications

- LCD: 3.5 inch (480x320) color screen
- Keypad: 39 keys, including
 - 8 DSS keys with LED indicator light
 - 6 Function keys (Contact, Hold, MWI, Mute, Headset, Redial)
 - 4 Soft-keys
 - 4 Navigation keys
 - 1 OK key
 - 1 Return key
 - 12 Standard Phone Digits keys
 - 2 Volume Control keys, Up/Down
 - 1 Hands-free key
- HD Handset (RJ9) x1
- Standard RJ9 Handset Wire x1
- 1.5M CAT5.E Ethernet Cable x1
- Desk Stand x1
- Status Indicator Light x1 (Red)
- RJ9 Port x2: Handset x1, Headset x1
- RJ45 Port x2: Network x1, PC x1 (Bridged to Network)
- USB2.0 Port x1: Standard A, Connect with Flash Driver&USB headset
- Security lock port x1
- Power: DC5V/2A or PoE
- Power dissipation: standby 0.92W, high: 5.85W (Power supply)
- Power dissipation: standby 1.59W, high: 7.29W (POE)
- Working Temperature: 0~45℃
- Working Humidity: 10~95%
- Installation:
 - Desktop Stand
 - Wall-mounted (need an additional wall hanging parts)
- Color: Gunmetal
- Qty/CTN: 10 pcs
- N.W/CTN: 11.8 kg
- G.W/CTN 12.924 kg
- Device Dimensions: 204x202x31mm
- Gift Box Dimensions: 307x258x71 mm
- Outer CTN Dimensions: 5536x380x327 mm (10 PCS)

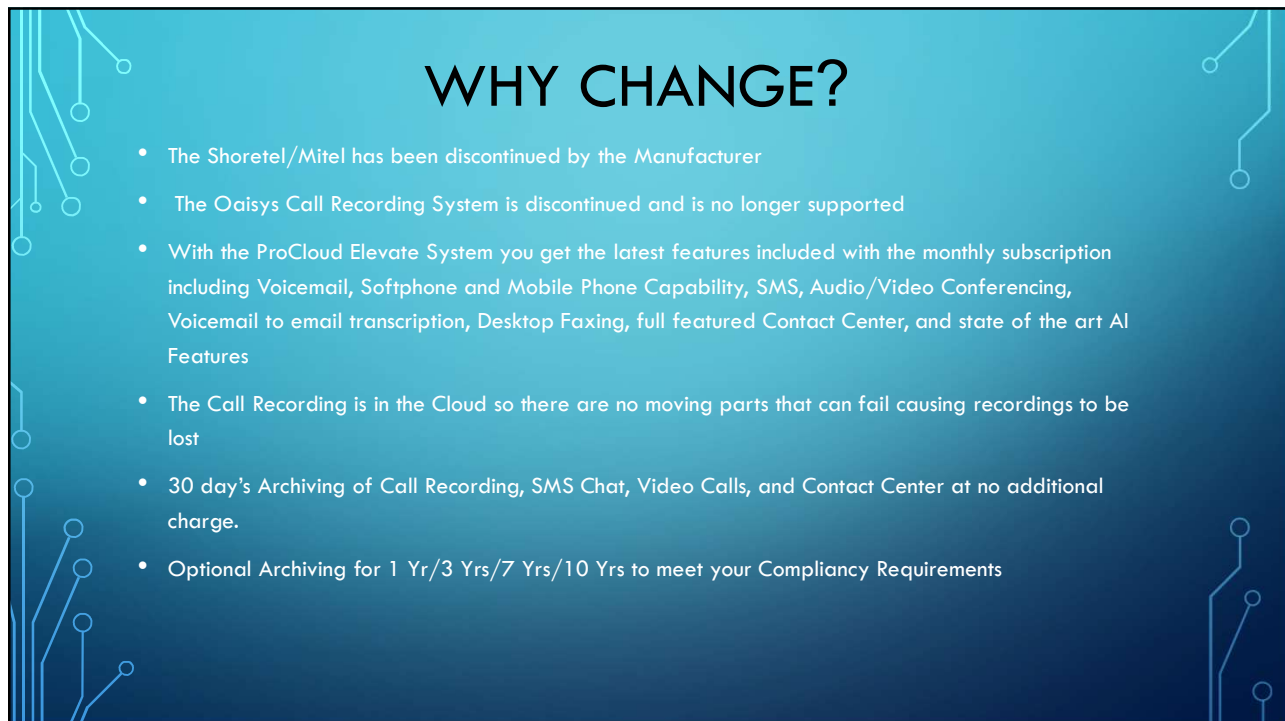
The above specifications may be updated in the future without prior notice. All hardware/software/physical features should be based on the final shipped products. For more information, please visit: www.fanvil.com





The slide features a blue gradient background with white circuit-like patterns on the left and right sides. At the top center is the Palmdale Water District logo, which includes a circular emblem with 'PWD' and 'EST. 1918', followed by the text 'PALMDALE WATER DISTRICT' and 'A CENTURY OF SERVICE'. Below this, the title 'PROTELESIS PROCLOUD ELEVATE SOLUTION' is displayed in large, bold, black capital letters. At the bottom, there are two logos: on the left, the ProTelesis logo with a stylized blue and orange geometric icon and the tagline 'Global IT Innovation'; on the right, the INTERMEDIA logo with four vertical bars in blue, green, red, and orange, followed by 'CLOUD COMMUNICATIONS'.

1



The slide has a blue gradient background with white circuit-like patterns on the left and right sides. The title 'WHY CHANGE?' is centered at the top in large, bold, black capital letters. Below the title is a bulleted list of reasons for changing the system:

- The Shoretel/Mitel has been discontinued by the Manufacturer
- The Oaisys Call Recording System is discontinued and is no longer supported
- With the ProCloud Elevate System you get the latest features included with the monthly subscription including Voicemail, Softphone and Mobile Phone Capability, SMS, Audio/Video Conferencing, Voicemail to email transcription, Desktop Faxing, full featured Contact Center, and state of the art AI Features
- The Call Recording is in the Cloud so there are no moving parts that can fail causing recordings to be lost
- 30 day's Archiving of Call Recording, SMS Chat, Video Calls, and Contact Center at no additional charge.
- Optional Archiving for 1 Yr/3 Yrs/7 Yrs/10 Yrs to meet your Compliancy Requirements

2

ABOUT PROTELESIS

ProTelesis and its merged entities has partnered with Palmdale Water District and serviced your current Shoretel/Mitel Systems for the past 12 Years

ProTelesis offers a full suite of IT Solutions specifically designed to help our customers focus on their business while we focus on their IT. Through the joint initiatives of Protel, one of California's leading Mitel Blue dealers and Xtelesis, one of California's leading Mitel Orange dealers, ProTelesis has grown into one of the largest Business Phone System and Unified Communications providers throughout the U.S.

We provide technology solutions for the entire organization with start to finish IT Infrastructure Design and Implementation. Additional real-time analytic insights, automation, monitoring, and 24/7 support helps our clientele sleep better at night.

From infrastructure services such as Structured Cabling, Data Networks and Carrier Services, to end user focused services such as Unified Communications and Contact Centers, ProTelesis has you covered.

Headquartered in San Diego, California, ProTelesis has offices in Burlingame, Irvine, Sacramento, Seattle, and Salt Lake City.

3

ABOUT INTERMEDIA

Intermedia is a leading provider of intelligent cloud communications solutions that help over 250,000 businesses connect better, from wherever, through our AI-powered platform that includes voice, video conferencing, chat, SMS, contact center, file sharing and backup, security, archiving, and more. We strive to eliminate the need for multiple communications service providers with a seamlessly integrated portfolio of intelligent communications and collaboration solutions, including our flagship product, Intermedia Elevate®, all delivered through one highly reliable and secure platform. With one monthly bill, and one intuitive point of administrative control, and having been certified by J.D. Power for excellence in technical support eight times, Intermedia is committed to providing enterprise-grade products to businesses of all sizes through a simple, Worry-Free Experience™.

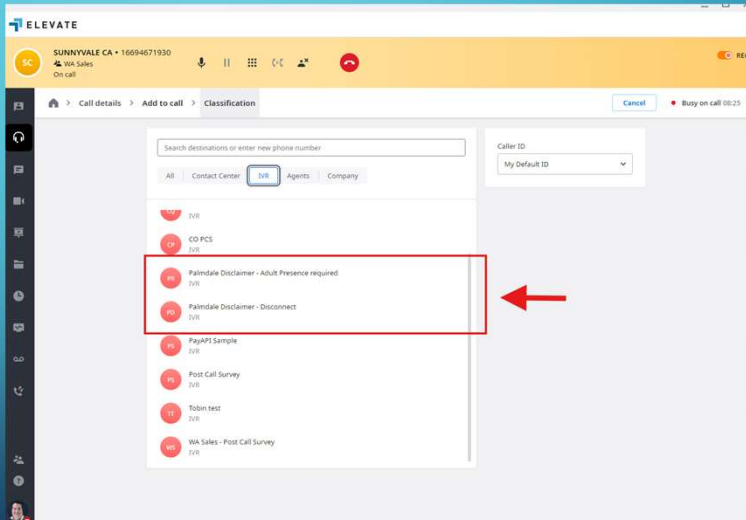
As a partner-first company, Intermedia goes to work for ProTelesis by providing a comprehensive set of programs, resources, and support to maximize their success. Programs include our Customer Ownership Reseller (CORE™) model – which enables ProTelesis to resell, package, and manage Intermedia's solutions as if they were their own.

4

6

SPECIAL APPLICATION FOR CUSTOMER SERVICE RECORDED DISCLAIMER

- Allows agent, while on a call, to play a pre-recorded disclaimer to ensure accuracy and compliance
- Palmdale can customize and change these disclaimers as needed
- Disclaimers can be created for multiple subjects in multiple languages
- These disclaimers are recorded as part of the customer interaction, and are retained based on Archiving retention



7

THANK YOU!

8



BOARD MEMORANDUM

DATE: July 14, 2025

TO: **BOARD OF DIRECTORS**

FROM: Mr. Jim Stanton, Information Technology Manager

VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis LaMoreaux, General Manager

RE: ***CONSIDERATION AND POSSIBLE ACTION ON AUTHORIZING THE GENERAL MANAGER TO ENTER INTO A CONTRACT WITH SOCAL SCADA FOR DESIGNING AND BUILDING THE SCADA NETWORK UPGRADE. (\$702,000.00 – NON-BUDGETED – PROJECT NO. 24-616 – INFORMATION TECHNOLOGY MANAGER STANTON)***

Recommendation:

Staff recommend that the Board approve authorization for the General Manager to enter into a contract with SoCal SCADA for the design and building of the SCADA network upgrade.

Alternative Options:

The current devices are no longer manufactured or supported. The District currently does not have additional replacements and replacements are no longer available on the open market.

Impact of Taking No Action:

The District's distribution and production network is susceptible to cyber-attacks and unable to be monitored and controlled remotely.

Background:

The District recognized the need to modernize the existing SCADA network by investing in the SCADA Master Plan. Phase 1 was the initial network design completed in March of 2025. This request is to complete the plan which includes new network implementation, server virtualization, SCADAPack upgrades, SCADA standards, and training.

Network Implementation – The new network will be fault tolerant, segmented and protected, utilizing both licensed and unlicensed radio frequencies and current cybersecurity best practices.

Server Virtualization – Using VMWare, hosts and host servers will be virtualized in a private cloud.

SCADAPack Upgrades – Upgrade existing SCADAPacks to current models.

BOARD OF DIRECTORS
PALMDALE WATER DISTRICT
VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager
RE: SCADA Network and Communications Upgrades Agreement

July 14, 2025

SCADA Standards – Develop new SCADA standards representing the new network, equipment, and programming. All standards will follow DHS guidelines from the recent assessment.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 3 – Systems Efficiency.

This item directly relates to the District’s Mission Statement.

Budget:

This item has a non-budgeted cost of approximately \$702,000.00.

Supporting Documents:

- SoCal SCADA Proposal for PWD SCADA Network Upgrade
- Appendix D - Cost proposal



PALMDALE WATER DISTRICT
A CENTURY OF SERVICE

Proposal for

PALMDALE WATER DISTRICT

SCADA Network Upgrade

06/12/2025

Submitted to:

Jim Stanton

IT Manager

Prepared by:

Eric Niu, PE, PMP





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Appendix A: Resumes

Appendix B: Preliminary Construction Schedule

Appendix C: Signed NDA

Appendix D: Cost Proposal (separate file)



Jim Stanton
IT Manager
Palmdale Water District
2029 Wast Avenue Q
Palmdale, CA 93550

SoCal SCADA Solutions

- Consulting
- Engineering
- Design/Build
- On-call Support

Subject:
Proposal for SCADA Network Upgrade

Dear Mr. Stanton:

SoCal SCADA Solutions is pleased to submit the enclosed proposal for upgrading the existing SCADA network. We understand the importance of this project to the district's mission and are committed to its successful delivery. To ensure this, we have assembled a team of subject-matter experts with extensive experience in both the design and implementation of SCADA networks. This is the same dedicated team that has collaborated with the district over the past two years, successfully completing numerous similar projects.

Our team offers the district the following advantages:

➤ **In-depth Knowledge of the District's SCADA network**

Our team successfully completed the last two phases of this project, including the master planning and detailed design of the new network. We have visited every site and developed a comprehensive understanding of the District's SCADA infrastructure. Our proposed solution is based on this deep knowledge and supported by advanced RF design simulations.

➤ **Proven Solutions and a Track Record of Success**

Our team has designed and built similar networks for clients such as Walnut Valley Water District, Rowland Water District, and Cucamonga Valley Water District. These proven designs have been successfully deployed and are frequently referenced as case studies by other clients.

Our team is committed to deliver all tasks specified in the RFP and meet the requirements of the proposal and District's professional services agreement.

If you have any questions or require additional information, please do not hesitate to contact me directly.

Sincerely,

A handwritten signature in black ink, appearing to read 'Eric Niu'.

Eric Niu, PE, PMP
Principal

Date:
June 12, 2025

Contact:
Eric Niu, PE, PMP

Phone:
949.231.9173

Email:
eric.niu@socalscada.com

Put Client First, Always



2. Profile of Firm

SoCal SCADA Solutions is an engineering consulting firm specializing in tailored SCADA solutions designed to meet the unique needs of each client. We primarily serve water and wastewater agencies, along with local municipalities throughout Southern California. Our services include Instrumentation & Control system design, radio telemetry networks design and implementation, SCADA & enterprise systems integration. Below are examples of typical services we provide:

1. SCADA system assessment and master planning

With over 35 years of experience, our team of experts has evaluated numerous SCADA systems for a wide range of clients. We bring deep expertise in SCADA design and implementation, allowing us to quickly assess current system performance and develop a strategic roadmap for improvements.

2. Control system design

Our licensed control system engineers provide comprehensive Instrumentation & Control system designs for water treatment plants and distribution systems. Our specialties include PFAS, UV, and nitrate treatment systems, as well as chlorine dosing and pressure control solutions.

3. SCADA network design and implementation

We design and implement large-scale radio telemetry networks for water distribution and wastewater collection systems. Having successfully designed, built and supported over ten such networks, we bring invaluable lessons learned from real-world experience. This knowledge allows us to design systems that are reliable, scalable, and practical for field operation.

4. SCADA integration

Our team handles the programming and configuration of various PLC and SCADA platforms, including Wonderware, GE iFix, and Ignition. We specialize in Schneider and Allen-Bradley PLCs, with extensive experience in function block programming and seamless integration.

5. Regular maintenance and 24/7 On-call Support Service

We offer ongoing maintenance services, including software and firmware updates when needed. Our team is on call 24/7 to support the systems we've designed and built, with guaranteed response within one hour of receiving a call or text. Through remote system

access, most issues are resolved quickly off-site; when on-site service is required, we promptly schedule a visit to minimize operational disruptions.

Over the past 20 years, we have developed a strong partnership with Applied Technology Group Corp (ATG), Siemens, and Morrow Meadows Corp. ATG specializes in RF engineering and the construction of large-scale microwave networks. Morrow Meadows, one of the region's largest electrical contractors, also operates a UL-certified panel shop. Siemens is a global leader in industrial network equipment. Together, this team has successfully designed and built more than twenty industrial networks for water and wastewater clients throughout the region.

We maintain strong financial stability and have a spotless legal record. We have never been involved in any lawsuits or litigation with clients, subcontractors, or suppliers. Additionally, we have never had any claims or settlements paid by insurance companies.

3. Qualification of the Firm

SoCal SCADA Solutions has designed and built microwave networks for many clients in southern California. Our team's proven track record is demonstrated by the chosen ten projects shown below. These projects were delivered by the key members of our team. Detailed descriptions of some of these projects are followed by the table. A tour can be arranged to visit any one of these projects if the district desires.

#	Client/Project	SCADA Network				
		Condition Assessment	Planning	Engineering Design	Build/ Integration	On-call Support
1	Walnut Valley Water District / SCADA Upgrade	✓	✓	✓	✓	✓
2	Irvine Ranch Water District / SCADA Backhaul Network	✓	✓	✓	✓	✓
3	Cucamonga Valley Water District / SCADA Network	✓	✓	✓	✓	✓
4	Rowland Water District / SCADA Upgrade	✓	✓	✓	✓	✓
5	San Gabriel Valley Municipal Water District / SCADA Upgrade	✓	✓	✓	✓	✓
6	Valley County Water District /SCADA Assessment	✓	✓	✓	✓	✓
7	City of Arcadia / SCADA Network	✓	✓	✓		✓

8	Bellflower Somerset Municipal Water Company / SCADA D/B		✓	✓	✓	✓
9	La Puente Valley County Water District /SCADA Upgrade	✓	✓	✓	✓	✓
10	Eastern Municipal Water District / SCADA Backhaul Network	✓	✓	✓		

Project Reference #1

Client: Walnut Valley Water District

Project: SCADA Upgrade Project

Team Member: Eric Niu, Jeff Gillam

Services Provided:

- SCADA Condition Assessment & Master Planning
- Engineering Design for a modern SCADA system
- SCADA Microwave Backhaul Network Design & Build
- FCC Licensing
- Programming PLC/HMI/Database
- Configuration of network (routers/switches)
- System cut-over, commissioning and start up
- On-call service 24/7/365

Project Cost: \$3.8M

Project Description:

Walnut Valley Water District (WVWD) operates and maintains potable and recycled water storage and distribution systems serving a population of approximately 100,000. The system includes over 60 remote sites, encompassing 17 pump stations, 31 reservoirs, a hydroelectric plant, pressure-reducing valve (PRV) stations, metering stations, and interconnections that support water delivery to 26,500 service connections.

The District's legacy SCADA system, originally implemented in the early 1980s, consists of a single Wonderware InTouch HMI communicating with approximately 50 remote terminal units (RTUs) and programmable logic controllers (PLCs) from various manufacturers, including Opto, SyMax, Allen-Bradley (AB), and Telemecanique (TSX). Communication is



managed via two data concentrators and a conventional point-to-multipoint (P-T-M) radio telemetry network built on serial radios.

This aging system has become obsolete, slow, and increasingly problematic, lacking the reliability, speed, and flexibility required to meet the District's current and future operational needs.

Starting with a comprehensive condition assessment, Eric Niu led the development of a SCADA Master Plan that ultimately guided the District through its SCADA system upgrade. The master planning process involved a thorough evaluation of the existing system, a review of current and emerging technologies, identification and analysis of system gaps, and collaborative brainstorming of innovative solutions. The result was a phased project plan designed to support strategic budgeting and effective execution of the SCADA upgrade.

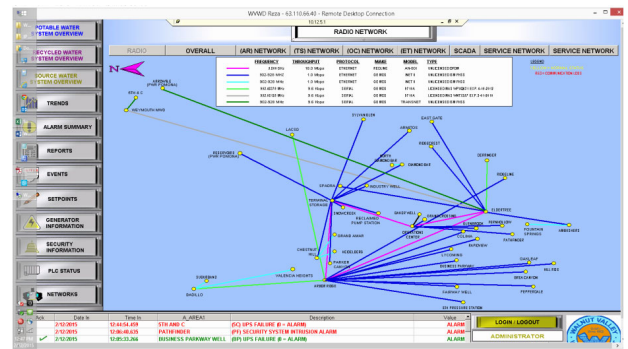
Following the completion of the SCADA Master Plan, Eric Niu led a multidisciplinary team to carry out the detailed engineering design. This comprehensive effort encompassed RF, electrical, network, structural, and tower engineering. The resulting design fully modernized the District's SCADA system, creating a robust platform for advanced controls and the digitalization of operations across the board. Additionally, the project standardized technologies, equipment, and maintenance practices—delivering significant cost savings and long-term operational efficiencies.



After thoroughly evaluating delivery options for its multi-million-dollar SCADA upgrade project, the District chose to adopt a Design/Build (D/B) model to streamline execution and accountability. Eric Niu led the team that successfully secured the D/B contract and served as the project manager overseeing a team of seven subcontractors, covering disciplines such as electrical, tower, microwave, and civil construction. Under his leadership, the project was completed in just 18 months—delivered ahead of schedule and within budget.

Using a systems engineering approach, the Design/Build team successfully delivered a turnkey wireless network solution that addressed every aspect of modern telemetry network design and construction. Our engineering efforts included a comprehensive assessment of the existing system, full radio site surveys, evaluation and selection of appropriate radio technologies, and extensive bench testing. We also designed and implemented the LAN/WAN infrastructure, developed a detailed network diagnostic map, and incorporated traffic monitoring and security assurance measures to ensure long-term reliability and performance.

Upon completion of the initial phase, the team advanced to detailed design. This included defining system requirements, performing in-depth engineering for each backhaul site, and collaborating with the District to support the FCC licensing process. Additionally, the team developed a Metropolitan Area Network (MAN) design and delivered a comprehensive Network Management Plan. This plan encompassed network traffic Quality of Service (QoS), a Network Security Plan, and a Routing Plan that outlined both static and dynamic routing protocols, along with backup routing strategies to ensure redundancy and resilience.



The new backhaul microwave network utilizes next-generation, licensed 11 GHz radios with high throughput, linking five strategically located access points that span a 55-square-mile area within the city's geographic boundaries. The backhaul network was designed to support not only current data traffic demands but also future growth and system scalability.

The new SCADA system is built on the GE iFIX platform and standardized on Schneider M340 PLCs for control at all remote sites. As part of the upgrade, the team programmed more than 60 new PLCs, configured the GE iFIX platform, and commissioned over 30 managed switches and routers, as well as microwave radios and access point (AP) radios.

The system operates within a virtual machine environment and delivers a range of advanced features, including comprehensive graphical interfaces, robust alarm management and reporting, and full remote diagnostic capabilities. It also supports mobile device operation, integration of IoT devices, and advanced operational strategies such as predictive maintenance and energy optimization—positioning the District for greater efficiency, reliability, and scalability.

Project Reference #2

Client: Rowland Water District

Project: SCADA Network Design & Build

Team Member: Eric Niu, Jeff Gillam, Mikhail Baleevskikh

Services Provided:

- Network design and implementation
- RF engineering
- FCC licensing
- SCADA microwave backhaul installation
- Tower selection

Project Cost: \$800,000

Project Description:

Rowland Water District (RWD) owns and operates a water storage and distribution system encompassing 21 sites across Rowland Heights, Hacienda Heights, La Puente, West Covina, and the City of Industry. The District's existing telemetry network is a legacy system configured in a daisy-chain topology. It utilizes GE MDS iNET-II Ethernet radios operating in the unlicensed 900 MHz band. These radios are capable of delivering data speeds of 512 or 1024 kbps over distances of up to 25 miles (40 kilometers), depending on environmental conditions and line-of-sight quality.

We began the project by completing a SCADA Condition Assessment Report, which identified key network issues related to security, reliability, performance, and capacity for future growth. Based on these findings, we collaborated closely with the District to plan, design, and implement a brand-new backhaul-based network that has successfully modernized the SCADA system.

The upgraded backhaul network includes four 100-foot communication towers, four network communication panels, nine routers, four switches, and a centralized firewall. The new backhaul network operates on licensed 11GHz and 23 GHz spectrum; and remote sites are connected by an 900MHz AP radio. Our scope of work covered comprehensive site surveys, tower selection and design review, panel design and fabrication, network architecture and configuration, FCC licensing, microwave radio configuration, and seamless migration from the legacy system to the new infrastructure.



Project Reference #3

Client: Cucamonga Valley Water District

Project: SCADA Backhaul Network Upgrade

Team Member: Eric Niu, Jeff Gillam

Services Provided:

- Network condition assessment
- SCADA microwave backhaul network master planning & conceptual design
- RF engineering
- Radio selection
- Tower evaluation and site plan
- Network design
- Router, switch and firewall configuration and testing



Project Cost: \$1.3M

Project Description:

Cucamonga Valley Water District (CVWD) provides drinking water and sewer collection services to approximately 190,000 residents within a 47-square-mile service area. This area includes the City of Rancho Cucamonga, portions of the cities of Fontana, Ontario, and Upland, as well as some unincorporated areas of San Bernardino County. CVWD manages around 48,000 water connections and 37,000 sewer connections, with an average daily water demand of approximately 47 million gallons per day (MGD).

- Water Treatment Facilities
 - Lloyd W. Michael Water Treatment Plant (LMWTP) – 60 MGD
 - Royer Nesbit Water Treatment Plant (RNWTP) – 11 MGD
 - Arthur Bridge Water Treatment Plant (ABWTP) – 4 MGD
 - Nitrate Treatment Facility (NTF)
- Water Distribution System
 - 8 pressure zones
 - About 27 active production wells
 - 25 Reservoir sites and booster stations

- 
-
- 4 Interconnections for water delivery
 - 5 Interconnections for treated water received
 - 3 MWD connections for raw water import

The District's current radio telemetry network spans the Rancho Cucamonga area, as well as parts of Fontana, Ontario, and Upland. The network primarily utilizes Firetide HotPort 7020 outdoor mesh nodes operating within the 5GHz, 4.9GHz, and 900MHz frequency bands. It consists of two primary mesh rings, along with several smaller network cells that connect to these main rings.

In addition to the Firetide radios, the network includes several point-to-multipoint (P-T-M) links utilizing Schneider JR900 radios, GE MDS iNET-II units, and legacy Metricom radios. However, this flat network architecture presents several critical issues: lack of security and segmentation, limited and non-scalable bandwidth, latency problems, protocol incompatibility, and restricted remote diagnostics and maintenance capabilities. These limitations hinder the District's ability to operate efficiently and maintain a modern, reliable infrastructure.

The most pressing concern is that the Firetide radios—central to the current network—are now obsolete and no longer available on the market, making ongoing support and expansion unsustainable.

The team was engaged to deliver a comprehensive SCADA network modernization project, which included three key phases: Condition Assessment, Engineering Design, and Network Implementation. Eric and Jeff collaborated closely throughout the project and provided the following services:

- Condition Assessment
- Site Survey and bench testing
- Workshops
- Backbone microwave radio evaluation
- Tower evaluation
- RF engineering
- Network planning
- Design of backbone network
- Network configuration and testing

The new backhaul network consists of four high-speed rings utilizing 24 unlicensed microwave links operating in the 24GHz band. Designed as a fully routed network, each control site (CS) is segmented, ensuring improved network structure and security. This



The SCADA system migration to the new network was executed seamlessly, without any disruption to ongoing operations.



Project Reference# 4

Client: Irvine Ranch Water District

Project: SCADA Backhaul Network

Team Member: Eric Niu, Jeff Gillam

Services Provided:

- Network condition assessment
- New SCADA microwave backhaul network planning, design, and construction
- Engineering design of communication panels
- Tower selection and foundation design
- FCC licensing, FAA coordination
- Network design & router/switch configurations
- System commissioning



Project cost: \$1.5M

Project Description:

Irvine Ranch Water District (IRWD) serves a population of approximately 330,000 across a 179-square-mile area in south-central Orange County. The region is semi-arid, and IRWD manages around 100,000 service connections, including both domestic and recycled water customers. The District operates a wide range of critical water infrastructure, including potable water storage facilities, booster and distribution systems, two recycled water treatment plants with an associated recycled water distribution system, and a surface water treatment plant.

The existing telemetry network at IRWD utilizes GE MDS iNET Ethernet radios, with access points strategically located on hilltops throughout the District. Remote sites communicate with their nearest access point, which are then daisy-chained back to the Operations Center. In total, more than 200 remote sites rely on this architecture to transmit data to the central system. However, the current network lacks true backhaul infrastructure. This legacy configuration is outdated, unreliable, and prone to communication issues. It is also difficult to troubleshoot and maintain due to its flat architecture and limited diagnostic capabilities. To support operational reliability, future scalability, and modern cybersecurity standards, the District requires a new, backhaul-based SCADA network that spans the entire service area.

Eric Niu was tasked by the District to design a new SCADA backhaul network that would serve as the foundation for modernizing its entire SCADA system. He led a multidisciplinary team—including Applied Technology Group (ATG) and Siemens as subconsultants—and delivered one of the most advanced SCADA backhaul networks among water agencies in the nation at the time.

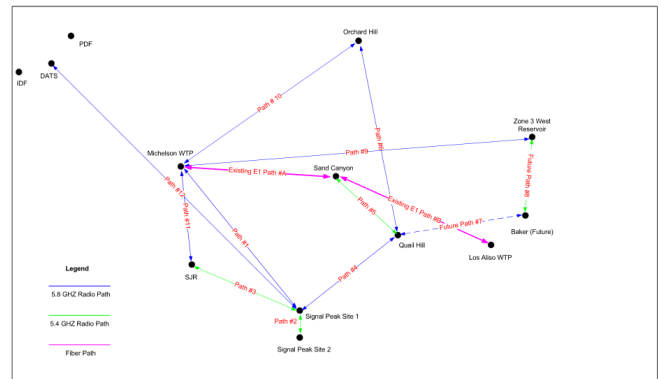


The network employs next-generation, high-throughput 5.8 GHz license-free radios to link 13 strategically located access points across a 55-square-mile area. The design provides dedicated bandwidth for both the SCADA system and District office communications, ensuring reliable and efficient data flow for operational and administrative needs.

The new backhaul network was successfully designed, built, and rigorously tested—and has been operating reliably and without issue since its commissioning in 2010.

The team has provided the following services:

- Condition Assessment on all existing networks including plants, remote sites, and offices
- Bench tested 4 major brand microwave radios and completed test report
- Desk analysis and Site survey using microwave radios
- Completed Site plan/drawings for electrical, power and other modifications
- Engineering design for all new communication panels
- Engineering design for 1 x 120FT tower, 2 x 100FT towers, 1 x 30FT tower and 1 x 20 FT tower structure
- Geotechnical and foundation design for all towers
- Provided and installed all backhaul radios, configured and tested. All radio works were completed by Sub-contractor Applied Technology Group.
- Provided and installed all SIEMENS network equipment including network switches and routers.
- Provided O&M and training, on-call tech support services



Project Reference# 5

Client: Eastern Municipal Water District

Project: SCADA Backhaul Network Master Planning

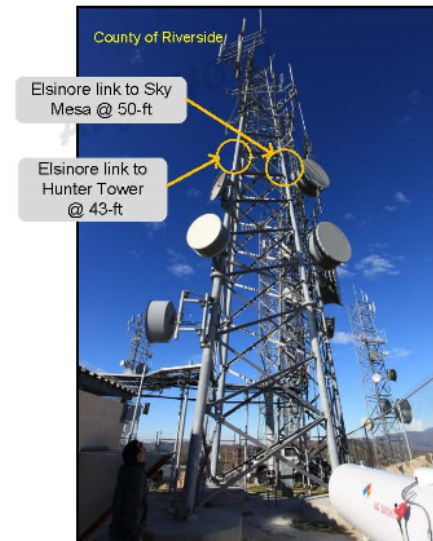
Key Team Member: Eric Niu, Jeff Gillam

Services Provided:

- Network condition assessment
- SCADA microwave backhaul network master planning & design
- RF engineering
- FCC licensing

Project Cost: \$200,000

Project Description:



Eastern Municipal Water District (EMWD or the District) provides water service to approximately 136,000 retail customer accounts and sewer service to 228,000 accounts. Its service area includes the cities of Hemet, Menifee, Moreno Valley, Murrieta, Perris, San Jacinto, Temecula, as well as the unincorporated communities of Good Hope, Homeland, Lakeview, Nuevo, Mead Valley, Quail Valley, Romoland, Sun City, Valle Vista, and Winchester (collectively, the “Municipalities”). In addition to retail service, the District supplies water on a wholesale basis to several agencies, including the Cities of Hemet, Perris, and San Jacinto, as well as the Elsinore Valley Municipal Water District, Lake Hemet Municipal Water District, Nuevo Water Company, Rancho California Water District, and Western Municipal Water District (collectively, the “Wholesale Customers”). Altogether, EMWD serves a population of approximately 758,000. The District also delivers recycled water to a diverse range of customers, including 70 agricultural sites, 6 golf courses, 106 landscape irrigation sites, 5 private duck clubs, a demonstration wetland project, 17 temporary construction meters, and 1 designated wildlife area.

The District’s water system consists of the following major facilities:

- 2 freshwater filtration plants
- Perris Water Filtration Plant (PWFP) – 24MGD
- Hemet Water Filtration Plant (HWFP) – 12MGD
- 2 ground water desalters

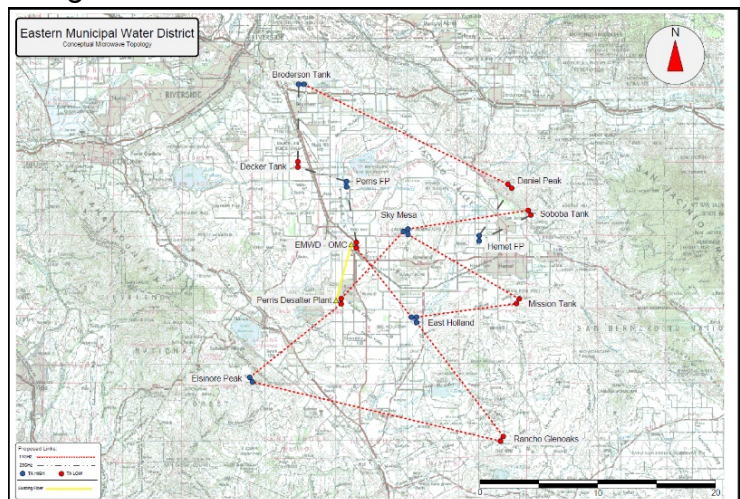
- Perris Desalter Plant (PDP) – 5 MGD
- Menifee Desalter Plant (MDP) - 3 MGD
- 4 Regional Water Reclamation Facilities
- 56 sewer lift stations
- 21 active domestic wells
- 12 desalter wells
- 77 storage tanks
- 83 pump stations
- 2,430 miles pipeline

The District's existing SCADA system was originally installed approximately 18 years ago. While incremental improvements have been made over the years, including a significant system upgrade in 2011, the underlying telemetry network remains largely unchanged. It is built on a star topology utilizing multiple repeaters and a proprietary Point-to-Multipoint (P-T-M) communication system. Aside from extensions to accommodate new sites, the telemetry network itself has not been meaningfully upgraded since its initial deployment.

This legacy architecture presents several critical challenges: lack of redundancy, limited and non-scalable bandwidth, latency issues, protocol incompatibilities, and constrained remote troubleshooting and maintenance capabilities. These limitations hinder operational efficiency and pose increasing risks as the District continues to grow and modernize. Addressing these issues is essential to ensuring the reliability, security, and scalability of the District's technology infrastructure moving forward.

The team was tasked with developing a comprehensive SCADA Master Plan and detailed design to serve as a strategic roadmap for the District. This plan would guide budgeting, planning, and implementation efforts to upgrade the entire SCADA telemetry network. Eric and Jeff collaborated closely on this effort and provided the following key services:

- Conducted a detailed assessment of the existing SCADA telemetry infrastructure
- Identified system deficiencies, operational limitations, and cybersecurity vulnerabilities
- Evaluated current technologies and industry best practices for modern SCADA systems
- Performed radio path studies and site surveys to assess feasibility and signal coverage



- 
-
- Developed a high-level conceptual design for a new, scalable, and secure telemetry network
 - Recommended network architecture, communication technologies, and equipment standards
 - Proposed phased implementation strategies aligned with the District's operational priorities and budget planning
 - Presented findings and recommendations in a comprehensive Master Plan report for stakeholder review and decision-making

The team conducted a thorough evaluation of potential microwave radios and carefully reviewed the licensed frequency spectrum available in the region. Based on this analysis, final recommendations were made for the selection of radios and antennas optimized for performance and reliability. Wherever feasible, the design leveraged existing infrastructure—including communication towers, monopoles, rooftops, reservoir tops, and fiber optic assets—to minimize costs and streamline implementation.

The proposed new backhaul network is designed as a high-speed ring utilizing 13 licensed microwave links operating across the 11 GHz, 13 GHz, and 18 GHz frequency bands. This architecture fully segregates non-SCADA traffic from the SCADA backhaul, ensuring enhanced network security and simplified maintenance.

4. Project Understanding

The SCADA network is critical to the District's mission of delivering safe, reliable, cost-effective, and environmentally sustainable water services. As the backbone infrastructure for water production, its performance and reliability are paramount.

We completed the District's SCADA Master Plan in 2023. During our assessment of the existing system, we identified several issues with the Firtide radio network, including concerns about reliability, product lifespan, and the availability of technical support. We provided recommendations to address these challenges. See details in the final planning report.

In March 2025, we finalized the detailed design for the new SCADA network. The system is built on our proven methodology, which has been successfully implemented in numerous similar projects. Our design offers a robust solution that addresses key priorities such as reliability, redundancy, cybersecurity, and scalability for future growth. This approach has consistently delivered successful results for many of our clients. For this project, our team will fully implement the final design and complete each task specified in the RFP.

We fully understand that collaboration is key to a successful project. Having worked closely with the District's team during the last two phases, we will continue to partner with them

throughout this phase supporting panel fabrication, site electrical work, testing, and system cut-over.

5. Project Staffing and Availability

To ensure continuity and consistency, the project team will remain unchanged from last year. The team is led by SoCal SCADA Solutions, with Applied Technology Group (ATG) continuing to serve as subconsultant. Eric Niu and Jeff Gillam remain fully committed to this assignment, bringing decades of hands-on experience and deep technical expertise.

Key Team Member

Eric Niu, PE, PMP, Project Manager / Principal System Engineer –

Mr. Niu is a seasoned systems design engineer with over 35 years of experience in control systems planning, design, integration, and implementation. His expertise spans telemetry networks, field instrumentation, and electrical equipment. He has successfully delivered more than 200 automation projects, ranging in value from \$100,000 to \$10 million, across the water/wastewater, power, refinery, chemical, and pharmaceutical industries.



Notably, Mr. Niu engineered, built, and deployed the first carrier-grade microwave backhaul network in the water/wastewater sector, supporting over 250 remote sites across California. This pioneering solution has since been adopted by numerous agencies seeking to modernize their legacy networks.

Jeff Gillam, RF Engineer

Mr. Jeff has over 30 years of hands-on experience in RF engineering and wireless technologies, specializing in both licensed and unlicensed microwave systems. His expertise includes RF path analysis, site surveys, and the planning, design, and implementation of backhaul networks. He has planned, surveyed, designed, deployed, and commissioned more than 100 telemetry networks of various sizes across the water, wastewater, power, oil, and gas industries throughout California.



For the past 30 years, Mr. Jeff has provided dedicated services to clients in the Southern California region. He has conducted numerous microwave site surveys across Orange, Los Angeles, Riverside, and San Bernardino counties, and has an in-depth understanding of the region's terrain. His technical proficiency spans a wide range of equipment, including



Redline, AlfaPlus, Firetide, Moseley, DragonWave, RaCom, Alvarion, Ubiquiti, Kenwood, GE MDS, and others.

More details can be found in **Appendix A - Resumes**

6. Work Plan

Below is our detailed work plan step by step:

1. Kick-Off Meeting – work through construction sequencing and review schedule
2. Order long lead time equipment – radio, antenna, router and switch (up to 3 months)
3. Start FCC licensing process – this process can take up to 3 months
4. Assist the District team to build new panels while waiting for equipment and licensing
5. Develop and finalize the following Cut-over Plan (need to be finalized with the District team):
 - a. Deploy a new SCADA server with replicated applications and new IP
 - b. Connect the new SCADA server to the new backhaul network
 - c. Dedicate a workstation with a TV screen (@Treatment Plant) for the new server
 - d. Operators now can view two TV monitors: one is for the existing system on the old network, the other is for the new server on the new network
 - e. Cut-over Treatment Plant PLCs
 - i. District to change IPs of the PLCs, one by one; may need to change multiple PLCs at the same time depending on process requirement
 - ii. Monitor communications on the dedicated TV monitor
 - iii. Change the last PLC's IP to completely transit to the new network
 - iv. Now the Plant system is on the new network, while the distribution system is still on the old network
 - f. Cut-over remote site PLCs
 - i. Work with Operations to separate remote sites into 5 groups.
 - ii. Each group will be cut over in one day
 - iii. At each remote site, realign the newly installed antenna for best AP connection
 - iv. District to modify PLC IP and monitor communication for the site until everything is checked OK, then move to next site until the last one is done.
 - g. Now all sites have been moved to the new network successfully. The district can now modify IPs of the existing server, or deploy new servers with new IPs.
 - h. Monitor network performance for a week and report issues
6. Network configuration and bench testing

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- a. Once received network equipment, configure and bench test networks in SoCal SCADA Office per approved drawings
 - b. Label and ship preconfigured network equipment to the District, reset up bench test in the District's facility and demonstrate network performance
 - c. Provide one day hands-on network training on testing bench
 7. Radio configuration and bench testing
 - a. Configure and test all radios in ATG office
 - b. Label and ship all equipment to the district including radio, antenna and master stations
 - c. Provide one day hands-on training on radios before deployment
 8. New panels and site preparation by the District
 - a. District to complete panels in the shop, test before site installation
 - b. Install all panels at site and complete all site works
 - c. Power up panels for readiness
 - d. Install new network equipment at Office and Plant and complete wiring
 9. Build new backhaul network
 - a. Order a lift truck, and move the lift truck at proper location
 - b. Relocate existing Firetide radios/antennas if necessary
 - c. Install microwave radio and antenna link by link
 - d. Align and test each backhaul link without interruption to the existing network
 - e. Individual link connectivity testing
 - f. Entire backhaul network connectivity testing
 - g. Backhaul network resilience testing
 10. Build each AP network
 - a. At each remote site, install preconfigured remote radio and connect to the panel switch. Install and connect a new Yagi antenna and new cables.
 - b. Align new antenna to the AP point without interrupting the existing Firetide radio if possible. If not then leave it alone.
 - c. Test connectivity from both end using laptops to make sure link is up and running and ready for cut-over.
 11. Following finalized Cut-over Plan to complete network transition
 12. Assist the District to set up SCADA Firewall and remote access
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13. Documentation and file backup
 - a. Backup all configuration files
 - b. AS-BUILT drawings
 - c. Master IP tables
 14. Start On-call tech support service
 15. Review and evaluate existing PLC programs focusing on FB programming, provide recommendations

7. Unique Qualifications

We bring a proven, system-oriented approach that has been successfully applied to multiple similar projects. For this engagement, we offer the following unique qualifications:

- **Long working history with the District** - Over the past two years, SoCal SCADA Solutions has worked closely with the District's team to evaluate and complete the design plans for the new SCADA network. Our team has developed an intimate understanding of your SCADA system and a deep appreciation of the District's operational needs.
- **Proven track record** – This project demands the commitment of experienced engineering design professionals including electrical, structural, RF and industrial network engineers. Our team has built large scale SCADA networks for many clients in SoCal including Cucamonga Valley Water District, Walnut Valley Water District and Rowland Water District.
- **In-depth knowledge of your system** – Our core team members—Eric Niu and Jeff Gillam — led the SCADA Backbone Network Master Plan and Network Design project for the District. Their combined experience and familiarity with both the SCADA and telemetry networks are invaluable assets to the project's success.
- **Commitment of senior experts** – Recognizing the complexity and importance of this project, we have secured the commitment of a CCNP-certified network engineer from Siemens to help validation of the network. Their expertise ensures the performance of network.

8. Client References

1. Tara Robinson
Water Resources Manager
Valley County Water District
Tel: (818)429-6981
Email: TRobinson@vcwd.org
2. Mike Maestas
Operation Manager
Cucamonga Valley Water District
Tel: (909) 248-3279
Email: MikeM@cvwdwater.com
3. Tom Monk
Director of Operations
Walnut Valley Water District
Tel: (909)595-1268
Email: tmonk@wvwd.com
4. Steve Kiggins
Assistant General Manager
San Gabriel Valley Municipal Water District
Tel: (626)969-7911
Email: stevekiggins@sgvmwd.com
5. Steve Lenton
General Manager
Bellflower Somerset Municipal Water Company
Tel: (562)376-3543
Email: steve@bsmwc.com
6. Robert Leamy
Water Superintendent
Rowland Water District
Tel: (909)964-5202
Email: rleamy@rowlandwater.com

9. Accept the District's Professional Service Agreement

We accept the District's Professional Service Agreement without any exceptions.



Appendix A: Resumes

Eric Niu, PE, PEng, PMP

Principal - Engineering

Expertise

- I&C Engineering
- Systems Design
- Design/Build SCADA
- Microwave Backhaul Network
- Enterprise Digitalization
- IoT

Years of Experience

- 35 +

Education

- MAsc. Systems Design Engineering, University of Waterloo, 2000
- B.S, Industrial Automation Engineering, Harbin Institute of Technology, 1990

Registrations

- PE (Control Systems), #76574 CA
- PMP (Project Management Professional)
- PEng, Professional Engineer, Canada



Mr. Niu has over 35 years' experience in project management, engineering design, implementation of automation and information systems, including telemetry network, field instruments and electrical equipment. He has delivered over 100 automation projects valued from \$100K to \$10 million and provided system solutions for clients in water/wastewater, power, refinery, chemical, and pharmaceutical industries.

He has extensive knowledge of field instrumentation, PLC, DCS/SCADA, microwave backhaul network, intelligent platform and IoT. His expertise spans the fields of control systems, network communication, data analytics and enterprise digitalization.

He has designed control systems for processes including batch (recipe) mixing, water/ wastewater treatment, water distribution network, wastewater collection facilities, centrifuges, chemical dosing systems, air blowers, odor controls, conveyor systems, boiler, turbine and diesel generators.

Typical works delivered:

- I&C design package - specification/P&ID/loop drawing/control schematic/control strategy.
- SCADA system design – condition assessment, master planning, functional requirements, system architecture and specification, network design, commissioning and cut-over plan.
- System integration service – turn-key Design/Build SCADA system, On-call 24/7 maintenance support, system virtualization, Emergency-Operation-Center (EOC) design, migration/upgrade implementation.
- Intelligent platform/IoT – system planning & design, platform/technology evaluation & selection, data analytics specification, dashboard design, system integration and launch.
- Consulting services – SCADA system standard, system evaluation & selection, bench test & pilot system, CIP planning & budgeting assistance, value engineering, HAZOP study, optimization, O&M training.
- Construction management – owner's agent, preparation of RFQ/RFP for owners, bid evaluation, inspection and report.

Project Highlights:I&C Engineering Design

As lead I&C engineer, Mr. Niu has completed I&C design package for the following clients and projects.

- Orange County Sanitation District (OCSD):
Project 5-50 Rocky Point Pump station (6.5MGD) Rehabilitation; Project I-10A/B Ellis Avenue Pump station (60MGD) replacement; J109 Plant water System Upgrade; J79 Plant 1 Pilot Test SCR/Catalytic oxidizer and Gas Cleaning System; P2-80 Primary Treatment Rehabilitation and Refurbishment Project; Project 3-62 Seal Beach Pump Station (33MGD) Rehabilitation; P2-122 Plant 2 Headworks Modification
- Inland Empire Utility Agency (IEUA): RP-1 New Dewatering Facility
The new centrifuge dewatering facility (\$33M) at RP-1 includes 4 new centrifuges, sludge pumps, conveyors, grinders, silos, odor control system and chemical systems.
- Irvine Ranch Water District (IRWD) Baker Pilot Water Treatment Plant
The pilot system is used to treat water from Irvine lake. The purpose is to verify proposed treatment technologies and get performance results from different vendors' membrane equipment. The pilot plant includes pre-treatment, MF and Backwash system.
- Clarkson Water Pollution Control Plant Expansion (45MGD)
Expansion includes new digester systems, digester gas systems, new dewatering process, new chemical systems, expansion on primary treatment and secondary treatment, new fiber network and SCADA system (35 GE PLCs/iFix).

D/B SCADA Control Systems

Using Design/Build model, Mr. Niu has successfully delivered SCADA Upgrade projects for the following clients. He has dual roles: project manager and system architect. As project manager, he was responsible for managing subcontractors, P&L and schedule. As system architect, he was responsible for engineering a system solution including defining system architect, hardware/software, network, overall control strategies and cut-over plans.

- Walnut Valley Water District (WVWD)
WVWD operates a water distribution system that has over 50 sites. It has a legacy SCADA system built in the early 90s. The system has Opto IOs, SyMax PLCs, AB PLCs and Wonderware InTouch using data concentrator/polling scheme; the legacy network operated on out-of-date serial radios with multiple repeaters. The new modern system adopted a ring backhaul network using the latest microwave technologies, replaced old Opto/SyMax PLC with M340 PLCs, and old Wonderware InTouch with GE iFix. All servers are VMs. A shadow iFix was synced with main iFix and installed in the Emergency Operation Center (EOC). Entire projects took about 18 months to finish.
- San Gabriel Valley Municipal Water District (SGVMWD)

SGVMWD has 12 remote sites located along HWY210, its legacy SCADA system relied on obsolete technology - leased phone line systems to function. The new system was built on a private network using cellular. All old Telemecanique TSX PLCs were replaced with M340 PLCs, and Wonderware InTouch was replaced with GE iFix. All servers are VMs. A shadow iFix was synced with main iFix and installed in the Emergency Operation Center (EOC).

- **Bellflower Somerset Mutual Water Company (BSMWC)**
BSMWC needs a modern SCADA system for its 12 remote facilities. Only a couple of sites were monitored by iFix 32. The new system was built on a private network using cellular. New PLC panels were installed at each site, and a new GE iFix was developed. All servers are VMs. A shadow iFix was synced with main iFix and installed in the Emergency Operation Center (EOC).

SCADA/DCS Condition Assessment, Master Planning and Design

Mr. Niu has completed system design to modernize legacy SCADA systems for the following clients. The work included assessment, planning, final design and RFP package. The design included new system architecture, functional spec, new network and control panel design.

- **City of Cerritos**
City operates its own water distribution network facilities (12). The old system was a proprietary system and obsolete. The new system was designed on a hybrid network (fiber & radio) to achieve best cost savings. GE iFix was selected to be HMI platform, and Modicon M340 PLC was adopted for site PLC.
- **City of Redondo Beach**
There are about 15 sewage lift stations across the city. Legacy SCADA system was not functional properly. All sites will have new Modicon M340 PLCs and a private network using cellular. New GE iFix will be developed.
- **San Francisco Public Utility Commission (SFPUC)**
In 2016, SFPUC has decided to upgrade its DCS systems at 4 major pump stations and treatment plants. Legacy Foxboro I/A system either be migrated to the latest platform or replaced with different vendor's systems. Mr. Niu did assessment on the existing system and worked with Emerson on final proposal, helped the team ultimately win the project.

As owner's agent, Mr. Niu has conducted a comprehensive evaluation on various SCADA/DCS systems, prepared RFP package with conceptual system design and migration plan, and assisted owner in bid evaluation.

- **Arlington County Water Pollution Control Plant (40MGD)**
The legacy plant SCADA system needs to be replaced. There are two major system vendors were invited to bid. The new plant SCADA system will be developed from scratch with new PLCs installed at the key process area. Cut-over is critical so that plant operation won't be disrupted. After evaluation, owner adopted Rockwell Automation ControlLogix/RS View platform.

- West Pacific Petrochemical Corp (WEPEC)
WEPEC was built in 1993 with capacity of refining crude oil of 800Ton/Year. Owner invited major DCS vendors from the world including Honeywell, Rosemount, Foxboro, Siemens, Baily and Yokogawa to bid on future plant control systems. As part of owner's team, Mr. Niu prepared technical evaluation on all DCS systems, developed final reports with recommendations.

Microwave Backhaul Networks/Telemetry Network

As lead engineer and project manager, Mr. Niu has first pilot and engineered a network solution using microwave backhaul network to replace out-of-date "P-T-P polling" type of network in southern California water/wastewater sector. His solution creates a high fault-tolerant ethernet network that supports site to site direct communication without relying on data concentrator or HMI software. The proven solution has been provided to the following clients.

- Irvine Ranch Water District (IRWD)
IRWD owns and operates both water and wastewater facilities. It has 5 water treatment facilities and distribution system. For wastewater, it has 2 treatment plants and sewage collection systems. Overall it has over 230 remote sites. A robust backhaul network is urgently needed that will provide a reliable platform for operations. The new backhaul network was built on unlicensed 5.8GHz radio deployed on 12 major sites. Various antenna support structures including towers were built at these sites.
- Walnut Valley Water District (WVWD)
WVWD has over 50 sites located in a challenging terrain. The legacy telemetry network was built on serial radios, communications were unreliable and limited bandwidth has created multiple bottle neck points. New 5 backhaul sites were selected, and towers were built for supporting new microwave antennas. The new network's uptime has exceeded 99.995%.
- Eastern Municipal Water District (EMWD)
EMWD plans to upgrade its SCADA telemetry network that serves over 200 sites. A comprehensive network master plan needs to be developed. Site surveys and RF engineering design were completed for the 13 backhaul sites. In addition, Equipment specifications and construction cost estimate were provided.

Enterprise Systems/IoT

As system architect, Mr. Niu has defined and developed system architectures for various enterprise applications used in water/wastewater industry. His task included developing functional requirements, defining data flow diagram and data structure, selection interfacing/data exchange technologies, integration and test plans.

- Los Angeles Department of Water and Power (LADWP) – Enterprise Historian
LADWP desired to have an enterprise historian system that collects data from its two major SCADA systems, and let enterprise users (non-operation staffs) to access these data in near

real time. In addition, the enterprise historian system will feed data to the DWP's PI database for data analysis. The new enterprise historian system was built on GE iFix, Proficy historian and OPC technology. Security policies were strictly followed and built into the design.

- **LADWP – Water Quality Monitoring System (WQMS)**
On-line water quality surveillance and respond system are critical for large scale water agencies like LADWP. A study was conducted to create a road map for the future WQMS. In the process, various sensor technologies were evaluated and tested, strategic locations were selected, and a pilot system was designed and deployed for performance review. In addition, an overall system architecture was developed to integrated data from various sources including SCADA systems, Laboratory Info management system, social media, site monitoring panel and others. Data follow / structure and data analytics were defined.
- **Rowland Water District (RWD)**
Pressure at several critical locations in RDW's distribution system needs to be monitored and fed into SCADA system for real time monitoring. The challenge is that these locations are in the places that no existing SCADA can access. Using IoT technology, these pressure monitoring points were successfully integrated to the SCADA system via cloud.

Jeff Gillam

Radio Telemetry Network

Expertise

- RF Engineering & Telemetry Network
- Microwave Backhaul Network planning, design, build and commissioning
- Tower Configuration
- Security Camera System
- FCC licensing
- FAA Regulatory Compliance

Years of Experience

- 35

Education

- BA. Business Administration, Cal State University - Bakersfield, 1993

Registration/Certification

- Low Voltage Contractor #851598 CA
- Gravitec Certified: Tower climbing and rescue
- Technical Certifications and full service provider:
 - GE MDS
 - Dragonwave
 - Firetide
 - Moseley



Partner of SoCal SCADA

Mr. Jeff has over 35 years' hands-on experience in RF engineering and wireless technologies including licensed/unlicensed microwave, RF path studies and site survey, backhaul network planning, design and build. He has planned, surveyed, designed, deployed and started up over 100 various size of telemetry network for water, wastewater, power, oil and gas industries throughout the state of California. He has provided services for clients in the southern California region in last 30 years.

He has conducted numerous microwave site surveys covering areas in Orange County, LA county, Riverside County and San Bernardino County, and he is very familiar with terrains in these areas.

He also has bench-tested and configured all major microwave radio equipment including Redline, Firetide, Dragonwave, Moseley, Racom, Alvarion and GE MDS.

His major clients include Irvine Ranch Water District, Eastern Municipal Water District, City of Corona, Walnut Valley Water District, Rowland Water District and Southern California Edison.

Typical works delivered:

- Site Survey - radio site survey
- RF Engineering – path study & analysis, link budget calculations, equipment selection and specifications
- Field service – install microwave radio equipment including outdoor unit, antenna and mast. Conduct alignment, testing and troubleshooting
- Consulting services – microwave network system evaluation & selection, bench test & pilot system, CIP planning & budgeting assistance, value engineering, optimization, O&M training.
- Design-Build service – provide turn-key microwave network solutions
- Technical Support service – On-call 24/7 maintenance support, equipment troubleshooting, software upgrade and remote diagnose
- Training - Microwave system training

Project Highlights:

City of Corona

Responsible for design, survey, deploy and maintain a multi-site SCADA network using licensed microwave backhaul system.

- Review and assessed City's existing SCADA telemetry network
- Assisted the City with an upgrade and deployment strategy for an existing SCADA telemetry network
- Converted its unlicensed microwave backhaul network to a licensed backhaul using Moseley microwave equipment
- Modernize SCADA network with the deployment of GE MDS iNET II Ethernet radios
- On-call Wireless Services provider since 2012 for maintenance and troubleshooting

Walnut Valley Water District

Responsible for survey, design, deploy and maintain a SCADA Telemetry Network covering more than 50 sites.

- Upgraded and migrated from serial network to ring-type microwave backhaul ethernet network using Redline radios and GE MDS iNET
- Upgrades unlicensed backhaul to a licensed backhaul network
- Design and implemented a security camera network at multiple sites
- On-going on-call network tech support

Irvine Ranch Water District

Designed, built, and deployed SCADA Backhaul networks involved 14 links for water operations covering over 250 sites

- Bench tested multiple microwave radios and assisted final selection of microwave equipment
- Installed, configured and tested backhaul network
- Provided training and on-call tech support

Eastern Municipal Water District

Conducted assessment and site survey for a new SCADA Backhaul network

- Visited and conducted site survey at 13 selected backhaul sites
- Assisted in development of Network Master Planning Report
- Provided equipment specifications / cost estimate

Southern California Edison

Responsible for survey, design, installation and testing of a SCADA telemetry network in East Kern, Tule, Kaweah and Bishop Creek Hydro-electric facilities.

Kern Schools Federal Credit Union

Responsible for survey, design, installation and testing of a Citywide licensed microwave private network.

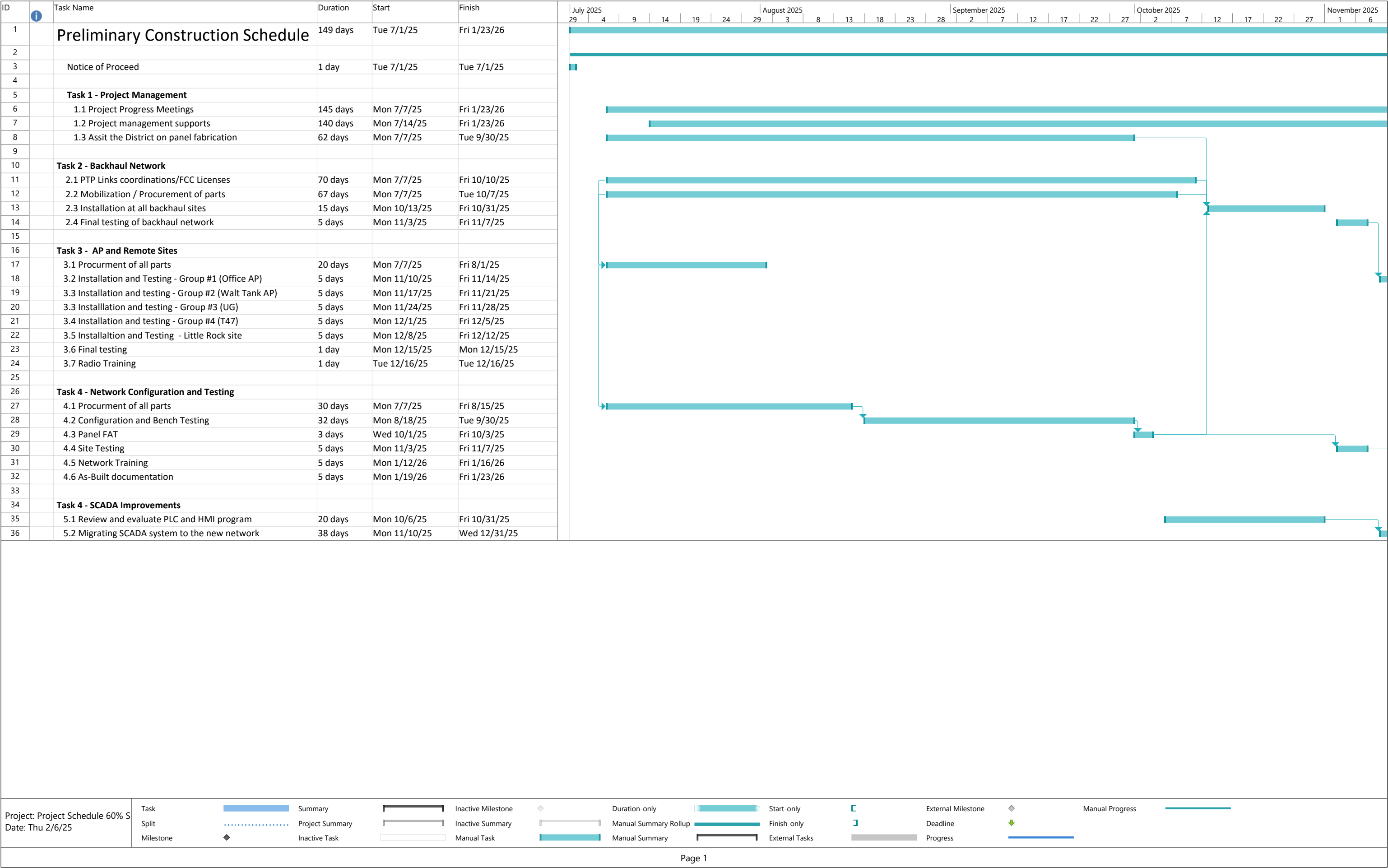
Sacramento County Water Agency

Responsible for site survey, feasibility study, acceptance testing using GE MDS SD9 radios.



Appendix B: Preliminary Schedule

Exhibit C - Preliminary Construction Schedule



Project: Project Schedule 60% S

Date: Thu 2/6/25

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Progress

Manual Progress

Page 1



Appendix C: Signed NDA

NON-DISCLOSURE AGREEMENT (NDA)

I. The Parties. This Non-Disclosure Agreement, hereinafter referred to as the “Agreement,” effective as of 5/19/25 hereinafter referred to as the “Effective Date,” is by and between SoCal SCAD (“Party A”) and the Palmdale Water District (“District”).

II. Confidential Information. The term "Confidential Information" includes, but is not limited to, all proprietary information owned by the District and not generally known to the public or in the relevant trade or industry that is communicated orally, written, printed, electronically or any other form or medium, or which was learned, discovered, developed, conceived, originated, or prepared by the District in the scope and course of its business, relating directly or indirectly to business processes, technical data, trade secrets, know-how, advice, consultations, proprietary information, client lists, client instructions, assets, business operations, specifications, designs, plans, drawings, hardware, software, data, prototypes or other business and technical information belonging to any client of the District, operational methods, economic and business analyses, models, strategies, and projections, promotion methods, trade show information and contacts, and other proprietary information relating to the business of the District and any and all other concepts, as such Confidential Information pertains personally to principals or other information that has independent economic value.

III. Non-Disclosure. The Party A agrees that it shall have the obligation to:

- (a) hold the Confidential Information in the strictest of confidence;
- (b) not use the Confidential Information for any personal gain or detrimentally to the other District;
- (c) take all steps necessary to protect the Confidential Information from disclosure and to implement internal procedures to guard against such disclosure;
- (d) not disclose the fact that the Confidential Information has been made available or that discussions and negotiations are taking place or have taken place or any of its terms, conditions or other facts with respect to the transaction; and
- (e) not disclose or make available all or any part of the Confidential Information to any person, firm, corporation, association, or any other entity for any reason or purpose whatsoever, directly or indirectly, unless and until such Confidential Information becomes publicly available other than as a consequence of a breach by any of Party A and their confidentiality obligations hereunder.

This Section shall survive and continue after any expiration or termination of this Agreement and shall bind Party A, its employees, agents, representatives, successors, heirs and assigns.

IV. Exceptions to Confidential Information. Party A shall not be restricted from disclosing or using Confidential Information that:

- (a) was freely available in the public domain at the time it was communicated between the Parties;
- (b) subsequently came to the public domain through no fault of the Parties;
- (c) is in either Party A's possession free of any obligation of confidence at the time it was communicated;
- (d) is independently developed by Party A or its representatives without reference to any information communicated to or by the Parties;
- (e) is provided by Party A in response to a valid order by a court or other governmental body, as otherwise required by law;
- (f) is approved for release by written authorization of an officer or representative of District; or
- (g) is required to be released as required by law, including, but not limited to any court order, subpoena or pursuant to the California Public Records Act.

V. Use or Disclosure of Confidential Information. Party A shall only use the Confidential Information as directed and not for its own purposes or the purposes of any other party. Party A shall disclose the Confidential Information received under this Agreement to persons within their organization only if such persons are on a "need to know" basis. Party A shall advise each person to whom disclosure is permitted that such information is confidential and proprietary property and may not be disclosed to others or used for their own purpose. This Section shall survive and continue after any expiration or termination of this Agreement and shall bind the Parties, including but not limited to, their employees, agents, representatives, successors, heirs and assigns.

VI. Notice of Disclosure. In the event that Party A receives a request or is required (by deposition, interrogatory, request for documents, subpoena, civil investigative demand or similar process) to disclose all or any part of the Confidential Information, Party A agrees, if legally permissible, to (a) promptly notify the District of the existence, terms and circumstances surrounding such request or requirement, (b) consult with the District on the advisability of taking legally available steps to resist or narrow such request or requirement and (c) assist the District in seeking a protective order or other appropriate remedy; provided, however, that the disclosing Party shall not be required to take any action in violation of applicable laws.

In the event that such protective order or other remedy is not obtained or that District waives compliance with the provisions hereof, the disclosing Party shall not be liable for such disclosure unless disclosure to any such tribunal was caused by or resulted from a previous disclosure by the disclosing party not permitted by this Agreement.

VII. Term. This Agreement, with respect to Confidential Information, will remain in effect in perpetuity.

VIII. Return of Confidential Information. Upon request from District, Party A will promptly deliver to District all originals and copies of all documents, records, software programs, media and other materials containing any Confidential Information. Party A shall also return to District all equipment,

files, and other personal property belonging to District. Party A shall not be permitted to make, retain, or distribute copies of any Confidential Information and shall not create any other documents, records, or materials in any form whatsoever that includes the Confidential Information.

IX. Indemnification. The Parties agree to defend and indemnify each other at all times in respect of any and all claims, demands, losses, damages, liabilities, costs and/or expenses of any kind whatsoever incurred by an entity not mentioned in this Agreement except to the extent caused by the negligence or an unauthorized disclosure of Confidential Information by one of the Parties or their respective employees, agents, representatives, successors, heirs or assigns.

X. Notice. Any notice provided in this Agreement must be in writing and must be either personally delivered, mailed by first class mail (postage prepaid and return receipt requested) or sent by reputable overnight courier service (charges prepaid) to the Parties at the addresses below indicated:

District's Address: 2029 E. Avenue Q, Palmdale, CA 93550

Party A's Address:

If the above-stated addresses should change the Parties shall specify by certified mail, with return receipt, to one another.

XI. Covenants. The parties hereto agree that the covenants, agreements and restrictions (hereinafter "this covenant") contained herein are necessary to protect the business goodwill, business interests and proprietary rights of the Parties hereto and have independently discussed, reviewed and had the opportunity of legal counsel to consider this Agreement.

XII. Enforcement. The Parties acknowledge and agree that due to the unique and sensitive nature of the Confidential Information, any breach of this Agreement would cause irreparable harm for which damages and or equitable relief may be sought. The violated Party shall be entitled to all remedies available at law. District shall be entitled to recover the costs of enforcing any term or condition of this Agreement, including, but not limited to the reimbursement of attorney fees.

XIII. Authority. This Agreement sets forth the entire Agreement and understanding between the Parties and supersedes all prior oral or written agreements and understandings relating to the subject matter of this Agreement. This Agreement may not be modified or discharged, in whole or part, except by consent in writing signed by the Parties.

XIV. Assignment. This Agreement may not be assigned or otherwise transferred by either party without the prior written consent of the non-transferring party.

XV. Binding Arrangement. This Agreement will be binding upon and inure to the benefit of the parties hereto and each Party's respective successors and assigns.

XVI. Severability. In the event that any provision of this Agreement is held by a court of competent jurisdiction to be unenforceable because it is invalid or in conflict with any law of any relevant jurisdiction, the validity of the remaining provisions shall not be affected, and the rights and obligations of the parties hereto shall be construed and enforced as if the Agreement did not contain the particular provision(s) held to be unenforceable.

XVII. Governing Law. This Agreement shall be governed by and construed in accordance with the laws in the State of California.

XVIII. Authority. Each party hereto represents and warrants that it has the full power and authority to enter into and perform this Agreement, and each party knows of no law, rule, regulations, order, agreement, promise, undertaking or other fact or circumstance which would prevent its full execution and performance of this Agreement.

XIX. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one and the same agreement.

XX. Execution. IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on the undersigned date.

Party A's Signature: _____ **Date:** 05/18/2025

Print Name: Eric Niu

District's Signature: _____ **Date:** 19 May 2025

Print Name: Jim Stanton

Exhibit D**SCADA Network Upgrade Cost**

Task Description		Sub Total
Task 1	Project Management	\$ 27,600.00
1.1	Management meetings	
1.2	Project management support/admin	
1.3	Assist district on panel fabrications	
Task 2	Backhaul Network	\$ 179,700.00
2.1	Mobilization and Procurement	
2.2	Installations	
2.3	Testing	
Task 3	AP and Remote Sites	\$ 193,278.00
3.1	Mobilization and procurement	
3.2	Installation and cut-over group #1 - Office and Treatment Plant	
3.3	Installation and cut-over group #2 - Walt Tank	
3.4	Installation and cut-over group #3 - UG	
3.5	Installation and cut-over Group #4 - T47	
3.6	Testing/Training	
Task 4	Network Configuration and Training	\$ 271,250.00
4.1	Procurement of all network equipment	
4.2	Program and Bench testing	
4.3	Panel FAT	
4.4	Site Testing	
4.5	Training/As-built documentation	
Task 5	SCADA Improvements	\$ 30,000.00
5.1	Review and evaluate PLC and HMI programs	
5.2	assist in migrating PLCs/SCADA migration to the new network	
Lump Sum Cost for Task 1 to 5		\$ 701,828.00
Task 6	Continued Maintenance and Support	T/M
	Annual maintenance and tech support	

Note:

- 1 The lump sum cost includes labor, materials provided by us, travel expenses, lift truck rental, shipping and tax. But excludes any tariffs, and fees associated to FCC/FAA etc.,.
- 2 Task 6 will be billed based on actual hours and materials spent on the support calls.



BOARD MEMORANDUM

DATE: July 14, 2025

TO: **BOARD OF DIRECTORS**

FROM: Mr. Shadi Bader, Engineering Manager

VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager

RE: ***CONSIDERATION AND POSSIBLE ACTION ON AUTHORIZING THE GENERAL MANAGER TO ENTER INTO AN AGREEMENT WITH ENVIRONMENTAL SCIENCE ASSOCIATES (ESA) FOR ENVIRONMENTAL MONITORING OF THE PALMDALE DITCH CONVERSION PROJECT. (\$1,447,000.00 – NOT-TO-EXCEED – BUDGETED – PROJECT NO. 21-613 – ENGINEERING MANAGER BADER)***

Recommendation:

Staff recommends the Board approve authorization of the General Manager to enter into an agreement with Environmental Science Associates (ESA) for environmental monitoring services related to the Palmdale Ditch Conversion Project in the not-to-exceed amount of \$1,447,000.00. ESA will provide pre-construction surveys, biological, archaeological, and paleontological monitoring, and compliance reporting to fulfill environmental permit and mitigation requirements.

Alternative Options:

The alternative is not to award an agreement to ESA which would impact the District's grant schedule.

Impact of Taking No Action:

The District will continue to lose about 1,500 acre-feet per year of raw water drawn from the Littlerock Dam and will not receive the construction grant.

Background:

The Palmdale Ditch Conversion Project involves replacing approximately 7.2 miles of an open, partially concrete-lined ditch with a piped system to reduce water loss. The California Environmental Quality Act (CEQA) permit conditions, and mitigation measures require comprehensive environmental monitoring before, during, and after ground-disturbing activities occur.

To fulfill these obligations, ESA submitted a proposal to provide:

- Pre-construction surveys (burrowing owl, nesting birds, reptiles, woodrats, bats)
- Cultural documentation: conduct a HAER-style (Historic American Engineering Record) survey of the historic Palmdale Ditch

July 14, 2025

- Biological and cultural sensitivity training for workers
- Daily on-site monitoring by cross-trained staff for up to 65 days (biological) and 88 days (archaeological/paleontological)
- Regulatory reporting for California Department of Fish and Wildlife and Regional Water Quality Control Board
- Optional services include monitoring for Phase II and relocation of Joshua Trees

ESA's proposal builds on their long-standing work with the District. Their local staff, experience with similar infrastructure projects, and cross-trained monitors offer both cost and coordination advantages.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiatives No. 1 – Water Resources Reliability and No. 3 – Systems Efficiency.

This item directly relates to the District's Mission Statement.

Budget:

This item is budgeted under Project No. 21-613.

Supporting Documents:

- Environmental Science Associates (ESA) Proposal Package



Palmdale Water District

Palmdale Ditch Project

Environmental Monitoring



June 16, 2025

Environmental Science Associates
esassoc.com



633 West 5th Street, Suite 830
Los Angeles, CA 90071
213.599.4300 [phone](#)
213.599.4301 [fax](#)
esassoc.com

June 16, 2025

Palmdale Water District

Attention: Jillian Benci-Woodward, P.E.
Senior Engineer
2029 East Avenue Q
Palmdale, CA 93550

RE: Palmdale Ditch Project Environmental Monitoring

Dear Jillian:

ESA greatly appreciates this opportunity to submit a proposal for the Palmdale Ditch Project Environmental Monitoring. ESA has over a decade of experience working with Palmdale Water District (PWD) on several important projects, including the **2011 Strategic Water Resources Plan Program Environmental Impact Report (EIR)**, **2018 Water System Master Plan Program EIR**, and most recently the biological and cultural resources sections of the **2024 Strategic Water Resources Plan Program EIR**. Over the last five years, ESA has significantly evolved our capabilities in large-scale environmental monitoring jobs, implementing mitigation measures included in approved Mitigation Monitoring Reporting Programs (MMRPs) for water districts throughout Southern California. Within that timeframe we have mobilized biological and cultural resources teams on projects such as **Metropolitan Water District of Southern California's Colorado River Aqueduct Conduit Structural Protection Program**, **Los Angeles Department of Water and Power's (LADWP) North Haiwee Dam Seismic Improvement Project**, and three sewer and water infrastructure expansion projects for **Eastern Municipal Water District (EMWD)**. We look forward to bringing our expertise and responsiveness to you on this project.

Given our work assisting PWD on the 2024 Strategic Water Resources Plan Program EIR, we know the Palmdale Ditch Project is an important driver for water resources management within your service area. The Palmdale Ditch is a part earthen and part concrete-lined open ditch that conveys water from Littlerock Dam Reservoir to Lake Palmdale. It is estimated that up to 25 percent of water supplies are lost due to evaporation and seepage from the Ditch. PWD would enclose Palmdale Ditch by constructing a pipeline within and near the existing Palmdale Ditch. Work would occur in four distinct phases, beginning at Lake Palmdale and ending at Little Rock Reservoir. Construction is slated to begin in July 2025. Work is anticipated to last 175 days over an approximate 10-month period.

We have over 70 biologists and over 40 archaeologists and paleontologists in Southern California who can support PWD on the special-status species issues and historic/archaeological resources associated with this project. We also can offer cross-trained archaeological/paleontological monitors who will be deployed based on sensitivity and supervised by qualified archaeologists and paleontologists. This approach creates significant cost savings for PWD. Additionally, ESA has local staff in the Palmdale area as close as Acton (9 miles from the project site) that can support the project and conduct the majority of the archaeological monitoring. We have biological resources staff within a 60-mile radius of the project site who can mobilize to support field efforts, and we will partner with **Pax Environmental** to provide cost-effective monitoring services, and **Dudek** to support the optional western Joshua Tree relocation. Our team is well

positioned to bring lessons learned from other environmental monitoring projects in the region and we look forward to the opportunity to expand our services to PWD in this capacity.

We have a dedicated team to support you on this project, composed of a project management team staffed out of our Southern California water group who manage water infrastructure projects from planning to implementation, as well as technical leaders who are experts with environmental monitoring on complex projects with varied resources and species present. Key team members are presented below.



Jennifer Ziv | Project Director

Jennifer has more than 28 years of experience in environmental planning, California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA) compliance, permitting, and mitigation for complex infrastructure projects throughout California. She has led the preparation of CEQA documents for major water and wastewater pipeline projects in environmentally and culturally sensitive areas, for projects to remain on schedule while meeting rigorous regulatory requirements. Jennifer has successfully navigated permitting processes with agencies including the United States Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and the Regional Water Quality Control Board (RWQCB) for pipeline projects in streambeds, wetlands, and other jurisdictional areas. She is currently supporting EMWD on environmental monitoring for the Mission Canyon II Pump Station and Pipeline Project, overseeing five special-status species surveys and ongoing biological monitoring, as well as archaeological compliance monitoring.



Sarah Spano | Project Manager

Sarah has over 14 years of experience in CEQA and NEPA compliance for complex water infrastructure projects across Southern California. She managed ESA's contribution to the PWD 2024 Strategic Water Resources Plan Program EIR biological and cultural resources sections, and her history leading environmental preparation of the 2018 Water System Master Plan Program EIR gives her appreciation of PWD and its water system. She is currently managing two environmental compliance projects for EMWD, including the Mead Valley Water Project and the Wine Country Sewer Project, which involve coordination of internal and subconsultant field teams, biweekly meetings with construction contractors, and navigating unexpected issues as they arise with EMWD and the construction contractor. Her deep understanding of state and federal environmental regulations, combined with her experience in pipeline alignment evaluation, construction impact mitigation, and long-term resource protection, enables her to effectively lead compliance efforts, manage risk, and support environmental stewardship.



Maile Tanaka | Biological Resources Lead

Maile Tanaka has over 19 years of experience in consulting biology and a strong record of managing complex utility and infrastructure projects. As Lead Biologist for the biological resources section for the PWD 2024 Strategic Water Resources Plan Program EIR, she is well versed in the project's mitigation commitments. Maile has decades of experience coordinating field surveys, special-status species surveys, and biological construction monitoring, as well as conducting Section 7 consultation under the Endangered Species Act. Her direct experience with linear pipeline and water infrastructure projects, combined with her detailed knowledge of CEQA, regional conservation plans, and agency permitting requirements, makes her well-equipped to manage biological monitoring and ensure environmental compliance throughout all phases of pipeline construction.



Sara Dietler | Cultural Resources Lead

Sara Dietler has over 29 years of experience in archaeological and paleontological resources management across Southern California. She has led monitoring programs for numerous utility and infrastructure projects, including the North Haiwee Dam Seismic Improvement Project, where she managed archaeological and Native American monitoring during major ground-disturbing activities. Sara has also overseen cultural compliance on the Venice Dual Force Main and Peters Canyon Channel Reuse Pipeline projects. She is well-versed in CEQA, NEPA, and Section 106 requirements and has extensive experience coordinating with tribal representatives and regulatory agencies. Her background includes supervising multi disciplinary field staff, ensuring compliance with mitigation measures, and preparing technical documentation for agency review.

We sincerely appreciate the opportunity to submit a proposal for this project and look forward to more opportunities to work together.

Sincerely,

Tom Barnes
Vice President

Sarah Spano
Director, Southern California Water Group

Scope of Work

ESA understands that construction shall occur in two phases. A description of each phase includes:

- Phase I, which includes approximately 4.3 linear miles of construction between Lake Palmdale to the intersection of 40th Street East and Barrel Springs Road, includes stations 2+23 to 190+98. Monitoring under this phase is the primary scope of this proposal.
- Phase II, which includes approximately 4.3 linear miles of construction between the intersection of 40th Street East and the outfall tunnel for Little Rock Reservoir, includes stations 274+76 to 432+46. Monitoring under this phase is considered an optional task in this proposal.

At the request of PWD, ESA has provided separate costs for the construction phase monitoring tasks for Phases I and II. ESA has included a narrative of the scope for the construction phase biological, cultural and paleontological monitoring tasks for Phase I in Tasks 3.4, 3.9 and 3.10, respectively. The similar monitoring tasks for Phase II are provided under Optional Tasks 3.13, 3.14, and 3.15. Itemized costs for each Task are included in the Cost section of our proposal.

The table below provides an outline of our proposed scope of work, including task titles, deliverables, assumptions and cross-referenced mitigation measures/permit conditions. Our detailed scope of work follows the summary table.

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
Task 1 – Project Management, Meetings, and Coordination			
Task 1.1 Construction Project Initiation and Kick-Off	Attendance at Kick-off meeting by ESA's Project Manager, Project Director, Key Technical Leads.	Kick off meeting will be virtual.	N/A
Task 1.2 Construction Meetings	Bi-weekly construction meetings with construction contractor and PWD staff.	- Meetings will be virtual. - For the first 3 months, up to 4 ESA staff will attend to report on and discuss pre-con surveys and monitoring results. - For months 4–10, up to 2 ESA staff will attend. - PWD will provide bi-weekly construction schedule.	N/A
Task 1.3 Project Management and Coordination	- Scope, schedule, budget management - Monthly invoicing - Team coordination, client communication - Quality assurance procedures	None	N/A
Task 2 – Pre-Construction Evaluations, Surveys, and Notifications			
Task 2.1 Historic American Engineering Survey-Like Documentation Package	Draft and Final HAER-like documentation in Short Format template — electronic version.	Any comments from PWD on the Draft Reports will be consolidated into a single document.	CUL-8
Task 2.2 Cultural Resources Monitoring Plan	Draft and Final CRMP — electronic version.	Any comments from PWD on the Draft Reports will be consolidated into a single document.	CUL-5
Task 2.3 Agency Pre-Construction Notifications	Letter Notifications to regulators based on permit conditions.	- All permits will be approved prior to the start of the project. - PWD will provide contact information for each regulator. - Notifications will be short letters submitted electronically.	USACE CWA Section 404, RWQCB CWA Section 401 WQC, CDFW LSAA Section 1600 et seq., CDFW CFGC Section 2081 ITPs

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
<i>Task 2.4 (Optional)</i> <i>Burrowing Owl Breeding Season Protocol Surveys</i>	<i>Draft and Final Western Burrowing Owl Protocol Surveys Letter Report — electronic version.</i>	<i>Survey results shall be conveyed via email to PWD within 24 hours. If BUOW is observed, a no-work buffer (equal to 50-500m, at the discretion of the designated biologist) shall be established.</i> <i>Any comments from PWD on the Draft Report will be consolidated into a single document.</i> <i>Four surveys for burrowing owl shall occur, each spaced one week, prior to the start of construction.</i> <i>Should no suitable habitat be present, ESA shall notify PWD and a project designated construction representative.</i> <i>Any BUOW observations will be reported to CNDDDB and CDFW.</i>	BIO-6
Task 2.5 Burrowing Owl Pre-Construction Surveys	- Survey and monitoring reports will be maintained for the length of the project. - ESA shall provide email notification of survey results, including no significant findings.	- Should no suitable habitat be present, ESA shall notify PWD and a project designated construction representative. - Biologists will survey using binoculars in off-site areas where trespassing may be a concern. - Any BUOW observations will be reported to CNDDDB and CDFW. - This task does not include relocation of BUOW, if found.	BIO-7
Task 2.6 Woodrat Midden Pre-Construction Surveys	Letter Reports (as necessary) shall be submitted to PWD for midden dismantling — electronic version.	- Letter reports shall be brief and specify the locations of any active middens that cannot be avoided and a description of the dismantling and materials relocation protocol. - Any special-status woodrat species observations will be reported to CNDDDB and CDFW.	BIO-11
Task 2.7 Biological Resources Pre-Construction Surveys for Special-Status Reptiles	Survey and monitoring reports will be maintained for the length of the project.	Any special-status reptile species observations will be reported to CNDDDB and CDFW.	BIO-12

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
Task 2.8 Pre-Construction Nesting Bird Surveys	Survey and monitoring reports will be maintained for the length of the project.	Any special-status avian species observations will be reported to CNDDB and CDFW.	BIO-17
Task 2.9 Special-Status Bats Pre-Construction Surveys and Monitoring	- Draft and Final Bat Monitoring Plan (if required). - Surveying and monitoring records, recorded daily, and retained for the project duration.	Biologists will survey using binoculars in off-site areas where trespassing may be a concern.	BIO-10
Task 3 – Construction-Phase Services			
Task 3.1 Biological Resources Construction Worker Environmental Awareness Program	Biological WEAP education brochure.	One biological WEAP training prior to the start of project activities; new workers will be trained by the on-site biological monitors.	BIO-15
Task 3.2 Construction Worker Cultural Resources Sensitivity Training	Construction Worker Cultural Resources Sensitivity Training brochure.	One Construction Worker Cultural Resources Sensitivity Training prior to the start of project activities; new workers will be trained on-site by the archaeological monitors.	CUL-4
Task 3.3 Paleontological Resources Worker Environmental Awareness Program	Paleontological WEAP education brochure.	One paleontological WEAP training prior to the start of project activities; new workers will be trained on-site by the paleontological monitors.	PALEO-2
Task 3.4 Phase I Biological Resources Monitoring and Work Limit Verification	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- ESA will provide a full-time biological monitor for up to 65 full-day workdays (10 hours per day, including mobilization). - Pre-construction surveys shall occur simultaneously with full-time biological monitoring. - Only one biological full-time monitor will be required at any time. - No Phase II monitoring is included in this Task.	BIO-16
Task 3.5 Monthly Compliance Reporting for Crotch's Bumble Bee and Western Joshua Tree Conservation Act (WJTCA) ITPs	One letter notification per month, per ITP, for a total of 10 months, submitted to CDFW for Crotch's Bumble Bee ITP and WJTCA ITP.	Construction will not require more than 10 months to complete.	CDFW CFGC Section 2081 ITPs / BIO-3, BIO-5

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
Task 3.6 Annual Status Report for Crotch's Bumble Bee and WJTCA ITPs	One letter notification per calendar year, per ITP, for a total of 2 years, submitted to CDFW for Crotch's Bumble Bee ITP and WJTCA ITP.	- Annual reporting shall follow guidelines determined by CDFW. - Construction will occur within 2 calendar years.	CDFW CFGC Section 2081 ITPs / BIO-3, BIO-5
Task 3.7 Annual Monitoring Reports for RWQCB CWA Section 401 WQC	One draft and one final annual monitoring report submitted to PWD.	- Annual reporting shall follow guidelines determined by RWQCB. - Construction will occur within 2 calendar years.	RWQCB CWA Section 401 WQC
Task 3.8 California Natural Diversity Database Observation Forms Submission	Forms and maps submitted to CNDDDB.	--	--
Task 3.9 Phase I Archaeological Resources Monitoring	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- PWD shall allow ESA to use a cross trained monitor. - ESA has calculated that a full-time cross trained monitor will be needed for the 88 full-day workdays (10 hours per day, including mobilization). - Only one full-time monitor will be required at any time. - No Phase II monitoring is included in this Task.	CUL-5
Task 3.10 Phase I Paleontological Resources Monitoring	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- PWD shall allow ESA to use a cross trained monitor. - ESA has calculated that a full-time biological monitor will be needed for the 88¹ full-day workdays (10 hours per day, including mobilization). - Only one full-time monitor will be required at any time. - No Phase II monitoring is included in this Task.	PALEO-2

¹ ESA shall use a cross trained monitor for Tasks 3.9 and 3.10, for a total of 88 days of full-time monitoring, not 166.

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
<i>Task 3.11 (Optional)</i> Western Joshua Tree Relocation	- Survey and monitor reports will be recorded daily and maintained for the project duration. - Western Joshua Tree Relocation Memorandum submitted to PWD.	- No tree spade equipment will be used or required. - Trees will be watered daily during translocation. PWD will provide Dudek with an irrigation connection point. - Excavated Joshua trees will be replanted on the same day as excavation at a site within a one-hour drive. - No additional permits, fees, or SWPPP/QSD/QSP are included. - This cost does not include the removal of additional trees. - This task will be completed within 10 months.	CDFW CFGC Section 2081 ITP, HRRMP, BIO-5
<i>Task 3.12 (Optional)</i> Seed Collection for Project Restoration	Seed collection activities will be recorded daily and maintained for the project duration.	This task does not include seed collection beyond the anticipated duration of the project, which is 10 months.	HRRMP
<i>Task 3.13 (Optional)</i> Phase II Biological Resources Monitoring and Work Limit Verification	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- ESA will provide a full-time biological monitor for up to 65 full-day workdays (10 hours per day, including mobilization). - Pre-construction surveys shall occur simultaneously with full-time biological monitoring. - Only one biological full-time monitor will be required at any time. - No Phase I monitoring is included in this Task.	BIO-16
<i>Task 3.14 (Optional)</i> Phase II Archaeological Resources Monitoring	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- PWD shall allow ESA to use a cross trained monitor. - ESA has calculated that a full-time cross trained monitor will be needed for the 87 full-day workdays (10 hours per day, including mobilization). - Only one full-time monitor will be required at any time. - No Phase I monitoring is included in this Task.	CUL-5

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
<i>Task 3.15 (Optional)</i> <i>Phase II Paleontological Resources Monitoring</i>	- Daily monitoring reports shall be recorded and maintained for the life of the project, including the compliance checklist and geolocation-enabled photographs. - A digital environmental compliance binder shall be created and accessible to the crew.	- PWD shall allow ESA to use a cross trained monitor. - ESA has calculated that a full-time cross trained monitor will be needed for the 87² full-day workdays (10 hours per day, including mobilization). - Only one full-time monitor will be required at any time. - No Phase I monitoring is included in this Task.	PALEO-2
Task 4 – Post-Construction Reporting			
Task 4.1 Aquatic Resources Permits Construction Completion Reporting	One draft and one final Construction Completion Reports for each: USACE, RWQCB, and CDFW.	Any comments from PWD on the Draft Reports will be consolidated into a single document.	USACE CWA Section 404, RWQCB CWA Section 401 WQC, CDFW LSAA Section 1600 et seq.
Task 4.2 Final Mitigation Report for Crotch's Bumble Bee and WJTCA ITPs	For each ITP, one Draft report submitted to PWD, and one Final Project Mitigation Report, submitted to CDFW, for Crotch's Bumble Bee ITP and WJTCA ITP.	Any comments from PWD on the Draft Reports shall be consolidated into a single document.	CDFW CFGC Section 2081 ITPs / BIO-3, BIO-5
Task 4.3 Archaeological Resources Monitoring Technical Report	Draft and Final Archaeological Monitoring Reports submitted to PWD.	- Monitoring will be negative for findings. - Any comments from PWD on the Draft Reports shall be consolidated into a single document.	CUL-5
Task 4.4 Paleontological Resources Monitoring Technical Report	Draft and Final Paleontological Monitoring Reports submitted to PWD.	- Monitoring will be negative for findings. - Any comments from PWD on the Draft Reports shall be consolidated into a single document.	PALEO-2
Task 4.5 Agency Coordination during Project Implementation	Electronic communication between ESA and any regulators may be shared with PWD.	--	--

² ESA shall use a cross trained monitor for Optional Tasks 3.14 and 3.15, for a total of 87 days of full-time monitoring, not 164.

TASK NUMBER AND TITLE	DELIVERABLE(S) ¹	ASSUMPTION(S) ²	MITIGATION OR PERMIT MEASURE
Task 5 – Contingency for Unanticipated Discoveries			
<i>Task 5.1 (Optional)</i> <i>Archaeological Discoveries</i>	Preliminary evaluation and treatment recommendations memo (up to one memo pertaining to an archaeological site and five brief memos pertaining to isolated findings).	This task does not include archaeological testing, data recovery, preparation of any data recovery plan or documents, curation or collection of any resources, or the final reporting and preparation of DPR forms.	CUL-6
<i>Task 5.2 (Optional)</i> <i>Human Remains Discoveries</i>	Up to one memo related to the findings of any burial features and the email results of up to five photo-based identifications.	This task does not include archaeological testing, data recovery, preparation of any data recovery plan or documents, curation or collection of any resources, or the final reporting and preparation of DPR forms.	CUL-9
<i>Task 5.3 (Optional)</i> <i>Active Nest and Burrow Avoidance and Relocation Coordination</i>	- Draft Burrowing Owl Passive Relocation Program submitted to PWD - Draft and Final Burrowing Owl Passive Relocation Program submitted to CDFW.	- Any comments from PWD on the Draft Report shall be consolidated into a single document. - Compensatory mitigation fees, ITP coordination, and creation of manmade burrows are not included in this task. - One Burrowing Owl Passive Relocation Program is included in this scope.	BIO-7
NOTES: 1 The deliverables in this table have been simplified to serve as a reference when reviewing this proposal. A complete description of the deliverables for each task is included in the narrative below. 2 The assumptions in this table have been simplified to serve as a reference when reviewing this proposal. A complete description of the assumptions for each task is included in the narrative below.			

Task 1 Project Management, Meetings, and Coordination

Task 1.1 Construction Project Initiation and Kick-Off

ESA will attend a construction kick-off meeting (virtual) that will involve PWD engineering staff as well as the construction contractor personnel. ESA's Project Manager, Project Director, and key technical leads will be present to ensure the technical scopes and schedules are clearly articulated and understood by everyone in attendance.

Task 1.2 Construction Meetings

ESA expects to attend biweekly virtual construction meetings with the construction contractor and PWD staff. As surveys are initiated for each discipline (i.e. the first 3 months), it is expected that up to four people from ESA will attend these meetings to report out on status as well as participate in discussions around special-status species and archaeological features. Based on similar level of effort on other water infrastructure projects, for months 4-10, we expect that ESA staff can be dialed back to two each meeting. We assume PWD will provide ESA with a biweekly construction schedule. This will generally allow for multiple pre-construction surveys to be scheduled to occur simultaneously, to the extent feasible.

Task 1.3 Project Management and Coordination

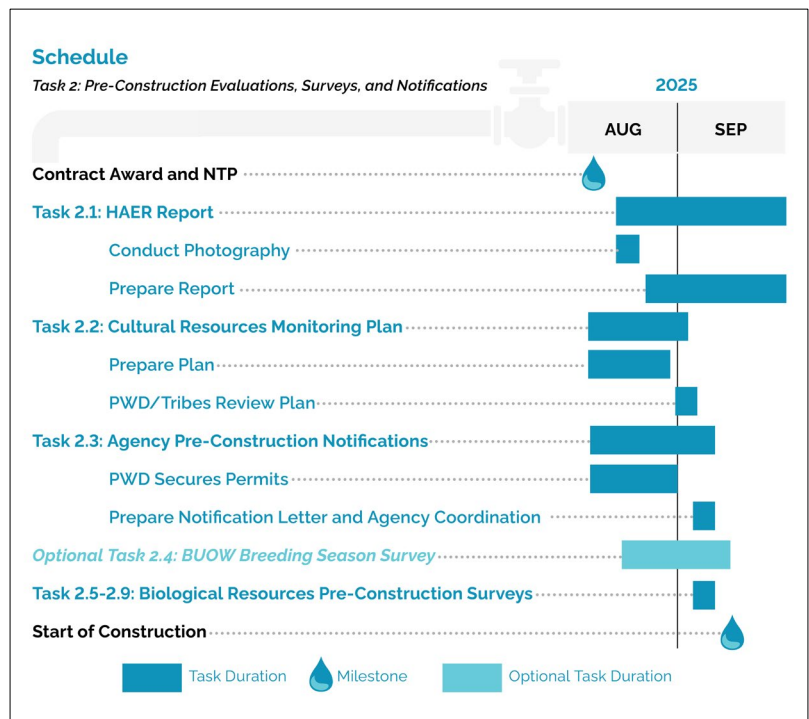
ESA's Project Manager, Sarah Spano, will oversee day-to-day execution of the scope of work and team management, and will be responsible for scope, schedule, and budget management and performance along with monthly invoicing. Sarah will also manage coordination with ESA's technical staff and will maintain regular contact with PWD staff. ESA's Project Director, Jennifer Ziv, will lead our quality assurance team, ensuring that deliverables meet expectations.

Task 2 Pre-Construction Evaluations, Surveys, and Notifications

ESA understands PWD is anticipating the start of construction in mid-July 2025. Given the requirements identified in Task 2 below, ESA is ready to hit the ground running in June to prepare necessary plans and conduct surveys prior to construction *as shown in the graphic to the right*.

Task 2.1 Historic American Engineering Survey-Like Documentation Package

ESA will prepare a Historic American Engineering Record-like (HAER) documentation package in accordance with Mitigation Measure CUL-8: Historic American Engineering Survey-Like Documentation from the Strategic Water Resources Plan Program EIR (PEIR), to document the 8-mile Palmdale Ditch. Originally constructed in 1895, the Palmdale Ditch has been identified as eligible for the National Register of Historic Places (NRHP) under



Criterion A and the California Register of Historical Resources under Criterion 1 (CA-LAN-1534H). The ditch formerly had associations as a contributing feature to the Little Rock Dam, which has since been delisted from the NRHP in 1994.

ESA understands that this project will occur in phases; PWD is planning for the first phase to begin construction in July 2025. The HAER-like documentation preparation task will be conducted in two main tasks: 1) photography and 2) re-research/report preparation. The photography effort will need to occur prior to the demolition of any portion of the ditch for compliance with Mitigation Measure CUL-8. Subsequently, HAER report preparation will continue after ditch demolition and will take place over the course of the next 3 months. As shown in the graphic above, our approach allows for schedule flexibility for PWD, as only the first task (photography) needs to be completed prior to construction initiation, while lengthy report research and preparation can extend into construction.

Assemble and Analyze Research Material

ESA will review the *Palmdale Ditch Conversion Project Cultural Resources Technical Report, Los Angeles County, California* (2024) and associated California Department of Parks and Recreation Series 523 forms (2024) in order to compile the historical background, construction chronology, and appropriate limited contextual information related to the Palmdale Ditch. ESA historians will conduct limited additional research in order to support the draft of the documentation package. This may include review of additional archival documentation and environmental reports from the PWD and/or Los Angeles County Department of Public Works, in-person research at the Palmdale City Library, and online research including Newspapers.com and Antelope Valley Press online archives

Conduct HAER-Like Photography

The Palmdale Ditch will be professionally photographed in high-resolution digital color photographs following *The Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation*. Two ESA staff historians will participate in the photography field work effort. This proposal includes a total of approximately 25 views of the Palmdale Ditch, documenting the overall character of the ditch, including character-defining features such as a metal flume and trestle, stone culverts, and rubble stone bridges. A site plan/photo key will be produced to identify all view locations. Time in this task includes photograph downloading, post-processing, and captioning. ESA assumes that the PWD will coordinate access to the ditch.

Prepare HAER-Like Documentation Package

ESA will prepare written and photographic documentation of the Palmdale Ditch per HAER guidelines and requirements. The Palmdale Ditch will be documented as a linear resource and will be recorded on the HAER Short Format template, which will include a map, photographs of general views and detailed views, and additional graphic documentation as available.

A draft report will be submitted electronically (PDF) to PWD for review purposes. ESA will respond to review comments and prepare the final recordation documents in digital format in accordance with HAER requirements. ESA will provide two digital sets of the final documentation containing all prepared material. Digital sets of the report shall be distributed to the Los Angeles County Acton Agua Dulce Branch Library and the Palmdale City Library.

Deliverables

- Draft HAER Short Format Report — electronic version, submitted to PWD.
- Final HAER Short Format Report — electronic version, submitted to PWD, Los Angeles County Acton Agua Dulce Branch Library, and the Palmdale City Library.

Assumptions

- Any comments from PWD on the Draft Report shall be consolidated into a single document for inclusion in the Final Report.
- PWD will coordinate access to the project area.

Task 2.2 Cultural Resources Monitoring Plan

As required by CUL-5, ESA will prepare a Cultural Resources Monitoring Plan (CRMP). Prior to the start of any ground disturbing activities, ESA's Qualified Archaeologist will review project design plans, the *Palmdale Ditch Conversion Project 90% Contract Documents (Hazen 2025)*, and will prepare a CRMP which includes: provisions for archaeological monitoring of all construction-related ground disturbance; procedures to be followed in the event of discovery of archaeological resources; roles and responsibilities and protocols for monitoring. The plan will evaluate the types of geological units and sediments for sensitivity for prehistoric resources throughout the project area and define areas that will not require monitoring based on this sensitivity, the type of construction activities, and previous disturbance. The plan will provide provisions for unanticipated discovery and curation in accordance with Mitigation Measures CUL-6 and CUL-7. ESA assumes that all coordination with Tribes will be conducted by PWD.

Deliverables

- Draft CRMP — electronic version, submitted to PWD.
- Final CRMP — electronic version, submitted to PWD.

Assumptions

- Any comments from PWD on the Draft Report shall be consolidated into a single document for inclusion in the Final Report.
- PWD shall provide ESA with all previous relevant archaeological reports.
- All coordination with Tribes will be conducted by PWD.

Task 2.3 Agency Pre-Construction Notifications

ESA shall notify the appropriate regulatory agencies prior to the start of construction, per the requirements of each regulatory permit. We understand that some of the project's permits are awaiting issuance; upon approval by the appropriate regulator, ESA will notify each agency following the terms included with the permit. ESA understands that this includes, at a minimum, a Clean Water Act (CWA) Section 404 Nationwide permit from the USACE, CWA Section 401 Water Quality Certification from the RWQCB, California Fish and Game Code Section 1602 Streambed Alteration Agreement (SAA) from the CDFW, California Endangered Species Act (CESA) Section 2081 incidental take permit (ITP) for Crotch's bumble bee from CDFW, and CESA Section 2081 ITP for Western Joshua Tree Conservation Act from CDFW.

Deliverables

- Letter Notification to the USACE for Section 404 of the CWA.
- Letter Notification to the Lahontan RWQCB for Section 401 of the CWA, provided within 48 hours of project construction, unless otherwise specified by the permit.

- Letter Notification to CDFW for California Fish and Game Code Section 1600 et seq., provided within 48 hours of project construction, unless otherwise specified by the permit.
- Letter Notification to the CDFW for the ITP for Crotch's bumble bee, per California Fish and Game Code Section 2081.
- Letter Notification to the CDFW for the ITP for Western Joshua Tree Conservation Act.
- Letter Notification to the U.S. Forest Service (USFS) for the Temporary Construction Permit, if required.

Assumptions

- All permits will be approved by the regulatory agencies prior to initiating project activities within each's respective jurisdiction.
- Notifications shall include a short letter notification and shall be transmitted electronically.
- PWD will provide ESA with the contact information for each agency representative for each permit.
- Notification requirements will match those included with the approval of each permit.

Optional Task 2.4 Burrowing Owl Breeding Season Protocol Surveys

In accordance with Mitigation Measure BIO-6 of the PEIR, burrowing owl breeding season surveys are required immediately prior to the start of project construction. ESA biologists will conduct surveys within all suitable habitat of the project site and 500-foot buffer according to the methodologies set forth in the CDFW 2012 *Staff Report on Burrowing Owl (*Athene cunicularia*) Mitigation*. Due to the timing of project activities, ESA proposes using the results of the *Palmdale Ditch Conversion Project Biological Resources Assessment* (BRA; Rincon 2024) to determine suitable habitat for potential occupancy. ESA will conduct four breeding season surveys prior to July 2025 construction. If additional breeding season surveys are deemed required by CDFW per the PEIR, ESA will conduct habitat assessment and surveys concurrent with other pre-construction surveying and construction monitoring tasks. Surveys will be conducted on separate days from approximately morning civil twilight to 10:00 AM or two hours before sunset until evening civil twilight. Transects will be utilized, spaced no more than 7 to 20 meters apart (23 to 65 feet), to allow 100 percent visual coverage of the ground surface. Locations of burrows, and if applicable, burrowing owl sightings and territory boundaries will be mapped, and the number of pairs and juveniles and their behavior will be recorded.

A draft Western Burrowing Owl Protocol Surveys letter report detailing the results of the breeding season surveys will be prepared describing the study area, survey methodology, and survey results, including the numbers and locations of burrowing owls observed, if any. Per protocol and permit requirements, any burrowing owl observations will also be reported to the California Natural Diversity Database (CNDDB) and CDFW.

Deliverables

- Draft Western Burrowing Owl Protocol Surveys Letter Report — electronic version.
- Final Western Burrowing Owl Protocol Surveys Letter Report — electronic version.

Assumptions

- Survey results shall be conveyed via email to PWD and a project designated construction representative within 24 hours following completion of surveys. If burrowing owls or active burrows are observed, all locations will be recorded electronically, and a no-work buffer (equal to 50-500m, at the discretion of the designated biologist) shall be established.

- A draft report will be submitted electronically to PWD for review within 3 weeks of the completion of surveys. Following any feedback from the PWD, an electronic version of the final report will be prepared and submitted to PWD within 1 week.
- Due to planned construction start date, breeding season burrowing owl surveys cannot be conducted following the 2012 CDFW *Staff Reporting on Burrowing Owl Mitigation* protocol for the 2025 calendar year. The CDFW protocol requires a total of four surveys, with the first survey conducting a habitat assessment occurring between 15 February and 15 April, and the following three surveys should occur at least three weeks apart between 15 April and 15 July. Due to the project schedule, ESA proposes conducting four surveys for burrowing owl, each spaced one week, prior to the start of construction. Although the timing of the surveys doesn't follow the CDFW breeding season protocol schedule, conducting the four surveys as outlined herein, remains the best approach based on ESA's experience.
- Should no suitable habitat be present within the project site and 500-foot buffer, ESA shall notify PWD and a project designated construction representative.
- Biologists will survey using binoculars in off-site areas where trespassing may be a concern.
- If any burrowing owl are detected, the observations will be reported to CNDDB and CDFW.
- This scope includes two rounds of four surveys, one for each construction phase, in the event that there is a break in construction between Phases I and II.

Task 2.5 Burrowing Owl Pre-Construction Surveys

ESA biologists will conduct pre-construction presence/absence surveys for burrowing owl. In accordance with Mitigation Measure BIO-7 of the project's PEIR, surveys for burrowing owl shall be conducted between two hours before sunset to one hour after or one hour before sunrise to two hours after. Transects will be utilized, spaced 7 to 20 meters apart, to allow 100 percent visual coverage of the ground surface. The survey will focus on the detection of small fossorial mammal burrows potentially suitable for burrowing owl, burrowing owl burrows, individual burrowing owls, and any diagnostic sign of their occurrence (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance). Locations of any burrowing owl sightings, burrows, and territory boundaries will be mapped, if present, to support any compensatory mitigation and/or in-lieu fee payment to CDFW. Additionally, the number of any pairs, and/or juveniles and their behavior will be recorded, if applicable.

Upon completion of the pre-construction surveys, ESA shall notify PWD and a project designated construction representative (via email) of any findings, including no results, within 24 hours. If burrowing owls or active burrows are observed, all locations will be recorded electronically, and a no-work buffer (between 50 and 500 meters, at the discretion of the designated biologist) shall be established.

Deliverables

- Survey and monitoring reports will be maintained for the length of the project, including for burrowing owl.
- ESA shall provide email notification of survey results, including no significant findings.

Assumptions

- Should no suitable habitat be present within the project site and 500-foot buffer, ESA shall notify PWD and a project designated construction representative.
- Biologists will survey using binoculars in off-site areas where trespassing may be a concern.

- If any burrowing owl are detected, the observations will be reported to CNDDDB and CDFW.
- This task does not include relocation of burrowing owls if found on-site. If it is determined the project site is occupied by burrowing owl, ESA can prepare an augment request for additional coordination with the Wildlife Agencies, and if needed, preparation of a relocation plan for relocation outside of the burrowing owl nesting season (February through August).

Task 2.6 Woodrat Midden Pre-Construction Surveys

In accordance with Mitigation Measure BIO-11 of the project's PEIR, ESA biologists shall survey within suitable habitat for active woodrat middens (i.e. houses, dens, or nests) within 30 days prior to initial site disturbance (i.e. ground disturbance or vegetation removal) at each construction site. Any observed active woodrat middens shall have its location recorded and shall be flagged for avoidance with a minimum 10-foot buffer. In accordance with Mitigation Measure BIO-11 of the project's PEIR, active woodrat dens (i.e., houses or nests) shall be flagged for avoidance. If avoidance is not feasible, the houses shall be dismantled ("daylighted") by a qualified biologist at least one night prior to vegetation removal or ground disturbance that may disrupt the midden. Nest material shall be moved to suitable adjacent areas (woodlands, scrub, or chaparral) that shall not be disturbed. If midden dismantling must occur, ESA shall provide a brief letter report documenting the passive relocation actions, which shall be submitted to PWD prior to disturbance.

Deliverables

- Letter Reports (as necessary) shall be submitted to PWD for midden dismantling — electronic version.

Assumptions

- Letter reports shall be brief and specify the locations of any active middens that cannot be avoided (within 10 feet of vegetation removal or ground disturbance), reasoning how impacts cannot be avoided, and a description of the dismantling and materials relocation protocol.
- If any special-status woodrat species are detected, the observations will be reported to CNDDDB and CDFW.

Task 2.7 Biological Resources Pre-Construction Surveys for Special-Status Reptiles

Several special-status reptile species, including western pond turtle, northern California legless lizard, California legless lizard, California glossy snake, coast horned lizard, and two-striped gartersnake, are identified in the project's BRA and PEIR as having a moderate or high potential to occur in the project area. In accordance with Mitigation Measure BIO-12 of the project's PEIR, prior to disturbance activities and upon plan approval, ESA biologists will conduct clearance surveys for special-status reptile species within the project's disturbance limits. If any special-status reptiles are detected they will be allowed to relocate out of harm's way. If necessary, ESA biologists will relocate these species to suitable habitats within surrounding open space areas that would remain undisturbed, unless the biologist determines that such relocation cannot reasonably be accomplished, at which point CDFW will be consulted.

Upon completion of the pre-construction surveys, ESA shall notify PWD and the project designated construction representative (via email) of any findings, including no results, within 24 hours.

Deliverables

- Survey and monitoring reports will be maintained for the length of the project, including for special-status reptiles.

Assumptions

- If any special-status reptile species are detected, the observations will be reported to CNDDDB and CDFW.

Task 2.8 Pre-Construction Nesting Bird Surveys

Since the project site supports suitable habitat for nesting birds, removal of vegetation or any other potential disturbances to nesting bird habitat shall be conducted outside of the avian nesting season (February through August). However, if habitat must be cleared during the nesting season, ESA biologists will conduct a pre-construction nesting bird survey no more than 7 days prior to any ground disturbance. In accordance with Mitigation Measure BIO-17 of the project's PEIR, ESA biologists will conduct pre-construction nesting bird surveys once weekly, within 7 days of the commencement of construction. Upon completion of the pre-construction surveys, ESA shall notify (via email) PWD and the project designated construction representative of any findings, including no results, within 24 hours.

Methodology will include slowly walking all areas of suitable habitat while visually examining all trees and vegetation for active nests. Binoculars will be used, as appropriate, to examine the canopies of trees and individual birds to observe specific behavior patterns. Active nests will be identified by the presence of the following indicators:

- Young at nest.
- The presence of whitewash around or below the nest.
- Adult birds bringing nest material and/or food to the nest.

If any nests are found to be active, appropriate avoidance measures shall be adopted to avoid any potential impacts to nesting birds. The locations of active nests will be recorded using GPS, and recommended no-work buffer zones (typically 100 feet for songbirds, 300 feet for raptors, or as determined appropriate by the biological monitor) to be flagged and avoided until the nesting cycle is complete or the biological monitor determines the young have fledged and clearing activities can occur.

Deliverables

- Survey and monitoring reports will be maintained for the length of the project, including for nesting birds.

Assumptions

- If any special-status avian species are detected, the observations will be reported to CNDDDB and CDFW.

Task 2.9 Special-Status Bats Pre-Construction Surveys and Monitoring

In accordance with Mitigation Measure BIO-10 of the project's PEIR, a pre-construction survey will be conducted to identify suitable roosting habitat, as well as presence/absence of bat species, on the project site. The survey effort will focus on identifying potential day or maternity roost sites (to include natural features and manmade structures) on the project site and verifying if any portions of the project site currently support a roosting colony of bats. The survey should be conducted when bats are most active (i.e. March through September) in order to determine the current roosting status on the project site prior to the start of construction.

The pre-construction bat survey will consist of a daytime roost assessment to identify any sign of bat roosting activity indicating presence (i.e. guano, staining, etc.). ESA's bat biologist will survey suitable vegetation and structures in the project area on foot, using binoculars and a high-powered flashlight to look into crevices that could support roosting bats. Any bridges or culverts near the periphery of the project will also be surveyed. If roosting bats, or sign of roosting activity is observed that may be impacted by the project, additional survey efforts may be required to determine emergence location and species present.

If bats are identified, ESA biologists will record the location electronically and flag for avoidance for retention throughout the maternity period. If ESA's bat specialist determines that roosting bats may be present at any time of the year, the ESA biologist and/or monitor shall supervise the controlled removal and demolition (e.g. mulching) of suitable roosting habitats. If known roosting locations cannot be avoided, ESA will provide a CDFW-approved biologist to capture and relocate bats, and a monitoring plan will be developed for replacement of roosts and habitat.

Deliverables

- Draft Bat Monitoring Plan (if required) — electronic version.
- Final Bat Monitoring Plan (if required) — electronic version.
- Surveying and monitoring records, recorded daily, and retained for the project duration.

Assumptions

- Biologists will survey using binoculars in off-site areas where trespassing may be a concern.

Task 3 Construction-Phase Services

Task 3.1 Biological Resources Construction Worker Environmental Awareness Program

In accordance with Mitigation Measure BIO-15 of the project's PEIR, ESA will prepare a Worker Environmental Awareness Program (WEAP) presentation that will be designed to inform personnel of the sensitive biological resources within the project site and immediate vicinity, including special-status species and sensitive habitats, permit compliance requirements, specific measures to protect the species (e.g., biological monitors, avoidance buffers which will be flagged/marked in the field as appropriate), what workers should do if special-status species are observed, and the importance of complying with avoidance and minimization measures. The project's best management practices (BMPs) to discuss protection of common and protected biological resources will be included.

In addition, an educational brochure summarizing the information in the WEAP presentation will be provided for workers to carry on-site. The brochure will include photographs and information about special-status plants and wildlife, sensitive habitats, and briefly describe the regulations protecting these resources. For compliance with the PEIR, signatures of attendees will be documented and maintained.

Deliverables

- Biological WEAP education brochure — electronic version.

Assumptions

- One biological WEAP training prior to the start of project activities will occur and will include all construction crew members. New workers will be trained on-site by the biological monitors. Spanish versions of the WEAP presentation and brochure can be provided upon request.

Task 3.2 Construction Worker Cultural Resources Sensitivity Training

Prior to the start of any ground disturbing activities, ESA's Qualified Archaeologist will attend a pre-grade meeting with PWD, the contractor, and subcontractors to discuss the monitoring program. Construction personnel will be informed of the types of cultural resources that may be encountered during construction, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources, or human remains. In accordance with Mitigation Measure CUL-4, a Qualified Archaeologist shall conduct a Construction Worker Cultural Resources Sensitivity Training, regarding the encountering of archaeological resources and the procedures for notifying qualified archaeological staff should artifacts or features be discovered by construction personnel. PWD will ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. Training materials will be provided to PWD to share with additional construction personnel who may participate in the project that were not part of the additional training, or ESA monitors will provide additional training at morning tailgate meetings if new staff come on to the site.

Deliverables

- Construction Worker Cultural Resources Sensitivity Training brochure — electronic version.

Assumptions

- One Construction Worker Cultural Resources Sensitivity Training prior to the start of project activities will occur and will include all construction crew members. New workers will be trained on-site by the archaeological monitors. Spanish versions of the Construction Worker Cultural Resources Sensitivity Training presentation and brochure can be provided upon request.

Task 3.3 Paleontological Resources Worker Environmental Awareness Program

Prior to the start of any ground disturbing activities in accordance with Mitigation Measure PALEO-2, ESA's Qualified Paleontologist will attend a pre-grade meeting with PWD, the contractor, and subcontractors to discuss the monitoring program. Construction personnel will be informed of the types of paleontological resources that may be encountered during construction, and of the proper procedures to be enacted in the event of an inadvertent discovery of fossils. A Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology (SVP 2010), or their designee will conduct a paleontological resources Worker Environmental Awareness Program (WEAP) training for construction personnel, regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel. PWD will ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance. Training materials will be provided to PWD to share with additional construction personnel who may participate in the project that were not part of the additional training, or ESA monitors will provide additional training at morning tailgate meetings if new staff come on to the site.

Deliverables

- Paleontological WEAP education brochure — electronic version.

Assumptions

- One paleontological WEAP training prior to the start of project activities will occur and will include all construction crew members. New workers will be trained on-site by the paleontological monitors. Spanish versions of the WEAP presentation and brochure can be provided upon request.

Task 3.4 Phase I Biological Resources Monitoring and Work Limit Verification

Based on our understanding of the project's linear nature and the findings in the project's PEIR and BRA, we assume approximately 175 days of monitoring will be needed to cover project construction phases over a total period of approximately 10 months. If the schedule is prolonged, additional scope and fee may be needed. In accordance with Mitigation Measure BIO-16, ESA biologists will be available to coordinate with the construction team to confirm that the disturbance limits are marked prior to work commencing, and that biologically sensitive areas to be avoided are flagged or fenced off for protection. This includes coordinating with the construction team that the findings of pre-construction surveys (including no-work buffers) and the Mitigation Measures BIO-2 through 12 and 17 in the PEIR are considered in the project implementation.

ESA biologists will monitor project construction activities during clearing/grading of vegetation, sensitive habitats, or activities in the immediate vicinity of sensitive biological resources to support PWD in compliance with the mitigation measures included in the project's PEIR. The biologist shall be given the authority to stop all work on-site if a violation of the mitigation measures in the project's PEIR and/or regulatory permit requirements occurs or has the potential to occur.

To comply with measures 4 through 7 in Section 7 of the project's ITP for Crotch's bumble bee, ESA will provide a designated biological monitor for all work occurring within and adjacent to suitable habitat during the flight and active periods for the species (February through October). In addition, daily monitoring reports will be recorded electronically. ESA will notify PWD and CDFW immediately if take of any special-status species is observed while monitoring the project.

In addition, ESA biological monitors will provide guidance to support meeting the BMP requirements included in the project's PEIR, CWA 404 and/or 401 permits, SAA, and ITPs. The ESA biological monitor shall keep a digital environmental compliance binder on-site during construction monitoring, which shall include the MMRP conditions, terms of the permits, key contact information and protocols, and monitoring templates and example completed forms. In addition, the ESA biological monitor shall communicate directly with the contractor of any potential issues or species encounters.

Deliverables

- Daily monitoring reports shall be recorded electronically and maintained for the life of the project. Daily environmental monitoring reports shall include a compliance checklist to document field activities, mitigation implementation, and biological resource observations. All photographs taken will include a geolocation reference.
- A digital environmental compliance binder shall be created for the project. This will contain the MMRP conditions, terms of all environmental permits, key contact information and protocols, and the monitoring template (including examples of properly completed forms). A physical copy of the binder shall be created upon request from PWD.

Assumptions

- ESA understands that both phases of the project will involve 175 construction days and shall last approximately 10 months. For Phase I, ESA has calculated that a full-time biological monitor will be needed for up to 65 full-day work-days of ground disturbance, vegetation impacts, and work subject to ITP, CWA 404/401, and SAA permits for Phase I of the project. This is because some construction days will fall outside of required survey windows or are located in disturbed areas that will not require monitoring for special-status species.
- No biological monitoring for Phase II of the project is included in this task. If monitoring for Phase II is required, cost and scope for a biological monitor is provided in Task 3.13.
- The budget for this task assumes that a full-day workday shall not exceed 8 hours of time on-site. ESA has included an additional 2 hours per day (for a total of 10 hours per day) when a full-time monitor is required to allow for travel to and from the project area, completion of reports, and coordination with ESA staff, PWD, or the construction contractor.
- To improve cost efficiencies, pre-construction surveys identified under Task 2 will be scheduled to occur simultaneously with full-time biological resources monitoring as the pipeline installation progresses. This may include surveys for reptiles, bats, nesting birds, burrowing owl, and providing WEAP training and materials to new construction crew members.
- Only one biological full-time monitor will be required at any time. Should additional biological monitoring services be needed (e.g. construction is occurring simultaneously in multiple locations), PWD and ESA may coordinate for this to occur simultaneously with additional surveys, or ESA may submit a written augmentation of the scope to PWD.

Task 3.5 Monthly Compliance Reporting for Crotch's Bumble Bee and Western Joshua Tree Conservation Act (WJTCA) ITPs

ESA shall provide monthly compliance monitoring records to PWD and CDFW to support compliance with the project's ITPs. ESA understands that the final permits may not be issued prior to submitting this proposal, and any additional effort stemming from permits can be covered in a separate scope and cost. Monthly compliance reports will summarize the construction, monitoring, and surveying activities conducted, as well as how the conditions of the ITPs are tracked.

Deliverables

- One letter notification per month, for a total of 10 months, submitted to CDFW for Crotch's Bumble Bee ITP.
- One letter notification per month, for a total of 10 months, submitted to CDFW for WJTCA ITP.

Assumptions

- Construction of both project phases will not require more than 10 months to complete. If construction lasts longer than this period, ESA may submit a written change order/augmentation to PWD to request additional budget.

Task 3.6 Annual Status Report for Crotch's Bumble Bee and WJTCA ITPs

ESA shall provide annual status compliance monitoring records to PWD and CDFW to support compliance with the project's ITPs. ESA understands that the final permits may not be issued prior to submitting this proposal and any additional effort stemming from permits shall be covered in a separate scope and cost.

Deliverables

- One letter notification per calendar year, for a total of 2 years, submitted to CDFW for Crotch's Bumble Bee ITP.
- One letter notification per calendar year, for a total of 2 years, submitted to CDFW for WJTCA ITP.

Assumptions

- The terms and permit conditions for annual ITP reporting shall follow the guidelines determined by CDFW.
- Construction of both project phases will occur within 2 calendar years, necessitating a total of 4 annual letter notifications. If construction extends beyond 2027, ESA may submit a written change order/augmentation to PWD to request additional budget.

Task 3.7 Annual Monitoring Reports for RWQCB CWA Section 401 WQC

ESA will coordinate with the Palmdale Ditch Project's Qualified SWPPP Practitioner (QSP) and/or construction contractor, and then prepare an annual project progress report describing status of BMP implementation and compliance with all requirements of the project 401 Water Quality Certification to the Lahontan RWQCB each year following the issuance of the Certification, until the project has reached completion. The report may include the following information:

- The names, qualifications, and affiliations of the persons contributing to the report.
- The status, progress, and anticipated schedule for completion of project construction activities including the installation and operational status of BMPs, project features or erosion and storm water quality treatment.
- A description of project construction delays encountered or anticipated that may affect the schedule for construction completion.
- A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Deliverables

- Two draft annual monitoring reports (i.e. 2025 and 2026) submitted to PWD – electronic version.
- Two final annual monitoring reports (i.e. 2025 and 2026) submitted to RWQCB – electronic version.

Assumptions

- The terms and permit conditions for annual Section 401 reporting shall follow the guidelines determined by the Lahontan RWQCB.
- This task assumes that the total active construction period for both project phases will last approximately 10 months. Therefore, two rounds of annual reports will be required (i.e. 2025 and 2026). If construction extends into 2027, ESA may submit a written change order/augmentation to PWD to request additional budget.

Task 3.8 California Natural Diversity Database Observation Forms Submission

If any special-status species are observed, ESA biologists will prepare and submit forms and maps to the CNDDDB. ESA will notify PWD prior to the submittal of any CNDDDB forms.

Deliverables

- Forms and maps to CNDDDB – electronic version.
- CNDDDB records can be submitted to PWD upon request – electronic version.

Tasks 3.9 and 3.10 Phase I Archaeological and Paleontological Resources Monitoring

ESA has local staff in the Palmdale area, including one staff in Acton, California approximately 9 miles from the project site, who can support the project and conduct the majority of the monitoring to achieve budget efficiencies for PWD (i.e. no hotels needed or long mileage costs). In accordance with Mitigation Measures CUL-5 and PALEO-2, ESA will provide a cross trained archaeological/paleontological monitor, or a monitor with specific skills in archaeology or paleontology depending on depth and sensitivity, working under the direct supervision of the Qualified Archaeologist and Paleontological Principal Investigator. The cross trained monitor will be familiar with the types of archaeological and paleontological resources that could be encountered within the project area, to observe ground-disturbing activities, including but not limited to grubbing, demolition, trenching, and grading.

Ground-disturbing activities for both phases of the project are expected to last for 175 days. This scope assumes activities including pipe laying and backfill will not require monitoring. In addition to providing cross trained monitors, ESA has demonstrated an ability to perform efficient work by implementing a construction contractor training and communication program that equips crews with resource information to be able to reduce ESA's time in the field, ultimately resulting in cost savings.

The monitor is empowered by the mitigation measure to halt or redirect ground-disturbing activities away from the vicinity of a discovery until the Qualified Archaeologist or Qualified Paleontologist has evaluated the discovery and determined appropriate treatment. The monitor will keep daily logs detailing the types of activities and soils observed, and any discoveries made. The Qualified Archaeologist or Paleontologist, in coordination with PWD, may reduce or discontinue monitoring if it is determined that the possibility of encountering buried archaeological deposits or sensitive paleontological resources is low based on observations of soil stratigraphy or other factors. Based on observations of subsurface conditions, the level of monitoring may be reduced, increased, or discontinued by Qualified Archaeologist or Paleontologist, in consultation with PWD.

The ESA cross trained monitor shall keep a digital environmental compliance binder on-site during construction monitoring, which shall include the MMRP conditions, terms of the permits, key contact information and protocols, and monitoring templates and example completed forms. In addition, the ESA cross trained monitor shall communicate directly with the contractor of any potential issues or species encounters.

Deliverables

- Daily monitoring reports shall be recorded electronically and maintained for the life of the project. Daily archaeological and paleontological monitoring reports shall include a compliance checklist to document field activities, mitigation implementation, and resource observations. All photographs taken will include geolocation referencing technology.
- A digital environmental compliance binder shall be created for the project. This will contain the MMRP conditions, terms of all environmental permits, key contact information and protocols, and the monitoring template (including examples of properly completed forms). A physical copy of the binder shall be created upon request from PWD.

Assumptions

- ESA understands that both phases of the project will involve 175 construction days and shall last approximately 10 months. For Phase I, ESA has calculated that a full-time cross trained monitor will be needed for 88 full-day workdays when ground-disturbing activities (e.g. grubbing, demolition, trenching, and grading) may occur.
- No archaeological or paleontological monitoring for Phase II of the project is included in this task. If monitoring for Phase II is required, cost and scope for a cross trained monitor is provided in Tasks 3.14 and 3.15.
- The budget for this task assumes that a full-day workday shall not exceed 8 hours of time on-site. ESA has included an additional 2 hours per day (for a total of 10 hours per day) when a full-time monitor is required to allow for travel to and from the project area, completion of reports, and coordination with ESA staff, PWD, or the construction contractor.
- Only one cross trained full-time monitor will be required at any time. Should additional archaeological and paleontological monitoring services be needed (e.g. construction is occurring simultaneously in multiple locations), PWD and ESA may coordinate for this to occur simultaneously with additional surveys, or ESA may submit a written augmentation of the scope to PWD.

Optional Task 3.11 Western Joshua Tree Relocation

To support PWD with 61 western Joshua trees that may be directly impacted or encroached upon by project activities, ESA will partner with Dudek to support relocation, monitoring, and maintenance of this species. According to the project's *Western Joshua Tree Census Survey Report* (Rincon 2024), up to 11 western Joshua trees are under 1 meter in height, and 50 are between 1 and 5 meters. Dudek will mark the trees and call in a Dig Alert ticket prior to removal. Dudek will mobilize equipment to the site and use bare-root methods to remove up to 61 western Joshua trees from the current location and transport them to the receptor sites on PWD lands. Dudek will replant the western Joshua trees at the receptor site and provide them with a deep watering immediately at the time of translocation. The relocated western Joshua trees will be watered weekly for months 1 through 3, twice monthly for months 4 through 6, and monthly for months 7 through 10. Western Joshua tree health and condition will be monitored concurrent with the watering schedule.

This optional task is included as an alternative to the CDFW in-lieu fee program, which provides a standard mitigation fee structure per-tree based upon its height.

Deliverables

- Survey and monitor reports will be recorded daily and maintained for the project duration.
- Western Joshua Tree Relocation Memorandum submitted to PWD (electronic version).

Assumptions

- No tree spade equipment will be used or required.
- Trees will be watered from a water truck daily during translocation.
- Excavated western Joshua trees will be replanted on the same day as excavation. Transferring trees to planter boxes for extended periods will require additional cost to maintain and will reduce the success once transplanted within the restoration area.

- The western Joshua tree receptor site is within a one hour drive of the salvage location and has similar relatively undisturbed soils.
- PWD will provide Dudek with an irrigation point of connection (POC) within one mile of the western Joshua tree receptor sites to fill a water truck or water trailer.
- No additional permits, permit fees, water costs, water meter fees, hazardous materials removal, coring, boring, or breaking is included.
- This cost does not include the development of a SWPPP plan and any QSD/QSP services.
- This cost does not include the removal or clearing of any trees other than those being salvaged.
- This task does not include monitoring, maintenance, or reporting beyond the anticipated duration of the project, which is expected to last for approximately 10 months. If construction extends beyond 10 months, ESA may submit a written change order/augmentation to PWD to request additional budget.

Optional Task 3.12 Seed Collection for Project Restoration

To support PWD with the project's restoration plan, ESA biologists will collect seeds of native plants within and adjacent to the project site. ESA biologists will consult the botanical species included in the project's Habitat Revegetation, Restoration and Monitoring Program (HRRMP) and collect viable materials over the duration of the project. To the extent feasible, seed collection will occur simultaneously with other surveys and monitoring efforts. Plant materials shall be retained for inclusion in a later mitigation phase, which is not included in this project.

Deliverables

- Seed collection activities will be recorded daily and maintained for the project duration.

Assumptions

- This task does not include seed collection beyond the anticipated duration of the project, which is expected to last for approximately 10 months. If construction extends beyond 10 months, ESA may submit a written change order/augmentation to PWD to request additional budget.

Optional Task 3.13 Phase II Biological Resources Monitoring and Work Limit Verification

Upon receiving a Notice to Proceed from PWD, ESA biologists shall provide biological monitoring and work limit verification for Phase II of the project. ESA understands that biological monitoring is required for Phase II of the project in accordance with Mitigation Measure BIO-16. The services provided by the ESA biological monitor for Phase II of the project are identical to those described above under Task 3.4, including supporting compliance with the mitigation measures of the project's PEIR, regulatory permits, and BMPs.

Deliverables

- Daily monitoring reports shall be recorded electronically and maintained for the life of the project. Daily environmental monitoring reports shall include a compliance checklist to document field activities, mitigation implementation, and biological resource observations. All photographs taken will include a geolocation reference.

- A digital environmental compliance binder shall be created for the project. This will contain the MMRP conditions, terms of all environmental permits, key contact information and protocols, and the monitoring template (including examples of properly completed forms). A physical copy of the binder shall be created upon request from PWD.

Assumptions

- ESA understands that both phases of the project will involve 175 construction days and shall last approximately 10 months. For Phase II, ESA has calculated that a full-time biological monitor will be needed for up to 65 full-day work-days of ground disturbance, vegetation impacts, and work subject to ITP, CWA 404/401, and SAA permits for Phase II of the project. This is because some construction days will fall outside of required survey windows or are located in disturbed areas that will not require monitoring for special-status species.
- This task is to provide biological monitoring for Phase II of the project. Cost and scope for Phase I of the project is provided in Task 3.4.
- The budget for this task assumes that a full-day workday shall not exceed 8 hours of time on-site. ESA has included an additional 2 hours per day (for a total of 10 hours per day) when a full-time monitor is required to allow for travel to and from the project area, completion of reports, and coordination with ESA staff, PWD, or the construction contractor.
- To improve cost efficiencies, pre-construction surveys identified under Task 2 will be scheduled to occur simultaneously with full-time biological resources monitoring as the pipeline installation progresses. This may include surveys for reptiles, bats, nesting birds, burrowing owl, and providing WEAP training and materials to new construction crew members.
- Only one biological full-time monitor will be required at any time. Should additional biological monitoring services be needed (e.g. construction is occurring simultaneously in multiple locations), PWD and ESA may coordinate for this to occur simultaneously with additional surveys, or ESA may submit a written augmentation of the scope to PWD.

Optional Tasks 3.14 and 3.15 Phase II Archaeological and Paleontological Resources Monitoring

Upon receiving a Notice to Proceed from PWD, an ESA cross trained monitor shall provide archaeological and paleontological monitoring for Phase II of the project. ESA understands that a cross trained monitor is required for Phase II of the project in accordance with Mitigation Measures CUL-5 and PALEO-2. The services provided by the ESA cross trained monitor for Phase II of the project are identical to those described above under Tasks 3.9 and 3.10, including supporting compliance with the mitigation measures of the project's PEIR, regulatory permits, and BMPs.

Deliverables

- Daily monitoring reports shall be recorded electronically and maintained for the life of the project. Daily archaeological and paleontological monitoring reports shall include a compliance checklist to document field activities, mitigation implementation, and resource observations. All photographs taken will include geolocation referencing technology.
- A digital environmental compliance binder shall be created for the project. This will contain the MMRP conditions, terms of all environmental permits, key contact information and protocols, and the monitoring template (including examples of properly completed forms). A physical copy of the binder shall be created upon request from PWD.

Assumptions

- ESA understands that both phases of the project will involve 175 construction days and shall last approximately 10 months. For Phase II, ESA has calculated that a full-time cross trained monitor will be needed for the 87 full-day workdays when ground-disturbing activities (e.g. grubbing, demolition, trenching, and grading) may occur in Phase II.
- This task is to provide archaeological and paleontological monitoring for Phase II of the project. Cost and scope for Phase I of the project is provided in Tasks 3.9 and 3.10.
- This budget assumes that a full-day workday shall not exceed 8 hours of time on-site. ESA has included an additional 2 hours per day (for a total of 10 hours per day) when a full-time monitor is required to allow for travel to and from the project area, completion of reports, and coordination with ESA staff, PWD, or the construction contractor.
- Only one cross trained full-time monitor will be required at any time. Should additional archaeological and paleontological monitoring services be needed (e.g. construction is occurring simultaneously in multiple locations), PWD and ESA may coordinate for this to occur simultaneously with additional surveys, or ESA may submit a written augmentation of the scope to PWD.

Task 4 Post-Construction Reporting

Task 4.1 Aquatic Resources Permits Construction Completion Reporting

In coordination with the project's construction contractor and/or Qualified SWPPP Practitioner (QSP), ESA will prepare a Final Project Completion Report within 30 days of completion of authorized work in waters of the U.S./State and submit to the USACE Regulatory Division, Lahontan RWQCB, and CDFW. The report may include the following information:

- Date(s) work within waters of the U.S./State was initiated and completed.
- Summary of compliance status with permit conditions (including any noncompliance that occurred and corrective actions taken to achieve compliance).
- Color photographs (including map of photo points) taken at the project site before and after construction for those aspects directly associated with permanent impacts to waters of the U.S./State such that the extent of authorized fills can be verified.
- BMP installation and operational status for the project.
- Photo documentation (and GPS coordinates for each of the photo points referenced) of implemented post-construction BMPs.
- One copy of "as built" drawings for the entire project.

Deliverables

- One draft Construction Completion report for waters of the U.S. (CWA 404) submitted to PWD – electronic version.
- One draft Construction Completion report for waters of the State (CWA 401) submitted to PWD – electronic version.
- One draft Construction Completion report for waters of the State (LSAA Section 1600 et seq.) submitted to PWD – electronic version.
- One final Construction Completion report submitted to USACE (CWA 404) – electronic version.
- One final Construction Completion report submitted to RWQCB (CWA 401) – electronic version.
- One final Construction Completion report submitted to CDFW (LSAA Section 1600 et seq.) – electronic version.

Assumptions

- Any comments from PWD on the Draft Reports will be consolidated into a single document for inclusion in the Final Reports.

Task 4.2 Final Mitigation Report for Crotch's Bumble Bee and WJTCA ITPs

ESA shall provide annual status compliance monitoring records to PWD and CDFW to support compliance with the project's ITPs. ESA understands that the final permits may not be issued prior to submitting this proposal.

Deliverables

- Draft Project Mitigation Report submitted to PWD for Crotch's Bumble Bee ITP – electronic version.
- Draft Project Mitigation Report submitted to PWD for WJTCA ITP – electronic version.
- Final Project Mitigation Report submitted to CDFW for Crotch's Bumble Bee ITP – electronic version.
- Final Project Mitigation Report submitted to CDFW for WJTCA ITP – electronic version.

Assumptions

- Any comments from PWD on the Draft Reports be consolidated into a single document for inclusion in the Final Reports.

Task 4.3 and 4.4. Archaeological and Paleontological Resources Monitoring Technical Report

Upon completion of monitoring, the Qualified Archaeologist and Paleontologist will prepare a monitoring report that details the results of monitoring. The report will be submitted to PWD, and ESA assumes that PWD will share with all agencies as Tribes as required. The Qualified Archaeologist will submit a copy of the final report to the California Historic Resources Information System (CHRIS) South Central Coastal Information Center (SCICIC), and the Natural History Museum of Los Angeles County.

Deliverables

- Draft Archaeological and Paleontological Monitoring Reports submitted to PWD – electronic format.
- Final Archaeological and Paleontological Monitoring Reports submitted to PWD – electronic format.

Assumptions

- Monitoring will be negative for findings. Should resources be encountered a scope and cost specific to the cost of recovery and analysis and curation will be provided.
- Any comments from PWD on the Draft Reports shall be consolidated into a single document for inclusion in the Final Reports.

Task 4.5 Agency Coordination during Project Implementation

ESA understands that additional coordination may be required during the construction phase of the project. This may include coordination with waters regulators (i.e. USACE, RWQCB, and CDFW) regarding permit compliance with CWA 404/401 and Section 1600 et seq. or with CDFW related to special-status species observations or regulatory compliance

with the project's ITPs. To support PWD, ESA will be available to provide ongoing coordination with regulatory agencies, as appropriate, for the permits and processes of the project.

Deliverables

- Electronic communications, typically via email, between ESA and any regulators may involve or be shared with PWD.
- Daily survey and monitoring records to support any communications will be taken and kept for the duration of the project.

Task 5 Contingency for Unanticipated Discoveries

Task 5.1 Archaeological Discoveries

Should unanticipated archaeological discoveries be encountered, this task provides support in accordance with CUL-6, and a contingency to evaluate and make recommendations for any potentially significant findings. As the scale or type of discoveries is not known, ESA has made assumptions about the type and magnitude of discoveries that can be preliminarily evaluated as part of this contingency task. This task includes PWD and agency coordination, two site visits for the qualified archaeologist, preliminary evaluation of one unanticipated archaeological site, and five isolated unanticipated discoveries, as well as preliminary recommendations for data recovery if the resource cannot be avoided.

Deliverables

- Preliminary evaluation and treatment recommendations memo (up to one memo pertaining to an archaeological site and five brief memos pertaining to isolated findings).

Assumptions

- This task does not include scope or cost for archaeological testing, data recovery, preparation of any data recovery plan or documents, curation or collection of any resources, or the final reporting and preparation of DPR forms. If any of these services are determined to be required, ESA may submit a written change order/augmentation to PWD to request additional budget.

Task 5.2 Human Remains Discoveries

Should human remains be encountered in the project site, this task provides support in accordance with CUL-9 and Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. As the scale or type of discoveries is not known, ESA has made assumptions about the type of magnitude of discoveries that can be preliminarily evaluated as part of this contingency task. This task includes PWD and agency coordination, one site visit for an ESA osteologist or qualified archaeologist as well as a photo-based review by an osteologist of up to five isolated bone findings for preliminary identification of possible human versus faunal (animal) remains.

Deliverables

- Up to one memo related to the findings of any burial features (more than one isolated bone found in close proximity) and the email results of up to five photo-based identifications by a qualified osteologist of isolated bone findings.

Assumptions

- This task does not include scope or cost for archaeological testing, data recovery, preparation of any data recovery plan or documents, curation or collection of any resources, or the final reporting and preparation of DPR forms. If any of these services are determined to be required, ESA may submit a written change order/augmentation to PWD to request additional budget.

Task 5.3 Active Nest and Burrow Avoidance and Relocation Coordination

If active western burrowing owl burrows are encountered during pre-construction surveys or biological monitoring, ESA biologists will notify PWD and the designated construction representative, record the resource's location, and establish an appropriate no-work buffer (50m–500m at the discretion of a qualified biologist). If necessary and outside of the burrowing owl nesting season (February through August), ESA shall coordinate with PWD and CDFW to develop and prepare a passive relocation program for burrowing owls in accordance with Appendix E of the *CDFW Staff Report on Burrowing Owl Mitigation* (CDFW 2012). ESA biologists will map impacted habitat to provide to PWD if compensatory mitigation is required by CDFW.

Deliverables

- Draft Burrowing Owl Passive Relocation Program – submitted to PWD.
- Agency Draft Burrowing Owl Passive Relocation Program – submitted to CDFW.
- Final Burrowing Owl Passive Relocation Program – submitted to CDFW.

Assumptions

- Any comments from PWD on the Draft Report shall be consolidated into a single document for inclusion in the Final Report.
- Only a single round of revisions shall be required upon receiving comments from CDFW.
- Compensatory mitigation fees are not included in this task.
- No creation or enhancement of any burrows (natural or manmade,) is included in this task.
- Costs to develop and maintain an ITP for western burrowing owl is not included in this task.
- The active relocation of any western burrowing owls is not included in this task.
- One Burrowing Owl Passive Relocation Program is included in this scope. If additional Burrowing Owl Passive Relocation Programs are required, ESA may submit a written change order/augmentation to PWD to request additional budget.
- Any additional monitoring or reporting on the success of passive relocation may be performed concurrent with other survey and monitoring tasks.

Schedule

ESA is prepared to begin the Phase I scope of work upon written Notice to Proceed from PWD, in accordance with agreed-upon terms and conditions. ESA is prepared to complete all pre-construction, construction, and post-construction tasks per the required timeframes outlined in this scope of work.

ESA is prepared to support PWD with both phases of the project and has provided costs for these scopes of work below.

Cost

ESA is eager to join your team for environmental compliance for the Palmdale Ditch Project. We recognize what an important milestone this is for PWD and look forward to working with you. A summary table of our costs associated with Phases I and II of the proposed effort is included below with a detailed cost spreadsheet by task on the following page. ESA has included an optional contingency of \$150,000, to provide uninterrupted services to PWD for the duration of the project. This contingency is intended to cover unforeseen circumstances or out-of-scope services in a timely manner to PWD. We are available immediately to discuss our cost assumptions if needed to ensure we meet your expectations.

Assumptions

- To provide PWD with efficient service, budget may be transferred between tasks scoped to occur within the same Phase.
- To provide PWD with continuity of service, any unused budget from Phase I may be transferred to Phase II, if required.

TABLE 1. PROJECT COST ESTIMATE SUMMARY TABLE

		PHASE I	PHASE II	Contingency
ESA Labor		\$420,283	\$173,271	
Technology and Data Management Fee	3%	\$12,608	\$5,198	
ESA Labor Amount		\$432,891	\$178,469	
ESA Non-Labor Expenses				
Reimbursable Expenses (see Attachment A for detail)		\$62,448	\$45,000	
ESA Equipment Usage (see Attachment A for detail)				
Subtotal ESA Non-Labor Expenses		\$62,448	\$45,000	
Subconsultant Costs		\$78,860	\$42,645	
PHASE TOTAL (without Optional Tasks)		\$574,199	\$266,114	
Optional Tasks		\$456,551		
PHASE TOTAL (with Optional Tasks)		\$1,030,750	\$266,114	
Optional Contingency				\$150,000
PROJECT TOTAL (with Optional Tasks & Contingency)		\$1,446,865		

Palmdale Ditch Project Environmental Monitoring

		ESA Total Hours	Total ESA Labor Cost	Pax Environmental - Project Manager Total (\$) Amount	Pax Environmental - Senior Biologist Total (\$) Amount	Pax Environmental - Associate Biologist Total (\$) Amount	Dudek Total (\$) Amount	Total Subconsultant (\$ Amount)	Total Expense (\$ Amount)	TOTAL PROJECT COST
Task #	Task Name/Description									
1.1	Construction Project Initiation and Kick-OA	10.00	\$ 2,643	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,643
1.2	Construction Meetings	50.00	\$ 13,060	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,060
1.3	Project Management and Coordination	144.00	\$ 38,464	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,464
1	Task 1: Project Management, Meetings, and Coordination	204.00	\$ 54,168	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 54,168
2.1	Historic American Engineering Survey-Like Documentation Package	149.00	\$ 32,689	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,525	\$ 35,215
2.2	Cultural Resources Monitoring Plan	28.00	\$ 5,179	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,179
2.3	Agency Pre-Construction Notifications	12.00	\$ 2,682	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,682
2.4	Optional Task: Burrowing Owl Breeding Season Protocol Surveys	155.00	\$ 26,518	\$ 1,014.30	\$ 2,104.50	\$ 4,754.10	\$ -	\$ 7,873	\$ 4,474	\$ 38,865
2.5	Burrowing Owl Pre-Construction Survey	50.00	\$ 8,720	\$ 1,352.40	\$ 2,806.00	\$ 6,338.80	\$ -	\$ 10,497	\$ 3,977	\$ 23,194
2.6	Woodrat Midden Pre-Construction Surveys	36.00	\$ 6,341	\$ 405.72	\$ 841.80	\$ 1,901.64	\$ -	\$ 3,149	\$ 1,591	\$ 11,081
2.7	Biological Resources Pre-Construction Surveys for Special-Status Reptile	54.00	\$ 9,346	\$ 1,014.30	\$ 2,104.50	\$ 4,754.10	\$ -	\$ 7,873	\$ 2,983	\$ 20,202
2.8	Pre-Construction Nesting Bird Surveys	82.00	\$ 14,105	\$ 1,217.16	\$ 2,525.40	\$ 5,704.92	\$ -	\$ 9,447	\$ 3,579	\$ 27,131
2.9	Special-Status Bats Pre-construction Survey and Monitoring	46.00	\$ 8,094	\$ 676.20	\$ 1,403.00	\$ 3,169.40	\$ -	\$ 5,249	\$ 1,988	\$ 15,331
2	Task 2 Precon Evaluation, Surveys, Notifications	612.00	\$ 113,674	\$ 5,680	\$ 11,785	\$ 26,623	\$ -	\$ 44,088	\$ 21,117	\$ 178,879
3.1	Biological Resources Construction Worker Environmental Awareness Program	16.00	\$ 3,032	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,032
3.2	Construction Worker Cultural Resources Sensitivity Training	13.00	\$ 2,476	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,476
3.3	Paleontological Resources Worker Environmental Awareness Program	13.00	\$ 2,466	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,466
3.4	Phase I Biological Resources Monitoring and Work Limit Verification	411.00	\$ 67,863	\$ 5,494.13	\$ 11,399.38	\$ 25,751.38	\$ -	\$ 42,645	\$ 24,205	\$ 134,712
3.5	Monthly Compliance Reporting for Crotch's Bumble Bee and WJTCA ITPs	200.00	\$ 40,510	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,510
3.6	Annual Status Report for Crotch's Bumble Bee and WJTCA ITPs	84.00	\$ 16,509	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,509
3.7	Annual Monitoring Reports for RWQCB CWA Section 401 WQC	34.00	\$ 6,829	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,829
3.8	California Natural Diversity Database Observation Forms Submission	16.00	\$ 2,505	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,505
3.9	Phase I Archaeological Resources Monitoring	905.00	\$ 107,182	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,795	\$ 127,977
3.10	Phase I Paleontological Resources Monitoring	12.50	\$ 3,425	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,425
3.11	Optional Task 3.11 Western Joshua Tree Relocation	12.00	\$ 3,003	\$ -	\$ -	\$ -	\$ 360,985.00	\$ 360,985	\$ -	\$ 363,988
3.12	Optional Task 3.12 Seed Collection for Project Restoration	20.00	\$ 3,131	\$ 338.10	\$ 701.50	\$ 1,584.70	\$ -	\$ 2,624	\$ -	\$ 5,756
3.13	Optional Task 3.13 Phase II Biological Resources Monitoring and Work Limit Verification	411.00	\$ 67,863	\$ 5,494.13	\$ 11,399.38	\$ 25,751.38	\$ -	\$ 42,645	\$ 24,205	\$ 134,712
3.14	Optional Task 3.14 Phase II Archaeological Resources Monitoring	905.00	\$ 107,182	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,795	\$ 127,977
3.15	Optional Task 3.15 Phase II Paleontological Resource Monitoring	12.50	\$ 3,425	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,425
3	Task 3: Construction Phase Services	3,065.00	\$ 437,400	\$ 11,326	\$ 23,500	\$ 53,087	\$ 360,985	\$ 448,899	\$ 90,000	\$ 976,298
4.1	Aquatic Resources Permits Construction Completion Reporting	29.00	\$ 5,608	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,608
4.2	Final Mitigation Report for Crotch's Bumble Bee and WJTCA ITPs	54.00	\$ 11,027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,027
4.3	Archaeological Resources Monitoring Technical Memorandum	46.00	\$ 7,931	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,931
4.4	Paleontological Monitoring Report	8.00	\$ 2,192	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,192
4.5	Agency Coordination during Project Implementation	48.00	\$ 12,014	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,014
4	Task 4: Post-Construction Reporting	185.00	\$ 38,772	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,772
5.1	Optional Task 5.1 Archaeological Discoveries	64.00	\$ 15,162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,162
5.2	Optional Task 5.2 Human Remains Discoveries	64.00	\$ 15,162	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,162
5.3	Optional Task 5.3 Active Nest and Burrow Avoidance and Relocation Coordination	78.00	\$ 17,619	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,619
5	Task 5: Contingency for Unanticipated Discoveries	206.00	\$ 47,942	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,942



BOARD MEMORANDUM

DATE: July 14, 2025

TO: **BOARD OF DIRECTORS**

FROM: Mr. Shadi Bader, Engineering Manager

VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager

RE: ***CONSIDERATION AND POSSIBLE ACTION ON APPROVAL OF CONTRACT WITH RINCON CONSULTANTS, INC. FOR THE CROTCH'S BUMBLE BEE HABITAT RESTORATION AND MAINTENANCE FOR THE CONSTRUCTION OF THE PALMDALE DITCH CONVERSION PROJECT. (\$801,390.00 – BUDGETED – PROJECT NO. 21-613 – ENGINEERING MANAGER BADER)***

Recommendation:

Staff recommends that the Board approve Rincon Consultants' cost analysis assumptions and associated budget estimate of \$801,390.00 for the implementation and 5-year maintenance of the Crotch's Bumble Bee Habitat Restoration Plan associated with the Palmdale Ditch Conversion Project. Approval will allow the District to move forward with habitat mitigation as required by the California Department of Fish and Wildlife (CDFW).

Alternative Options:

No alternative exists. CDFW has identified this task as a requirement to issue a permit.

Impact of Taking No Action:

The District will continue to lose about 1,500 acre-feet per year of raw water drawn from the Littlerock Dam and will not receive the construction grant.

Background:

The Palmdale Ditch Conversion Project requires temporary disturbance of approximately 39.24 acres of upland habitat that supports the Crotch's Bumble Bee (*Bombus crotchii*), a candidate species under the California Endangered Species Act. In coordination with the California Department of Fish and Wildlife (CDFW), a Habitat Revegetation, Restoration, and Monitoring Plan (HRRMP) was prepared to mitigate project impacts.

A security amount of \$801,390 is required by CDFW to ensure successful implementation and maintenance of the habitat restoration over a five-year monitoring period. A conservation easement is not applicable since the District does not own the underlying property.

July 14, 2025

The proposed scope includes:

- Seed collection and hydroseeding of locally native plants
- 25 site maintenance visits over five years
- Annual and qualitative monitoring reports
- Biological monitoring and adaptive management
- A 10% contingency on all major line items

The total cost, including a 10% contingency, is \$801,390. This amount will need to be deposited into an escrow account at the time the incidental take permit is approved, as required by CDFW. The escrow serves as financial security to ensure the habitat restoration work is performed. Portions of this amount will be released back to the District as major project milestones are achieved, such as seed collection, biological monitoring, and reporting deliverables. This approach reinforces the District's commitment to environmental compliance and stewardship, while providing a mechanism for cost recovery tied to performance.

Staff are currently evaluating the most appropriate mechanism to establish and manage this escrow account in accordance with CDFW requirements.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiatives No. 1 – Water Resources Reliability and No. 3 – Systems Efficiency.

This item directly relates to the District's Mission Statement.

Budget:

This item is budgeted under Project No. 21-613

Supporting Documents:

- Rincon Consultants, Inc. Proposal



Rincon Consultants, Inc.

180 North Ashwood Avenue
Ventura, California 93003
805-644-4455

May 16, 2025
Project No: 23-14737

Scott L. Rogers, P.E., Assistant General Manager
Palmdale Water District
2029 East Avenue Q
Palmdale, California 93550
Via email: srogers@palmdalewater.org

**Subject: Palmdale Ditch Conversion Project
Cost Analysis Assumptions for Crotch's Bumble Bee Habitat Restoration Initial
Implementation and 5-Year Maintenance Activities**

Dear Mr. Rogers:

Rincon Consultants, Inc. (Rincon) has completed a preliminary review of all costs associated with the required actions for the 39.24-acre Crotch's bumble bee (CBB; *Bombus crotchii*) Habitat Revegetation, Restoration, and Monitoring Plan (Plan) for Palmdale Water District's (PWD) Palmdale Ditch Project (Project) located in Palmdale, California. The Plan outlines revegetation, monitoring, and maintenance actions within temporarily disturbed natural habitats in upland areas of the Project, including suitable habitat for CBB (Restoration Area). The California Department of Fish and Wildlife (CDFW) has requested that a security be established to provide assurances for the implementation of the Plan and successful habitat revegetation/establishment. A long-term land management plan and Conservation Easement is not appropriate for the Project because all Project impacts to CBB habitat will be temporary and PWD has an easement over, but does not own, the land in which the Project will be located.

This document outlines the assumptions used to calculate the total amount of a security needed to fund the revegetation efforts and yearly maintenance and monitoring costs associated with the Plan over a five-year Maintenance and Monitoring Period (MMP). The cost analysis used to calculate the security is included as Attachment 1.

General Assumptions

- Costs are based on methods detailed in the Plan for the 39.24-acre Restoration Area.
- Cost estimates for installation and maintenance are supplied by contractors and are inclusive of travel costs.
- Travel time and costs for biological monitoring assume 100 miles of round trip travel from Los Angeles.
- A contingency of 10 percent has been added to each task.

Installation

- Installation of fencing and irrigation infrastructure is not proposed by the Plan and is not included in this cost analysis.



Seed Collection

- Collection of locally-sourced native seed by Stover Seeds.
- Plant palette is based on Table 2 in Plan.
- Seed application rate of 15 pounds of pure live seed per acre.

Hydroseeding

- Includes two-stage hydroseed application method as specified in Plan.
- Water for hydroseeding will be supplied by PWD and is not included in this cost estimate.
- Topsoil salvage, soil preparation and soil stabilization will be implemented by the construction contractor and are not included in this cost estimate.
- Includes oversight of installation by a restoration specialist over two 8-hour days.

Invasive Plant Species Management and Site Maintenance

- Maintenance is estimated for up to 5 years and assumed to be carried out at a standard level to achieve performance standards.
- Includes 5 maintenance events per year (25 events total). Each year, two visits will be conducted in spring, and the remaining three visits will be conducted once each in the fall, winter, and summer.
- Includes oversight of one spring maintenance event by a qualified biological monitor familiar with CBB. Assumes one 10-hour day per maintenance event.
- Maintenance visits include selective removal of non-native vegetation by hand or using hand-operated power tools as needed.
- Non-native vegetation, trash and debris will be disposed of off-site.
- Supplemental irrigation is not included in this cost estimate.
- This task assumes that some form of adaptive management to maintain habitat quality would be implemented once during the 5-year MMP, cost and labor not to exceed \$5,000.

Monitoring and Reporting

- Monitoring is estimated for up to 5 years.
- Includes three qualitative monitoring events per year conducted by a restoration specialist. Assumes one 10-hour day per qualitative monitoring event.
- Includes one quantitative monitoring event per year conducted by a restoration specialist. Assumes two 10-hour days per quantitative monitoring event.
- Includes preparation of three qualitative monitoring memos per year. Assumes 3 hours per memo.
- Includes preparation of one annual monitoring report per year. Assumes 18 hours per annual monitoring report.



This document presents our preliminary assumptions and task list in support of the PAR-like analysis requested by CDFW. Please let us know if you have questions or comments regarding this analysis.

Sincerely,

Rincon Consultants, Inc.

A handwritten signature in blue ink that reads "Robin Murray".

Robin Murray
Supervising Biologist

A handwritten signature in blue ink that reads "May Lau".

May Lau
Principal Regulatory Specialist

Attachments

Attachment 1 Cost Analysis

Attachment 1

Cost Analysis

Palmdale Ditch Conversion Project Crotch's Bumble Bee Habitat Restoration Cost Analysis

Item	Description	Unit	# of Units	Cost per Unit	Frequency	Subtotal	Contingency	Subtotal
Installation								
Seed Collection	Unit cost; mobilization costs included	Acre	39.24	\$ 8,350.00	1	\$ 327,654.00	10%	\$ 360,419.40
Hydroseeding	Unit cost; mobilization costs included	Acre	39.24	\$ 3,050.00	1	\$ 119,682.00	10%	\$ 131,650.20
Biological Monitoring	Labor; installation oversight	Hour	16	\$ 160.00	1	\$ 2,560.00	10%	\$ 2,816.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	2	\$ 140.00	10%	\$ 154.00
Installation Subtotal						\$ 450,036.00		\$ 495,039.60
Maintenance								
Site Maintenance Y1	Unit cost; mobilization costs included	Event	5	\$ 16,000.00	1	\$ 80,000.00	10%	\$ 88,000.00
Biological Monitoring	Labor; maintenance oversight	Hour	10	\$ 160.00	1	\$ 1,600.00	10%	\$ 1,760.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	1	\$ 70.00	10%	\$ 77.00
Site Maintenance Y2	Unit cost; mobilization costs included	Event	5	\$ 8,000.00	1	\$ 40,000.00	10%	\$ 44,000.00
Biological Monitoring	Labor; maintenance oversight	Hour	10	\$ 160.00	1	\$ 1,600.00	10%	\$ 1,760.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	1	\$ 70.00	10%	\$ 77.00
Site Maintenance Y3	Unit cost; mobilization costs included	Event	5	\$ 6,400.00	1	\$ 32,000.00	10%	\$ 35,200.00
Biological Monitoring	Labor; maintenance oversight	Hour	10	\$ 160.00	1	\$ 1,600.00	10%	\$ 1,760.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	1	\$ 70.00	10%	\$ 77.00
Site Maintenance Y4	Unit cost; mobilization costs included	Event	5	\$ 4,800.00	1	\$ 24,000.00	10%	\$ 26,400.00
Biological Monitoring	Labor; maintenance oversight	Hour	10	\$ 160.00	1	\$ 1,600.00	10%	\$ 1,760.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	1	\$ 70.00	10%	\$ 77.00
Site Maintenance Y5	Unit cost; mobilization costs included	Event	5	\$ 4,800.00	1	\$ 24,000.00	10%	\$ 26,400.00
Biological Monitoring	Labor; maintenance oversight	Hour	10	\$ 160.00	1	\$ 1,600.00	10%	\$ 1,760.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	1	\$ 70.00	10%	\$ 77.00
Adaptive Management	Unit cost; mobilization costs included	Event	1	\$ 5,000.00	1	\$ 5,000.00	10%	\$ 5,500.00
Maintenance Subtotal						\$ 213,350.00		\$ 234,685.00
Monitoring and Reporting								
Biological Monitoring	Labor; qualitative monitoring events	Hour	10	\$ 160.00	15	\$ 24,000.00	10%	\$ 26,400.00
Biological Monitoring	Labor; quantitative monitoring events	Hour	20	\$ 160.00	5	\$ 16,000.00	10%	\$ 17,600.00
Vehicle	Vehicle Mileage	Mile	100	\$ 0.70	20	\$ 1,400.00	10%	\$ 1,540.00
Qualitative monitoring memos	Labor; report drafting	Hour	2	\$ 160.00	15	\$ 4,800.00	10%	\$ 5,280.00
Qualitative monitoring memos	Labor; report review	Hour	1	\$ 246.00	15	\$ 3,690.00	10%	\$ 4,059.00
Annual monitoring reports	Labor; report drafting	Hour	16	\$ 160.00	5	\$ 12,800.00	10%	\$ 14,080.00
Annual monitoring reports	Labor; report review	Hour	2	\$ 246.00	5	\$ 2,460.00	10%	\$ 2,706.00
Monitoring and Reporting Subtotal						\$ 65,150.00		\$ 71,665.00
Total						\$ 728,536.00		\$ 801,389.60



BOARD MEMORANDUM

DATE: July 14, 2025

TO: BOARD OF DIRECTORS

FROM: Mr. Shadi Bader, Engineering Manager

VIA: Mr. Scott Rogers, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager

RE: ***CONSIDERATION AND POSSIBLE ACTION ON APPROVAL OF TRIBAL MONITORING BUDGET FOR THE PALMDALE DITCH CONVERSION PROJECT. (\$160,134.00 – NOT-TO-EXCEED – BUDGETED – PROJECT NO. 21-613 – ENGINEERING MANAGER BADER)***

Recommendation:

Staff recommends that the Board approve a budget not-to-exceed \$160,134.00 to support cultural resources monitoring services by tribal representatives during ground-disturbing activities for the Palmdale Ditch Conversion Project. Monitoring will be conducted on a rotating basis by representatives from up to three local Tribal Nations.

Alternative Options:

No alternative exists, this cost is to comply with CEQA and AB 52 requirements.

Impact of Taking No Action:

The District will continue to lose about 1,500 acre-feet per year of raw water drawn from the Littlerock Dam and will not receive the construction grant.

Background:

As part of the environmental compliance for the Palmdale Ditch Conversion Project, the District is coordinating with Native American Tribes to ensure tribal monitors are present during ground-disturbing activities. In accordance with AB 52 and CEQA cultural resource protection measures, PWD invited three federally or state-recognized tribes with cultural affiliations to the project area:

- San Fernando Band of Mission Indians
- Yuhaviatam San Manuel Nation
- Fernandeno Tataviam Band of Mission Indians

Staff sent a formal inquiry requesting each Tribe to submit a cost estimate and availability for monitoring services. The request outlined that construction activities are anticipated to include approximately 175 working days, with monitoring rotating equally among participating Tribes. Each Tribe may be onsite for up to 60 days.

July 14, 2025

Rates received to date from Fernandeno Tataviam Band of Mission Indians, Todd Perry and NDNA Monitoring & Consulting, LLC range from \$55 to \$150 per hour. Some Tribes have also indicated additional travel and administrative costs. The monitoring budget assumes a maximum of 60 days per Tribe, with one monitor per day, and anticipates participation by the three Tribes.

To account for the highest potential rate and provide flexibility during negotiations, a not-to-exceed budget of \$160,134.00 is proposed. This amount would cover:

- Up to 60 days of monitoring per tribe
- Rotating daily presence
- Hourly rates, travel, and fees
- Minor administrative costs

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiatives No. 1 – Water Resources Reliability and No. 3 – Systems Efficiency.

This item directly relates to the District's Mission Statement.

Budget:

This item is budgeted under Project No. 21-613.

Supporting Documents:

- Fernandeno Tataviam Band of Mission Indians Tribal Historical & Cultural Preservation Department Proposal
- Todd Perry Cultural Resource Monitoring Proposal
- NDNA Monitoring & Consulting, LLC Proposal



Fernandeno Tataviam Band of Mission Indians

Tribal Historic & Cultural Preservation Department

Rudy J. Ortega, Jr.
Tribal President

Tribal Historic and Cultural
Preservation Committee
Lucia Alfaro
Chairperson

July 9, 2025

Sent via email to Shadi Bader sbader@palmdalewater.org

RE: QUOTE FOR PALMDALE DITCH CONVERSION PROJECT [GMP 2 ONLY]

Greetings,

The Fernandeno Tataviam Band of Mission Indians (FTBMI) has maintained a professional Tribal Monitoring (TM) service for decades by aligning its traditional framework of preserving cultural, spiritual, and emotional ties to the land with effective options for mitigating potential damages to cultural resources.

The Tribal Historic and Cultural Preservation (THCP) Department's field services for the Evaluation of Agoura Hills Trail Project consist of TM, Tribal Cultural Resource oversight and consultation, and documentation of work activity and artifact discoveries through daily monitoring logs and photographs. Cost for TM includes protective equipment, field necessities, vehicle mileage, and clerical expense. The CRM Manager shall oversee Tribal coordination, correspondence, and reporting, but is not necessarily a full-time and/or field position.

The cost provided here is contingent upon an anticipated 8 hours of daily work. The cost assumes no impact to cultural resources and does not include delays or additional reports resulting from inadvertent discoveries. If work exceeds the specified conditions, any additional efforts will be subject to a Change Order. If overtime is required as determined by the Project representative, the premium differential figured at time and one-half of their regular hourly rates are charged at direct cost to the Project. The minimum payment for each Tribal Monitor present at the Project site is four hours per day.

FTBMI PROJECT QUOTE	
Category:	Duration:
Tribal Monitor	60 Days
TOTAL COST	\$72,000.00

INADVERTENT DISCOVERY

If Tribal Cultural Resources are found but cannot be collected adequately or rapidly by the Tribal Monitor, or the deposit is too large to collect adequate data during Project operation hours, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and the Project Manager will be notified. The FTBMI shall consult with the Project Manager and to discuss appropriate disposition and treatment of discovery. Should discovery be extensive or require further investigation, an archaeological consultant meeting Secretary of Interior standards shall be retained by the applicant to assess, document, and excavate the resource. If human remains are uncovered, the proper authorities, including the Lead Agency, the coroner, the Native American Heritage Commission, and the FTBMI, shall be contacted.

REPORTING

Upon request, the Client may receive a copy of all field documentation. The Client may also request a "closeout report" that addresses the FTBMI's role on the project and provides a summary of cultural findings, if any.

CONTACT:

Kimia Fatehi
1019 Second Street
San Fernando, CA 91340
Contact: 818-837-0794
E-mail: kfatehi@tataviam-nsn.us

Respectfully submitted by

TRIBE:

FERNANDEÑO TATAVIAM BAND OF MISSION INDIANS

By: 

Name: Kimia Fatehi
Title: Chief of Staff

FROM THE DESK OF TODD PERRY

Cultural Resource Monitoring proposed pricing for
Palmdale Ditch Conversion Project

Hourly rate \$50 an hour up to 40 hours a week or anything over 8 hours a day

OT rate \$75 an hour anything after 40 hours a week or 8 hours in a day

Minimum Daily 4 hour show up time unless notified 48 hours prior

Per Diem \$120 a day for hotel not including travel home day

Mileage .56c a mile

as of June 16, 2025 my schedule is open

I serve as a representative of the San Manuel Mission Band of Mission Indians and work to protect native cultural items during excavations and initial ground disturbances. An open line of communication regarding excavation and initial ground disturbances is the only term of engagement requested.

Thank you

Todd Perry

Totals:

Hourly Rate = \$50

Daily Rate = 8 Hr. x \$50 = \$400

Per Diem = \$120 x 5 Days = \$600

Mileage = \$0.56 x 50 miles = \$28

Total of up to 60 days = (\$400 + \$120 + \$28) = \$548 x 60 = \$32,880



Rate Sheet

NDNA Monitoring & Consulting, LLC

Natives Detecting Native Ancestors

Company: City of Palmdale
Contract: Shadi Bader
Address: 2029 East Avenue Q
City, State, Zip: Palmdale, CA 93550
Phone/Cell: 661-947-4111

Date: 6/23/2025
Project #: 25-06
Customer ID: 25-03
Payment Terms: Net 30
Project Site: Palmdale Water Conversion
Ditch Project

***Proudly representing
the Indigenous Peoples
of Southern California***

Estimated Project Schedule: 60 day (8 hour) days @ 90 mi RT/day

BUDGET CATEGORY AND LINE ITEM DETAIL	COST	EXTENDED COST
A. Monitoring & Consulting Services		
Salaries/other wages		
1. Native Site Monitor (8hrs/Day @ 60 Day Min)	\$95/hr	\$ 45,600.00
2. Native Site Monitor Overtime (Exceeding 8hr day on jobsite)	\$142.50/hr	
3. Minimum On site Charge*	\$380.00	
B. Operating Expenses		
1. Travel/Mileage - Current Rate per IRS Jan 1, 2025 **	\$0.70 @90 mi RT	\$ 1,155.00
2. Training/Classes (CRATE Tailgate)	\$95/hr	\$ 95.00
3. Lodging - Current Rate per IRS Jan 1, 2025 LA County8**	\$191/day	\$ 8,404.00
C. Other Costs		
1. Insurance	N/A	
	TOTAL PROJECT COST	\$ 55,254.00

*In the event the day's schedule is cancelled without a 24 hour notice or interrupted or cancelled before 4 hours of work is completed, NDNA shall charge a minimum of \$380 a day (equal to hourly rate x 4 hrs) once the Native American monitor arrives on site

** Mileage may vary but will not exceed 130miles round trip/per week

*** Lodging for 4 nights per week

Protection, Preservation, Conservation, Mitigation