



# PALMDALE WATER DISTRICT

A CENTURY OF SERVICE

## BOARD OF DIRECTORS

W. SCOTT KELLERMAN  
Division 1

DON WILSON  
Division 2

GLORIA DIZMANG  
Division 3

KATHY MAC LAREN-GOMEZ  
Division 4

VINCENT DINO  
Division 5

July 6, 2022

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

**FOR THE PUBLIC: VIA TELECONFERENCE ONLY**

**DIAL-IN NUMBER: 571-748-4021 ATTENDEE PIN: 610-750-812#**

**Submit Public Comments at: <https://www.gomeet.com/610-750-812>**

**MONDAY, JULY 11, 2022**

**6:00 p.m.**

DENNIS D. LaMOREAUX  
General Manager

ALESHIRE & WYNDER LLP  
Attorneys

**NOTES:** To comply with the Americans with Disabilities Act, to participate in any Board meeting please contact Dawn Deans at 661-947-4111 x1003 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 Dawn Deans at 661-947-4111 x1003 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 Dawn Deans al 661-947-4111 x1003 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 (Government Code Section 54957.5). Please call Dawn Deans at 661-947-4111 x1003 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 carry out 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 27, 2022.
  - 6.2) Payment of bills for July 11, 2022.
  - 6.3) Approval of Resolution No. 22-19 being a Resolution of the Board of Directors of the Palmdale Water District Approving the Antelope Valley State Water Contractors Association Budget and Restricted Budget for Fiscal Year 2022/2023. (\$19,288.00 – Budgeted – Budget Item No. 1-02-5070-011 – Resource and Analytics Director/AVSWCA General Manager Thompson II)
  - 6.4) Approval of Ernst & Young Statement of Work for 2022-2023 State Water Project Procedures related to the 2023 Statement of Charges. (\$9,707.00 Not-to-Exceed – Budgeted – Budget Item No. 1-02-4150-000 – General Manager LaMoreaux)
- 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 adoption of 2022 Public Health Goal Report. (No Budget Impact – Water Quality/Regulatory Affairs Supervisor Thompson)
  - 7.2) Consideration and possible action on adoption of 2022 Public Health Goal Report. (No Budget Impact – Water Quality/Regulatory Affairs Supervisor Thompson)
  - 7.3) Consideration and possible action to receive and file the 2021 Annual Financial Report. (No Budget Impact – Finance Manager Hoffmeyer/Paul Kaymark, Nigro & Nigro/Finance Committee)
  - 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 2022 Budget:
    - a) Association of California Water Agencies (ACWA) Region 8 Program & Member Meeting to be held August 12, 2022 in Pasadena.
- 8) Information Items:
  - 8.1) Reports of Directors:
    - a) Standing Committees; Organization Appointments; Agency Liaisons:
      - 1) Antelope Valley East Kern Water Agency (AVEK) – June 28. (Director Dino/Director Mac Laren-Gomez, Alt.)

- b) General Meetings Reports of Directors.
- 8.2) Report of General Manager.
- 8.3) Report of General Counsel.
- 9) Board members' requests for future agenda items.
- 10) Adjournment.



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DENNIS D. LaMOREAUX,  
General Manager

DDL/dd

**P A L M D A L E   W A T E R   D I S T R I C T**  
**B O A R D   M E M O R A N D U M**

**DATE:** July 5, 2022 **July 11, 2022**  
**TO:** BOARD OF DIRECTORS **Board Meeting**  
**FROM:** Mr. Peter Thompson II, Resource and Analytics Director/  
AVSWCA General Manager  
**VIA:** Mr. Dennis D. LaMoreaux, General Manager  
**RE:** ***AGENDA ITEM NO. 6.3 – APPROVAL OF RESOLUTION NO. 22-19 BEING A RESOLUTION OF THE BOARD OF DIRECTORS OF THE PALMDALE WATER DISTRICT APPROVING THE ANTELOPE VALLEY STATE WATER CONTRACTORS ASSOCIATION BUDGET AND RESTRICTED BUDGET FOR FISCAL YEAR 2022/2023. (\$19,288.00 – BUDGETED – BUDGET ITEM NO. 1-02-5070-011 – RESOURCE AND ANALYTICS DIRECTOR/AVSWCA GENERAL MANAGER THOMPSON II)***

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**Recommendation:**

Staff recommends the Board approve Resolution No. 22-19 being a Resolution of the Board of Directors of the Palmdale Water District Approving the Antelope Valley State Water Contractors Association (AVSWCA) Budget and Restricted Budget for Fiscal Year 2022/2023.

**Background:**

The Board of Commissioners for the AVSWCA approved the 2022/2023 Budget and Restricted Budget at their June 9, 2022 meeting. Per the Joint Powers Agreement that created the AVSWCA, the governing body of each member agency must also approve the budget. The budget is then deemed effective upon receipt by the AVSWCA of certified copies of the approving resolution from each member agency.

The budget has four categories: General Operating Funds, Restricted Funds (USGS Groundwater Monitoring Program), Restricted Funds (Antelope Valley Integrated Regional Water Management Plan), and Restricted Funds (Big Rock Creek Joint Groundwater Recharge Program). Should there be a need for additional funding for the Restricted Funds portion, a separate request will be made at that time.

Per the bylaws of the Association, the first \$30,000.00 of member agency contributions is split evenly to cover General Operating Costs. It is recommended that each of the three member agencies contribute \$10,000.00 in Fiscal Year 2022/2023 to the Association’s General Operating Fund to cover the proposed 2022/2023 General Operating Costs. Any remainder of collected revenue will go into reserves.

The Expenditure side for General Operating Funds categories includes:

- Insurance: Liability insurance for the Association obtained through ACWA/JPIA
- Memberships: Membership in ACWA
- Miscellaneous: Includes all miscellaneous expenses not covered in other Association accounts (business cards, meals, etc.)
- Outreach: Includes the website, promotional items, and event fees
- Contract Services: (Administration): Services provided by AVEK (Tom Barnes – Resources Manager) and PWD (Peter Thompson II – General Manager, Dennis Hoffmeyer – Controller, Dawn Deans – Executive Assistant, Danielle Henry – Management Analyst)
- Contract Services: (General): Covers A.V. Fair Conservation Garden annual maintenance fee, Home & Garden Show/SMART Water Expo, Rural Museum Sponsorship and related expenses.
- Contract Services: (Audit): Covers the outside review of financials for prior year close.

The Expenditure side for Restricted Funds includes:

- USGS Groundwater Monitoring and CASGEM Program Contract Services:  
With the approval of the 2020/21 USGS Joint Funding Program Agreement by the AVSWCA Commissioners on February 11, 2021, the administration of this Agreement was transferred to the Antelope Valley Watermaster. The AVSWCA, however, will continue to contribute to Consulting Engineering Services for Groundwater Monitoring within the Antelope Valley, which includes the collection of data to comply with the California Statewide Groundwater Elevation Monitoring Program (CASGEM). The shared Program expense remains: 50% (AVSWCA), 25% (AV Watermaster) and 25% (AV Regional Water Management Group).
- Antelope Valley Integrated Regional Water Management Plan (AV-IRWMP) Contract Services:  
Consultant engineering services for work related to the AV-IRWMP Update (on behalf of the Regional Water Management Group) includes costs associated with future years through CY2023 pursuant to the MOU amendment.
- Big Rock Creek Joint Groundwater Recharge Program Contract Services:  
Consultant engineering services for work related to the Big Rock Creek Joint Groundwater Recharge Program.

**Strategic Plan Initiative/Mission Statement:**

This item is under Strategic Initiative No. 5 – Regional Leadership.

This item is directly related to the District’s Mission Statement.

**Budget:**

The District's contribution to the AVSWCA is from Account 1-02-5070-011 (Memberships).

**Supporting Documents:**

- Resolution No. 22-19
- AVSWCA budget for fiscal year 2022/2023

**RESOLUTION NO. 22-19  
RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE PALMDALE WATER DISTRICT  
APPROVING THE ANTELOPE VALLEY  
STATE WATER CONTRACTORS ASSOCIATION  
BUDGET AND RESTRICTED BUDGET FOR FISCAL YEAR 2022/2023**

WHEREAS, the Palmdale Water District, along with the Antelope Valley-East Kern Water Agency and the Littlerock Creek Irrigation District, is a member agency of the Antelope Valley State Water Contractors Association formed by a Joint Powers Agreement dated May 26, 1999; and

WHEREAS, said Joint Powers Agreement provides for the formulation and adoption of a budget for the Antelope Valley State Water Contractors Association and approval of said budget by its members; and

WHEREAS, the Antelope Valley State Water Contractors Association unanimously adopted a budget and restricted budget for fiscal year 2022/2023 at their regular meeting held June 9, 2022, which includes an allocation among the member agencies and funds for the USGS Groundwater Monitoring and California Statewide Groundwater Elevation Monitoring Program, the Big Rock Creek Joint Groundwater Recharge Program, and the Antelope Valley Integrated Regional Water Management Plan.

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Palmdale Water District hereby approves the 2022/2023 budget, restricted budget, and allocation of budgeted funds adopted by the Antelope Valley State Water Contractors Association.

**I certify that this is a true copy of Resolution No. 22-19 as passed by the Board of Directors of the Palmdale Water District at its meeting held July 11, 2022 in Palmdale, California.**

Date: July 11, 2022

\_\_\_\_\_  
Gloria Dizmang, President,  
Board of Directors

ATTEST:

\_\_\_\_\_  
Kathy Mac Laren-Gomez, Secretary, Board of Directors

APPROVED AS TO FORM:

BY: \_\_\_\_\_  
Aleshire & Wynder, LLP, General Counsel

**ANTELOPE VALLEY STATE WATER CONTRACTORS ASSOCIATION**

Approved Budget (June 9, 2022) - FY 2022/23

**General Program Funds**

|  | FY 2016/17<br>ACTUAL | FY 2017/18<br>ACTUAL | FY 2018/19<br>ACTUAL | FY 2019/20<br>ACTUAL | FY 2020/21<br>ACTUAL | FY 2021/22<br>PROPOSED<br>BUDGET | FY 2021/22<br>PROJECTED<br>YTD | FY 2022/23<br>PROPOSED<br>BUDGET |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------------------|--------------------------------|----------------------------------|
| <b>Revenues:</b>                                   |                      |                      |                      |                      |                      |                                  |                                |                                  |
| Member Contributions - General                     | \$ 64,000.00         | \$ 30,000.00         | \$ 30,000.00         | \$ 30,000.00         | \$ 30,000.00         | \$ 30,000.00                     | \$ 30,000.00                   | \$ 30,000.00                     |
| Member Contributions - Smart Water Expo/H&G Show   |                      |                      | 12,413.00            | 18,000.00            | 13,000.00            | -                                | -                              | -                                |
| Member Contributions - AV Fair Conservation Garden |                      |                      | 25,000.00            | 25,000.00            | 25,000.00            | -                                | -                              | -                                |
| Interest Earnings                                  | 11.66                | 27.04                | 271.02               | 305.44               | 289.79               | 200.00                           | 313.25                         | 125.00                           |
| Revenue - Refund/Misc                              | 5.00                 | -                    | -                    | -                    | -                    | -                                | -                              | -                                |
| <b>Total Revenue</b>                               | <u>\$ 64,016.66</u>  | <u>\$ 30,027.04</u>  | <u>\$ 67,684.02</u>  | <u>\$ 73,305.44</u>  | <u>\$ 68,289.79</u>  | <u>\$ 30,200.00</u>              | <u>\$ 30,313.25</u>            | <u>\$ 30,125.00</u>              |
| <b>Expenditures:</b>                               |                      |                      |                      |                      |                      |                                  |                                |                                  |
| Insurance (ACWA/JPIA)                              | \$ 2,183.10          | \$ 2,182.98          | \$ 2,183.00          | \$ 2,183.00          | \$ 2,183.00          | \$ 2,350.00                      | \$ 2,183.00                    | \$ 2,350.00                      |
| Memberships (ACWA)                                 | 2,510.00             | 2,635.00             | 3,165.00             | 3,680.00             | 3,715.00             | 3,750.00                         | 4,265.00                       | 4,400.00                         |
| Outreach (Web Site, Community Activities)          | 30,257.79            | 5,187.40             | 15,544.30            | 444.00               | 569.17               | 5,000.00                         | 300.00                         | 3,000.00                         |
| Miscellaneous (Bank Fees, Refreshments, Etc.)      | -                    | -                    | -                    | -                    | -                    | 500.00                           | -                              | 500.00                           |
| Contract Services - Administration                 | 17,046.49            | 13,413.28            | 18,518.43            | 11,209.30            | 16,279.97            | 12,000.00                        | 15,400.00                      | 15,000.00                        |
| Contract Services - General Projects               | -                    | -                    | -                    | -                    | -                    | -                                | -                              | -                                |
| (A.V. Fair - Conservation Garden)                  |                      |                      |                      | 25,000.00            | -                    | -                                | -                              | 25,000.00                        |
| (Home & Garden Show/WaterSmart Expo)               |                      |                      |                      | 10,000.00            | -                    | -                                | -                              | -                                |
| (Rural Museum Sponsorship)                         |                      |                      |                      | -                    | -                    | -                                | 10,000.00                      | -                                |
| Contract Services - Financial Audit                | 2,000.00             | 2,000.00             | 2,500.00             | 2,500.00             | 2,500.00             | 5,000.00                         | 2,500.00                       | 3,500.00                         |
| <b>Total Expenditures</b>                          | <u>\$ 53,997.38</u>  | <u>\$ 25,418.66</u>  | <u>\$ 41,910.73</u>  | <u>\$ 55,016.30</u>  | <u>\$ 25,247.14</u>  | <u>\$ 28,600.00</u>              | <u>\$ 34,648.00</u>            | <u>\$ 53,750.00</u>              |
| <b>Net Income (Loss)</b>                           | <u>\$ 10,019.28</u>  | <u>\$ 4,608.38</u>   | <u>\$ 25,773.29</u>  | <u>\$ 18,289.14</u>  | <u>\$ 43,042.65</u>  | <u>\$ 1,600.00</u>               | <u>\$ (4,334.75)</u>           | <u>\$ (23,625.00)</u>            |

**Member Contribution (General):** 10,000.00

AVEK Contribution = \$ -

PWD Contribution = -

LCID Contribution = -

**Secondary Member Contribution (Table A basis):** \$ -

**Additional Expenditures**



# ANTELOPE VALLEY STATE WATER CONTRACTORS ASSOCIATION

Approved Budget (June 9, 2022) - FY 2022/23

## Restricted Funds - USGS/CASGEM Program

|  | FY 2018/19<br>ACTUAL  | FY 2019/20<br>ACTUAL | FY 2020/21<br>ACTUAL | FY 2021/22<br>ACTUAL  | FY 2022/23<br>PROPOSED<br>BUDGET |
|--|-----------------------|----------------------|----------------------|-----------------------|----------------------------------|
| <b>Revenues:</b>                                 |                       |                      |                      |                       |                                  |
| Member Contributions - USGS                      | \$ 31,800.00          | \$ 32,450.00         | \$ 34,171.00         | \$ -                  | \$ 72,000.00                     |
| Contributions - Others (AVIRW/MG/AV Watermaster) | 15,900.00             | 32,750.00            | -                    | 17,085.50             | 18,000.00                        |
| Member Contributions - CASGEM                    | -                     | -                    | -                    | -                     | -                                |
| <b>Total Revenue</b>                             | <u>\$ 47,700.00</u>   | <u>\$ 65,200.00</u>  | <u>\$ 34,171.00</u>  | <u>\$ 17,085.50</u>   | <u>\$ 90,000.00</u>              |
| <b>Expenditures:</b>                             |                       |                      |                      |                       |                                  |
| Contract Services - USGS                         | \$ -                  | \$ -                 | \$ -                 | \$ -                  | \$ -                             |
| Contract Services - USGS (Prior Year)            | 21,200.00             | 21,633.34            | 21,833.34            | 51,256.50             | 54,000.00                        |
| Contract Services - USGS (New Year)              | 43,266.66             | 43,666.66            | -                    | -                     | -                                |
| Contract Services - CASGEM                       | -                     | -                    | -                    | -                     | -                                |
| <b>Total Expenditures</b>                        | <u>\$ 64,466.66</u>   | <u>\$ 65,300.00</u>  | <u>\$ 21,833.34</u>  | <u>\$ 51,256.50</u>   | <u>\$ 54,000.00</u>              |
| <b>Net Income (Loss)</b>                         | <u>\$ (16,766.66)</u> | <u>\$ (100.00)</u>   | <u>\$ 12,337.66</u>  | <u>\$ (34,171.00)</u> | <u>\$ 36,000.00</u>              |

|                      |                     |                     |
|----------------------|---------------------|---------------------|
| <b>FY 2021/22</b>    | AVEK Contribution = | \$ 30,852.00        |
| <b>USGS Contract</b> | PWD Contribution =  | 4,644.00            |
|                      | LCID Contribution = | <u>504.00</u>       |
|                      |                     | <u>\$ 36,000.00</u> |

|                      |                     |                     |
|----------------------|---------------------|---------------------|
| <b>FY 2022/23</b>    | AVEK Contribution = | \$ 30,852.00        |
| <b>USGS Contract</b> | PWD Contribution =  | 4,644.00            |
| <b>(Estimated)</b>   | LCID Contribution = | <u>504.00</u>       |
|                      |                     | <u>\$ 36,000.00</u> |

**PALMDALE WATER DISTRICT  
BOARD MEMORANDUM**

**DATE:** July 5, 2022 **July 11, 2022**  
**TO:** BOARD OF DIRECTORS **Board Meeting**  
**FROM:** Mr. Dennis D. LaMoreaux, General Manager  
**RE:** ***AGENDA ITEM NO. 6.4 – APPROVAL OF ERNST & YOUNG STATEMENT OF WORK FOR 2022-2023 STATE WATER PROJECT PROCEDURES RELATED TO THE 2023 STATEMENT OF CHARGES. (\$9,707.00 NOT-TO-EXCEED – BUDGETED – BUDGET ITEM NO. 1-02-4150-000 – GENERAL MANAGER LaMOREAUX)***

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**Recommendation:**

Staff recommends approval of the Statement of Work between the District and Ernst & Young for 2022-2023 State Water Project Procedures related to the Department of Water Resources' 2023 Statement of Charges in the not-to-exceed amount of \$9,707.00.

**Alternative Option:**

The alternative option would be to not participate in the Ernst & Young contract.

**Impact of Taking No Action:**

The District will not be involved in auditing activities for State Water Project procedures.

**Background:**

The Palmdale Water District is a member of the State Water Contractors Independent Audit Association (IAA) and has been involved in these auditing activities for several years. The IAA hires an accounting/auditing firm on an annual basis to review the billings and financial statements prepared by the Department of Water Resources for State Water Project costs. The IAA has reviewed Ernst & Young's audit procedures and recommends IAA members approve the 2022-2023 Statement of Work.

The cost to the District will range from \$7,251.00 to \$9,064.00 depending upon how many members of the IAA approve the Statement of Work for core services (Exhibit "A"). Additional services may be requested for an amount not-to-exceed \$643.00 (Exhibit "B").

**Strategic Plan Initiative/Mission Statement:**

Strategic Initiative No. 1 – Water Resource Reliability

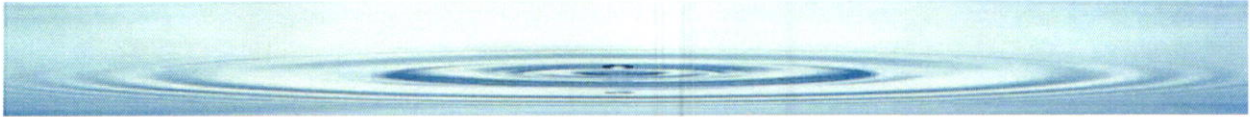
This item directly relates to the District’s Mission Statement.

**Budget:**

These services are under Administration budget line item 1-02-4150-000 – Accounting Services.

**Supporting Documents:**

- July 1, 2022 letter from Ernst & Young regarding Statement of Work.
- Statement of Work
- Master Services Agreement



**MEMORANDUM**

Date: July 1, 2022  
To: Members of the Independent Audit Association (IAA)  
From: Chantal Ouellet, IAA Secretary  
Subject: Ernst and Young Master Service Agreement and 2022/2023 State Water Project  
Professional Services Contract –  
Recommended Approval and Execution

Enclosed is a new Master Services Agreement (MSA) with Ernst & Young which spans a period of 5 years from July 1, 2022 through June 30, 2027. Also enclosed is the 2022/23 Statement of Work (SOW) which includes the State Water Project procedures to be performed in relation to the Department of Water Resources' (DWR) Statement of Charges.

The Exhibit B budget limit is only billed by Ernst and Young if additional work is reviewed and approved by the IAA and remains at \$50,000. Exhibit C allows individual IAA Members to request Ernst and Young to undertake additional services beyond those included in Exhibit A of the SOW.

The IAA team has reviewed Ernst and Young's proposed procedures and recommends that IAA Members approve and execute the 2022/2023 SOW. If you have any questions, please contact me at (559) 992-4127 or [couellet@tlbwsd.com](mailto:couellet@tlbwsd.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Chantal Ouellet".

Chantal Ouellet, CMA  
Tulare Lake Basin Water Storage District

CC: Joe Pirnik, EY



Ernst & Young LLP  
Suite 900  
400 Capitol Mall  
Sacramento, CA 95814

Tel: +1 916 218 1900  
ey.com

## Statement of Work

This Statement of Work with the attached Exhibits, dated July 1, 2022 (this SOW) is made by Ernst & Young LLP (“we” or “EY”) and Palmdale Water District on behalf of itself (“you” or “Client”), pursuant to the Master Services Agreement, dated July 1, 2022 (MSA), between EY and Palmdale Water District (the Agency).

The additional terms and conditions of this SOW shall apply only to the Services covered by this SOW and not to Services covered by any other SOW pursuant to the MSA. Capitalized terms used, but not otherwise defined, in this SOW shall have the meanings defined in the MSA, including references in the Agreement to “you” or “Client” shall be deemed references to you.

### Scope of services

Except as otherwise set forth in this SOW, this SOW incorporates by reference, and is deemed to be a part of, the MSA. This SOW sets forth the terms and conditions on which EY will perform certain professional services as described in Exhibit A (the Services) for Agency, a member of the State Water Contractors (the “Contractors” or “SWC”) Independent Audit Association (IAA), for the twelve months ending June 30, 2023.

Any changes to the above scope of work will be agreed upon in writing and signed by both parties and will amend this original SOW.

The Services are advisory in nature and will not constitute an audit performed in accordance with Generally Accepted Accounting Principles. EY will perform the Services in accordance with the Statement of Standards for Consulting Services (CS100) of the American Institute for Certified Public Accountants (AICPA). As part of your review of the terms of this Agreement, please refer to the enclosed letter from Chantal Ouellet of the IAA Audit Contract Negotiating Committee.

### Your specific obligations

You acknowledge that the Services are sufficient for your purposes.

You will not, and you will not permit others to, quote or refer to the Reports, any portion, summary or abstract thereof, or to EY or any other EY Firm, in any document filed or distributed in connection with (i) a purchase or sale of securities to which the United States or state securities laws (Securities Laws) are applicable, or (ii) periodic reporting obligations under Securities Laws. You will not contend that any provisions of Securities Laws could invalidate any provision of this agreement.

We also draw your attention to the reservations set out in paragraph 5 of the General Terms and Conditions of the MSA, as well as your management responsibilities under paragraph 6, your obligations under paragraphs 11 and 12, and your representation, as of the date hereof, under paragraph 26 thereof.

## **Specific additional terms and conditions**

The Services are advisory in nature. EY will not render an assurance report or opinion under the Agreement, nor will the Services constitute an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants. None of the Services or any Reports will constitute any legal opinion or advice. We will not conduct a review to detect fraud or illegal acts, nor will we test compliance with the laws or regulations of any jurisdiction.

Notwithstanding anything to the contrary in the Agreement or this SOW, we do not assume any responsibility for any third-party products, programs or services, their performance or compliance with your specifications or otherwise.

We will base any comments or recommendations as to the functional or technical capabilities of any products in use or being considered by you solely on information provided by your vendors, directly or through you. We are not responsible for the completeness or accuracy of any such information or for confirming any of it.

Where our written consent under the MSA is required for you to disclose to a third party any of our Reports (other than Tax Advice), we will also require that third party to execute a letter substantially in the form of Exhibit D to this SOW. To the extent the Agency is permitted to disclose any written Report as set forth herein, it shall disclose such Report only in the original, complete and unaltered form provided by EY, with all restrictive legends and other agreements intact.

Unless prohibited by applicable law, we may provide Client Information to other EY firms, EY Persons and external third parties, who may collect, use, transfer, store or otherwise process such information in various jurisdictions in which they operate in order to provide support services to any EY Firm and/or assist in the performance of the Services.

After the Services under this SOW have been completed, we may disclose or present to prospective clients, or otherwise in our marketing materials, that we have performed the Services for you, and we may use your name solely for that purpose, in accordance with applicable professional obligations. In addition, we may use your name, trademark, service mark and logo as reasonably necessary to perform the Services and in correspondence, including proposals, from us to you.

Compliance with U.S. immigration requirements may require EY to provide certain information to the U.S. Citizenship and Immigration Services (“USCIS”) to confirm that EY employees on certain visas are, in fact, EY employees and not employees of the Client or other clients of EY. This will include providing certain information regarding work locations to support compliance with the visa requirements. As such, EY may disclose to USCIS information regarding this SOW, including the Client’s identity and location, as well as a redacted copy of this SOW. Upon providing this information, EY will request that USCIS keep any such information confidential. In further support of these legal requirements, the U.S. Department of Labor (DOL) regulations, at 20 CFR § 655.734(a)(1)(ii)(A), require the posting of notice of a Labor Condition Application (LCA) in instances where individuals holding H-1B visas will be working on the Client’s premises. EY and the Client will work together

to develop an appropriate notice as required. The Client acknowledges that EY resources will be operating at all times as an employee of and under the direction and control of Ernst & Young U.S. LLP's management, and all activities including supervision, hiring and firing decisions, and performance evaluations are controlled by Ernst & Young U.S. LLP. The Client will not have the right to control EY resources. At all times, EY resources will receive direction from an EY manager while on-site at the Client premises.

You shall not, while we are performing the Services hereunder and for a period of 12 months after they are completed, solicit for employment, or hire, any EY personnel involved in the performance of the Services, provided, that you may generally advertise available positions and hire EY personnel who either respond to such advertisements or who come to you on their own initiative without direct or indirect encouragement from you.

The Agency shall, among other responsibilities with respect to the Services, (i) make all management decisions and perform all management functions, including applying independent business judgment to EY work products, making implementation decisions and determining further courses of action in connection with any Services; (ii) assign a competent employee within senior management to make all management decisions with respect to the Services, oversee the Services and evaluate their adequacy and results; and (iii) accept responsibility for the implementation of the results or recommendations contained in the Reports or otherwise in connection with the Services. The Agency hereby confirms that management of the Agency accepts responsibility for the sufficiency of the Services. In performing the Services neither EY nor EY's partners or employees will act as an employee of the Agency.

The Agency represents and warrants to EY that the Agency's execution and delivery of this Agreement has been authorized by all requisite corporate or other applicable entity action and the person signing this Agreement is expressly authorized to execute it on behalf of, and to bind, the Agency.

The performance of the Services and the parties' obligations in connection therewith are subject to the additional terms and conditions set forth in the MSA.

It is understood that the Agency is not bound by our findings in any controversy or disagreement between the Agency and the Department of Water Resources (the "Department") should the Agency disagree with our findings.

We would also request that, if any IAA member discovers discrepancies in billings or other financial statements relative to their State Water Project costs, in addition to your working with the Department to correct the error, please notify EY for potential future inclusion as part of their procedures related to all IAA members.

## **Fees and billing**

The General Terms and Conditions of the Agreement address our fees and expenses generally.

The total fees for these Services to be rendered to the Agency, as well as an allocation of the total fees for each member Agency of the IAA, appear in Exhibits A and B attached (no procedures or fees have been allocated to Exhibit B in this contract). Our total fees pursuant to Exhibit A to be charged to all members of the IAA entering into agreements with us shall not exceed \$564,000 for the twelve months ending June 30, 2023. This agreement will not be effective unless, in addition to the Agency, a sufficient number of other IAA agencies enter into agreements with us for such Services whose combined allocated fee would represent not less than 80% of \$564,000 based on the 100% participation fee allocation (see column 2 at A-4). If all agencies who are presently participating in the Services rendered by our firm enter into agreements with us for this twelve-month period, the maximum fees for our Services to your Agency will not exceed \$7,251 for Exhibit A. However, if not all of the participating agencies enter into agreements with us for services during the twelve-month period ending June 30, 2023, the maximum fees to your Agency will vary between the above-mentioned amount and \$9,064, which represents the maximum fees should sufficient agencies enter into agreements with us with a combined allocated fee of not less than 80%, as stated above.

In addition to the maximum fees under Exhibit A, maximum fees under Exhibit B shall not exceed a total of \$50,000 or \$643 for the Agency unless agreed to by the IAA. As noted above, no procedures have been allocated to Exhibit B. Prior to any expenditures under Exhibit B, said work must be specifically requested in writing in advance of any work being performed. Areas of potential focus for Exhibit B projects could include procedures agreed to by EY and the IAA in advance related to one or more of the items identified in Exhibit A. In prior years Exhibit B special projects have included projects such as assessing implementation and billing issues relating to the new SAP-based Cost Allocation and Repayment Analysis System (CARA), and studies to evaluate a pay-as-you-go system for funding conservation related operating costs incurred by the Department.

We have also included Exhibit C as part of this contract, which provides the opportunity for individual Contractors to enter into separate agreements for additional services with EY. There are currently no fees related to Exhibit C included herein.

The results of our procedures will include a presentation of our findings, observations and recommendations to be held in Sacramento, California for any interested Contractors. Any presentations requested at individual Contractor locations will be negotiated with the individual Contractor under Exhibit C and will be paid for by that Contractor.

Invoices for time and expenses will be billed monthly and are due upon receipt.





In witness whereof, the parties have executed this SOW as of the date set forth above.

**Palmdale Water District**

**Ernst & Young, LLP**

**Representative**

**Representative**

\_\_\_\_\_  
**Signature**

*Scott Enos*  
\_\_\_\_\_  
**Signature**

Dennis D. LaMoreaux  
**Printed Name**

Scott Enos  
**Printed Name**

General Manager  
**Title**

Authorized Signatory  
**Title**

2029 East Avenue Q  
Palmdale, CA 93550

**Address**

Ernst & Young LLP  
400 Capitol Mall  
Suite 900  
Sacramento, CA 95814  
**Address**

July 11, 2022  
**Date**

July 1, 2022  
**Date**

## EXHIBIT A

### I. SCOPE OF ENGAGEMENT

A-1 EY will work with the IAA, the SWC Audit/Finance Committee, and any subcommittees thereof, and the Department during the twelve months ending June 30, 2023 relating to matters currently being discussed between the SWC and the Department.

EY's Services to be rendered as described in this Exhibit shall be determined by the IAA at its discretion. These Services shall include:

1. Completion of the 2022/2023 procedures as outlined further below
2. Participation in all meetings of the SWC Audit/Finance Committee, which is a basic forum for communications between the State Water Project Contractors and the Department's staff on financial and accounting matters.
3. Cooperation with any subcommittees of the IAA assigned to study and resolve specific problem areas, such as the dispute resolution work group.
4. Review of reports and other documents prepared by the Department and disseminated at these meetings.
5. Provide an annual report setting forth the findings and recommendations related to our Services.

#### **Report definitions**

The assessment of risk of future occurrence, included in the findings summary tables in the report, provides the IAA with a meaningful measurement of the likelihood of similar findings in subsequent years if this issue is not addressed by the appropriate parties. This assessment of risk of future occurrence is based on knowledge obtained during discussions with the Department personnel and performance of procedures under this Exhibit A. Below are the definitions used in the report of findings and recommendations for the twelve months ending June 30, 2023 and we concur with these definitions.

Risk of Future Occurrence:

- A. High – it is highly likely (or probable) that the error or process failure will be repeated
- B. Medium – it is more likely than not that the error or process failure will be repeated
- C. Low – it is possible that the error or process failure will be repeated

During the twelve months ending June 30, 2023, the Services will include the following procedures.

## 2022/2023 Procedures

The procedures for the fiscal year ended June 30, 2023 were designed using estimated budgeted hours of 3,000. We will perform all procedures included in items 1-6 below. We will perform the procedures in items 7-8 if time permits. As a part of these procedures, we will regularly meet with the IAA to discuss the progress under this engagement. We will also submit the Report to each Agency setting forth the findings, observations, and recommendations related to our Services.

The following items represent the risks, risk factors, and procedures requested and determined by the IAA for the Contractors to be performed for the 2023 Statement of Charges (SOC) engagement:

### Primary Procedures (Items 1-6)

#### 1. Statement of Charges Testing

*Risk:*

- Incorrect amounts billed to contractors for each component by the Department.

*Risk Factors:*

- Manual adjustments made to SAP data to arrive at amounts billed. Manual processes create opportunities for errors.
- High importance of accurate contractor bills.
- Actual costs reported in the bills can be misstated.

*Areas of Focus:*

- Determine that all SOC amounts are internally consistent and agree to the Bulletin 132-22 for the contractors selected for testing (to be provided by IAA).
- Agree debt service amounts in the SOC attachments to the appropriate debt service schedule.
- Comparison of the current year SOC attachments to the prior year SOC attachments.
- Assessment of manual adjustments.
- Assess the corrected Project Interest Rate
- Assess the actual costs charged to various areas of the project.
- Assess the factors for distributing reach capital and minimum costs among the contractors.

## 2. Delta Water Charge

*Risk:*

- Incorrect amounts charged to contractors for conservation based on actual and estimated costs.

*Risk Factors:*

- Calculation of delta water charge is a manual process.
- Tracking of Oroville Spillway costs and reimbursement and segregation between response and recovery costs is a manual process.
- Potential for high dollar impact (\$341 million in delta water charges in 2020 per Table B-21).

*Areas of Focus:*

- Recalculate the delta water charge used in the SOC.
- For prior year actual costs included in the calculation, compare costs in SAP to the Department's calculation and investigate variances.
- Obtain an understanding of future estimates included in the calculation and perform appropriate procedures to assess such estimates.
- Assess the Hyatt-Thermalito credit to the delta water charge.

### 3. Alpha Allocation Cycles

*Risk:*

- Incorrect contractor charged and/or incorrect allocation of costs between contractors.

*Risk Factors:*

- The F-series and S-series alpha allocation cycles update performed on an annual basis is a manual process. Manual processes create opportunities for errors.
- Potential for errors in determining work performed that falls under direct to reach, field division, and state-wide allocations.
- Potential for high dollar impact (\$299 million allocated by alpha allocation cycles in 2020).

*Areas of Focus:*

- Examine all cost centers from SAP to determine which cost centers represent alpha cost centers.
- Select alpha cost centers with the largest total annual costs.
- Review costs being posted to selected alpha cost centers based on activities charged to the alpha cost center through examination of invoices posted and discussions with the project managers, as necessary.
- Review the current year alpha update activity performed by the Department.
- Review the current year alpha update performed by the Department.
- Review the F-series and S-series updates performed by the Department.

#### 4. Transportation Minimum and Capital Direct and Indirect Analysis

*Risk:*

- Incorrect amounts billed to contractors for the transportation minimum and capital component by the Department.

*Risk Factors:*

- Direct and indirect costs may be allocated incorrectly through corresponding reaches.
- Judgment involved in selecting internal orders and work breakdown structures for billing to the contractors create opportunities for incorrect allocations.
- Project manager's and employee's lack of understanding of importance of accurate time charging to correct internal orders and work breakdown structures create opportunities for incorrect allocations.

*Areas of Focus:*

- Obtain a listing of internal orders associated with costs for selected reaches and group like internal orders to perform a fluctuation analysis to the prior year.
- Assess or obtain the Department's grouping of like internal orders to assess if the Department is able to group information for managerial reporting. This could include internal order hierarchies in SAP that could be used to group like internal orders.
- Assess a sample of internal orders with the largest increase in costs from group like internal orders for direct and indirect cost allocations.
- Obtain supporting documentation to assess the work was performed for the selected reaches.

## 5. System Power Costs – Variable Transportation

*Risk:*

- Incorrect contractor charged and/or incorrect allocation of costs between contractors.

*Risk Factors:*

- Calculation of the allocation factors is a manual process. Manual processes create opportunities for errors.
- Estimated Table 2 projected costs (invoicing rate) may not reflect actual costs incurred.
- Potential for high dollar impact (\$162 million net system power costs in 2020 per Table B-3).

*Areas of Focus:*

- Vouch power costs and power revenues from SAP and assess the classification of costs.
- Reconcile the 2021 Preliminary Allocation of Power Costs (PALPOC) to UCABS (SAP). Recalculate appropriate inputs to the 2021 PALPOC (e.g., value of recovery generation credits, direct-to-plant transmission, etc.).
- Recalculate the 2021 calendar year power allocation factors used in UCABS (SAP) to allocate net power costs.
- Recalculate the billed amounts for the transportation variable cost component for 2021 for the contractors selected (to be provided by the IAA).

## 6. Debt Service Procedures

*Risk:*

- Incorrect bond debt service charged to the contractors.

*Risk Factors:*

- Water System Revenue Bond (WSRB) Surcharge calculation is a manual process. Manual processes create opportunities for errors.
- Debt service not subsequently adjusted to provide the benefits of any refinancing to the contractors.
- Cost/debt reconciliation project ongoing adjustments to the calculation creates opportunities for errors.
- WSRB Surcharge currently does not reflect the results of the cost/debt reconciliation project.

*Areas of Focus:*

- Reconcile any new bond offerings to the debt service schedules.
- Determine whether refinanced bonds were credited to the debt service schedules to provide the benefits of such refinancing to the contractors (direct billed debt service and WSRB Surcharge).
- Assess changes made to the cost/debt reconciliation project from previous versions.



**Other Procedures (Items 7-8)**

These procedures will only be performed as time permits after completion of items 1-6 above and consideration of the estimated 3,000 hour time budget.

**7. Rate Management Calculation Including Revenue and Cost Data**

*Risk:*

- Rate management credits are improperly allocated among the contractors.
- Rate management credits are improperly calculated based on the revenue and expenditure data in the rate management credits calculation prepared by the Department.

*Risk Factors:*

- Calculation of rate management credits is a manual process.
- Lack of review and approval process for the rate management credit calculation.
- Outdated information used to calculate credits due to the contractors.

*Areas of Focus:*

- Obtain the rate management allocation schedule used for the 2023 SOC and review the allocation methodology for sample selected.
- Obtain the most recent rate management credits calculation and assess a sample of the largest balances.
- Perform a review of revenues including systems revenue and 51e (amount in excess of rate management credits).
- Perform a review of revenues and related cash funds.
- Assess the impact of findings on the revenues available for rate management credits.

## 8. Reconciliation between PR5 and UCABS and SWRDS Funds Analysis

### *Risk:*

- Costs and revenues are not accurately billed to the contractors based on inconsistencies between PR5 and UCABS.

### *Risk Factors:*

- Costs and revenues do not accurately match between both systems.
- Manual process of moving costs between systems create opportunities for errors.
- Potential for movement of costs and revenues outside the SWRDS funds used for the state water project.

### *Areas of Focus:*

- Gain an understanding of the reconciliation process performed by the Department.
- Reconcile all SWRDS PR5 costs and revenues included in the bond fund (0502), the construction fund (0506), and the revenue fund (0507) to the UCABS system.
- Identify, document, and investigate all variances between the two systems (PR5 and UCABS).
- Assess and classify all variances into two categories, (1) valid variance and (2) errant variance.
- Provide final assessment on the Department's recovery of all SWRDS costs.
- Perform an analysis of the movement of costs and revenues outside the SWRDS funds used for the state water project.

**II. FEES FOR EY SERVICES**

- A-2. Total fees for Exhibit A services performed by EY will not exceed \$564,000, including reasonable and necessary out-of-pocket expenses, which represent an estimated 3,000 hours to be incurred.

**III. ALLOCATION OF FEES**

- A-3. The maximum aggregate fee set forth in paragraph A-2 shall be apportioned among the agencies named in paragraph A-4 based on a basis consistent with prior years.

**IV. MAXIMUM AGGREGATE FEE FOR EACH AGENCY**

A-4. The portion of the maximum aggregate fee set forth in paragraph A-2 applicable to each Agency in conformity with the methodology set forth in paragraph A-3 is shown below:

| <u>Agency</u>   | <u>Maximum fee for<br/>each Agency,<br/>provided all<br/>agencies listed<br/>below enter into<br/>agreements with<br/>EY</u> | <u>Maximum fee for<br/>each Agency,<br/>provided 80% of<br/>agencies listed<br/>below enter into<br/>agreements with<br/>EY</u> | <u>Percent of<br/>total</u> |
|---|--|---|-----------------------------|
| Alameda County Flood Control and<br>Water Conservation District, Zone No. 7 | \$ 27,444  | \$ 34,305   | 4.9%                        |
| Alameda County Water District   | 14,297   | 17,871  | 2.5                         |
| Antelope Valley-East Kern Water Agency                                      | 49,305   | 61,631  | 8.7                         |
| Casitas Municipal Water District  | 6,808  | 8,509   | 1.2                         |
| Central Coast Water Authority   | 15,483   | 19,353  | 2.7                         |
| City of Yuba City   | 3,268  | 4,085   | 0.6                         |
| Coachella Valley Water District   | 47,094   | 58,868  | 8.4                         |
| County of Kings   | 3,167  | 3,959   | 0.6                         |
| Crestline-Lake Arrowhead Water Agency                                       | 1,974  | 2,468   | 0.4                         |
| Desert Water Agency   | 18,977   | 23,721  | 3.4                         |
| Dudley Ridge Water District   | 15,437   | 19,296  | 2.7                         |
| Empire West Side Irrigation District  | 1,021  | 1,276   | 0.2                         |
| Kern County Water Agency  | 141,000  | 176,250   | 25.0                        |
| Littlerock Creek Irrigation District  | 783  | 979   | 0.1                         |
| Mojave Water Agency   | 29,206   | 36,508  | 5.2                         |
| Napa County Flood Control and<br>Water Conservation District                | 9,880  | 12,350  | 1.8                         |
| Palmdale Water District   | 7,251  | 9,064   | 1.3                         |
| San Bernardino Valley Municipal Water District                              | 34,925   | 43,656  | 6.2                         |
| San Gabriel Valley Municipal Water District                                 | 9,804  | 12,255  | 1.7                         |
| San Geronio Pass Water Agency   | 5,889  | 7,361   | 1.0                         |
| San Luis Obispo County Flood Control and<br>Water Conservation District     | 8,510  | 10,638  | 1.5                         |
| Santa Clara Valley Water District   | 34,040   | 42,550  | 6.0                         |
| Santa Clarita Valley Water Agency   | 32,406   | 40,508  | 5.7                         |
| Solano County Water Agency  | 16,256   | 20,320  | 2.9                         |
| Tulare Lake Basin Water Storage District                                    | <u>29,775</u>  | 37,219  | <u>5.3</u>                  |
| <b>Total</b>  | <b><u>\$ 564,000</u></b>   |   | <b><u>100.0%</u></b>        |

**V. PAYMENT SCHEDULE**

This is the payment schedule for the Agency.

| <u>August 10,<br/>2022<br/>Billing</u> | <u>September 9,<br/>2022<br/>Billing</u> | <u>October 10,<br/>2022<br/>Billing</u> | <u>November 10,<br/>2022<br/>Billing</u> | <u>December 9,<br/>2022<br/>Billing</u> | <u>Total<br/>Billing</u> |
|--|--|---|--|---|--------------------------|
| \$2,175                                | \$1,450                                  | \$1,450                                 | \$1,450                                  | \$726                                   | \$7,251                  |

**EXHIBIT B****I. OTHER CONSULTING SERVICES**

EY shall, during the twelve months ending June 30, 2023, perform other services if requested by the IAA. No such work shall be performed unless specifically authorized by the IAA in writing. Areas of potential focus for Exhibit B projects could include in depth procedures agreed to by EY and the IAA in advance related to one or more of the items identified in Exhibit A.

Total fees for such other consulting services shall 1) be agreed to prior to commencement of work, 2) be allocated among the agencies based on the same procedures included in the Exhibit A allocation, and 3) shall not exceed \$50,000, which represents an estimated 266 hours to be incurred, unless agreed to by the IAA, for the year ended June 30, 2023. Any part of the \$50,000 which is unused shall not be billed.

| Agency  | Maximum fee for each Agency, provided all Agencies listed below enter into agreements with EY | Percent of total |
|---|---|------------------|
| Alameda County Flood Control and Water Conservation District, Zone No.7 | \$ 2,432  | 4.9%             |
| Alameda County Water District   | 1,267   | 2.5              |
| Antelope Valley-East Kern Water Agency                                  | 4,371   | 8.7              |
| Casitas Municipal Water District  | 604   | 1.2              |
| Central Coast Water Authority   | 1,373   | 2.7              |
| City of Yuba City   | 290   | 0.6              |
| Coachella Valley Water District   | 4,175   | 8.4              |
| County of Kings   | 281   | 0.6              |
| Crestline-Lake Arrowhead Water Agency                                   | 175   | 0.4              |
| Desert Water Agency   | 1,682   | 3.4              |
| Dudley Ridge Water District   | 1,369   | 2.7              |
| Empire West Side Irrigation District                                    | 91  | 0.2              |
| Kern County Water Agency  | 12,500  | 25.0             |
| Littlerock Creek Irrigation District                                    | 69  | 0.1              |
| Mojave Water Agency   | 2,589   | 5.2              |
| Napa County Flood Control and Water Conservation District               | 876   | 1.8              |
| Palmdale Water District   | 643   | 1.3              |
| San Bernardino Valley Municipal Water District                          | 3,096   | 6.2              |
| San Gabriel Valley Municipal Water District                             | 869   | 1.7              |
| San Geronio Pass Water Agency   | 522   | 1.0              |
| San Luis Obispo County Flood Control and Water Conservation District    | 754   | 1.5              |
| Santa Clara Valley Water District                                       | 3,018   | 6.0              |
| Santa Clarita Valley Water Agency                                       | 2,873   | 5.7              |
| Solano County Water Agency  | 1,441   | 2.9              |
| Tulare Lake Basin Water Storage District                                | <u>2,640</u>  | <u>5.3</u>       |
| Total   | <u>\$ 50,000</u>  | <u>100.0%</u>    |

**EXHIBIT C**

**I. INDIVIDUAL CONTRACTOR AGREEMENTS**

EY may, during the twelve months ending June 30, 2023, perform other consulting services as requested by individual Contractors. These services will be performed and billed separately from the services outlined in Exhibits A and B.

The terms and conditions of any procedures performed under Exhibit C, including payment terms, will be outlined in a separate Statement of Work (SOW). These services, which will be agreed to by EY and the requesting Contractor in advance, will be documented in the example SOW attached to herein as Exhibit C-1. An Exhibit C-1 statement of work will be made available to any Contractor upon request. All other provisions of the Contractor's signed contract with EY for the twelve months ending June 30, 2023 will continue to be in effect.

Total fees for such other consulting services shall be agreed to with the individual Contractor prior to commencement of work. The fees for services provided under Exhibit C will be outside of those referenced in Exhibits A and B, and will be paid for directly by the requesting Contractor.

## EXHIBIT C-1

### Statement of Work

This Statement of Work with the attached Exhibit, dated July 1, 2022 (this SOW) is made by Ernst & Young LLP (“we” or “EY”) and Palmdale Water District on behalf of itself (“you” or “Client”), pursuant to the Agreement, dated July 1, 2022 (the Agreement), between EY and Palmdale Water District (the Agency).

Except as otherwise set forth in this SOW, this SOW incorporates by reference, and is deemed to be a part of, the Agreement. The additional terms and conditions of this SOW shall apply only to the Services covered by this SOW and not to Services covered by any other Statement of Work pursuant to the Master Services Agreement (MSA) by and between EY and the Agency dated July 1, 2022. Capitalized terms used, but not otherwise defined, in this SOW shall have the meanings defined in the MSA, including references in the Agreement to “you” or “Client” shall be deemed references to you.

#### Scope of services

Except as otherwise set forth in this SOW, this SOW incorporates by reference, and is deemed to be a part of, the Agreement. This SOW sets forth the terms and conditions on which EY will perform certain professional services as described [INSERT DEFINITION OF SERVICES] (the Services) for Agency, a member of the State Water Contractors Independent Audit Association (IAA), for the twelve months ending June 30, 2023.

Any changes to the above scope of work will be agreed upon in writing and signed by both parties and will amend this original SOW.

The Services are advisory in nature and will not constitute an audit performed in accordance with Generally Accepted Accounting Principles. EY will perform the Services in accordance with the Statement of Standards for Consulting Services (CS100) of the American Institute for Certified Public Accountants (AICPA).



### **Your specific obligations**

You acknowledge that the Services are sufficient for your purposes.

You will not, and you will not permit others to, quote or refer to the Reports, any portion, summary or abstract thereof, or to EY or any other EY Firm, in any document filed or distributed in connection with (i) a purchase or sale of securities to which the United States or state securities laws (Securities Laws) are applicable, or (ii) periodic reporting obligations under Securities Laws. You will not contend that any provisions of Securities Laws could invalidate any provision of this agreement.

We also draw your attention to the reservations set out in paragraph 5 of the General Terms and Conditions of the MSA, as well as your management responsibilities under paragraph 6, your obligations under paragraphs 11 and 12, and your representation, as of the date hereof, under paragraph 26 thereof.

### **Specific additional terms and conditions**

The Services are advisory in nature. EY will not render an assurance report or opinion under the Agreement, nor will the Services constitute an audit, review, examination, or other form of attestation as those terms are defined by the American Institute of Certified Public Accountants. None of the Services or any Reports will constitute any legal opinion or advice. We will not conduct a review to detect fraud or illegal acts, nor will we test compliance with the laws or regulations of any jurisdiction.

Notwithstanding anything to the contrary in the Agreement or this SOW, we do not assume any responsibility for any third-party products, programs or services, their performance or compliance with your specifications or otherwise.

We will base any comments or recommendations as to the functional or technical capabilities of any products in use or being considered by you solely on information provided by your vendors, directly or through you. We are not responsible for the completeness or accuracy of any such information or for confirming any of it.

Where our written consent under the MSA is required for you to disclose to a third party any of our Reports (other than Tax Advice), we will also require that third party to execute a letter substantially in the form of Exhibit D to the Agreement. To the extent the Agency is permitted to disclose any written Report as set forth herein, it shall disclose such Report only in the original, complete and unaltered form provided by EY, with all restrictive legends and other agreements intact.

Unless prohibited by applicable law, we may provide Client Information to other EY firms, EY Persons and external third parties, who may collect, use, transfer, store or otherwise process such information in various jurisdictions in which they operate in order to provide support services to any EY Firm and/or assist in the performance of the Services.

After the Services under this SOW have been completed, we may disclose or present to prospective clients, or otherwise in our marketing materials, that we have performed the Services for you, and we may use your name solely for that purpose, in accordance with applicable professional obligations. In addition, we may use your name, trademark, service mark and logo as reasonably necessary to perform the Services and in correspondence, including proposals, from us to you.

Compliance with U.S. immigration requirements may require EY to provide certain information to the U.S. Citizenship and Immigration Services (“USCIS”) to confirm that EY employees on certain visas are, in fact, EY employees and not employees of the Client or other clients of EY. This will include providing certain information regarding work locations to support compliance with the visa requirements. As such, EY may disclose to USCIS information regarding this SOW, including the Client’s identity and location, as well as a redacted copy of this SOW. Upon providing this information, EY will request that USCIS keep any such information confidential. In further support of these legal requirements, the U.S. Department of Labor (DOL) regulations, at 20 CFR § 655.734(a)(1)(ii)(A), require the posting of notice of a Labor Condition Application (LCA) in instances where individuals holding H-1B visas will be working on the Client’s premises. EY and the Client will work together to develop an appropriate notice as required. The Client acknowledges that EY resources will be operating at all times as an employee of and under the direction and control of Ernst & Young U.S. LLP’s management, and all activities including supervision, hiring and firing decisions, and performance evaluations are controlled by Ernst & Young U.S. LLP. The Client will not have the right to control EY resources. At all times, EY resources will receive direction from an EY manager while on-site at the Client premises.

You shall not, while we are performing the Services hereunder and for a period of 12 months after they are completed, solicit for employment, or hire, any EY personnel involved in the performance of the Services, provided, that you may generally advertise available positions and hire EY personnel who either respond to such advertisements or who come to you on their own initiative without direct or indirect encouragement from you.

The Agency shall, among other responsibilities with respect to the Services, (i) make all management decisions and perform all management functions, including applying independent business judgment to EY work products, making implementation decisions and determining further courses of action in connection with any Services; (ii) assign a competent employee within senior management to make all management decisions with respect to the Services, oversee the Services and evaluate their adequacy and results; and (iii) accept responsibility for the implementation of the results or recommendations contained in the Reports or otherwise in connection with the Services. The Agency hereby confirms that management of the Agency accepts responsibility for the sufficiency of the Services. In performing the Services neither EY nor EY’s partners or employees will act as an employee of the Agency.

The Agency represents and warrants to EY that the Agency’s execution and delivery of this Agreement has been authorized by all requisite corporate or other applicable entity action and the person signing this Agreement is expressly authorized to execute it on behalf of, and to bind, the Agency.

The performance of the Services and the parties’ obligations in connection therewith are subject to the additional terms and conditions set forth in the MSA.

It is understood that the Agency is not bound by our findings in any controversy or disagreement between the Agency and the Department of Water Resources should the Agency disagree with our findings.

We would also request that, if any IAA member discovers discrepancies in billings or other financial statements relative to their State Water Project costs, in addition to your working with the Department to correct the error, please notify EY for potential future inclusion as part of their procedures related to all IAA members.

**Project deliverables**

The matrix below lists the specific deliverables and related timelines that EY will provide to **(insert Contractor)**.

| Deliverable | Timeline | Comments |
|-------------|----------|----------|
|             |          |          |
|             |          |          |
|             |          |          |
|             |          |          |
|             |          |          |
|             |          |          |
|             |          |          |

**Additional responsibilities**

EY will provide **(insert Contractor)** with a timeline/schedule related to all project deliverables prior to the start of work on the project.

EY will notify **(insert Contractor)** in writing of any incremental changes to the original project estimate.

Production of all elements described in the “Project deliverables” section of this SOW is to be included in the cost breakdown under the “Pricing and payment terms” section below, agreed upon by **(insert Contractor)** and EY for this project.

**Fees and billing**

Below is a summary of the current cost estimates for this SOW. Due to the complexities and variable nature of this project, actual costs could vary from these estimates. In the event costs are expected to exceed the estimate, EY will contact **(insert Contractor)** before performing any additional work.

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Out-of-pocket expenses incurred during this contract are not included in the above SOW estimated cost. Expenses include such items as travel, meals, accommodations, and other administrative expenses based on actual amounts incurred.

Invoices for time and expenses will be billed monthly and are due upon receipt.

**IN WITNESS WHEREOF**, the parties hereto have executed this SOW as of the day and year written below.

**Palmdale Water District**

**Ernst & Young, LLP**

**Representative**

**Representative**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Printed Name**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Title**

\_\_\_\_\_  
**Address**

\_\_\_\_\_  
**Address**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Date**

**EXHIBIT D**

**FORM OF ACCESS LETTER**

[Letterhead of EY]

[Addressee (e.g., third party seeking access to EY Report)]  
[Street Address]  
[City, State Zip]

[Month XX, 20XX]

Dear [ ] :

[Client] (the “Client”) has informed Ernst & Young LLP (“EY”) that it wishes to disclose to [party seeking access] (the “Recipient”) EY’s[describe report(s)] , dated [ ] , relating to [describe subject] (the “Report(s)”). EY has not placed any limitations on the Client’s ability to disclose any contents of the Report relating to the tax aspects or structure of any transaction proposed by the Client.

EY performed Services only for the Client. EY did not undertake the Services on behalf of, or to serve the needs of, the Recipient or any other third party. As part of such services, EY did not audit the Client’s financial statements, subsequent to the date(s) of the Report(s).

EY prepared the Report(s) solely for the Client. The Report(s) address[ es] only the issues identified by the Client, and [ is/are] based solely on information obtained by EY using the procedures specified by the Client or otherwise provided by or on behalf of the Client. The Report(s) [ is/are] subject to many limitations and [ do/does] not provide any form of assurance with respect to any of the information referred to therein. The Recipient understands and accepts the scope and limitations of the Report(s).

Except (1) where compelled by legal process (of which the Recipient will immediately notify EY and tender to EY, if it so elects, the defense thereof), (2) with respect to any contents of the Report relating to the tax treatment and tax structure of the proposed transaction (including any facts that may be relevant to understanding the proposed tax treatment of the proposed transaction), or (3) with EY’s prior written consent, the Recipient will not, circulate, quote, disclose or distribute any of the Report(s) or any information contained therein, or any summary or abstract thereof, or make any reference thereto or to EY, to anyone other than the Recipient’s directors, officers or employees or legal advisors who, in each case, need to know its contents in order to \_\_\_\_\_ , and who have agreed to be bound by the terms and conditions of this agreement to the same extent as the Recipient.

The Recipient further agrees that it will not, and will not permit others to, quote or refer to the Report, any portion, summary or abstract thereof, or to EY, in any document filed or distributed in connection with (a) a purchase or sale of securities to which the United States or state securities laws (“Securities Laws”) are applicable or (b) periodic reporting obligations under Securities Laws. The Recipient will not contend that any provisions of Securities Laws could invalidate any provision of this agreement.

In further consideration of EY allowing the Recipient access to the Report(s) and the information contained therein, the Recipient agrees that:

1. It does not acquire any rights against EY, and EY does not assume any duties or obligations to the Recipient or otherwise, as a result of such access.
2. It will not rely on the Report(s) or any portion thereof and will make no claim that it has done so.
3. It will make no claim against EY, its partners, employees or affiliates, or other members of the global Ernst & Young network (collectively, the “EY Parties” that relates in any way to the Report(s), any information contained therein, or the Recipient’s access to the Report(s).
4. To the fullest extent permitted by applicable law, it will indemnify, defend and hold harmless the EY Parties from and against any claim or expense, including reasonable attorneys’ fees, suffered or incurred by any EY Party relating to any breach by the Recipient of any of its representations or agreements contained herein or the use or disclosure of the Report(s) or any portion thereof by anyone who received it directly or indirectly from or at the request of the Recipient.

Very truly yours,

Ernst & Young LLP

Accepted by:

[Addressee]

By: \_\_\_\_\_



Ernst & Young LLP  
Suite 900  
400 Capitol Mall  
Sacramento, CA 95814

Tel: +1 916 218 1900  
ey.com

Mr. Dennis Lamoreaux  
Palmdale Water District  
2029 East Avenue “Q”  
Palmdale, California 93550

July 1, 2022

Dear Mr. Lamoreaux:

Thank you for choosing Ernst & Young LLP (“we” or “EY”) to perform professional services (the “Services”) for Palmdale Water District (“you” or “Client”). We appreciate the opportunity to assist you and look forward to working with you. This letter agreement constitutes the Master Services Agreement (MSA) between EY and Palmdale Water District under which EY will perform the Services for Palmdale Water District. It is intended that the Services performed by EY on behalf of Palmdale Water District under this MSA will also be performed on behalf of a number of other State Water Project contractors under substantially identical MSAs, and that the costs of these services will be shared by all participants.

For each project that we agree to undertake for you, we will prepare a Statement of Work describing the particular Services, as well as any advice, presentations, or filings to be made, our fees therefor, and any other project-specific arrangements. All of the Services will be subject to the terms and conditions of this letter, its attachments, including the General Terms and Conditions, and the applicable Statement of Work (together, this “Agreement”). Except for a claim seeking solely injunctive relief, any dispute or claim arising out of or relating to this Agreement, the Services or any other services provided by us or on our behalf to you shall be resolved by mediation and arbitration as set forth in this Agreement.

We may enter into Statements of Work with you for a period of five years following the date of this letter, although we may agree with you to extend that period, including by executing additional Statements of Work referencing this Agreement. We understand that this MSA does not bind you to use our Services, but instead reflects our general understanding of the arrangement should EY and you choose to enter into any future Statement of Work.

Please sign this letter in the space provided below to indicate your agreement with these arrangements and return it to Scott Enos (400 Capitol Mall, Suite 900, Sacramento, CA 95814) or email to [scott.enos@ey.com](mailto:scott.enos@ey.com) at your earliest convenience. If you have any questions about any of these materials, please do not hesitate to contact Scott Enos at 916-218-1958 so that we can address any issues you identify before we begin to provide any Services.



Very truly yours,

*Ernst + Young LLP*

AGREED:

Palmdale Water District

By: \_\_\_\_\_  
Mr. Dennis Lamoreaux



# General Terms and Conditions

## Our relationship with you

1. We will perform the Services in accordance with applicable professional standards, including those established by the American Institute of Certified Public Accountants (“**AICPA**”).
2. We are a member of the global network of Ernst & Young firms (“**EY Firms**”), each of which is a separate legal entity.
3. We will provide the Services to you as an independent contractor and not as your employee, agent, partner or joint venturer. Neither you nor we have any right, power or authority to bind the other.
4. We may subcontract portions of the Services to other EY Firms, who may deal with you directly. Nevertheless, we alone will be responsible to you for the Reports (as defined in Section 11), the performance of the Services, and our other obligations under this Agreement. From time to time, non-CPA personnel may perform the Services.
5. We will not assume any of your management responsibilities in connection with the Services. We will not be responsible for the use or implementation of the output of the Services, although we may otherwise provide advice and recommendations to assist you in your management functions and making decisions.

## Your responsibilities

6. You shall assign a qualified person to oversee the Services. You are responsible for all management decisions relating to the Services, the use or implementation of the output of the Services and for determining whether the Services are appropriate for your purposes.
7. You shall provide (or cause others to provide) to us, promptly, the information, resources and assistance (including access to records, systems, premises and people) that we reasonably require to perform the Services.
8. To the best of your knowledge, all information provided by you or on your behalf (“**Client Information**”) will be accurate and complete in all material respects. The provision of Client Information to us will not infringe any copyright or other third-party rights.
9. We will rely on Client Information made available to us and, unless we expressly agree otherwise, will have no responsibility to evaluate or verify it.

10. You shall be responsible for your personnel’s compliance with your obligations under this Agreement.

## Our Reports

11. Any information, advice, recommendations or other content of any reports, presentations or other communications we provide under this Agreement (“**Reports**”), other than Client Information, are for your internal use only (consistent with the purpose of the particular Services).
12. You may not disclose a Report (or any portion or summary of a Report) externally (including to your affiliates) or refer to us or to any other EY Firm in connection with the Services, except:
  - (a) to your lawyers (subject to these disclosure restrictions), who may review it only to give you advice relating to the Services,
  - (b) to the extent, and for the purposes, required by subpoena or similar legal process (of which you will promptly notify us),
  - (c) to other persons (including your affiliates) with our prior written consent, who have executed an access letter substantially in the form we prescribe, or
  - (d) to the extent it contains Tax Advice, as set forth in Section 13.

If you are permitted to disclose a Report (or a portion thereof) externally, you shall not alter, edit or modify it from the form we provided.

13. You may disclose to anyone a Report (or a portion thereof) solely to the extent that it relates to tax matters, including tax advice, tax opinions, tax returns, or the tax treatment or tax structure of any transaction to which the Services relate (“**Tax Advice**”). With the exception of tax authorities, you shall inform those to whom you disclose Tax Advice that they may not rely on it for any purpose without our prior written consent.
14. You may incorporate into documents that you intend to disclose externally EY summaries, calculations or tables based on Client Information contained in a Report, but not our recommendations, conclusions or findings. However, you must assume sole responsibility for the contents of those documents and not refer to us or any other EY Firm in connection with them. This provision does not affect your ability to circulate Reports internally.

15. You may not rely on any draft Report. We shall not be required to update any final Report for circumstances of which we become aware, or events occurring, after its delivery.

## Limitations

16. You (and any others for whom Services are provided) may not recover from us, in contract or tort, under statute or otherwise, any consequential, incidental, indirect, punitive or special damages in connection with claims arising out of this Agreement or otherwise relating to the Services, including any amount for loss of profit, data or goodwill, whether or not the likelihood of such loss or damage was contemplated.
17. You (and any others for whom Services are provided) may not recover from us, in contract or tort, under statute or otherwise, aggregate damages in excess of the fees actually paid for the Services that directly caused the loss in connection with claims arising out of this Agreement or otherwise relating to the Services. This limitation will not apply to losses caused by our fraud or willful misconduct or to the extent prohibited by applicable law or professional regulations.
18. You shall make any claim relating to the Services or otherwise under this Agreement no later than one year after you became aware (or ought reasonably to have become aware) of the facts giving rise to any alleged such claim and in any event, no later than two years after the completion of the particular Services. This limitation will not apply to the extent prohibited by applicable law or professional regulations.
19. You may not make a claim or bring proceedings relating to the Services or otherwise under this Agreement against any other EY Firm or our or its subcontractors, members, shareholders, directors, officers, partners, principals or employees (“**EY Persons**”). You shall make any claim or bring proceedings only against us. The provisions of Sections 16 through 20 are intended to benefit the other EY Firms and all EY Persons, who shall be entitled to enforce them.

## Indemnity

20. To the fullest extent permitted by applicable law and professional regulations, you shall indemnify us, the other EY Firms and the EY Persons against all claims by third parties (including your affiliates and attorneys) and resulting liabilities, losses, damages, costs and expenses (including reasonable external and internal legal costs) arising out of the disclosure of any Report (other than Tax Advice) or a third party’s use of or reliance on any Report (including Tax Advice) disclosed to it by you or at your request.

## Intellectual property rights

21. We may use data, software, designs, utilities, tools, models, systems and other methodologies and know-how that we own or license (“**Materials**”) in performing the Services. Notwithstanding the delivery of any Reports, we retain all intellectual property rights in the Materials (including any improvements or knowledge developed while performing the Services), and in any working papers compiled in connection with the Services (but not Client Information reflected in them).
22. Upon payment for particular Services and subject to the other terms of this Agreement, you may use the Reports relating to those Services, as well as any Materials owned by us that are included therein, solely to the extent necessary to use the Reports.

## Confidentiality

23. Except as otherwise permitted by this Agreement, neither of us may disclose to third parties the contents of this Agreement or any information (other than Tax Advice) provided by or on behalf of the other that ought reasonably to be treated as confidential and/or proprietary. Either of us may, however, disclose such information to the extent that it:
  - (a) is or becomes public other than through a breach of this Agreement,
  - (b) is subsequently received by the recipient from a third party who, to the recipient’s knowledge, owes no obligation of confidentiality to the disclosing party with respect to that information,
  - (c) was known to the recipient at the time of disclosure or is thereafter created independently,
  - (d) is disclosed as necessary to enforce the recipient’s rights under this Agreement, or
  - (e) must be disclosed under applicable law, legal process or professional regulations.

EY acknowledges that Client has taken the position that Client is subject to the Freedom of Information Act (“FOIA”) as may be amended, updated or replaced from time to time. EY has made no independent inquiry or determination on the subject, however, to the extent FOIA is applicable, the parties acknowledge and agree that: (a) Subject to clause (b) below, the decision on whether any exemption applies to a request for disclosure of information under the FOIA is a decision for Client after consultation with EY; (b) where Client is managing a request under FOIA to disclose a Report or any information that belongs to EY, EY shall cooperate with Client and shall use all reasonable efforts to respond to Client within ten (10) working

days of Client's request for assistance in determining whether or not an exemption to the FOIA applies; and (c) Client will only disclose the confidential information when required by FOIA, and when Client discloses a Report or EY confidential information, Client shall (i) use all reasonable efforts to limit the disclosure to the maximum extent possible (including redaction of the Report or EY's confidential information where possible), and (ii) notify EY in writing prior to such disclosure unless prohibited by law.

24. Either of us may use electronic media to correspond or transmit information and such use will not in itself constitute a breach of any confidentiality obligations under this Agreement.
25. Unless prohibited by applicable law, we may provide Client Information to other EY Firms (which are listed at [www.ey.com](http://www.ey.com)) and EY Persons, as well as external third parties providing services on our or their behalf, who may collect, use, transfer, store or otherwise process (collectively, "**Process**") it in various jurisdictions in which they operate in order to facilitate performance of the Services, to comply with regulatory requirements, to check conflicts, to provide financial accounting and other administrative, infrastructure and security support services or for quality and risk management purposes. We shall be responsible to you for maintaining the confidentiality of Client Information, regardless of where or by whom such information is Processed on our behalf.
26. With respect to any Services, if U.S. Securities and Exchange Commission auditor independence requirements apply to the relationship between you or any of your associated entities and any EY Firm, you represent, to the best of your knowledge, as of the date of this Agreement and as of the date of each Statement of Work hereunder, that neither you nor any of your affiliates has agreed, either orally or in writing, with any other advisor to restrict your ability to disclose to anyone the tax treatment or tax structure of any transaction to which the Services relate. An agreement of this kind could impair an EY Firm's independence as to your audit or that of any of your affiliates, or require specific tax disclosures as to those restrictions. Accordingly, you agree that the impact of any such agreement is your responsibility.

## Data protection

27. If we Process Client Information that can be linked to specific individuals ("**Personal Data**"), we will Process it in accordance with Section 25 of this Agreement, as well as law and professional regulations applicable to us. We will also require any service provider that Processes Personal Data on our behalf to provide at least the same level of protection for such data as is required by such legal and regulatory requirements. If Personal Data relating to a data subject in the UK, European Union or Switzerland (collectively,

"**European Personal Data**") is required for EY to perform the Services, the parties agree to negotiate in good faith a data transfer addendum intended to validate the transfer of such European Personal Data by Company to EY prior to such transfer. If any Client Information is protected health information under the Health Insurance Portability and Accountability Act, as amended, this Agreement is deemed to incorporate all of the terms otherwise required to be included in a business associate contract relating to such information.

28. You warrant that you have the authority to provide the Personal Data to us in connection with the performance of the Services and that the Personal Data provided to us has been Processed in accordance with applicable law. In order to provide the Services, we may need to access Personal Data consisting of protected health information, financial account numbers, Social Security or other government-issued identification numbers, or other data that, if disclosed without authorization, would trigger notification requirements under applicable law ("Restricted Personal Data"). In the event that we need access to such information, you will consult with us on appropriate measures (consistent with professional standards applicable to us) to protect the Restricted Personal Data, such as deleting or masking unnecessary information before it is made available to us, encrypting any data transferred to us, or making the data available for on-site review at a Client site. You will provide us with Restricted Personal Data only in accordance with mutually agreed protective measures.

## Fees and expenses generally

29. You shall pay our professional fees and specific expenses in connection with the Services as detailed in the applicable Statement of Work. You shall also reimburse us for other reasonable expenses incurred in performing the Services. Our fees are exclusive of taxes or similar charges, as well as customs, duties or tariffs imposed in respect of the Services, all of which you shall pay (other than taxes imposed on our income generally). Unless otherwise set forth in the applicable Statement of Work, payment is due within 30 days following receipt of each of our invoices. We may receive rebates in connection with certain purchases, which we use to reduce charges that we would otherwise pass on to you.
30. We may charge additional professional fees if events beyond our control (including your acts or omissions) affect our ability to perform the Services as originally planned or if you ask us to perform additional tasks.
31. If we are required by applicable law, legal process or government action to produce information or personnel as witnesses with respect to the Services or this Agreement, you shall reimburse us for any professional time and expenses (including reasonable external and internal legal costs) incurred to respond to the request,

unless we are a party to the proceeding or the subject of the investigation.

## Force majeure

32. Neither you nor we shall be liable for breach of this Agreement (other than payment obligations) caused by circumstances beyond your or our reasonable control.

## Term and termination

33. This Agreement applies to the Services whenever performed (including before the date of this Agreement).
34. This Agreement shall terminate upon the completion of the Services. Either of us may terminate it, or any particular Services, earlier upon 30 days' prior written notice to the other. In addition, we may terminate this Agreement, or any particular Services, immediately upon written notice to you if we reasonably determine that we can no longer provide the Services in accordance with applicable law or professional obligations.
35. You shall pay us for all work-in-progress, Services already performed, and expenses incurred by us up to and including the effective date of the termination of this Agreement. Payment is due within 30 days following receipt of our invoice for these amounts.
36. The provisions of this Agreement, including Section 14 and otherwise with respect to Reports, that give either of us rights or obligations beyond its termination shall continue indefinitely following the termination of this Agreement, except that our respective confidentiality obligations (other than those relating to Reports or under Section 14) shall continue thereafter for three years only.

## Governing law and dispute resolution

37. This Agreement, and any non-contractual matters or obligations arising out of this Agreement or the Services, including (without limitation) claims arising in tort, fraud, under statute or otherwise relating to the Services, or questions relating to the scope or enforceability of this Section 37, shall be governed by, and construed in accordance with, the laws of New York applicable to agreements made, and fully to be performed, therein by residents thereof. Except as otherwise expressly provided in the Cover Letter, any dispute relating to this Agreement or the Services shall be resolved as set forth in Appendix 1 to these Terms and Conditions.

## Miscellaneous

38. This Agreement constitutes the entire agreement between us as to the Services and the other matters it covers, and supersedes all prior agreements, understandings and representations with respect thereto, including any confidentiality agreements previously delivered. In addition, any policy, protocol, agreement (other than this Agreement) or other instrument, in whatever form, imposed at any time that purports to obligate EY, any other EY Firm or any EY Person with respect to the use of Client Information shall be void and of no further effect, and you shall not seek to enforce any such obligation.
39. Both of us may execute this Agreement (including Statements of Work), as well as any modifications thereto, by electronic means and each of us may sign a different copy of the same document. Both of us must agree in writing to modify this Agreement or any Statement of Work hereunder.
40. Each of us represents to the other that each person signing this Agreement or any Statement of Work hereunder on its behalf is expressly authorized to execute it and to bind such party to its terms. You also represent that this Agreement has, if necessary, been considered and approved by your Audit Committee. You represent that your affiliates and any others for whom Services are performed shall be bound by the terms of this Agreement.
41. You agree that we and the other EY Firms may, subject to professional obligations, act for other clients, including your competitors.
42. Neither of us may assign any of our rights, obligations or claims arising out of or related to this Agreement or any Services.
43. If any provision of this Agreement (in whole or part) is held to be illegal, invalid or otherwise unenforceable, the other provisions shall remain in full force and effect.
44. If there is any inconsistency between provisions in different parts of this Agreement, those parts shall have precedence as follows (unless expressly agreed otherwise): (a) the Cover Letter, (b) the applicable Statement of Work and any attachments thereto, (c) these General Terms and Conditions, and (d) other attachments to this Agreement.
45. Neither of us may use or reference the other's name, logo or trademarks publicly without the other's prior written consent, although we may publicly identify you as a client in connection with specific Services or generally.

46. For administrative reasons, you may from time to time ask that fees and expenses for Services performed for your international affiliates or at international locations be invoiced to you or your designate there, in local currency. You guarantee the timely payment of all those invoices by your affiliates. In addition, from time to time, an affiliate of ours, providing Services as a subcontractor to us, may bill you directly for fees incurred for work outside the US, in local currency or otherwise.

# **Appendix 1**

## **Dispute resolution procedures**

### **Mediation**

A party shall submit a dispute to mediation by written notice to the other party or parties. The mediator shall be selected by the parties. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution (“CPR”) shall designate a mediator at the request of a party. Any mediator must be acceptable to all parties and must confirm in writing that the mediator is not, and will not become during the term of the mediation, an employee, partner, executive officer, director, or of beneficial owner with decision-making capacity over any EY Firm audit client.

The mediator shall conduct the mediation as the mediator determines, with the agreement of the parties. The parties shall discuss their differences in good faith and attempt, with the mediator’s assistance, to reach an amicable resolution of the dispute. The mediation shall be treated as a settlement discussion and shall therefore be confidential. The mediator may not testify for either party in any later proceeding relating to the dispute. The mediation proceedings shall not be recorded or transcribed.

Each party shall bear its own costs in the mediation. The parties shall share equally the fees and expenses of the mediator.

If the parties have not resolved a dispute within 90 days after written notice beginning mediation (or a longer period, if the parties agree to extend the mediation), the mediation shall terminate and the dispute shall be settled by arbitration. In addition, if a party initiates litigation, arbitration, or other binding dispute resolution process without initiating mediation, or before the mediation process has terminated, an opposing party may deem the mediation requirement to have been waived and may proceed with arbitration.

### **Arbitration**

The arbitration will be conducted in accordance with the procedures in this document and the CPR Rules for Non-Administered Arbitration (“Rules”) as in effect on the date of the Agreement, or such other rules and procedures as the parties may agree. In the event of a conflict, the provisions of this document will control.

The arbitration will be conducted before a panel of three arbitrators, to be selected in accordance with the screened selection process provided in the Rules. Any issue concerning the extent to which any dispute is subject to arbitration, or concerning the applicability, interpretation, or enforceability of any of these procedures, shall be governed by the Federal Arbitration Act and resolved by the arbitrators. No potential arbitrator may be appointed unless the arbitrator has agreed in writing to these procedures and has confirmed in writing that the arbitrator is not, and will not become during the term of the arbitration, an employee, partner, executive officer, director, or of beneficial owner with decision-making capacity over any EY Firm audit client.

The arbitration panel shall have no power to award non-monetary or equitable relief of any sort or to make an award or impose a remedy that (i) is inconsistent with the agreement to which these procedures are attached or any other agreement relevant to the dispute, or (ii) could not be made or imposed by a court deciding the matter in the same jurisdiction. In deciding the dispute, the arbitration panel shall apply the limitations period that would be applied by a court deciding the matter in the same jurisdiction, and shall have no power to decide the dispute in any manner not consistent with such limitations period.

Discovery shall be permitted in connection with the arbitration only to the extent, if any, expressly authorized by the arbitration panel upon a showing of substantial need by the party seeking discovery.

All aspects of the arbitration shall be treated as confidential. The parties and the arbitration panel may disclose the existence, content or results of the arbitration only in accordance with the Rules or applicable professional standards. Before making any such disclosure, a party shall give written notice to all other parties and shall afford them a reasonable opportunity to protect their interests, except to the extent such disclosure is necessary to comply with applicable law, regulatory requirements or professional standards.

The result of the arbitration shall be binding on the parties, and judgment on the arbitration award may be entered in any court having jurisdiction.

**P A L M D A L E   W A T E R   D I S T R I C T**  
**B O A R D   M E M O R A N D U M**

**DATE:** July 6, 2022 **July 11, 2022**  
**TO:** BOARD OF DIRECTORS **Board Meeting**  
**FROM:** Mrs. Amanda Thompson, Water Quality/Regulatory Affairs Supervisor  
**VIA:** Mr. Mynor Masaya, Operations Manager  
Mr. Adam Ly, Assistant General Manager  
Mr. Dennis D. LaMoreaux, General Manager  
**RE:** ***AGENDA ITEM NO. 7.1 – PUBLIC HEARING REGARDING  
ADOPTION OF 2022 PUBLIC HEALTH GOAL REPORT. (NO BUDGET  
IMPACT – WATER QUALITY/REGULATORY AFFAIRS SUPERVISOR  
THOMPSON)***

---

**Recommendation:**

Staff recommends the Public Hearing regarding the adoption of the 2022 Public Health Goal Report be opened.

**Alternative Options:**

The Board can choose to not open the public hearing.

**Impact of Taking No Action:**

The District will not be compliant with SB 1307.

**Background:**

A presentation on the Public Health Goal Report will be provided during the Public Hearing. The Public Hearing is required by law and 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. This Public Hearing has been noticed as required for public hearings with publications in the Antelope Valley Press on June 11 and 25, 2022 (notice attached).

**Strategic Plan Initiative/Mission Statement:**

This item is under Strategic Initiative No. 6 – Customer Care, Advocacy and Outreach  
This item directly relates to the District’s Mission Statement.

**Budget:**

This item does not affect the budget.

**Supporting Documents:**

- PowerPoint presentation on 2022 Public Health Goal Report
- Notice of Public Hearing published in Antelope Valley Press on June 11 and 25, 2022.





PALMDALE WATER DISTRICT

A CENTURY OF SERVICE

# Public Health Goal Report

Amanda Thompson

Water Quality and Regulatory Affairs Supervisor

July 2022

# Background

## **The California Safe Drinking Water Act of 1996**

- Required the establishment of Public Health Goals (PHGs) for drinking water contaminants
- PHGs are established by the Office of Environmental Health Hazard Assessment (OEHHA)

## **Health and Safety Code Section 116470**

- Requires a PHG report every three (3) years
- In addition to the annual Water Quality Report (aka Consumer Confidence Report)



# Public Notice

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



## **PUBLIC HEARING NOTICES**

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

- June 11, 2022
- June 25, 2022



# 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.”



# 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



# Water Quality Data Considered

- PHG Report is based on all regulatory water quality data collected during the previous three-year period (e.g. 2019, 2020 & 2021)



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



# 2022 Public Health Goal Report

| Constituent        | PHG (MCLG) | DLR       | MCL      | PWD Maximum Result |
|--------------------|------------|-----------|----------|--------------------|
| <b>Arsenic</b>     | 0.004 µg/L | 2 µg/L    | 10 µg/L  | 2.6 µg/L           |
| <b>Copper</b>      | 0.30 mg/L  | 0.05 mg/L | 1.3 mg/L | 0.54 mg/L          |
| <b>Gross Alpha</b> | (0 pCi/L)  | 3 pCi/L   | 15 pCi/L | 3.3 pCi/L          |
| <b>Gross Beta</b>  | (0 pCi/L)  | 4 pCi/L   | 50 pCi/L | 4.0 pCi/L          |



# Total Compliance



- Palmdale Water District has been 100% in compliance with all primary drinking water standards during 2019 – 2021.
- Palmdale Water District continues to produce high quality drinking water which is in compliance for the first half of 2022.





# QUESTIONS?



**PALMDALE WATER DISTRICT**  
A CENTURY OF SERVICE

## **PALMDALE WATER DISTRICT NOTICE OF PUBLIC HEARING**

July 11, 2022, 6:00 p.m.  
Palmdale Water District Boardroom  
2029 East Avenue Q, Palmdale, CA

Notice is hereby given that the Board of Directors of the Palmdale Water District will hold a public hearing at 6:00 p.m. on July 11, 2022 via teleconference to consider the report on Palmdale Water District's water quality relative to Public Health Goals. The public can participate in this public hearing by calling 1-571-748-4021, PIN 610-750-812#.

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 either call in to this meeting or forward written remarks to the Palmdale Water District General Manager, 2029 East Avenue Q, Palmdale, CA 93550 prior to the hearing. A copy of the Public Health Goals report is available for inspection at Palmdale Water District, 2029 East Avenue Q, Palmdale, CA 93550.

Dated: June 6, 2022

Adam Ly, Assistant General Manager

Publish: June 11, 2022 and June 25, 2022

**P A L M D A L E   W A T E R   D I S T R I C T**  
**B O A R D   M E M O R A N D U M**

**DATE:** July 6, 2022 **July 11, 2022**  
**TO:** BOARD OF DIRECTORS **Board Meeting**  
**FROM:** Mrs. Amanda Thompson, Water Quality/Regulatory Affairs Supervisor  
**VIA:** Mr. Mynor Masaya, Operations Manager  
Mr. Adam Ly, Assistant General Manager  
Mr. Dennis D. LaMoreaux, General Manager  
**RE:** ***AGENDA ITEM NO. 7.2 –CONSIDERATION AND POSSIBLE ACTION  
ON ADOPTION OF 2022 PUBLIC HEALTH GOAL REPORT. (NO  
BUDGET IMPACT – WATER QUALITY/REGULATORY AFFAIRS  
SUPERVISOR THOMPSON)***

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**Recommendation:**

Staff recommends adoption of the 2022 Public Health Goal Report.

**Alternative Options:**

The Board can choose to not adopt the 2022 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 (EPA’s) Office of Environmental Health Hazard Assessment (OEHHA) 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 (MCLs) required by the California Division of Drinking Water and the USEPA. No additional actions are required.

BOARD OF DIRECTORS  
PALMDALE WATER DISTRICT  
VIA: Mr. Mynor Masaya, Operations Manager  
Mr. Adam Ly, Assistant General Manager  
Mr. Dennis D. LaMoreaux, General Manager

July 6, 2022

**Strategic Plan Initiative/Mission Statement:**

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

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

**Budget:**

This item does not affect the budget.

**Supporting Documents:**

- 2022 Public Health Goal Report



# **Public Health Goal Report 2022**

## **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 1<sup>st</sup> 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 2019 and 2021 (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 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 2019 and 2021 for purposes of determining compliance with drinking water standards was considered. These data were all summarized in our 2019, 2020, and 2021 Annual Consumer Confidence Reports, which were made available to all of our customers by July 1<sup>st</sup> 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 2019, 2020, and 2021 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.

#### **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 30 samples for arsenic during 2019-2021, and two sample results were detected above the PHG. Values ranged from non-detect (ND) to 2.6 µg/L, with an average value of 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  $1 \times 10^{-6}$  (one per million) and at the California MCL it is  $2.5 \times 10^{-3}$  (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.

## 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 90<sup>th</sup> 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.

Based on the triennial sampling of residences within our distribution system in 2021, our 90<sup>th</sup> percentile value for copper was 0.540 mg/L, which exceeded the PHG. The 90<sup>th</sup> 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. 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, 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 your home as a result of materials in your home plumbing. Lead can cause serious health problems, especially for pregnant women and children ages 6 and under. If you are concerned about high lead levels in your home’s water, run your water for 30 seconds to 2 minutes



before using tap water and have your water tested. Additional information is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/lead>.

### **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 16 samples for gross alpha particle activity during 2019-2021, and two sample results were detected above the PHG. Values ranged from ND to 3.3 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 it is  $1 \times 10^{-3}$  (1 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 2 samples for gross beta particle activity during 2019-2021, and one sample result was detected above the PHG. Values ranged from ND to 4.0 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 it is  $2 \times 10^{-3}$  (2 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.

### **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 technology (BAT) to lower the level of the above compounds below the PHG is reverse osmosis. Since the levels are already below the MCL, reverse osmosis would be required to attempt to lower the levels to below the PHG. 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. Costs 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 \$2.04-\$4.75 per 1,000 gallons of water treated. Based on PWD's 2019-2021 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 three of the 22 active wells would be between \$9.5 million and \$22 million/year for the life of the system. The cost per customer service connection would range from \$351 to \$818 per year. There would be additional costs for water conditioning to ensure water treated by reverse osmosis is optimized for distribution system corrosion control.

### **Recommendation for Further Action**

The drinking water quality of the Palmdale Water District 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 at all 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 2019, 2020 and 2021 Water Quality Data
- No.6 Glossary of terms and abbreviations used in the report



**ATTACHMENT NO. 1**

ATTACHMENT NO. 1  
2019 PHG Triennial Report: Calendar Years 2019-2020-2021

| <b>MCLs, DLRs, and PHGs for Regulated Drinking Water Contaminants</b><br>(Units are in milligrams per liter (mg/L), unless otherwise noted.)<br>Last Update: September 14, 2021   |         |         |                      |                 |
|---|---------|---------|----------------------|-----------------|
| This table includes:<br>California's maximum contaminant levels (MCLs)<br>Detection limits for purposes of reporting (DLRs)<br><a href="#">Public health goals (PHGs) from the Office of Environmental Health Hazard Assessment (OEHHA)</a><br>Also, the PHG for NDMA (which is not yet regulated) is included at the bottom of this table. |         |         |                      |                 |
| Regulated Contaminant   | MCL     | DLR     | PHG                  | Date of PHG     |
| <i>Chemicals with MCLs in 22 CCR §64431—Inorganic Chemicals</i>   |         |         |                      |                 |
| 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 - OEHHA withdrew the 0.0025-mg/L PHG  | 0.05    | 0.01    | withdrawn Nov. 2001  | 1999            |
| Chromium, Hexavalent - 0.01-mg/L MCL & 0.001-mg/L DLR repealed September 2017   | --      | --      | 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 NO3 (=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)  |
| <i>Copper and Lead, 22 CCR §64672.3</i>   |         |         |                      |                 |
| <i>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</i>  |         |         |                      |                 |
| Copper  | 1.3     | 0.05    | 0.3                  | 2008            |

ATTACHMENT NO. 1  
2019 PHG Triennial Report: Calendar Years 2019-2020-2021

| Lead  | 0.015     | 0.005  | 0.0002  | 2009              |
|---|-----------|--------|---------|-------------------|
| <b>Radionuclides with MCLs in 22 CCR §64441 and §64443—Radioactivity</b>                |           |        |         |                   |
| [units are picocuries per liter (pCi/L), unless otherwise stated; n/a = not applicable] |           |        |         |                   |
| 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              |
| <b>Chemicals with MCLs in 22 CCR §64444—Organic Chemicals</b>                           |           |        |         |                   |
| <b>(a) Volatile Organic Chemicals (VOCs)</b>  |           |        |         |                   |
| 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<br>(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<br>(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<br>(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              |

ATTACHMENT NO. 1  
2019 PHG Triennial Report: Calendar Years 2019-2020-2021

|   |                    |                    |                     |                |
|---|--------------------|--------------------|---------------------|----------------|
| 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>(b) Non-Volatile Synthetic Organic Chemicals (SOCs)</b>          |                    |                    |                     |                |
| 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)   | 3x10 <sup>-8</sup> | 5x10 <sup>-9</sup> | 5x10 <sup>-11</sup> | 2010           |
| 2,4,5-TP (Silvex)   | 0.05               | 0.001              | 0.003               | 2014           |
| <b>Chemicals with MCLs in 22 CCR §64533—Disinfection Byproducts</b> |                    |                    |                     |                |
| Total Trihalomethanes   | 0.080              | --                 | --                  | --             |
| Bromodichloromethane  | --                 | 0.0010             | 0.00006             | 2020           |

ATTACHMENT NO. 1  
2019 PHG Triennial Report: Calendar Years 2019-2020-2021

|   |       |          |          |      |
|---|-------|----------|----------|------|
| 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 |
| <b><i>Chemicals with PHGs established in response to DDW requests. These are not currently regulated drinking water contaminants.</i></b> |       |          |          |      |
| N-Nitrosodimethylamine (NDMA)   | --    | --       | 0.000003 | 2006 |
| *OEHHA's review of this chemical during the year indicated (rev20XX) resulted in no change in the PHG.                                    |       |          |          |      |
| **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.                         |       |          |          |      |



**ATTACHMENT NO. 2**



# Public Health Goals

## Health Risk Information for Public Health Goal Exceedance Reports

February 2022



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 2022

**NEW for the 2022 Report:** New in this document are an updated Public Health Goal (PHG) for 1,2-dibromo-3-chloropropane (DBCP) and newly established PHGs for the trihalomethanes bromodichloromethane, bromoform, chloroform, and dibromochloromethane.

**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.<sup>1</sup> This document contains health risk information on regulated 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.<sup>2</sup>

The water system's report is required to identify the health risk category (e.g., carcinogenicity or neurotoxicity) associated with exposure to each regulated contaminant in drinking water 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.

<sup>1</sup> Health and Safety Code Section 116470(b)

<sup>2</sup> Health and Safety Code Section 116365

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2022 Health Risk Information for Public Health Goal  
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**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 ( $1 \times 10^{-6}$ ) 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 <sup>1</sup>                                       | California PHG (mg/L) <sup>2</sup>                | Cancer Risk <sup>3</sup> at the PHG  | California MCL <sup>4</sup> (mg/L)   | Cancer Risk at the California MCL       |
|--------------------------|---|---|--------------------------------------|--------------------------------------|---|
| <a href="#">Alachlor</a> | carcinogenicity (causes cancer)   | 0.004   | NA <sup>5,6</sup>                    | 0.002                                | NA                                      |
| <a href="#">Aluminum</a> | neurotoxicity and immunotoxicity (harms the nervous and immune systems) | 0.6   | NA                                   | 1                                    | NA                                      |
| <a href="#">Antimony</a> | hepatotoxicity (harms the liver)  | 0.001   | NA                                   | 0.006                                | NA                                      |
| <a href="#">Arsenic</a>  | carcinogenicity (causes cancer)   | 0.000004 (4×10 <sup>-6</sup> )                    | 1×10 <sup>-6</sup> (one per million) | 0.01                                 | 2.5×10 <sup>-3</sup> (2.5 per thousand) |
| <a href="#">Asbestos</a> | carcinogenicity (causes cancer)   | 7 MFL <sup>7</sup> (fibers >10 microns in length) | 1×10 <sup>-6</sup>                   | 7 MFL (fibers >10 microns in length) | 1×10 <sup>-6</sup> (one per million)    |
| <a href="#">Atrazine</a> | carcinogenicity (causes cancer)   | 0.00015   | 1×10 <sup>-6</sup>                   | 0.001                                | 7×10 <sup>-6</sup> (seven per million)  |

<sup>1</sup> 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>).

<sup>2</sup> mg/L = milligrams per liter of water or parts per million (ppm)

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

<sup>4</sup> MCL = maximum contaminant level.

<sup>5</sup> NA = not applicable. Cancer risk cannot be calculated.

<sup>6</sup> 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.

<sup>7</sup> 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 <sup>1</sup>   | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL               |
|--------------------------------|---|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">Barium</a>         | cardiovascular toxicity (causes high blood pressure)  | 2                                  | NA                                  | 1                                  | NA  |
| <a href="#">Bentazon</a>       | hepatotoxicity and digestive system toxicity (harms the liver, intestine, and causes body weight effects <sup>8</sup> ) | 0.2                                | NA                                  | 0.018                              | NA  |
| <a href="#">Benzene</a>        | carcinogenicity (causes leukemia)   | 0.00015                            | $1 \times 10^{-6}$                  | 0.001                              | $7 \times 10^{-6}$ (seven per million)          |
| <a href="#">Benzo[a]pyrene</a> | carcinogenicity (causes cancer)   | 0.000007 ( $7 \times 10^{-6}$ )    | $1 \times 10^{-6}$                  | 0.0002                             | $3 \times 10^{-5}$ (three per hundred thousand) |
| <a href="#">Beryllium</a>      | digestive system toxicity (harms the stomach or intestine)  | 0.001                              | NA                                  | 0.004                              | NA  |
| <a href="#">Bromate</a>        | carcinogenicity (causes cancer)   | 0.0001                             | $1 \times 10^{-6}$                  | 0.01                               | $1 \times 10^{-4}$ (one per ten thousand)       |
| <a href="#">Cadmium</a>        | nephrotoxicity (harms the kidney)   | 0.00004                            | NA                                  | 0.005                              | NA  |
| <a href="#">Carbofuran</a>     | reproductive toxicity (harms the testis)  | 0.0007                             | NA                                  | 0.018                              | NA  |

<sup>8</sup> 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 <sup>1</sup>  | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL      |
|---|--|------------------------------------|-------------------------------------|------------------------------------|--|
| <a href="#">Carbon tetrachloride</a>            | carcinogenicity (causes cancer)  | 0.0001                             | 1×10 <sup>-6</sup>                  | 0.0005                             | 5×10 <sup>-6</sup> (five per million)  |
| <a href="#">Chlordane</a>                       | carcinogenicity (causes cancer)  | 0.00003                            | 1×10 <sup>-6</sup>                  | 0.0001                             | 3×10 <sup>-6</sup> (three per million) |
| <a href="#">Chlorite</a>                        | hematotoxicity (causes anemia)<br>neurotoxicity (causes neurobehavioral effects) | 0.05                               | NA                                  | 1                                  | NA                                     |
| <a href="#">Chromium, hexavalent</a>            | carcinogenicity (causes cancer)  | 0.00002                            | 1×10 <sup>-6</sup>                  | none                               | NA                                     |
| <a href="#">Copper</a>                          | digestive system toxicity (causes nausea, vomiting, diarrhea)                    | 0.3                                | NA                                  | 1.3 (AL <sup>9</sup> )             | NA                                     |
| <a href="#">Cyanide</a>                         | neurotoxicity (damages nerves)<br>endocrine toxicity (affects the thyroid)       | 0.15                               | NA                                  | 0.15                               | NA                                     |
| <a href="#">Dalapon</a>                         | nephrotoxicity (harms the kidney)  | 0.79                               | NA                                  | 0.2                                | NA                                     |
| <a href="#">Di(2-ethylhexyl) adipate (DEHA)</a> | developmental toxicity (disrupts development)                                    | 0.2                                | NA                                  | 0.4                                | NA                                     |

<sup>9</sup> 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 <sup>1</sup>        | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL               |
|--|--|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">Di(2-ethylhexyl) phthalate (DEHP)</a>  | carcinogenicity (causes cancer)          | 0.012                              | $1 \times 10^{-6}$                  | 0.004                              | $3 \times 10^{-7}$ (three per ten million)      |
| <a href="#">1,2-Dibromo-3-chloropropane (DBCP)</a> | carcinogenicity (causes cancer)          | 0.000003 ( $3 \times 10^{-6}$ )    | $1 \times 10^{-6}$                  | 0.0002                             | $7 \times 10^{-5}$ (seven per hundred thousand) |
| <a href="#">1,2-Dichloro-benzene (o-DCB)</a>       | hepatotoxicity (harms the liver)         | 0.6                                | NA                                  | 0.6                                | NA  |
| <a href="#">1,4-Dichloro-benzene (p-DCB)</a>       | carcinogenicity (causes cancer)          | 0.006                              | $1 \times 10^{-6}$                  | 0.005                              | $8 \times 10^{-7}$ (eight per ten million)      |
| <a href="#">1,1-Dichloro-ethane (1,1-DCA)</a>      | carcinogenicity (causes cancer)          | 0.003                              | $1 \times 10^{-6}$                  | 0.005                              | $2 \times 10^{-6}$ (two per million)            |
| <a href="#">1,2-Dichloro-ethane (1,2-DCA)</a>      | carcinogenicity (causes cancer)          | 0.0004                             | $1 \times 10^{-6}$                  | 0.0005                             | $1 \times 10^{-6}$ (one per million)            |
| <a href="#">1,1-Dichloro-ethylene (1,1-DCE)</a>    | hepatotoxicity (harms the liver)         | 0.01                               | NA                                  | 0.006                              | NA  |
| <a href="#">1,2-Dichloro-ethylene, cis</a>         | nephrotoxicity (harms the kidney)        | 0.013                              | NA                                  | 0.006                              | NA  |
| <a href="#">1,2-Dichloro-ethylene, trans</a>       | immunotoxicity (harms the immune system) | 0.05                               | NA                                  | 0.01                               | NA  |

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

| Chemical   | Health Risk Category <sup>1</sup>   | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL             |
|--|---|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">Dichloromethane (methylene chloride)</a>       | carcinogenicity (causes cancer)   | 0.004                              | 1×10 <sup>-6</sup>                  | 0.005                              | 1×10 <sup>-6</sup> (one per million)          |
| <a href="#">2,4-Dichlorophenoxyacetic acid (2,4-D)</a>     | hepatotoxicity and nephrotoxicity (harms the liver and kidney)                  | 0.02                               | NA                                  | 0.07                               | NA  |
| <a href="#">1,2-Dichloropropane (propylene dichloride)</a> | carcinogenicity (causes cancer)   | 0.0005                             | 1×10 <sup>-6</sup>                  | 0.005                              | 1×10 <sup>-5</sup> (one per hundred thousand) |
| <a href="#">1,3-Dichloropropene (Telone II®)</a>           | carcinogenicity (causes cancer)   | 0.0002                             | 1×10 <sup>-6</sup>                  | 0.0005                             | 2×10 <sup>-6</sup> (two per million)          |
| <a href="#">Dinoseb</a>                                    | reproductive toxicity (harms the uterus and testis)                             | 0.014                              | NA                                  | 0.007                              | NA  |
| <a href="#">Diquat</a>                                     | ocular toxicity (harms the eye)<br>developmental toxicity (causes malformation) | 0.006                              | NA                                  | 0.02                               | NA  |
| <a href="#">Endothall</a>                                  | digestive system toxicity (harms the stomach or intestine)                      | 0.094                              | NA                                  | 0.1                                | NA  |
| <a href="#">Endrin</a>                                     | neurotoxicity (causes convulsions)<br>hepatotoxicity (harms the liver)          | 0.0003                             | NA                                  | 0.002                              | NA  |
| <a href="#">Ethylbenzene (phenylethane)</a>                | hepatotoxicity (harms the liver)  | 0.3                                | NA                                  | 0.3                                | NA  |



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

| Chemical   | Health Risk Category <sup>1</sup>   | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG                    | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL               |
|--|---|------------------------------------|--|------------------------------------|---|
| <a href="#">Ethylene dibromide (1,2-Dibromoethane)</a> | carcinogenicity (causes cancer)   | 0.00001                            | $1 \times 10^{-6}$                                     | 0.00005                            | $5 \times 10^{-6}$ (five per million)           |
| <a href="#">Fluoride</a>                               | musculoskeletal toxicity (causes tooth mottling)  | 1                                  | NA   | 2                                  | NA  |
| <a href="#">Glyphosate</a>                             | nephrotoxicity (harms the kidney)   | 0.9                                | NA   | 0.7                                | NA  |
| <a href="#">Heptachlor</a>                             | carcinogenicity (causes cancer)   | 0.000008 ( $8 \times 10^{-6}$ )    | $1 \times 10^{-6}$                                     | 0.00001                            | $1 \times 10^{-6}$ (one per million)            |
| <a href="#">Heptachlor epoxide</a>                     | carcinogenicity (causes cancer)   | 0.000006 ( $6 \times 10^{-6}$ )    | $1 \times 10^{-6}$                                     | 0.00001                            | $2 \times 10^{-6}$ (two per million)            |
| <a href="#">Hexachlorobenzene</a>                      | carcinogenicity (causes cancer)   | 0.00003                            | $1 \times 10^{-6}$                                     | 0.001                              | $3 \times 10^{-5}$ (three per hundred thousand) |
| <a href="#">Hexachlorocyclopentadiene (HCCPD)</a>      | digestive system toxicity (causes stomach lesions)  | 0.002                              | NA   | 0.05                               | NA  |
| <a href="#">Lead</a>                                   | developmental neurotoxicity (causes neurobehavioral effects in children)<br>cardiovascular toxicity (causes high blood pressure)<br>carcinogenicity (causes cancer) | 0.0002                             | $< 1 \times 10^{-6}$ (PHG is not based on this effect) | 0.015 (AL <sup>9</sup> )           | $2 \times 10^{-6}$ (two per million)            |

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

| Chemical   | Health Risk Category <sup>1</sup>                         | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL             |
|--|---|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">Lindane (γ-BHC)</a>                    | carcinogenicity (causes cancer)                           | 0.000032                           | 1×10 <sup>-6</sup>                  | 0.0002                             | 6×10 <sup>-6</sup> (six per million)          |
| <a href="#">Mercury (inorganic)</a>                | nephrotoxicity (harms the kidney)                         | 0.0012                             | NA                                  | 0.002                              | NA  |
| <a href="#">Methoxychlor</a>                       | endocrine toxicity (causes hormone effects)               | 0.00009                            | NA                                  | 0.03                               | NA  |
| <a href="#">Methyl tertiary-butyl ether (MTBE)</a> | carcinogenicity (causes cancer)                           | 0.013                              | 1×10 <sup>-6</sup>                  | 0.013                              | 1×10 <sup>-6</sup> (one per million)          |
| <a href="#">Molinate</a>                           | carcinogenicity (causes cancer)                           | 0.001                              | 1×10 <sup>-6</sup>                  | 0.02                               | 2×10 <sup>-5</sup> (two per hundred thousand) |
| <a href="#">Monochlorobenzene (chlorobenzene)</a>  | nephrotoxicity (harms the kidney)                         | 0.07                               | NA                                  | 0.07                               | NA  |
| <a href="#">Nickel</a>                             | developmental toxicity (causes increased neonatal deaths) | 0.012                              | NA                                  | 0.1                                | NA  |
| <a href="#">Nitrate</a>                            | hematotoxicity (causes methemoglobinemia)                 | 45 as nitrate                      | NA                                  | 10 as nitrogen (=45 as nitrate)    | NA  |
| <a href="#">Nitrite</a>                            | hematotoxicity (causes methemoglobinemia)                 | 3 as nitrite                       | NA                                  | 1 as nitrogen (=3 as nitrite)      | NA  |

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

| Chemical   | Health Risk Category <sup>1</sup>   | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L)        | Cancer Risk at the California MCL         |
|--|---|------------------------------------|-------------------------------------|---|---|
| <a href="#">Nitrate and Nitrite</a>              | hematotoxicity (causes methemoglobinemia)   | 10 as nitrogen <sup>10</sup>       | NA                                  | 10 as nitrogen                            | NA  |
| <a href="#">N-nitroso-dimethyl-amine (NDMA)</a>  | carcinogenicity (causes cancer)   | 0.000003 (3×10 <sup>-6</sup> )     | 1×10 <sup>-6</sup>                  | none                                      | NA  |
| <a href="#">Oxamyl</a>                           | general toxicity (causes body weight effects)   | 0.026                              | NA                                  | 0.05                                      | NA  |
| <a href="#">Pentachlorophenol (PCP)</a>          | carcinogenicity (causes cancer)   | 0.0003                             | 1×10 <sup>-6</sup>                  | 0.001                                     | 3×10 <sup>-6</sup> (three per million)    |
| <a href="#">Perchlorate</a>                      | endocrine toxicity (affects the thyroid)<br>developmental toxicity (causes neurodevelopmental deficits) | 0.001                              | NA                                  | 0.006                                     | NA  |
| <a href="#">Picloram</a>                         | hepatotoxicity (harms the liver)  | 0.166                              | NA                                  | 0.5                                       | NA  |
| <a href="#">Polychlorinated biphenyls (PCBs)</a> | carcinogenicity (causes cancer)   | 0.00009                            | 1×10 <sup>-6</sup>                  | 0.0005                                    | 6×10 <sup>-6</sup> (six per million)      |
| <a href="#">Radium-226</a>                       | carcinogenicity (causes cancer)   | 0.05 pCi/L                         | 1×10 <sup>-6</sup>                  | 5 pCi/L (combined Ra <sup>226+228</sup> ) | 1×10 <sup>-4</sup> (one per ten thousand) |

<sup>10</sup> 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 <sup>1</sup>                         | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L)        | Cancer Risk at the California MCL             |
|---|---|------------------------------------|-------------------------------------|---|---|
| <a href="#">Radium-228</a>  | carcinogenicity (causes cancer)                           | 0.019 pCi/L                        | $1 \times 10^{-6}$                  | 5 pCi/L (combined Ra <sup>226+228</sup> ) | $3 \times 10^{-4}$ (three per ten thousand)   |
| <a href="#">Selenium</a>  | integumentary toxicity (causes hair loss and nail damage) | 0.03                               | NA                                  | 0.05                                      | NA  |
| <a href="#">Silvex (2,4,5-TP)</a>                                     | hepatotoxicity (harms the liver)                          | 0.003                              | NA                                  | 0.05                                      | NA  |
| <a href="#">Simazine</a>  | general toxicity (causes body weight effects)             | 0.004                              | NA                                  | 0.004                                     | NA  |
| <a href="#">Strontium-90</a>  | carcinogenicity (causes cancer)                           | 0.35 pCi/L                         | $1 \times 10^{-6}$                  | 8 pCi/L                                   | $2 \times 10^{-5}$ (two per hundred thousand) |
| <a href="#">Styrene (vinylbenzene)</a>                                | carcinogenicity (causes cancer)                           | 0.0005                             | $1 \times 10^{-6}$                  | 0.1                                       | $2 \times 10^{-4}$ (two per ten thousand)     |
| <a href="#">1,1,2,2-Tetrachloroethane</a>                             | carcinogenicity (causes cancer)                           | 0.0001                             | $1 \times 10^{-6}$                  | 0.001                                     | $1 \times 10^{-5}$ (one per hundred thousand) |
| <a href="#">2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD, or dioxin)</a> | carcinogenicity (causes cancer)                           | $5 \times 10^{-11}$                | $1 \times 10^{-6}$                  | $3 \times 10^{-8}$                        | $6 \times 10^{-4}$ (six per ten thousand)     |

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| Chemical  | Health Risk Category <sup>1</sup>  | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL               |
|---|--|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">Tetrachloroethylene (perchloroethylene, or PCE)</a> | carcinogenicity (causes cancer)  | 0.00006                            | $1 \times 10^{-6}$                  | 0.005                              | $8 \times 10^{-5}$ (eight per hundred thousand) |
| <a href="#">Thallium</a>  | integumentary toxicity (causes hair loss)  | 0.0001                             | NA                                  | 0.002                              | NA  |
| <a href="#">Thiobencarb</a>                                     | general toxicity (causes body weight effects)<br>hematotoxicity (affects red blood cells)  | 0.042                              | NA                                  | 0.07                               | NA  |
| <a href="#">Toluene (methylbenzene)</a>                         | hepatotoxicity (harms the liver)<br>endocrine toxicity (harms the thymus)  | 0.15                               | NA                                  | 0.15                               | NA  |
| <a href="#">Toxaphene</a>                                       | carcinogenicity (causes cancer)  | 0.00003                            | $1 \times 10^{-6}$                  | 0.003                              | $1 \times 10^{-4}$ (one per ten thousand)       |
| <a href="#">1,2,4-Trichlorobenzene</a>                          | endocrine toxicity (harms adrenal glands)  | 0.005                              | NA                                  | 0.005                              | NA  |
| <a href="#">1,1,1-Trichloroethane</a>                           | neurotoxicity (harms the nervous system),<br>reproductive toxicity (causes fewer offspring)<br>hepatotoxicity (harms the liver)<br>hematotoxicity (causes blood effects) | 1                                  | NA                                  | 0.2                                | NA  |

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| Chemical  | Health Risk Category <sup>1</sup>               | California PHG (mg/L) <sup>2</sup> | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL                       |
|---|---|------------------------------------|-------------------------------------|------------------------------------|---|
| <a href="#">1,1,2-Trichloroethane</a>                             | carcinogenicity (causes cancer)                 | 0.0003                             | 1×10 <sup>-6</sup>                  | 0.005                              | 2×10 <sup>-5</sup> (two per hundred thousand)           |
| <a href="#">Trichloroethylene (TCE)</a>                           | carcinogenicity (causes cancer)                 | 0.0017                             | 1×10 <sup>-6</sup>                  | 0.005                              | 3×10 <sup>-6</sup> (three per million)                  |
| <a href="#">Trichlorofluoromethane (Freon 11)</a>                 | accelerated mortality (increase in early death) | 1.3                                | NA                                  | 0.15                               | NA  |
| <a href="#">1,2,3-Trichloropropane (1,2,3-TCP)</a>                | carcinogenicity (causes cancer)                 | 0.0000007 (7×10 <sup>-7</sup> )    | 1×10 <sup>-6</sup>                  | 0.000005 (5×10 <sup>-6</sup> )     | 7×10 <sup>-6</sup> (seven per million)                  |
| <a href="#">1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)</a> | hepatotoxicity (harms the liver)                | 4                                  | NA                                  | 1.2                                | NA  |
| <a href="#">Trihalomethanes: Bromodichloromethane</a>             | carcinogenicity (causes cancer)                 | 0.00006                            | 1×10 <sup>-6</sup>                  | 0.080*                             | 1.3×10 <sup>-3</sup> (1.3 per thousand) <sup>11</sup>   |
| <a href="#">Trihalomethanes: Bromoform</a>                        | carcinogenicity (causes cancer)                 | 0.0005                             | 1×10 <sup>-6</sup>                  | 0.080*                             | 2×10 <sup>-4</sup> (two per ten thousand) <sup>12</sup> |

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

<sup>11</sup> Based on 0.080 mg/L bromodichloromethane; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

<sup>12</sup> Based on 0.080 mg/L bromoform; 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 <sup>1</sup>                           | California PHG (mg/L) <sup>2</sup>    | Cancer Risk <sup>3</sup> at the PHG | California MCL <sup>4</sup> (mg/L)     | Cancer Risk at the California MCL                         |
|---|---|---------------------------------------|-------------------------------------|--|---|
| <a href="#">Trihalomethanes: Chloroform</a>           | carcinogenicity (causes cancer)                             | 0.0004                                | $1 \times 10^{-6}$                  | 0.080*                                 | $2 \times 10^{-4}$ (two per ten thousand) <sup>13</sup>   |
| <a href="#">Trihalomethanes: Dibromochloromethane</a> | carcinogenicity (causes cancer)                             | 0.0001                                | $1 \times 10^{-6}$                  | 0.080*                                 | $8 \times 10^{-4}$ (eight per ten thousand) <sup>14</sup> |
| <a href="#">Tritium</a>                               | carcinogenicity (causes cancer)                             | 400 pCi/L                             | $1 \times 10^{-6}$                  | 20,000 pCi/L                           | $5 \times 10^{-5}$ (five per hundred thousand)            |
| <a href="#">Uranium</a>                               | carcinogenicity (causes cancer)                             | 0.43 pCi/L                            | $1 \times 10^{-6}$                  | 20 pCi/L                               | $5 \times 10^{-5}$ (five per hundred thousand)            |
| <a href="#">Vinyl chloride</a>                        | carcinogenicity (causes cancer)                             | 0.00005                               | $1 \times 10^{-6}$                  | 0.0005                                 | $1 \times 10^{-5}$ (one per hundred thousand)             |
| <a href="#">Xylene</a>                                | 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.

<sup>13</sup> Based on 0.080 mg/L chloroform; the risk will vary with different combinations and ratios of the other trihalomethanes in a particular sample.

<sup>14</sup> 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 <sup>1</sup>   | US EPA MCLG <sup>2</sup> (mg/L) | Cancer Risk <sup>3</sup> at the MCLG | California MCL <sup>4</sup> (mg/L) | Cancer Risk at the California MCL |
|---|---|---------------------------------|--------------------------------------|------------------------------------|-----------------------------------|
| <b>Disinfection byproducts (DBPs)</b>                   |   |                                 |                                      |                                    |                                   |
| Chloramines   | acute toxicity (causes irritation)<br>digestive system toxicity (harms the stomach)<br>hematotoxicity (causes anemia) | 4 <sup>5,6</sup>                | NA <sup>7</sup>                      | none                               | NA                                |
| Chlorine  | acute toxicity (causes irritation)<br>digestive system toxicity (harms the stomach)                                   | 4 <sup>5,6</sup>                | NA                                   | none                               | NA                                |
| Chlorine dioxide  | hematotoxicity (causes anemia)<br>neurotoxicity (harms the nervous system)  | 0.8 <sup>5,6</sup>              | NA                                   | none                               | NA                                |
| <b>Disinfection byproducts: haloacetic acids (HAA5)</b> |   |                                 |                                      |                                    |                                   |
| Monochloroacetic acid (MCA)                             | general toxicity (causes body and organ weight changes <sup>8</sup> )   | 0.07                            | NA                                   | none                               | NA                                |

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

<sup>2</sup> MCLG = maximum contaminant level goal established by US EPA.

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

<sup>4</sup> California MCL = maximum contaminant level established by California.

<sup>5</sup> Maximum Residual Disinfectant Level Goal, or MRDLG.

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

<sup>7</sup> NA = not available.

<sup>8</sup> Body weight effects are an indicator of general toxicity in animal studies.



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

| Chemical  | Health Risk Category <sup>1</sup>  | US EPA MCLG <sup>2</sup> (mg/L) | Cancer Risk <sup>3</sup> at the MCLG | California MCL <sup>4</sup> (mg/L)                                 | Cancer Risk at the California MCL   |
|---|--|---------------------------------|--------------------------------------|--|---|
| Dichloroacetic acid (DCA)                                   | Carcinogenicity (causes cancer)  | 0                               | 0                                    | none   | NA  |
| Trichloroacetic acid (TCA)                                  | hepatotoxicity (harms the liver)   | 0.02                            | NA                                   | none   | NA  |
| Monobromoacetic acid (MBA)                                  | NA   | none                            | NA                                   | none   | NA  |
| Dibromoacetic acid (DBA)                                    | NA   | none                            | NA                                   | none   | NA  |
| Total haloacetic acids (sum of MCA, DCA, TCA, MBA, and DBA) | general toxicity, hepatotoxicity and carcinogenicity (causes body and organ weight changes, harms the liver and causes cancer) | none                            | NA                                   | 0.06   | NA  |
| <b>Radionuclides</b>  |  |                                 |                                      |  |   |
| Gross alpha particles <sup>9</sup>                          | carcinogenicity (causes cancer)  | 0 ( <sup>210</sup> Po included) | 0                                    | 15 pCi/L <sup>10</sup> (includes radium but not radon and uranium) | up to 1x10 <sup>-3</sup> (for <sup>210</sup> Po, the most potent alpha emitter) |

<sup>9</sup> 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>.

<sup>10</sup> pCi/L = picocuries per liter of water.

ATTACHMENT NO. 2  
 2022 Health Risk Information for Public Health Goal  
 Exceedance Reports

| Chemical  | Health Risk Category <sup>1</sup> | US EPA MCLG <sup>2</sup> (mg/L) | Cancer Risk <sup>3</sup> at the MCLG | California MCL <sup>4</sup> (mg/L)    | Cancer Risk at the California MCL  |
|---|-----------------------------------|---------------------------------|--------------------------------------|---------------------------------------|--|
| Beta particles and photon emitters <sup>9</sup> | carcinogenicity (causes cancer)   | 0 ( <sup>210</sup> Pb included) | 0                                    | 50 pCi/L (judged equiv. to 4 mrem/yr) | up to $2 \times 10^{-3}$ (for <sup>210</sup> Pb, the most potent beta-emitter) |



**ATTACHMENT NO. 3**

**ATTACHMENT NO. 3**  
**Table 1**  
**Reference: 2012 ACWA PHG Survey**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
**(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

| <b>No.</b> | <b>Treatment Technology</b>             | <b>Source of Information</b>  | <b>Estimated Unit Cost<br/>2012 ACWA Survey<br/>Indexed to 2021*<br/>(\$/1,000 gallons treated)</b> |
|------------|---|---|---|
| 1          | Ion Exchange                            | Coachella Valley WD, for GW, to reduce Arsenic concentrations. 2011 costs.  | 2.40  |
| 2          | Ion Exchange                            | City of Riverside Public Utilities, for GW, for Perchlorate treatment.  | 1.16  |
| 3          | Ion Exchange                            | Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost. | 0.88  |
| 4          | Granular Activated Carbon               | City of Riverside Public Utilities, GW sources, for TCE, DBCP (VOC, SOC) treatment.   | 0.58  |
| 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.                                 | 0.42  |
| 6          | Granular Activated Carbon, Liquid Phase | LADWP, Liquid Phase GAC treatment at Tujunga Well field. Costs for treating 2 wells. Treatment for 1,1 DCE (VOC). 2011-2012 costs.  | 1.78  |
| 7          | Reverse Osmosis                         | Carollo Engineers, anonymous utility, 2012 costs for treating GW source for Nitrates. Design source water concentration: 88 mg/L NO <sub>3</sub> . Design finished water concentration: 45 mg/L NO <sub>3</sub> . Does not include concentrate disposal or land cost. | 0.94  |
| 8          | Packed Tower Aeration                   | City of Monrovia, treatment to reduce TCE, PCE concentrations. 2011-12 costs.   | 0.52  |
| 9          | Ozonation+ Chemical addition            | SCVWD, STWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA5 concentrations. 2009-2012 costs.  | 0.11  |

## COST ESTIMATES FOR TREATMENT TECHNOLOGIES

(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

| No. | Treatment Technology                | Source of Information   | Estimated Unit Cost<br>2012 ACWA Survey<br>Indexed to 2021*<br>(\$/1,000 gallons treated) |
|-----|-------------------------------------|---|---|
| 10  | Ozonation+<br>Chemical addition     | SCVWD, PWTP treatment plant includes chemical addition + ozone generation costs to reduce THM/HAA concentrations, 2009-2012 costs.  | 0.23  |
| 11  | Coagulation/Filtration              | Soquel WD, treatment to reduce manganese concentrations in GW. 2011 costs.  | 0.88  |
| 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. | 1.00  |
| 13  | Blending (Well)                     | Rancho California WD, GW blending well, 1150 gpm, to reduce fluoride concentrations.  | 0.83  |
| 14  | Blending (Wells)                    | Rancho California WD, GW blending wells, to reduce arsenic concentrations, 2012 costs.  | 0.68  |
| 15  | Blending                            | Rancho California WD, using MWD water to blend with GW to reduce arsenic concentrations. 2012 costs.  | 0.81  |
| 16  | Corrosion Inhibition                | Atascadero Mutual WC, corrosion inhibitor addition to control aggressive water. 2011 costs.   | 0.10  |

\*Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average Construction Cost Index of 12,1332021

**ATTACHMENT NO. 3**  
**Table 2**  
**Reference: Other Agencies**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

| <b>No.</b> | <b>Treatment Technology</b>        | <b>Source of Information</b>   | <b>Estimated 2012 Unit Cost Indexed to 2021* (\$/1,000 gallons treated)</b> |
|------------|------------------------------------|--|---|
| 1          | Reduction - Coagulation-Filtration | Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.         | 1.91 - 11.96  |
| 2          | IX - Weak Base Anion Resin         | Reference: February 28, 2013, Final Report Chromium Removal Research, City of Glendale, CA. 100-2000 gpm. Reduce Hexavalent Chromium to 1 ppb.         | 1.96 – 8.19   |
| 3          | IX                                 | Golden State Water Co., IX w/disposable resin, 1 MGD, Perchlorate removal, built in 2010.  | 0.60  |
| 4          | IX                                 | Golden State Water Co., IX w/disposable resin, 1000 gpm, perchlorate removal (Proposed; O&M estimated).  | 1.31  |
| 5          | IX                                 | Golden State Water Co., IX with brine regeneration, 500 gpm for Selenium removal, built in 2007.   | 8.57  |
| 6          | GFO/Adsorption                     | Golden State Water Co., Granular Ferric Oxide Resin, Arsenic removal, 600 gpm, 2 facilities, built in 2006.  | 2.24 - 2.39   |
| 7          | RO                                 | Reference: Inland Empire Utilities Agency : Chino Basin Desalter. RO cost to reduce 800 ppm TDS, 150 ppm Nitrate (as NO <sub>3</sub> ); approx. 7 mgd. | 2.93  |
| 8          | IX                                 | Reference: Inland Empire Utilities Agency : Chino Basin Desalter. IX cost to reduce 150 ppm Nitrate (as NO <sub>3</sub> ); approx. 2.6 mgd.            | 1.63  |

|    |                        |   |             |
|----|------------------------|---|-------------|
| 9  | Packed Tower Aeration  | Reference: Inland Empire Utilities Agency : Chino Basin Desalter. PTA-VOC air stripping, typical treated flow of approx. 1.6 mgd.   | 0.49        |
| 10 | IX                     | Reference: 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.  | 0.68 - 0.97 |
| 11 | Coagulation Filtration | Reference: West Valley WD, includes capital, O&M costs for 2.88 mgd treatment facility- Layne Christensen packaged coagulation Arsenic removal system. 2009-2012 costs.   | 0.45        |
| 12 | FBR                    | Reference: West Valley WD/Envirogen design data for the O&M + actual capitol costs, 2.88 mgd fluidized bed reactor (FBR) treatment system, Perchlorate and Nitrate removal, followed by multimedia filtration & chlorination, 2012. NOTE: The capitol 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. | 2.02 – 2.13 |

\* Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average Construction Cost Index of 12,133 for 2021. .

**ATTACHMENT NO. 3**

**Table 3**

**Reference: Updated 2012 ACWA Cost of Treatment Table**

**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**

**(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)**

| <b>No.</b> | <b>Treatment Technology</b> | <b>Source of Information</b>   | <b>Estimated 2012 Unit Cost Indexed to 2021*<br/>(\$/1,000 gallons treated)</b> |
|------------|-----------------------------|--|---|
| 1          | Granular Activated Carbon   | Reference: 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                                    | 0.69 - 1.31   |
| 2          | Granular Activated Carbon   | Reference: Carollo Engineers, estimate for VOC treatment (PCE), 95% removal of PCE, Oct. 1994, 1900 gpm design capacity  | 0.32  |
| 3          | Granular Activated Carbon   | Reference: 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 | 1.51  |
| 4          | Granular Activated Carbon   | Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility for VOC and SOC removal by GAC, 1990   | 0.59 - 0.86   |
| 5          | Granular Activated Carbon   | Reference: Southern California Water Co. - actual data for "rented" GAC to remove VOCs (1,1-DCE), 1.5 mgd capacity facility, 1998  | 2.71  |
| 6          | Granular Activated Carbon   | Reference: Southern California Water Co. - actual data for permanent GAC to remove VOCs (TCE), 2.16 mgd plant capacity, 1998   | 1.75  |
| 7          | Reverse Osmosis             | Reference: 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                                    | 2.036 –<br>3.89   |
| 8          | Reverse Osmosis             | Reference: 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   | 4.80  |
| 9          | Reverse Osmosis             | Reference: 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  | 2.96  |
| 10         | Reverse Osmosis             | Reference: 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  | 3.20  |



**COST ESTIMATES FOR TREATMENT TECHNOLOGIES**  
(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

| <b>No.</b> | <b>Treatment Technology</b> | <b>Source of Information</b>  | <b>Estimated 2012 Unit Cost Indexed to 2021*<br/>(\$/1,000 gallons treated)</b> |
|------------|-----------------------------|---|---|
| 11         | Reverse Osmosis             | Reference: 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  | 2.48  |
| 12         | Reverse Osmosis             | Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 40% of design capacity, Oct. 1991   | 8.04  |
| 13         | Reverse Osmosis             | Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 1.0 mgd plant operated at 100% of design capacity, Oct. 1991  | 4.75  |
| 14         | Reverse Osmosis             | Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 40% of design capacity, Oct. 1991  | 3.55  |
| 15         | Reverse Osmosis             | Reference: Arsenic Removal Study, City of Scottsdale, AZ - CH2M Hill, for a 10.0 mgd plant operated at 100% of design capacity, Oct. 1991   | 2.20  |
| 16         | Reverse Osmosis             | Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility with RO to remove nitrate, 1990   | 2.22 - 3.89   |
| 17         | Packed Tower Aeration       | Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 1.4 mgd facility operating at 40% of design capacity, Oct. 1991  | 1.27  |
| 18         | Packed Tower Aeration       | Reference: Analysis of Costs for Radon Removal... (AWWARF publication), Kennedy/Jenks, for a 14.0 mgd facility operating at 40% of design capacity, Oct. 1991   | 0.68  |
| 19         | Packed Tower Aeration       | Reference: 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 | 0.34  |
| 20         | Packed Tower Aeration       | Reference: 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 | 0.35  |
| 21         | Packed Tower Aeration       | Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - packed tower aeration for VOC and radon removal, 1990   | 0.55 - 0.90   |

## COST ESTIMATES FOR TREATMENT TECHNOLOGIES

(INCLUDES ANNUALIZED CAPITAL AND O&M COSTS)

| No. | Treatment Technology         | Source of Information  | Estimated 2012 Unit Cost Indexed to 2021*<br>(\$/1,000 gallons treated) |
|-----|------------------------------|--|---|
| 22  | Advanced Oxidation Processes | Reference: 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                 | 0.67  |
| 23  | Ozonation                    | Reference: 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 | 0.15 - 0.32   |
| 24  | Ion Exchange                 | Reference: CH2M Hill study on San Gabriel Basin, for 135 mgd central treatment facility - ion exchange to remove nitrate, 1990   | 0.73 - 0.97   |

\* Costs were adjusted from date of original estimates to present, where appropriate, using the Engineering News Record (ENR) annual average Construction Cost Index of 12,133 for 2021.



**ATTACHMENT NO. 4**

**§ 64447.3. Best Available Technologies (BATs) - Radionuclides.**  
22 CA ADC § 64447.3  
BARCLAYS OFFICIAL CALIFORNIA CODE OF REGULATIONS

Barclays Official California Code of Regulations [Currentness](#)  
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.

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,<br>lime softening                            |
| Uranium                                | Ion exchange, reverse osmosis,<br>lime softening,<br>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

| <i>Unit Technologies</i>                         | <i>Limitations<br/>(see<br/>footnotes)</i> | <i>Operator Skill<br/>Level Required</i> | <i>Raw Water Quality Range<br/>and Considerations</i>                               |
|--|--|--|---|
| 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

| Contaminant                                     | Compliance Technologies for System Size Categories<br>Based On Population Served |                           |                           |
|---|--|---------------------------|---------------------------|
|   | 25-500   | 501-3,300                 | 3,301-10,000              |
|   | <i>Unit Technologies</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     |

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 5/6/22 Register 2022, No. 18

22 CCR § 64447.3, 22 CA ADC § 64447.3

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END OF DOCUMENT



**ATTACHMENT NO. 5**



**PALMDALE WATER DISTRICT**  
A CENTURY OF SERVICE

## PALMDALE WATER DISTRICT 2019 Consumer Confidence Report

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.

**Atencion Residentes!**

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

## STATE OF OUR WATER

With the COVID-19 pandemic continuing to be a critical concern, we want you to know that Palmdale Water District (PWD) has an advanced water treatment process that removes and kills viruses, including the coronavirus, bacteria and other pathogens. The water from your tap is safe to drink. In fact, California has the strictest regulations for tap water in the country. The water from your faucet is more regulated than bottled water.

Each year, PWD's laboratory analysts collect more than 3,500 water samples and about 18,000 tests are done to ensure that our water meets or exceeds all Federal and State guidelines. It is in this Consumer Confidence Report that detected data is made available for review. PWD has been and will always be proactive about meeting all current and future regulatory requirements, including the recently reduced notification levels for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). Previous tests show no reportable levels of either substance in our water.

Although we had a somewhat dry winter and hopes for a Miracle March did not quite materialize, northern California got snow and it rained locally. Like last year, Litterock Dam's spillway overflowed a couple of times. The overflow helps replenish our groundwater supply, and the reservoir's increased supply helps to keep our surface water needs met. These sources will be important if the annual allocation by the California Department of Water Resources keeps our water allocation for the year at 15%.

We do not expect that we will have a water shortage this year, but we continue to ask our customers to use water wisely by committing to xeriscape landscaping and checking for leaks or other water wastes. However, remember that running the water longer than usual to wash your hands is important against the fight against coronavirus and is not a waste of water.

The PWD Board and staff wish you and your family good health. Despite any challenges, we will continue to dedicate ourselves to providing you with clean, safe, reliable water.

**Vincent Dino** (PWD Board President)

**Dennis D. LaMoreaux** (PWD General Manager)

## The Palmdale Water District is pleased to announce 100% regulatory compliance in 2019 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2019 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 10,000 tests for over 80 regulated contaminants. Only 10 primary standard contaminants were detected in 2019, and all were at levels below the Maximum Contaminant Level allowed by the state.

**LAST YEAR,**  
PWD completed  
more than  
**10,000**  
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 x1001 for information on water-use efficiency, including conservation and water education.

For more information, visit our website at [palmdalewater.org](http://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 2019, PWD received 11,859 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 2019, PWD diverted 2,370 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 2019, PWD pumped 4,425 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 76% surface water and 24% groundwater to its consumers in 2019.*

## 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. The 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 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](http://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 2019 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 "None 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 1 year old. Unless otherwise noted, the data presented in this chart is from testing performed January 1 to December 31, 2019. Unregulated contaminant monitoring helps USEPA and the State Water Resources Control Board determine where certain contaminants occur and whether the contaminants need to be regulated.

| Parameter Treatment Techniques | MCL or MRDL (units)                                 | Meets Standard? | DLR | Sample Frequency | Water Treatment Plant |             | EPA (MCLG) PHG or [MRDLG] | Typical Source of Contaminant |
|--------------------------------|---|-----------------|-----|------------------|-----------------------|-------------|---------------------------|-------------------------------|
|                                |   |                 |     |                  | Range                 | Average     |                           |                               |
| Turbidity (Water Clarity)      | TT = 1 NTU<br>TT = 95% of monthly samples ≤ 0.3 NTU | Y               | NA  | Continuous       | ND - 0.1<br>100%      | 0.1<br>100% | NA                        | Soil Runoff                   |

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. Treated surface water range and average are of daily maximum.

| Disinfectant By-product Precursors                   |   |   |   |         |             |     |    |                                     |
|--|---|---|---|---------|-------------|-----|----|-------------------------------------|
| Control of DBP Precursor (Total Organic Carbon, TOC) | TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1 | Y | 1 | Monthly | 2.36 - 3.00 | 2.8 | NA | Various natural and manmade sources |

| Parameter Primary Standards      | MCL or MRDL (units)            | Meets Standard? | DLR | Sample Frequency | Distribution System |             | EPA (MCLG) PHG or [MRDLG] | Typical Source of Contaminant                   |
|----------------------------------|--------------------------------|-----------------|-----|------------------|---------------------|-------------|---------------------------|---|
|                                  |                                |                 |     |                  | All Sample Range    | Highest RAA |                           |   |
| Disinfection By-products         |                                |                 |     |                  | All Sample Range    | Highest RAA |                           |   |
| TTHMs (Total Trihalomethanes)    | 80 µg/L                        | Y               | NA  | Monthly          | 0.5 - 82            | 56          | NA                        | Byproduct of drinking water disinfection        |
| HAA5 (Sum of 5 Haloacetic Acids) | 60 µg/L                        | Y               | NA  | Monthly          | ND - 12             | 8.7         |                           |   |
| Disinfectant Residual            |                                |                 |     |                  | All Sample Range    | RAA         |                           |   |
| Chlorine Residual                | 4.0 (mg/L as Cl <sub>2</sub> ) | Y               | NA  | Weekly           | 0.3 - 1.8           | 1.0         | [4]                       | Drinking water disinfectant added for treatment |

| Parameter Primary Standards | MCL or MRDL (units) | Meets Standard? | DLR  | Sample Frequency* Surface Water / Groundwater | Treated Surface Water |                                      | *Groundwater Sampled in 2019 |         | EPA (MCLG) PHG or [MRDLG] | Typical Source of Contaminant  |
|-----------------------------|---------------------|-----------------|------|---|-----------------------|--------------------------------------|------------------------------|---------|---------------------------|--|
|                             |                     |                 |      |   | Range                 | Sampled 3/7/2019 or Average Effluent | Range                        | Average |                           |  |
| Inorganic Chemicals         |                     |                 |      |   |                       |                                      |                              |         |                           |  |
| Aluminum                    | 1 mg/L              | Y               | 0.05 | Yearly/Once in 3 yrs.                         | NA                    | ND                                   | ND - 0.4                     | ND      | 0.6                       | Erosion of natural deposits; residue from some surface water treatment processes   |
| Arsenic                     | 10 µg/L             | Y               | 2    | Yearly/Once in 3 yrs.                         | NA                    | ND                                   | ND - 3                       | ND      | 0.004                     | Erosion of natural deposits; runoff from orchards; glass and electronics production wastes                               |
| Fluoride                    | 2 mg/L              | Y               | 0.1  | Quarterly/Quarterly                           | ND - 0.2              | ND                                   | 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                     | 1.5     | 10                        | Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits              |
| Radioactivity               |                     |                 |      |   |                       |                                      |                              |         |                           |  |
| Gross Alpha Activity**      | 15 pCi/L            | Y               | 3    | **See comment                                 | NA                    | ND                                   | ND - 6                       | ND      | (0)                       | Erosion of natural deposits  |
| Uranium***                  | 20 pCi/L            | Y               | 1    | ***See comment                                | NA                    | ND                                   | NA                           | 1       | 0.43                      |  |

| Tap Monitoring Lead & Copper | Action Level | Meets Standard? | DLR  | Lead and Copper Rule   |                 |                       | Lead Testing in Schools |                                   |   | EPA (MCLG) PHG or [MRDLG] | Typical Source of Contaminant   |
|------------------------------|--------------|-----------------|------|------------------------|-----------------|-----------------------|-------------------------|-----------------------------------|---|---------------------------|---|
|                              |              |                 |      | No. of samples in 2018 | 90th Percentile | No. sites exceeded AL | Average                 | Range                             | No. of Schools requesting lead sampling in 2018 |                           |   |
| Lead                         | 15 µg/L      | Y               | 5    | 50                     | ND              | NONE                  | ND                      | 88 sites sampled; 0 sites over AL | 29  | 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                     | 0.42            | NONE                  | NA                      | NA                                | NA  | 0.3                       | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives               |

| Parameter Secondary Standards | Secondary MCL (units) | Meets Standard? | DLR | Sample Frequency* Surface Water/ Groundwater | Treated Surface Water |                                      | *Groundwater Sampled in 2019 |         | EPA (MCLG) PHG or [MRDLG] | Typical Source of Contaminant                               |
|-------------------------------|-----------------------|-----------------|-----|--|-----------------------|--------------------------------------|------------------------------|---------|---------------------------|---|
|                               |                       |                 |     |  | Range                 | Sampled 3/7/2019 or Average Effluent | Range                        | Average |                           |   |
|                               |                       |                 |     |  |                       |                                      |                              |         |                           |   |
| Chloride                      | 500 mg/L              | Y               | NA  | Quarterly/Quarterly                          | 72 - 135              | 101                                  | ND - 100                     | 26      | NA                        | Runoff/leaching from natural deposits; seawater influence   |
| Color                         | 15 units              | Y               | NA  | Weekly/Once in 3 yrs.                        | NA                    | ND                                   | ND - 10                      | ND      | NA                        | Naturally occurring organic materials                       |
| Iron                          | 300 µg/L              | Y               | NA  | Monthly/Quarterly                            | NA                    | ND                                   | ND - 360                     | ND      | NA                        | Leaching from natural deposits; industrial wastes           |
| Odor-Threshold                | 3 units               | Y               | 1   | Weekly/Once in 3 yrs.                        | ND - 2                | 1                                    | ND - 2                       | ND      | NA                        | Naturally occurring organic materials                       |
| Specific Conductance          | 1600 µmhos/cm         | Y               | NA  | Yearly/Once in 3 yrs.                        | NA                    | 640                                  | 240 - 790                    | 401     | NA                        | Substances that form ions when in water; seawater influence |
| Sulfate                       | 500 mg/L              | Y               | 0.5 | Quarterly/Quarterly                          | 19 - 48               | 31                                   | 16 - 130                     | 39      | NA                        | Runoff/leaching of natural deposits; industrial wastes      |
| Total Dissolved Solids        | 1000 mg/L             | Y               | NA  | Yearly/Once in 3 yrs.                        | NA                    | 330                                  | 130 - 470                    | 243     | NA                        | Runoff/leaching of natural deposits                         |
| Turbidity                     | 5 NTU                 | Y               | 0.1 | NA/Once in 3 yrs.                            | NA                    | NA                                   | ND - 3.6                     | 0.3     | NA                        | Soil Runoff   |

**Additional Constituents Analyzed**

|                     |              |    |    |                           |           |     |           |     |      |   |
|---------------------|--------------|----|----|---------------------------|-----------|-----|-----------|-----|------|---|
| Alkalinity          | NA (mg/L)    | NA | NA | Weekly/Once in 3 yrs.     | 52 - 74   | 62  | 80 - 180  | 114 | NA   | Dissolved as water passes through limestone deposits  |
| Calcium             | NA (mg/L)    | NA | NA | Yearly/Once in 3 yrs.     | NA        | 27  | 9.7 - 78  | 39  | NA   |   |
| Hardness            | NA (mg/L)    | NA | NA | Weekly/Once in 3 yrs.     | 78 - 130  | 105 | 27 - 240  | 125 | NA   | Sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring. |
| Hexavalent Chromium | NA (µg/L)    | NA | 1  | Quarterly/Quarterly       | NA        | ND  | ND - 11   | 4   | 0.02 | Steel and pulp mill discharges, chrome plating, natural erosion   |
| Magnesium           | NA (mg/L)    | NA | NA | Yearly/Once in 3 yrs.     | NA        | 13  | 0.6 - 15  | 6.6 | NA   | Dissolved as water passes through magnesium-bearing minerals  |
| pH                  | NA (Units)   | NA | NA | Continuous/Once in 3 yrs. | 6.9 - 7.7 | 7.2 | 7.5 - 8.3 | 8.1 | NA   | Leaching from natural deposits  |
| Potassium           | NA (mg/L)    | NA | NA | Yearly/Once in 3 yrs.     | NA        | 3.1 | ND - 2.8  | 1.2 | NA   | Leaching from natural deposits  |
| Sodium              | NA (mg/L)    | NA | NA | Yearly/Once in 3 yrs.     | NA        | 71  | 19 - 80   | 36  | NA   | Generally naturally occurring salt present in water   |
| Vanadium            | NL = 50 µg/L | Y  | 3  | Yearly/Once in 3 yrs.     | NA        | ND  | 7.3 - 33  | 15  | NA   | Naturally-occurring elemental metal   |

**Special Testing**

| UCMR 4 (Sampled in 2018) |           |    |      |         | Effluent & Dist. System |     | Groundwater |    |    | Environmental Source                     |
|--------------------------|-----------|----|------|---------|-------------------------|-----|-------------|----|----|--|
| HAA5                     | NA (µg/L) | NA | NA   | Special | 2.0 - 8.3               | 5.4 | NA          | NA | NA | Byproduct of drinking water disinfection |
| HAA6Br                   | NA (µg/L) | NA | NA   | Special | 2.6 - 16                | 10  | NA          | NA | NA | Byproduct of drinking water disinfection |
| HAA9                     | NA (µg/L) | NA | NA   | Special | 3.5 - 18                | 12  | NA          | NA | NA | Byproduct of drinking water disinfection |
| Manganese                | 50 µg/L   | NA | 0.40 | Special | NA                      | 0.9 | ND - 1      | ND | NA | Leaching from natural deposits           |

Unregulated contaminant monitoring helps U.S. EPA and the State Water Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

\* Wells are sampled once/3 yrs. except for Fluoride, Chloride, Sulfate and Nitrate, which are sampled quarterly.  
 \*\* Sampled between 2010 and 2019. Individual sites are sampled once/6 yrs. or once/9 yrs. Range is from individual sample results.  
 \*\*\* Sample collected only when Gross Alpha Activity exceeds 5 pCi/L.

# 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 2018 (50 samples). The 90th percentile results of none-detected for lead and 0.42 ppm for copper are well within the AL of 15 ppb 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 drinking 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 at 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 and 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.

## DEFINITIONS:

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

**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 U.S. Environmental Protection Agency (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.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by OEHHA (Office of Environmental Health Hazard Assessment), a division of the California Environmental Protection Agency (CEPA).

**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.

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

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

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

## 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 the 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.

**TOTAL TRIHALOMETHANES (TTHMs):** TTHMs are the total of four trihalomethanes of concern in drinking water: chloroform, bromoform, bromodichloromethane, and chlorodibromomethane. In the Primary Standards Disinfection Byproducts section of the Water Quality Chart under highest LRAA from Distribution System, the highest Locational Running Annual Average (LRAA) for 2019 is 56 µg/L, which is less than and complies with the Federal TTHM MCL of 80 µg/L. The range of monthly sample results from all 8 sampling points in 2019 is 0.5 - 82 µg/L. These samples were taken from dedicated sample points within the distribution system and are representative of maximum residence time in the system.

**Health effects of TTHMs:** Some people who drink water containing TTHMs in excess of the MCL over many years may experience liver, kidney, or central nervous system problems and may have an increased risk of getting cancer.

**FLUORIDE:** Fluoride in the treated surface water ranged from ND to 0.2 mg/L and averaged ND. The groundwater samples ranged from ND to 0.5 mg/L and averaged 0.2 mg/L. The fluoride MCL is 2 mg/L and the DLR is 0.1 mg/L.

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

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

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

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

**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.

## ABBREVIATIONS USED IN 2019 WATER QUALITY DATA CHART:

**ND:** Not detectable or None detected at testing limit (DLR)

**NA:** Not Applicable

< Less Than

> Greater Than

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

**DBP:** Disinfection Byproducts

Comparison examples are provided for the following measurements to help you better understand the amount of chemical contaminants detected in the water. This does not mean that the amounts are not significant regarding risk of health effects for specific contaminants.

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

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

**ppt:** parts per trillion or nanograms per liter (ng/L)

**µmhos/cm:** micromhos per centimeter (a measure for conductivity)

**Health effects of Fluoride:** Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.

**NITRATE:** In the Primary Standards Inorganic Chemicals section of the chart for Nitrate (as Nitrogen), treated surface water sample is None Detected (ND). In the groundwater column, the range of Nitrate (as Nitrogen) is ND to 7.2 mg/L, and the average is 1.5 mg/L. The State Water Resource Control Board requires annual sampling if all 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 a 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 with symptoms including 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.

**GROSS ALPHA PARTICLE ACTIVITY:** Between 2010 - 2019, 23 wells have been sampled for Gross Alpha. Results ranged from ND - 6 pCi/L and averaged ND. In 2019, twelve wells were sampled for Gross Alpha and the results ranged from ND to 3 pCi/L and averaged ND. The remaining water sources will be monitored in the future during this compliance cycle.

**Health effects of Gross Alpha Particle Activity:** Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.



**PALMDALE WATER DISTRICT**  
A CENTURY OF SERVICE



# 2020 Consumer Confidence Report

**(2021 Update)**

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.

**Atencion Residentes!**

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

# STATE OF OUR WATER

It is with great pleasure and honor to once again share with you that the water distributed by Palmdale Water District (PWD) continues to meet or exceed all federal and state guidelines. This Consumer Confidence Report provides detected data from the water collected in our distribution system in 2020. Despite the COVID-19 pandemic, more than 3,000 water samples and about 15,000 tests were conducted by PWD laboratory analysts during the year to ensure the safety of the water and to provide the detailed data in this report.

Despite challenging times, we have continued to uphold our mission of providing high-quality water to customers. Our advanced water treatment process, which removes and kills viruses, has been a source of comfort during a time when the coronavirus was a major concern for many of us.

This past year, we saw increases in water usage of up to 15% by some of our customers. The jump is no surprise due to more people staying at home during the pandemic. But the higher usage and the back-to-back dry winters have made it necessary for everyone to pay critical attention to the amount of water being used and to conserve as much as possible.

Although estimates show that there will be enough supply in 2021 for nearly 117,000 people who are served by PWD, customers are asked to conserve at least 15% to help with future water supply. It will be extremely important to have a reserve for 2022 in case we experience a third consecutive dry winter.

The PWD Board and staff want you to know that we are working diligently to provide you with clean, safe, reliable water each of you deserves. We will continue to test water, repair infrastructure and adopt new technology so that our water will always be safe for you and your family to drink.

Save Water Today for Our Tomorrow

**Gloria Dizmang** (PWD Board President)

**Dennis D. LaMoreaux** (PWD General Manager)

## The Palmdale Water District is pleased to announce 100% regulatory compliance in 2020 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2020 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 10,000 tests for over 80 regulated contaminants. Only 9 primary standard contaminants were detected in 2020, and all were at levels below the Maximum Contaminant Level allowed by the state.

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.

LAST YEAR,  
PWD completed  
more than  
**10,000**  
tests for over  
80 regulated  
contaminants.



## 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](http://palmdalewater.org).

**THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2020 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, 2020.

| Parameter Treatment Techniques | Regulation   | Meets Standard? | MRL | Sample Frequency | Water Treatment Plant      |         | PHG (MCLG) | Typical Source of Contaminant |
|--------------------------------|--|-----------------|-----|------------------|----------------------------|---------|------------|-------------------------------|
|                                |  |                 |     |                  | Range                      | Average |            |                               |
| Turbidity (Water Clarity)      | TT = 1 NTU<br>TT = 95% of monthly samples ≤0.3 NTU | Y               | 0.1 | Continuous       | ND - 0.3<br>100% ≤ 0.3 NTU | 0.1     | NA         | Soil Runoff                   |

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. Treated surface water range and average are of daily maximum.

| Disinfection Byproduct (DBP)                         |   |   |   |         |           |     |    |                                     |
|--|---|---|---|---------|-----------|-----|----|-------------------------------------|
| Control of DBP Precursor (Total Organic Carbon, TOC) | TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1 | Y | 1 | Monthly | 2.4 - 3.0 | 2.7 | 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 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 Cl <sub>2</sub> )                      | [4.0 mg/L]  | Y               | 0.1 | Weekly           | 0.5 - 2.0                  | 1.0         | [4]                | Drinking water disinfectant added for treatment |
| Disinfection Byproducts                             |   |                 |     |                  | All Sample Range           | Highest RAA |                    |   |
| TTHMs (Total Trihalomethanes)                       | 80 µg/L   | Y               | 0.5 | Monthly          | 2.3 - 85                   | 63          | NA                 | Byproduct of drinking water disinfection        |
| HAA5 (Sum of 5 Haloacetic Acids)                    | 60 µg/L   | Y               | 2   | Monthly          | ND - 11                    | 8           |                    |   |

| Parameter Primary Standards   | MCL      | Meets Standard? | DLR  | Sample Frequency* Surface Water / Groundwater | Treated Surface Water Sampled 02/26/20 or Summary Results Sampled in 2020 |         | *Groundwater Summary Results from Wells Sampled in 2019 - 2020 |         | PHG (MCLG) | Typical Source of Contaminant  |
|-------------------------------|----------|-----------------|------|---|---|---------|--|---------|------------|--|
|                               |          |                 |      |   | Range   | Average | Range  | Average |            |  |
| Inorganic Chemicals           |          |                 |      |   |   |         |  |         |            |  |
| Aluminum                      | 1 mg/L   | Y               | 0.05 | Annually / Triennially                        | NA  | ND      | ND - 0.4   | ND      | 0.6        | Erosion of natural deposits; residue from some surface water treatment processes   |
| 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                               |
| Fluoride                      | 2 mg/L   | Y               | 0.1  | Quarterly/ Quarterly                          | ND - 0.1  | ND      | 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 - 6.6   | 1.5     | 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  | ND      | ND - 6   | ND      | (0)        | Erosion of natural deposits  |
| Uranium                       | 20 pCi/L | Y               | 1    | ***See comment                                | NA  | ND      | NA   | 1       | 0.43       |  |

| Tap Monitoring Lead & Copper | Action Level | Meets Standard? | DLR  | Lead and Copper Rule Sampled in 2018 |                 |                       | Lead Testing in Schools Sampled in 2018 |                                   |   | PHG | Typical Source of Contaminant   |
|------------------------------|--------------|-----------------|------|--------------------------------------|-----------------|-----------------------|---|-----------------------------------|---|-----|---|
|                              |              |                 |      | No. of samples collected             | 90th Percentile | No. sites exceeded AL | Average                                 | Range                             | No. of Schools requesting lead sampling in 2018 |     |   |
| Lead                         | 15 µg/L      | Y               | 5    | 50                                   | ND              | NONE                  | ND                                      | 88 sites sampled; 0 sites over AL | 29  | 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                                   | 0.42            | NONE                  | NA                                      | NA                                | NA  | 0.3 | Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives               |

| Parameter  | MCL          | Meets Standard? | MRL | Sample Frequency*<br>Surface Water/<br>Groundwater | Treated Surface Water<br>Sampled 02/26/20 or Summary<br>Results Sampled in 2020 |         | *Groundwater<br>Summary Results from Wells<br>Sampled in 2019 - 2020 |         | Typical Source of Contaminant   |
|--|--------------|-----------------|-----|--|---|---------|--|---------|---|
|  |              |                 |     |  | Range   | Average | Range  | Average |   |
| <b>Secondary Standards - Inorganic Chemicals</b> |              |                 |     |  |   |         |  |         |   |
| Chloride   | 500 mg/L     | Y               | 0.5 | Quarterly/<br>Quarterly                            | 76 - 89   | 85      | ND - 98  | 27      | Runoff/leaching from natural deposits; seawater influence   |
| Color  | 15 units     | Y               | 3   | Weekly /<br>Triennially                            | NA  | ND      | ND - 10  | ND      | Naturally occurring organic materials   |
| Odor-Threshold                                   | 3 units      | Y               | 1   | Weekly /<br>Triennially                            | ND - 1  | 1       | ND - 2   | ND      | Naturally occurring organic materials   |
| Specific Conductance                             | 1600 µS/cm   | Y               | 2   | Annually /<br>Triennially                          | NA  | 490     | 240 - 790  | 401     | Substances that form ions when in water; seawater influence   |
| Sulfate  | 500 mg/L     | Y               | 0.5 | Quarterly/<br>Quarterly                            | 29 - 42   | 37      | 14 - 132   | 40      | Runoff; leaching from natural deposits; industrial wastes   |
| Total Dissolved Solids                           | 1000 mg/L    | Y               | 10  | Annually /<br>Triennially                          | NA  | 240     | 130 - 470  | 243     | Runoff/leaching of natural deposits   |
| Turbidity  | 5 units      | Y               | 0.1 | Annually /<br>Triennially                          | NA  | 0.1     | ND - 3.6   | 0.3     | Soil Runoff   |
| <b>Additional Constituents Analyzed</b>          |              |                 |     |  |   |         |  |         |   |
| Boron  | NL = 1 mg/L  | Y               | 0.1 | Annually /<br>Triennially                          | NA  | 0.1     | NA   | ND      | Erosion of natural deposits   |
| Vanadium   | NL = 50 µg/L | Y               | 3   | Annually /<br>Triennially                          | NA  | ND      | 7.3 - 33   | 15      |   |
| Alkalinity                                       | (NA) mg/L    | NA              | 20  | Weekly /<br>Triennially                            | 49 - 86   | 74      | 80 - 180   | 114     | Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds                      |
| Calcium  | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA  | 22      | 9.7 - 78   | 39      | Dissolved as water passes through limestone deposits  |
| Chromium (Hexavalent)                            | (NA) µg/L    | NA              | 1   | Quarterly /<br>Quarterly                           | NA  | ND      | ND - 9   | 4       | Steel and pulp mill discharges, chrome plating, natural erosion   |
| Hardness   | (NA) mg/L    | NA              | 5   | Weekly /<br>Triennially                            | 96 - 116  | 105     | 27 - 240   | 125     | 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 /<br>Triennially                          | NA  | 10      | 0.6 - 15   | 6.6     | Dissolved as water passes through magnesium bearing minerals  |
| pH   | (NA) units   | NA              | 0.1 | Continuous /<br>Triennially                        | 7.0 - 7.4   | 7.2     | 7.5 - 8.3  | 8.1     | Generally natural changes due to interactions with the environment  |
| Potassium  | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA  | 2       | ND - 3   | 1       | Leaching from natural deposits  |
| Sodium   | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA  | 51      | 19 - 80  | 36      | Generally naturally occurring salt present in water   |
| <b>Special Testing</b>                           |              |                 |     |  |   |         |  |         |   |
| UCMR 4<br>(Sampled in 2018 - 2019)               |              |                 |     |  | Effluent & Dist. System   |         | Groundwater  |         | Environmental Source  |
|  |              |                 |     |  | Range   | Average | Range  | Average |   |
| 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               | NA  | 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 2011 and 2020. 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. Immunocompromised 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 6.6 mg/L, and the average is 1.5 mg/L. The State Water Board requires annual sampling if all 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

## 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 U.S. Environmental Protection Agency (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 DDW that address the concentration of a contaminant which, if exceeded, triggers public notification.

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

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.

**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 2018 (50 samples). The 90th percentile results of ND for lead and 0.42 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.

**Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by OEHHA (Office of Environmental Health Hazard Assessment), a division of the California Environmental Protection Agency (CEPA).

**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 Resources Control Board to determine where certain contaminants occur and whether the contaminants need to be regulated.

## ABBREVIATIONS USED IN WATER QUALITY DATA CHART:

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

**NA:** Not Applicable  
< Less Than

> Greater Than

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

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

**µg/L:** micrograms per liter or parts per billion (ppb)  
**µS/cm:** microsiemens per centimeter (a measure for conductivity)





## 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 2020, PWD received 8,399 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 2020, PWD diverted 4,253 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 2020, PWD pumped 7,589 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 63% surface water and 39% groundwater to its consumers in 2020.*

## 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](http://palmdalewater.org) or at PWD's office by calling Assistant General Manager Adam Ly at 661-947-4111 x1062.



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

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## BOARD OF DIRECTORS

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**PALMDALE WATER DISTRICT**  
A CENTURY OF SERVICE

# Annual Consumer Confidence Report

2021 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.

Atención Residentes!

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

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

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### 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 2021, PWD diverted 674 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 2021, PWD pumped 9,844 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 2021.*

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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. The 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 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](http://palmdalewater.org) or at PWD's office by calling Assistant General Manager Adam Ly at 661-947-4111 x1062.

## STATE OF OUR WATER



With California in an extreme drought, water shortage is currently at the forefront of most conversations about water. At Palmdale Water District (PWD), staff is faced with ensuring that the community has enough water to meet needs this year. Our customers want to know about water restrictions and ways to conserve. Sufficient water supply is a critical issue, but the topic of water quality is just as important.

While PWD's Resource and Analytics Department has been working overtime to find enough water supply, the Laboratory staff was behind the scenes collecting more than 3,500 water samples and conducting 18,000 tests throughout 2021. The team of one Supervisor and three Lab Analysts are responsible for the collection and testing to make sure the water is safe and to provide the detailed data in this report.

Each year, we take pride in announcing that the water we distribute to the 126,000 people who depend on us daily for their water continues to meet or exceed all federal and state guidelines. It is our goal to always be proactive about meeting current and future regulatory requirements so that we may continue to provide the highest quality water in the Antelope Valley.

As the only water agency in the area using granular activated carbon (GAC), PWD's use of the advanced water treatment process removes chemicals that can leave water with an unfavorable taste or smell and form carcinogens in the water system. This is after the treatment plant removes and kills viruses, bacteria and other pathogens. Because of this process, your tap water is safe to drink. In California, tap water is more regulated than bottled water.

PWD promises you that our staff of 88 will continue to dedicate ourselves to providing the community with clean, safe, reliable water – just as we have for the past 104 years. Currently, we are challenged with water supply issues. We need your help to conserve at least 20% compared to 2020. You can start by reducing your outdoor watering to the allowed days of Monday, Wednesday and Saturday before 10 a.m. and after 6 p.m. We will continue to update you on ways to conserve. Together, we can successfully get through this challenge.

Please continue to help us Save Water Today for Our Tomorrow.

**Gloria Dizmang** (PWD Board President)

**Dennis D. LaMoreaux** (PWD General Manager)

## The Palmdale Water District is pleased to announce 100% regulatory compliance in 2021 and is confident its drinking water is of the highest quality.

This Consumer Confidence Report is a snapshot of PWD's 2021 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 nine primary standard contaminants were detected in 2021, 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](http://palmdalewater.org).

**THE WATER QUALITY DATA CHART LISTS ALL DRINKING WATER CONTAMINANTS DETECTED DURING THE 2021 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, 2021.

| Parameter Treatment Techniques | Regulation                            | Meets Standard? | MRL | Sample Frequency | Water Treatment Plant | PHG (MCLG) | Typical Source of Contaminant |
|--------------------------------|---------------------------------------|-----------------|-----|------------------|-----------------------|------------|-------------------------------|
|                                |                                       |                 |     |                  | Level Found           |            |                               |
| Turbidity (Water Clarity)      | TT = 1 NTU                            | Y               | 0.1 | Continuous       | 0.2                   | 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. Treated surface water range and average are of daily maximum.

| Disinfection Byproduct (DBP)                         |   |                 |     |                  |                     |             |                    |   |
|--|---|-----------------|-----|------------------|---------------------|-------------|--------------------|---|
| Control of DBP Precursor (Total Organic Carbon, TOC) | TT = ratio of actual TOC removal to required TOC removal shall be ≥ 1 | Y               | 1   | Monthly          | 2.2 - 3.2           | 2.7         | 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                   |
| Disinfectant Residual                                |   |                 |     |                  | All Sample Range    | RAA         |                    |   |
| Chlorine (as Cl <sub>2</sub> )                       | [4.0 mg/L]  | Y               | 0.1 | Weekly           | 0.2 - 1.6           | 1.0         | [4]                | Drinking water disinfectant added for treatment |
| Disinfection Byproducts                              |   |                 |     |                  | All Sample Range    | Highest RAA |                    |   |
| TTHMs (Total Trihalomethanes)                        | 80 µg/L   | Y               | 0.5 | Monthly          | ND - 73             | 66          | NA                 | Byproduct of drinking water disinfection        |
| HAA5 (Sum of 5 Haloacetic Acids)                     | 60 µg/L   | Y               | 2   | Monthly          | ND - 11             | 9           |                    |   |

| Parameter Primary Standards    | MCL      | Meets Standard? | DLR  | Sample Frequency* Surface Water / Groundwater | Treated Surface Water Plant Effluent Summary Sampled in 2021 |         | Groundwater Summary Results from Wells Sampled in 2019 - 2021 |         | PHG (MCLG) | Typical Source of Contaminant  |
|--------------------------------|----------|-----------------|------|---|--|---------|---|---------|------------|--|
|                                |          |                 |      |   | Range  | Average | Range   | Average |            |  |
| Inorganic Chemicals            |          |                 |      |   |  |         |   |         |            |  |
| Aluminum                       | 1.0 mg/L | Y               | 0.05 | Annually / Triennially                        | ND - 0.1   | ND      | ND - 0.4  | ND      | 0.6        | Erosion of natural deposits; residue from some surface water treatment processes   |
| 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                               |
| 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 - 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   | ND      | ND - 6  | ND      | (0)        | Erosion of natural deposits  |
| Uranium                        | 20 pCi/L | Y               | 1    | ***See comment                                | NA   | ND      | ND - 1  | ND      | 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 in 2018 | 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? | MRL | Sample Frequency*<br>Surface Water/<br>Groundwater | Treated Surface Water<br>Plant Effluent Summary<br>Sampled in 2021 |         | Groundwater<br>Summary Results from Wells<br>Sampled in 2019 - 2021 |         | Typical Source of Contaminant   |
|---|--------------|-----------------|-----|--|--|---------|---|---------|---|
|   |              |                 |     |  | Range  | Average | Range   | Average |   |
| Secondary Standards - Inorganic Chemicals |              |                 |     |  |  |         |   |         |   |
| Chloride                                  | 500 mg/L     | Y               | 0.5 | Quarterly/<br>Quarterly                            | 97 - 120   | 111     | ND - 96   | 27      | Runoff/leaching from natural deposits; seawater influence   |
| Color                                     | 15 units     | Y               | 3   | Weekly /<br>Triennially                            | NA   | ND      | ND - 10   | ND      | Naturally occurring organic materials   |
| Iron                                      | 300 µg/L     | Y               | 100 | Monthly /<br>Quarterly                             | NA   | ND      | ND - 104  | ND      | Leaching from natural deposits; industrial wastes   |
| Odor-Threshold                            | 3 units      | Y               | 1   | Weekly /<br>Triennially                            | ND - 1   | ND      | ND - 2  | ND      | Naturally occurring organic materials   |
| Specific Conductance                      | 1600 µS/cm   | Y               | 2   | Annually /<br>Triennially                          | NA   | 570     | 240 - 790   | 396     | Substances that form ions when in water; seawater influence   |
| Sulfate                                   | 500 mg/L     | Y               | 0.5 | Quarterly/<br>Quarterly                            | 33 - 52  | 43      | 16 - 128  | 41      | Runoff; leaching from natural deposits; industrial wastes   |
| Total Dissolved Solids (TDS)              | 1000 mg/L    | Y               | 10  | Annually /<br>Triennially                          | NA   | 310     | 130 - 470   | 240     | Runoff/leaching of natural deposits   |
| Turbidity                                 | 5 units      | Y               | 0.1 | Annually /<br>Triennially                          | NA   | 0.3     | ND - 3.6  | 0.3     | Soil Runoff   |
| Additional Constituents Analyzed          |              |                 |     |  |  |         |   |         |   |
| Boron                                     | NL = 1 mg/L  | Y               | 0.1 | Annually /<br>Triennially                          | NA   | 0.1     | NA  | ND      | Erosion of natural deposits   |
| Vanadium                                  | NL = 50 µg/L | Y               | 3   | Annually /<br>Triennially                          | NA   | ND      | 7 - 36  | 16      |   |
| Alkalinity                                | (NA) mg/L    | NA              | 20  | Weekly /<br>Triennially                            | 61 - 94  | 72      | 80 - 180  | 113     | Dissolved as water passes through deposits which contain carbonate, bicarbonate, and hydroxide compounds                      |
| Calcium                                   | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA   | 27      | 10 - 78   | 38      | Dissolved as water passes through limestone deposits  |
| Chromium (Hexavalent)                     | (NA) µg/L    | NA              | 1   | Quarterly /<br>Quarterly                           | NA   | ND      | ND - 13   | 4       | Steel and pulp mill discharges, chrome plating, natural erosion   |
| Hardness                                  | (NA) mg/L    | NA              | 5   | Weekly /<br>Triennially                            | 87 - 141   | 110     | 27 - 240  | 121     | 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 /<br>Triennially                          | NA   | 13      | 1 - 15  | 6       | Dissolved as water passes through magnesium bearing minerals  |
| pH  | (NA) units   | NA              | 0.1 | Continuous /<br>Triennially                        | 6.9 - 7.6  | 7.0     | 7.5 - 8.4   | 8.1     | Generally natural changes due to interactions with the environment  |
| Potassium                                 | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA   | 3       | ND - 3  | 1       | Leaching from natural deposits  |
| Sodium                                    | (NA) mg/L    | NA              | 1   | Annually /<br>Triennially                          | NA   | 64      | 19 - 80   | 37      | Generally naturally occurring salt present in water   |
| Special Testing                           |              |                 |     |  |  |         |   |         |   |
| UCMR 4<br>(Sampled in 2018 - 2019)        |              |                 |     |  | Effluent & Dist. System  |         | Groundwater   |         | Environmental Source  |
|   |              |                 |     |  | Range  | Average | Range   | Average |   |
| 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 2012 and 2021. 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.

**Lead and Copper:** Palmdale Water District (PWD) 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.

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

> Greater Than

NA: Not Applicable

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

TOC: Total Organic Carbon

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)







**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  
BOARD MEMORANDUM**

**DATE:** July 5, 2022 **July 11, 2022**  
**TO:** BOARD OF DIRECTORS **Board Meeting**  
**FROM:** Dennis J. Hoffmeyer, Finance Manager/CFO  
**VIA:** Mr. Dennis LaMoreaux, General Manager  
**RE:** *AGENDA ITEM 7.3 – CONSIDERATION AND POSSIBLE ACTION TO RECEIVE AND FILE THE 2021 ANNUAL FINANCIAL REPORT. (NO BUDGET IMPACT – FINANCE MANAGER HOFFMEYER/PAUL KAYMARK, NIGRO & NIGRO/FINANCE COMMITTEE)*

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**Recommendation:**

Staff and the Finance Committee recommend the Board receive and file the annual basic financial statements with the independent auditors' report for the year ended December 31, 2021.

**Financial Highlights:**

- In 2021, the District's net position increased 3.28%, or \$3,170,549, from the prior year's net position of \$96,746,459 to \$99,917,008 as a result of this year's operations (Page 5).
- In 2021, the District's operating revenues increased by 10.19%, or \$2,807,977, from \$27,553,220 to \$30,361,197 from the prior year, primarily due to an increase in water sales–commodity charge of \$1,362,436 and an increase in monthly meter service charges of \$1,386,643 (Page 7).
- In 2021, the District's operating expenses before overhead absorption and depreciation expense increased by 12.69%, or \$3,209,417, from \$25,282,387 to \$28,491,804 from the prior year, primarily due to an increase in source of supply–water purchases of \$2,989,503 (Page 8).
- District cash flows for the years have been categorized into one of the following activities: operating, non-capital financing, capital and related financing, or investing. For 2021, the total of these categories represents an increase in cash and cash equivalents of \$10,898,169, which is added to the beginning cash and cash equivalents of \$3,737,042 to arrive at ending cash and cash equivalents of \$14,635,211 (Page 14).
- District debt service net revenues coverage continues to be strong. For 2021, the calculated ratio was 253% compared to 192% for 2020. The required ratio for the District's current bond requirements are 110%. (Page 58)

July 5, 2022

**Conditions Affecting Current Financial Position:**

- The District continued to see a good water usage trend for 2021. The District's customers continue to change their water habits after being required to meet the mandatory drought restrictions back in 2016.
- Billed water consumption for the year ended December 31, 2021 was at 17,984-acre feet compared to 17,213-acre feet for the year ended December 31, 2010.
- The District's assessed valuation has increased to \$2.15 billion for FY 2020/2021 from \$2.02 billion for FY 2019/2020.
- The District received \$1.660 million in ad valorem property tax revenue for 2021.
- The District received \$840,880 in successor agency component property taxes for 2021.

**Strategic Plan Initiative/Mission Statement:**

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


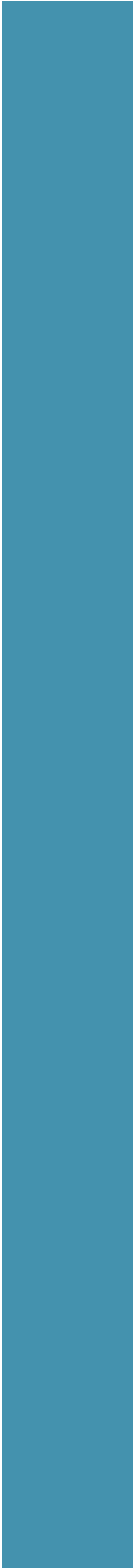
This item directly relates to the District's Mission Statement.

**Budget:**

This item has no budget impact.

**Supporting Documents:**

- 2021 Annual Financial Report prepared by Nigro & Nigro
- 5-year analysis of net position



**PALMDALE WATER DISTRICT  
FINANCIAL STATEMENTS  
AND  
INDEPENDENT AUDITORS' REPORT  
For the Years Ended  
December 31, 2021 and 2020**

**NIGRO & NIGRO<sup>PC</sup>**

**PALMDALE WATER DISTRICT**

*For the Years Ended December 31, 2021 and 2020*

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***Financial Section***

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## INDEPENDENT AUDITORS' REPORT

Board of Directors  
Palmdale Water District  
Palmdale, California

### Report on the Financial Statements

We have audited the accompanying basic financial statements of Palmdale Water District, which comprise the balance sheets as of December 31, 2021 and 2020, and the related statements of revenue, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

### Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

### Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



**Opinion**

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of Palmdale Water District as of December 31, 2021 and 2020, and the respective changes in financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

**Other Matters***Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedule of proportionate share of the net pension liability, schedule of pension contributions, schedule of changes in the District's total OPEB liability and related ratios, and schedule of OPEB contributions, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

*Other Information*

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the District's basic financial statements. The supplementary information is presented for purposes of additional analysis and is not a required part of the basic financial statements. Supplementary information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the basic financial statements as a whole.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued a separate report dated June 21, 2022, on our consideration of the District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control over financial reporting and compliance.

Murrieta, California  
June 21, 2022

## **PALMDALE WATER DISTRICT**

### *Management's Discussion and Analysis (Unaudited)*

*For the Years Ended December 31, 2021 and 2020*

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Management's Discussion and Analysis (MD&A) offers readers of Palmdale Water District's financial statements a narrative overview of the District's financial activities for the years ended December 31, 2021 and 2020. This MD&A presents financial highlights, an overview of the accompanying financial statements, an analysis of net position and results of operations, a current-to prior year analysis, a discussion on restrictions, commitments and limitations, and a discussion of significant activity involving capital assets and long-term debt. Please read in conjunction with the financial statements, which follow this section.

#### **FINANCIAL HIGHLIGHTS**

- In 2021, the District's net position increased 3.28% or \$3,170,549 from the prior year's net position of \$96,746,459 to \$99,917,008, as a result of this year's operations.
- In 2020, the District's net position increased 3.65% or \$1,566,680 from the prior year's net position of \$95,179,779 to \$96,746,459, as a result of this year's operations.
- In 2021, the District's operating revenues increased by 10.19% or \$2,807,977 from \$27,553,220 to \$30,361,197, from the prior year, primarily due to an increase in water sales – commodity charge of \$1,362,436 and an increase in monthly meter service charges of \$1,386,643.
- In 2020, the District's operating revenues increased by 9.49% or \$2,387,572 from \$25,165,648 to \$27,553,220, from the prior year, primarily due to an increase in water sales – commodity charge of \$2,554,774.
- In 2021, the District's operating expenses before overhead absorption and depreciation expense increased by 12.69% or \$3,209,417 from \$25,282,387 to \$28,491,804, from the prior year, primarily due to an increase in source of supply – water purchases of \$2,989,503.
- In 2020, the District's operating expenses before overhead absorption and depreciation expense increased by 0.76% or \$190,491 from \$25,091,896 to \$25,282,387, from the prior year, primarily due to an increase in administration expenses of \$510,656 and finance and customer care of \$135,515.

#### **OVERVIEW OF THE FINANCIAL STATEMENTS**

This discussion and analysis serves as an introduction to the District's financial statements. The District's basic financial statements reflect the combined results of the Operating and Capital Programs and include four components: (1) Balance Sheet; (2) Statement of Revenues, Expenses, and Changes in Net Position; (3) Statement of Cash Flows; and (4) Notes to the Financial Statements.

The financial statements accompanying this MD&A present the net position, results of operations, and changes in cash flow during the years ending December 31, 2021 and 2020. These financial statements have been prepared using the accrual basis of accounting, which is similar to the accounting basis used by for-profit entities. Each financial statement is identified and defined in this section, and analyzed in subsequent sections of this MD&A.

## **PALMDALE WATER DISTRICT**

*Management's Discussion and Analysis (Unaudited)*

*For the Years Ended December 31, 2021 and 2020*

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### **REQUIRED FINANCIAL STATEMENTS**

#### **Balance Sheets**

The Balance Sheet presents information on the District's assets and deferred outflows of resources, and liabilities and deferred inflows of resources, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the District is improving or deteriorating. However, other factors such as changes in economic conditions, population growth, zoning, and new or changed legislation or regulations also need to be considered when establishing financial position. Assets and deferred outflows of resources exceed liabilities and deferred inflow of resources, resulting in a net position of \$99,917,008 and \$96,746,459 as of December 31, 2021 and 2020, respectively.

#### **Statement of Revenues, Expenses, and Changes in Net Position**

The Statement of Revenues, Expenses, and Changes in Net Position presents information showing how the District's net position changed during the year. All of the year's revenues and expenses are accounted for in the Statement of Revenues, Expenses, and Changes in Net Position. This statement measures the results of the District's operations for the year and can be used to determine if the District has successfully recovered all of its costs through user fees and other charges. Operating revenues and expenses are related to the District's core activities. Non-operating revenues and expenses are not directly related to the core activities of the District (e.g. interest income, interest expense, property taxes, gain or loss on sale of assets). For the year ended December 31, 2021, net position from operations increased \$3,170,549. Also, for the year ended December 31, 2020, net position from operations increased \$1,566,680.

#### **Statement of Cash Flows**

The Statement of Cash Flows presents information regarding the District's use of cash during the year. It reports cash receipts, cash payments, and net changes in cash resulting from operations, financing and investing activities. The Statement of Cash Flows provides answers to such questions as: Where did cash come from? What was cash used for? What was the change in the cash balance during the reporting period?

District cash flows for the years have been categorized into one of the following activities: operating, noncapital financing, capital and related financing, or investing. For 2021, the total of these categories represents a increase in cash and cash equivalents of \$10,898,169, which is added to the beginning cash and cash equivalents of \$3,737,042, to arrive at ending cash and cash equivalents of \$14,635,211. For 2020, the total of these categories represents a decrease in cash and cash equivalents of \$6,329,853, which is subtracted from the beginning cash and cash equivalents of \$10,066,895, to arrive at ending cash and cash equivalents of \$3,737,042.

**PALMDALE WATER DISTRICT**  
*Management's Discussion and Analysis (Unaudited)*  
*For the Years Ended December 31, 2021 and 2020*

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**FINANCIAL ANALYSIS AND CONDENSED FINANCIAL INFORMATION**

**Analysis of Net Position**

**Table A-1: Condensed Balance Sheets**

|   | Balance,<br>Dec. 31, 2021 | Balance,<br>Dec. 31, 2020 | Change               | Balance,<br>Dec. 31, 2019 | Change              |
|---|---------------------------|---------------------------|----------------------|---------------------------|---------------------|
| <b>Assets:</b>  |                           |                           |                      |                           |                     |
| Current assets  | \$ 24,885,227             | \$ 20,210,560             | \$ 4,674,667         | \$ 20,032,372             | \$ 178,188          |
| Non-current assets  | 13,232,582                | 4,466,060                 | 8,766,522            | 6,324,308                 | (1,858,248)         |
| Capital assets, net   | 168,167,993               | 166,964,871               | 1,203,122            | 162,706,256               | 4,258,615           |
| <b>Total assets</b>   | <u>206,285,802</u>        | <u>191,641,491</u>        | <u>14,644,311</u>    | <u>189,062,936</u>        | <u>2,578,555</u>    |
| <b>Deferred outflows of resources</b>                       | <u>9,072,562</u>          | <u>9,018,550</u>          | <u>54,012</u>        | <u>5,101,099</u>          | <u>3,917,451</u>    |
| <b>Total assets and deferred outflows</b>                   | <u>\$ 215,358,364</u>     | <u>\$ 200,660,041</u>     | <u>\$ 14,698,323</u> | <u>\$ 194,164,035</u>     | <u>\$ 6,496,006</u> |
| <b>Liabilities:</b>   |                           |                           |                      |                           |                     |
| Current liabilities   | 12,222,577                | 10,168,200                | 2,054,377            | 9,212,469                 | 955,731             |
| Non-current liabilities                                     | 88,418,833                | 89,145,383                | (726,550)            | 84,670,431                | 4,474,952           |
| <b>Total liabilities</b>                                    | <u>100,641,410</u>        | <u>99,313,583</u>         | <u>1,327,827</u>     | <u>93,882,900</u>         | <u>5,430,683</u>    |
| <b>Deferred inflows of resources</b>                        | <u>14,799,946</u>         | <u>4,599,999</u>          | <u>10,199,947</u>    | <u>5,101,356</u>          | <u>(501,357)</u>    |
| <b>Net position:</b>  |                           |                           |                      |                           |                     |
| Net investment in capital assets                            | 111,538,623               | 110,142,267               | 1,396,356            | 106,542,240               | 3,600,027           |
| Restricted  | 2,202,482                 | 2,201,548                 | 934                  | 1,958,222                 | 243,326             |
| Unrestricted  | (13,824,097)              | (15,597,356)              | 1,773,259            | (13,320,683)              | (2,276,673)         |
| <b>Total net position</b>                                   | <u>99,917,008</u>         | <u>96,746,459</u>         | <u>3,170,549</u>     | <u>95,179,779</u>         | <u>1,566,680</u>    |
| <b>Total liabilities, deferred inflows and net position</b> | <u>\$ 215,358,364</u>     | <u>\$ 200,660,041</u>     | <u>\$ 14,698,323</u> | <u>\$ 194,164,035</u>     | <u>\$ 6,496,006</u> |

The condensed statement above presents a summary of the District's statement of net position.

The District's Net Position as of December 31, 2021 totaled \$99,917,008 compared with \$96,746,459 as of December 31, 2020, an increase of 3.28%.

The District's Net Position as of December 31, 2020 totaled \$96,746,459 compared with \$95,179,779 as of December 31, 2021, an increase of 1.65%.

Net position is accumulated from revenues, expenses, and contributed capital combined with the beginning balance of net position as presented in the Statement of Revenues, Expenses, and Changes in Net Position.

**PALMDALE WATER DISTRICT**  
*Management's Discussion and Analysis (Unaudited)*  
*For the Years Ended December 31, 2021 and 2020*

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**FINANCIAL ANALYSIS AND CONDENSED FINANCIAL INFORMATION (continued)**

**Analysis of Revenues and Expenses**

**Table A-2: Condensed Statements of Revenues, Expenses, and Changes in Net Position**

|  | <u>Balance,<br/>Dec. 31, 2021</u> | <u>Balance,<br/>Dec. 31, 2020</u> | <u>Change</u>       | <u>Balance,<br/>Dec. 31, 2019</u> | <u>Change</u>       |
|--|-----------------------------------|-----------------------------------|---------------------|-----------------------------------|---------------------|
| Operating revenues                                 | \$ 30,361,197                     | \$ 27,553,220                     | \$ 2,807,977        | \$ 25,165,648                     | \$ 2,387,572        |
| Operating expenses                                 | <u>(28,491,804)</u>               | <u>(25,282,387)</u>               | <u>(3,209,417)</u>  | <u>(25,091,896)</u>               | <u>(190,491)</u>    |
| <b>Operating income before overhead absorption</b> | <u>1,869,393</u>                  | <u>2,270,833</u>                  | <u>(401,440)</u>    | <u>73,752</u>                     | <u>2,197,081</u>    |
| Overhead absorption                                | <u>(281,192)</u>                  | <u>557,620</u>                    | <u>(838,812)</u>    | <u>1,049,246</u>                  | <u>(491,626)</u>    |
| <b>Operating income before depreciation</b>        | <u>1,588,201</u>                  | <u>2,828,453</u>                  | <u>(1,240,252)</u>  | <u>1,122,998</u>                  | <u>1,705,455</u>    |
| Depreciation expense                               | <u>(5,270,174)</u>                | <u>(5,144,968)</u>                | <u>(125,206)</u>    | <u>(5,257,262)</u>                | <u>112,294</u>      |
| <b>Operating (loss) after depreciation</b>         | <u>(3,681,973)</u>                | <u>(2,316,515)</u>                | <u>(1,365,458)</u>  | <u>(4,134,264)</u>                | <u>1,817,749</u>    |
| Non-operating revenues(expenses), net              | <u>1,136,186</u>                  | <u>2,647,757</u>                  | <u>(1,511,571)</u>  | <u>2,972,460</u>                  | <u>(324,703)</u>    |
| <b>Net loss before capital contributions</b>       | <u>(2,545,787)</u>                | <u>331,242</u>                    | <u>(2,877,029)</u>  | <u>(1,161,804)</u>                | <u>1,493,046</u>    |
| Capital contributions                              | <u>5,716,336</u>                  | <u>1,235,438</u>                  | <u>4,480,898</u>    | <u>633,286</u>                    | <u>602,152</u>      |
| <b>Change in net position</b>                      | <u>3,170,549</u>                  | <u>1,566,680</u>                  | <u>1,603,869</u>    | <u>(528,518)</u>                  | <u>2,095,198</u>    |
| Net position:                                      |                                   |                                   |                     |                                   |                     |
| <b>Beginning of year</b>                           | 96,746,459                        | 95,179,779                        | 1,566,680           | 95,708,297                        | (528,518)           |
| <b>Prior period adjustment</b>                     | <u>-</u>                          | <u>-</u>                          | <u>-</u>            | <u>-</u>                          | <u>-</u>            |
| <b>End of year</b>                                 | <u>\$ 99,917,008</u>              | <u>\$ 96,746,459</u>              | <u>\$ 3,170,549</u> | <u>\$ 95,179,779</u>              | <u>\$ 1,566,680</u> |

The statement of revenues, expenses and changes in net position shows how the District's net position changed during the fiscal years. In the case of the District, the District's net position increased(decreased) from operations by \$3,170,549, \$1,566,680 and (\$528,518), for the years ended December 31, 2021, 2020, and 2019 respectively.

**PALMDALE WATER DISTRICT**  
*Management's Discussion and Analysis (Unaudited)*  
*For the Years Ended December 31, 2021 and 2020*

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**FINANCIAL ANALYSIS AND CONDENSED FINANCIAL INFORMATION (continued)**

**Total Revenues**

|   | Balance,<br>Dec. 31, 2021 | Balance,<br>Dec. 31, 2020 | Change              | Balance,<br>Dec. 31, 2019 | Change              |
|---|---------------------------|---------------------------|---------------------|---------------------------|---------------------|
| <b>Operating revenues:</b>                      |                           |                           |                     |                           |                     |
| Water sales – commodity charge                  | \$ 12,501,007             | \$ 11,138,571             | \$ 1,362,436        | \$ 8,583,797              | \$ 2,554,774        |
| Water sales – wholesale                         | 561,298                   | 467,776                   | 93,522              | 524,847                   | (57,071)            |
| Monthly meter service charge                    | 15,218,790                | 13,832,147                | 1,386,643           | 13,967,724                | (135,577)           |
| Water quality fees                              | 704,782                   | 824,429                   | (119,647)           | 760,377                   | 64,052              |
| Elevation fees                                  | 379,529                   | 363,869                   | 15,660              | 336,093                   | 27,776              |
| Other charges for services                      | 995,791                   | 926,428                   | 69,363              | 992,810                   | (66,382)            |
| <b>Total operating revenues</b>                 | <b>30,361,197</b>         | <b>27,553,220</b>         | <b>2,807,977</b>    | <b>25,165,648</b>         | <b>2,387,572</b>    |
| <b>Non-operating:</b>                           |                           |                           |                     |                           |                     |
| Property taxes – ad valorem                     | 1,660,944                 | 1,678,388                 | (17,444)            | 1,783,332                 | (104,944)           |
| Property tax assessment for State Water Project | 5,179,076                 | 5,194,911                 | (15,835)            | 4,790,480                 | 404,431             |
| Successor agency component of property taxes    | 840,880                   | 731,045                   | 109,835             | 724,595                   | 6,450               |
| Rental revenue – cellular towers                | 18,012                    | 15,394                    | 2,618               | 24,059                    | (8,665)             |
| Investment earnings                             | (1,067)                   | 170,760                   | (171,827)           | 451,831                   | (281,071)           |
| Change in investment – PRWA                     | 934                       | 243,326                   | (242,392)           | 289,932                   | (46,606)            |
| Legal and insurance refunds/settlements         | 61,746                    | 2,491                     | 59,255              | 54,050                    | (51,559)            |
| Department of Water Resources – FCR             | 368,950                   | 299,879                   | 69,071              | 247,469                   | 52,410              |
| Other non-operating revenues                    | 87,839                    | 42,971                    | 44,868              | 71,953                    | (28,982)            |
| <b>Total non-operating</b>                      | <b>8,217,314</b>          | <b>8,379,165</b>          | <b>(161,851)</b>    | <b>8,437,701</b>          | <b>(58,536)</b>     |
| <b>Total revenues</b>                           | <b>\$ 38,578,511</b>      | <b>\$ 35,932,385</b>      | <b>\$ 2,646,126</b> | <b>\$ 33,603,349</b>      | <b>\$ 2,329,036</b> |

In 2021, the District's operating revenues increased by 10.19% or \$2,807,977 from \$27,553,220 to \$30,361,197, from the prior year, primarily due to an increase in water sales – commodity charge of \$1,362,436 and an increase in monthly meter service charges of \$1,386,643.

In 2020, the District's operating revenues increased by 9.49% or \$2,387,572 from \$25,165,648 to \$27,553,220, from the prior year, primarily due to an increase in water sales – commodity charge of \$2,554,774

**PALMDALE WATER DISTRICT**  
*Management's Discussion and Analysis (Unaudited)*  
*For the Years Ended December 31, 2021 and 2020*

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**FINANCIAL ANALYSIS AND CONDENSED FINANCIAL INFORMATION (continued)**

**Total Expenses**

|  | Balance,<br>Dec. 31, 2021 | Balance,<br>Dec. 31, 2020 | Change              | Balance,<br>Dec. 31, 2019 | Change            |
|--|---------------------------|---------------------------|---------------------|---------------------------|-------------------|
| <b>Operating expenses:</b>                           |                           |                           |                     |                           |                   |
| Source of supply – water purchases                   | \$ 5,285,018              | \$ 2,295,515              | \$ 2,989,503        | \$ 2,579,380              | \$ (283,865)      |
| Operations and production                            | 3,533,551                 | 3,542,182                 | (8,631)             | 3,671,450                 | (129,268)         |
| Facilities   | 7,484,342                 | 7,463,258                 | 21,084              | 7,249,738                 | 213,520           |
| Engineering  | 1,670,042                 | 1,836,486                 | (166,444)           | 1,985,475                 | (148,989)         |
| Water conservation                                   | 381,068                   | 373,612                   | 7,456               | 480,690                   | (107,078)         |
| Administration                                       | 6,760,997                 | 6,598,878                 | 162,119             | 6,088,222                 | 510,656           |
| Finance and customer care                            | 3,376,786                 | 3,172,456                 | 204,330             | 3,036,941                 | 135,515           |
| <b>Operating expenses before overhead absorption</b> | <b>28,491,804</b>         | <b>25,282,387</b>         | <b>3,209,417</b>    | <b>25,091,896</b>         | <b>190,491</b>    |
| Overhead absorption                                  | 281,192                   | (557,620)                 | 838,812             | (1,049,246)               | 491,626           |
| <b>Operating expenses before depreciation</b>        | <b>28,772,996</b>         | <b>24,724,767</b>         | <b>4,048,229</b>    | <b>24,042,650</b>         | <b>682,117</b>    |
| Depreciation   | 5,270,174                 | 5,144,968                 | 125,206             | 5,257,262                 | (112,294)         |
| <b>Total operating expenses</b>                      | <b>34,043,170</b>         | <b>29,869,735</b>         | <b>4,173,435</b>    | <b>29,299,912</b>         | <b>569,823</b>    |
| <b>Non-operating expenses:</b>                       |                           |                           |                     |                           |                   |
| Cost of debt issuance                                | 333,796                   | 398,953                   | (65,157)            | -                         | 398,953           |
| State Water Project amortization expense             | 4,222,272                 | 2,854,227                 | 1,368,045           | 2,854,227                 | -                 |
| Interest expense – long-term debt                    | 2,525,060                 | 2,478,228                 | 46,832              | 2,611,014                 | (132,786)         |
| <b>Total non-operating</b>                           | <b>7,081,128</b>          | <b>5,731,408</b>          | <b>1,349,720</b>    | <b>5,465,241</b>          | <b>266,167</b>    |
| <b>Total expenses</b>                                | <b>\$ 41,124,298</b>      | <b>\$ 35,601,143</b>      | <b>\$ 5,523,155</b> | <b>\$ 34,765,153</b>      | <b>\$ 835,990</b> |

In 2021, the District's operating expenses before overhead absorption and depreciation expense increased by 12.69% or \$3,209,417 from \$25,282,387 to \$28,491,804, from the prior year, primarily due to an increase in source of supply – water purchases of \$2,989,503.

In 2020, the District's operating expenses before overhead absorption and depreciation expense increased by 0.76% or \$190,491 from \$25,091,896 to \$25,282,387, from the prior year, primarily due to an increase in administration expenses of \$510,656 and finance and customer care of \$135,515.

## PALMDALE WATER DISTRICT

### Management's Discussion and Analysis (Unaudited)

For the Years Ended December 31, 2021 and 2020

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#### CAPITAL ASSETS

At the end of 2021, 2020 and 2019, the District's investment in capital assets was \$168,167,993, \$166,964,871, and \$162,706,256, net of accumulated depreciation, respectively. Capital asset additions during the years ended December 31, 2021 and 2020 were \$5,006,246 and \$7,019,603, for various projects and equipment. (More detailed information about capital assets can be found in Note 5 to the financial statements). Total depreciation expense for the year exceeded \$5.2 million and \$5.1 million as of December 31, 2021 and 2020, respectively.

**Table A-5: Capital Assets at Year End, Net of Depreciation**

| <b>Capital assets:</b>           | <b>Balance,<br/>Dec. 31, 2021</b> | <b>Balance,<br/>Dec. 31, 2020</b> | <b>Balance,<br/>Dec. 31, 2019</b> |
|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Non-depreciable assets           | \$ 10,995,185                     | \$ 25,856,069                     | \$ 20,107,192                     |
| Depreciable assets               | 347,561,242                       | 322,008,332                       | 315,711,756                       |
| Accumulated depreciation         | <u>(190,388,434)</u>              | <u>(180,899,530)</u>              | <u>(173,112,692)</u>              |
| <b>Total capital assets, net</b> | <b><u>\$ 168,167,993</u></b>      | <b><u>\$ 166,964,871</u></b>      | <b><u>\$ 162,706,256</u></b>      |

#### LONG-TERM DEBT

At year-end the District had \$71.7 million in capital leases, loan payables, and revenue bonds payables – an increase(decrease) of \$9,009,737 \$160,321 in 2021 and 2020 respectively – as shown in Table A-6. (More detailed information about the District's long-term liabilities is presented in Note 7 to the financial statements).

**Table A-6: Outstanding Long-Term Debt at Year-End**

| <b>Long-term debt:</b>                            | <b>Balance,<br/>Dec. 31, 2021</b> | <b>Balance,<br/>Dec. 31, 2020</b> | <b>Balance,<br/>Dec. 31, 2019</b> |
|---|-----------------------------------|-----------------------------------|-----------------------------------|
| Capital leases payable                            | \$ 88,250                         | \$ 175,290                        | \$ 429,317                        |
| Loan payable – 2012                               | 2,643,024                         | 3,904,026                         | 5,128,609                         |
| Revenue bonds payable, net – 2013                 | 11,056,295                        | 21,253,423                        | 43,110,553                        |
| Revenue bonds payable, net – 2018                 | 13,795,973                        | 13,833,019                        | 13,870,063                        |
| Revenue refunding bonds – non-taxable – 2020      | 8,965,604                         | 8,978,105                         | -                                 |
| Revenue refunding bonds – taxable – 2020          | 14,355,000                        | 14,555,000                        | -                                 |
| Revenue refunding bonds – non-taxable, net – 2021 | 10,255,124                        | -                                 | -                                 |
| Revenue refunding bonds – taxable – 2021          | <u>10,549,330</u>                 | <u>-</u>                          | <u>-</u>                          |
| <b>Total</b>                                      | <b><u>\$ 71,708,600</u></b>       | <b><u>\$ 62,698,863</u></b>       | <b><u>\$ 62,538,542</u></b>       |



## **PALMDALE WATER DISTRICT**

*Management's Discussion and Analysis (Unaudited)  
For the Years Ended December 31, 2021 and 2020*

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### **CONDITIONS AFFECTING CURRENT FINANCIAL POSITION**

- The District continued to see a good water usage trend for 2021. The District's customers continue to change their water habits after being required to meet the mandatory drought restrictions back in 2016.
- Billed water consumption for the year ended December 31, 2021 was at 17,213-acre feet compared to 17,213-acre feet for the year ended December 31, 2020.
- The District's assessed valuation has increased to \$2.02 billion for FY 2020/2021 from \$2.02 billion for FY 2019/2020.
- The District received \$1.660 million in ad valorem property tax revenue for 2021.
- The District received \$840,880 in successor agency component property taxes for 2021.

### **OTHER FACTORS AFFECTING THE DISTRICT'S FUTURE FINANCIAL POSITION**

At the end of the first quarter of calendar year 2020, the United States and global economy suffered a major decline due to the impact of the COVID-19 virus. This economic decline may affect the District's operations and investment earnings for the remainder of calendar year 2022 and beyond. However, the potential impact to the District is unknown at this time.

### **CONTACTING THE DISTRICT'S FINANCIAL MANAGEMENT**

This financial report is designed to provide the District's ratepayer, and creditors with a general overview of the District's finances and to demonstrate the District's accountability for the funds it receives and the stewardship of the facilities it owns and operates. If you have questions about this report or need additional information, please contact Palmdale Water District, Finance Department, 2029 East Avenue Q, Palmdale, California 93550 or (661) 947-4111.

## PALMDALE WATER DISTRICT

### Balance Sheets

December 31, 2021 and 2020

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| <b>ASSETS</b>  | <b>2021</b>           | <b>2020</b>           |
|--|-----------------------|-----------------------|
| <b>Current assets:</b>                                       |                       |                       |
| Cash and cash equivalents (Note 2)                           | \$ 3,605,111          | \$ 1,472,530          |
| Investments (Note 2)   | 10,978,339            | 10,264,065            |
| Accrued interest receivable                                  | 32,152                | 37,826                |
| Accounts receivable – water sales and services, net (Note 3) | 2,604,798             | 2,303,977             |
| Accounts receivable – property taxes and assessments         | 4,374,275             | 4,340,553             |
| Accounts receivable – other                                  | 581,268               | 66,464                |
| Materials and supplies inventory                             | 1,894,031             | 1,068,101             |
| Prepaid expenses   | 815,253               | 657,044               |
| <b>Total current assets</b>                                  | <b>24,885,227</b>     | <b>20,210,560</b>     |
| <b>Non-current assets:</b>                                   |                       |                       |
| Restricted – cash and cash equivalents (Note 2)              | 11,030,100            | 2,264,512             |
| Investment in Palmdale Recycled Water Authority (Note 4)     | 2,202,482             | 2,201,548             |
| Capital assets – not being depreciated (Note 5)              | 10,995,185            | 25,856,069            |
| Capital assets – being depreciated, net (Note 5)             | 157,172,808           | 141,108,802           |
| <b>Total non-current assets</b>                              | <b>181,400,575</b>    | <b>171,430,931</b>    |
| <b>Total assets</b>  | <b>206,285,802</b>    | <b>191,641,491</b>    |
| <b>DEFERRED OUTFLOWS OF RESOURCES</b>                        |                       |                       |
| Deferred amount on debt defeasance, net (Note 7)             | 4,049,130             | 3,611,747             |
| Deferred amounts related to net OPEB obligation (Note 8)     | 3,245,025             | 3,350,850             |
| Deferred amounts related to net pension liability (Note 9)   | 1,778,407             | 2,055,953             |
| <b>Total deferred outflows of resources</b>                  | <b>9,072,562</b>      | <b>9,018,550</b>      |
| <b>Total assets and deferred outflows of resources</b>       | <b>\$ 215,358,364</b> | <b>\$ 200,660,041</b> |

**PALMDALE WATER DISTRICT**  
*Balance Sheets (continued)*  
*December 31, 2021 and 2020*

| <b>LIABILITIES</b>   | <b>2021</b>           | <b>2020</b>           |
|--|-----------------------|-----------------------|
| <b>Current liabilities:</b>  |                       |                       |
| Accounts payable and accrued expenses                                    | \$ 3,758,161          | \$ 2,298,008          |
| Customer deposits for water service                                      | 3,488,304             | 3,449,294             |
| Construction and developer deposits                                      | 1,641,078             | 1,609,382             |
| Accrued interest payable   | 561,941               | 513,145               |
| Long-term liabilities – due within one year:                             |                       |                       |
| Compensated absences (Note 6)  | 168,704               | 172,828               |
| Capital lease payable (Note 7)   | 88,250                | 87,040                |
| Loan payable (Note 7)  | 1,300,396             | 1,261,002             |
| Revenue bonds payable (Note 7)   | 1,215,743             | 777,501               |
| <b>Total current liabilities</b>   | <b>12,222,577</b>     | <b>10,168,200</b>     |
| <b>Non-current liabilities:</b>  |                       |                       |
| Long-term liabilities – due in more than one year:                       |                       |                       |
| Compensated absences (Note 6)  | 506,112               | 518,485               |
| Capital lease payable (Note 7)   | -                     | 88,250                |
| Loan payable (Note 7)  | 1,342,628             | 2,643,024             |
| Revenue bonds payable, net (Note 7)                                      | 67,761,583            | 57,842,046            |
| Net other post-employment benefits obligation (Note 8)                   | 12,751,874            | 16,479,807            |
| Net pension liability (Note 9)   | 6,056,636             | 11,573,771            |
| <b>Total non-current liabilities</b>                                     | <b>88,418,833</b>     | <b>89,145,383</b>     |
| <b>Total liabilities</b>   | <b>100,641,410</b>    | <b>99,313,583</b>     |
| <b>DEFERRED INFLOWS OF RESOURCES</b>                                     |                       |                       |
| Unearned property taxes and assessments                                  | 4,100,000             | 3,300,000             |
| Deferred amounts related to net OPEB obligation (Note 8)                 | 5,201,829             | 1,035,319             |
| Deferred amounts related to net pension liability (Note 9)               | 5,498,117             | 264,680               |
| <b>Total deferred inflows of resources</b>                               | <b>14,799,946</b>     | <b>4,599,999</b>      |
| <b>NET POSITION</b>  |                       |                       |
| Net investment in capital assets (Note 10)                               | 111,538,623           | 110,142,267           |
| Restricted – Palmdale Recycled Water Authority (Note 4)                  | 2,202,482             | 2,201,548             |
| Unrestricted (Deficit) (Note 11)   | (13,824,097)          | (15,597,356)          |
| <b>Total net position</b>  | <b>99,917,008</b>     | <b>96,746,459</b>     |
| <b>Total liabilities, deferred inflows of resources and net position</b> | <b>\$ 215,358,364</b> | <b>\$ 200,660,041</b> |

**PALMDALE WATER DISTRICT***Statements of Revenues, Expenses and Changes in Net Position  
For the Years Ended December 31, 2021 and 2020*

|  | <u>2021</u>          | <u>2020</u>          |
|--|----------------------|----------------------|
| <b>Operating revenues:</b>   |                      |                      |
| Water sales – commodity charge                                     | \$ 12,501,007        | \$ 11,138,571        |
| Water sales – wholesale  | 561,298              | 467,776              |
| Monthly meter service charge                                       | 15,218,790           | 13,832,147           |
| Water quality fees   | 704,782              | 824,429              |
| Elevation fees   | 379,529              | 363,869              |
| Other charges for services   | 995,791              | 926,428              |
| <b>Total operating revenues</b>                                    | <u>30,361,197</u>    | <u>27,553,220</u>    |
| <b>Operating expenses:</b>   |                      |                      |
| Source of supply – water purchases                                 | 5,285,018            | 2,295,515            |
| Operations and production  | 3,533,551            | 3,542,182            |
| Facilities   | 7,484,342            | 7,463,258            |
| Engineering  | 1,670,042            | 1,836,486            |
| Water conservation   | 381,068              | 373,612              |
| Administration   | 6,760,997            | 6,598,878            |
| Finance and customer care  | 3,376,786            | 3,172,456            |
| <b>Total operating expenses</b>                                    | <u>28,491,804</u>    | <u>25,282,387</u>    |
| <b>Operating income before overhead absorption</b>                 | 1,869,393            | 2,270,833            |
| Overhead absorption  | (281,192)            | 557,620              |
| <b>Operating income before depreciation expense</b>                | 1,588,201            | 2,828,453            |
| Depreciation expense (Note 5)                                      | (5,270,174)          | (5,144,968)          |
| <b>Operating (loss)</b>  | <u>(3,681,973)</u>   | <u>(2,316,515)</u>   |
| <b>Non-operating revenues(expenses):</b>                           |                      |                      |
| Property taxes – ad valorem  | 1,660,944            | 1,678,388            |
| Property tax assessment for State Water Project                    | 5,179,076            | 5,194,911            |
| Successor agency component of property taxes                       | 840,880              | 731,045              |
| Rental revenue – cellular towers                                   | 18,012               | 15,394               |
| Investment earnings  | (1,067)              | 170,760              |
| Changes in investment – Palmdale Recycled Water Authority (Note 4) | 934                  | 243,326              |
| Legal and insurance refunds/settlements                            | 61,746               | 2,491                |
| Department of Water Resources – fixed charge recovery              | 368,950              | 299,879              |
| Other non-operating revenues                                       | 87,839               | 42,971               |
| Cost of debt issuance (Note 7)                                     | (333,796)            | (398,953)            |
| State Water Project amortization expense (Note 5)                  | (4,222,272)          | (2,854,227)          |
| Interest expense – long-term debt                                  | (2,525,060)          | (2,478,228)          |
| <b>Total non-operating revenue(expense), net</b>                   | <u>1,136,186</u>     | <u>2,647,757</u>     |
| <b>Net (loss) before capital contributions</b>                     | <u>(2,545,787)</u>   | <u>331,242</u>       |
| <b>Capital contributions:</b>                                      |                      |                      |
| Capital improvement fees   | 5,247,538            | 1,235,438            |
| Federal and state capital grants                                   | 468,798              | -                    |
| <b>Total capital contributions</b>                                 | <u>5,716,336</u>     | <u>1,235,438</u>     |
| <b>Change in net position</b>                                      | 3,170,549            | 1,566,680            |
| <b>Net position:</b>   |                      |                      |
| Beginning of year  | 96,746,459           | 95,179,779           |
| End of year  | <u>\$ 99,917,008</u> | <u>\$ 96,746,459</u> |

The notes to financial statements are an integral part of this statement.

**PALMDALE WATER DISTRICT***Statements of Cash Flows**For the Years Ended December 31, 2021 and 2020*

|  | <u>2021</u>          | <u>2020</u>         |
|--|----------------------|---------------------|
| <b>Cash flows from operating activities:</b>   |                      |                     |
| Cash receipts from water sales and services  | \$ 30,131,082        | \$ 26,989,554       |
| Cash receipts from others  | 21,743               | 305,773             |
| Cash paid to employees for salaries and wages  | (9,492,550)          | (9,160,656)         |
| Cash paid to vendors and suppliers for materials and services                        | <u>(18,001,487)</u>  | <u>(13,701,317)</u> |
| <b>Net cash provided by operating activities</b>                                     | <u>2,658,788</u>     | <u>4,433,354</u>    |
| <b>Cash flows from non-capital financing activities:</b>                             |                      |                     |
| Proceeds from property taxes   | 3,268,102            | 2,323,424           |
| Proceeds from property tax assessment for State Water Project                        | 5,179,076            | 5,194,911           |
| Acquisition of State Water Project participation rights                              | <u>(5,689,322)</u>   | <u>(5,238,207)</u>  |
| <b>Net cash provided by non-capital financing activities</b>                         | <u>2,757,856</u>     | <u>2,280,128</u>    |
| <b>Cash flows from capital and related financing activities:</b>                     |                      |                     |
| Acquisition and construction of capital assets                                       | (5,006,246)          | (7,019,603)         |
| Proceeds from capital improvement fees and capital grants                            | 5,716,336            | 1,235,438           |
| Proceeds from issuance of revenue refunding bonds                                    | 20,816,639           | 23,563,523          |
| Purchase of state and local government securities (SLGS) for refunding               | (9,530,000)          | (22,544,033)        |
| Cost of debt issuance  | (333,796)            | (398,953)           |
| Principal paid on long-term debt   | (2,125,543)          | (2,044,028)         |
| Interest paid on long-term debt  | <u>(2,324,905)</u>   | <u>(2,461,438)</u>  |
| <b>Net cash provided by (used in) capital and related financing activities</b>       | <u>7,212,485</u>     | <u>(9,669,094)</u>  |
| <b>Cash flows from investing activities:</b>   |                      |                     |
| Purchase of investments  | (7,981,649)          | (14,609,797)        |
| Sales of investments   | 6,123,795            | 11,081,930          |
| Investment earnings  | <u>126,894</u>       | <u>153,626</u>      |
| <b>Net cash used in investing activities</b>   | <u>(1,730,960)</u>   | <u>(3,374,241)</u>  |
| <b>Net increase (decrease) in cash and cash equivalents</b>                          | 10,898,169           | (6,329,853)         |
| <b>Cash and cash equivalents:</b>  |                      |                     |
| Beginning of year  | <u>3,737,042</u>     | <u>10,066,895</u>   |
| End of year  | <u>\$ 14,635,211</u> | <u>\$ 3,737,042</u> |
| <b>Reconciliation of cash and cash equivalents to the statement of net position:</b> |                      |                     |
| Cash and cash equivalents  | \$ 3,605,111         | \$ 1,472,530        |
| Restricted assets – cash and cash equivalents  | <u>11,030,100</u>    | <u>2,264,512</u>    |
| <b>Total cash and cash equivalents</b>   | <u>\$ 14,635,211</u> | <u>\$ 3,737,042</u> |

**PALMDALE WATER DISTRICT***Statements of Cash Flows (continued)**For the Years Ended December 31, 2021 and 2020*

|  | <u>2021</u>         | <u>2020</u>         |
|--|---------------------|---------------------|
| <b>Reconciliation of operating (loss) to net cash provided by operating activities:</b>        |                     |                     |
| Operating (loss)   | \$ (3,681,973)      | \$ (2,316,515)      |
| <b>Adjustments to reconcile operating (loss) to net cash provided by operating activities:</b> |                     |                     |
| Depreciation   | 5,270,174           | 5,144,968           |
| Overhead absorption  | 281,192             | (557,620)           |
| Rental revenue – cellular towers   | 18,012              | 15,394              |
| Legal and insurance refunds/settlements  | 61,746              | 2,491               |
| Department of Water Resources – fixed charge recovery  | 368,950             | 299,879             |
| Other non-operating revenues   | 87,839              | 42,971              |
| <b>Change in assets – (increase)decrease:</b>  |                     |                     |
| Accounts receivable – water sales and services, net  | (300,821)           | (602,229)           |
| Accounts receivable – other  | (514,804)           | (54,962)            |
| Materials and supplies inventory   | (825,930)           | (47,514)            |
| Prepaid expenses   | (158,209)           | (70,754)            |
| <b>Change in deferred outflows of resources – (increase)decrease</b>                           |                     |                     |
| Deferred amounts related to net OPEB obligation  | 105,825             | (2,490,728)         |
| Deferred amounts related to net pension liability  | 277,546             | 176,584             |
| <b>Change in liabilities – increase(decrease):</b>   |                     |                     |
| Accounts payable and accrued expenses  | 1,460,153           | 803,054             |
| Customer deposits for water service  | 39,010              | 57,596              |
| Construction and developer deposits  | 31,696              | (19,033)            |
| Compensated absences   | (16,497)            | 154,870             |
| Net other post-employment benefits obligation  | (3,727,933)         | 3,513,826           |
| Net pension liability  | (5,517,135)         | 882,433             |
| <b>Change in deferred inflows of resources – increase(decrease)</b>                            |                     |                     |
| Deferred amounts related to net OPEB obligation  | 4,166,510           | (152,253)           |
| Deferred amounts related to net pension liability  | 5,233,437           | (349,104)           |
| <b>Total adjustments</b>   | <u>6,340,761</u>    | <u>6,749,869</u>    |
| <b>Net cash provided by operating activities</b>   | <u>\$ 2,658,788</u> | <u>\$ 4,433,354</u> |
| <b>Non-cash investing, capital and financing transactions:</b>                                 | <b>2021</b>         | <b>2020</b>         |
| Change in fair-value of investments  | \$ (122,287)        | \$ 15,891           |
| Amortization of deferred amount on debt defeasance   | \$ (192,583)        | \$ (156,693)        |
| Deferred amount on debt defeasance   | \$ 1,795,890        | \$ 1,795,890        |
| Amortization of net premium(discount) on revenue bonds   | \$ 151,359          | \$ 139,174          |
| Changes in investment – Palmdale Recycled Water Authority                                      | \$ 934              | \$ 243,326          |

## **PALMDALE WATER DISTRICT**

### *Notes to Financial Statements*

*December 31, 2021 and 2020*

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#### **NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES**

##### **A. Description of Organization**

The Palmdale Water District (District) was formed as an Irrigation District under Division 11 of the California Water Code in 1918. The District provides potable water service to a portion of the City of Palmdale, California, and surrounding unincorporated areas of the County of Los Angeles. The District is operated under the direction of a five-member board of directors. The board members are elected by the public for staggered four-year terms.

##### **B. Reporting Entity**

A reporting entity is comprised of the primary government, component units, and other organizations that are included to ensure the financial statements are not misleading. The primary government of the District consists of all funds, departments, and agencies that are not legally separate from the District.

The criteria used in determining the scope of the financial reporting entity is based on the provisions of Governmental Accounting Standards Board Statement No. 61, *The Financial Reporting Entity* (GASB Statement No. 61). The District is the primary governmental unit based on the foundation of a separately elected governing board that is elected by the citizens in a general popular election. Component units are legally separate organizations for which the elected officials of the primary government are financially accountable. The District is financially accountable if it appoints a voting majority of the organization's governing body and: 1) It is able to impose its will on that organization, or 2) There is a potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government.

The Palmdale Water District Public Facilities Corporation (Corporation) was organized on August 22, 1991, pursuant to the Nonprofit Public Benefit Corporation Law of the State of California, solely for the purpose of acquiring and or constructing various public facilities and providing financial assistance to the District. Accordingly, this component unit is blended within the financial statements of the District.

The Palmdale Water District Public Financing Authority (Authority) was organized on April 10, 2013, pursuant to a Joint Exercise of Powers Agreement by and between the Palmdale Water District and the California Municipal Finance Authority, solely for the purpose of providing financing for District capital improvements. Accordingly, this component unit is blended within the financial statements of the District.

##### **C. Basis of Presentation, Basis of Accounting**

The Financial Statements (i.e., the balance sheet, the statement of revenues, expenses and change in net position, and statement of cash flows) report information on all of the activities of the primary government. The District accounts for its operations (a) that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges; or (b) where the governing body has decided that periodic determination of revenues earned, expenses incurred, and/or net income is appropriate for capital maintenance, public policy, management control, accountability or other purposes.

The Financial Statements are reported using the “*economic resources*” measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as all eligibility requirements have been met. Interest associated with the current fiscal period is considered to be susceptible to accrual and so has been recognized as revenue of the current fiscal period.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (continued)

##### C. Basis of Presentation, Basis of Accounting (continued)

In accordance with GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*, the Statement of Net Position reports separate sections for Deferred Outflows of Resources, and Deferred Inflows of Resources, when applicable.

*Deferred Outflows of Resources* represent outflows of resources (consumption of net position) that apply to future periods and that, therefore, will not be recognized as an expense until that time.

*Deferred Inflows of Resources* represent inflows of resources (acquisition of net position) that apply to future periods and that, therefore, are not recognized as a revenue until that time.

Operating revenues are those revenues that are generated from the primary operations of the District. The District reports a measure of operations by presenting the change in net position from operations as *operating income* in the statement of revenues, expenses, and changes in net position. Operating activities are defined by the District as all activities other than financing and investing activities (interest expense and investment income), grants and subsidies, and other infrequently occurring transactions of a non-operating nature. Operating expenses are those expenses that are essential to the primary operations of the District. All other expenses are reported as non-operating expenses.

##### D. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position

###### 1. Cash and Cash Equivalents

For purposes of the statement of cash flows, the District considers all highly liquid investments with a maturity of three months or less, when purchased, to be cash equivalents. Cash deposits are reported at the carrying amount, which reasonably estimates fair value.

###### 2. Investments

Investments are reported at fair value except for short-term investments, which are reported at cost, which approximates fair value. Cash deposits are reported at carrying amount, which reasonably estimates fair value. Investments in governmental investment pools are reported at fair value based on the fair value per share of the pool's underlying portfolio.

In accordance with fair value measurements, the District categorizes its assets and liabilities measured at fair value into a three-level hierarchy based on the priority of the inputs to the valuation technique used to determine fair value. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used in the determination of the fair value measurement fall within different levels of the hierarchy, the categorization is based on the lowest level input that is significant to the fair value measurement. Financial assets and liabilities recorded on the balance sheet are categorized based on the inputs to the valuation techniques as follows:

*Level 1* – Inputs that reflect unadjusted quoted prices in active markets for identical investments, such as stocks, corporate and government bonds. The District has the ability to access the holding and quoted prices as of the measurement date.

*Level 2* – Inputs, other than quoted prices, that are observable for the asset or liability either directly or indirectly, including inputs from markets that are not considered to be active.



**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

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**NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (continued)**

**D. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position (continued)**

**2. Investments (continued)**

*Level 3* – Inputs that are unobservable. Unobservable inputs reflect the District’s own assumptions about the factors market participants would use in pricing an investment, and is based on the best information available in the circumstances.

**3. Allowance for Doubtful Accounts**

The District extends credit to customers in the normal course of operations. When management deems customer accounts uncollectible, the District uses the allowance method for the reservation and write-off of those accounts.

**4. Prepays**

Certain payments of vendors reflect costs applicable to future accounting periods and are recorded as prepaid items.

**5. Materials and Supplies Inventory**

Materials and supplies consist primarily of water meters, pipe, and pipefittings for construction and repair to the District’s water transmission and distribution system. Materials and supplies are valued at cost using a weighted average method. Materials and supplies are charged to expense at the time that individual items are consumed.

**6. Capital Assets**

Capital assets are stated at cost or at their estimated fair value at date of donation. It is the District’s policy to capitalize assets costing over \$5,000. The provision for depreciation is computed using the straight-line method over the estimated service lives of the capital assets. Estimated service lives for the District’s classes of assets are as follows:

| <u>Description</u> | <u>Estimated Lives</u> |
|--------------------|------------------------|
| Capital Equipment  | 10 Years               |
| Furniture          | 7-10 Years             |
| Vehicles           | 5-10 Years             |
| Small Equipment    | 3-5 Years              |

**7. State Water Project – Participation Rights**

The District participates in the State Water Project (the Project) entitling it to certain participation rights. The District’s participation in the Project is through payments to the California Department of Water Resources from tax assessments collected from within the District’s service area. Monies used for the construction of capital assets, such as pipelines, pumping facilities, storage facilities, etc., are recorded as participation rights and amortized over the life of the agreements. Certain projects also require payments for on-going maintenance; those payments are charged to expense as incurred.

**8. Customer Deposits for Water Service**

Based on a customer’s credit, the District may require a deposit deemed reasonable by the District. These deposits are held to pay off close out bills or to cover delinquent payments.

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

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**NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (continued)**

**D. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position (continued)**

**9. Compensated Absences**

The liability for compensated absences reported on the balance sheet consists of unpaid, accumulated annual and vacation leave balances. The liability has been calculated using the vesting method, in which leave amounts for both employees who currently are eligible to receive termination payments and other employees who are expected to become eligible in the future to receive such payments upon termination are included.

**10. Pensions**

For purposes of measuring the net pension liability and deferred outflows/inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the District's California Public Employees' Retirement System (CalPERS) plans and addition to/deductions from the Plans' fiduciary net position have been determined on the same basis as they are reported by CalPERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value. CalPERS audited financial statements are publicly available reports that can be obtained at the CalPERS's website.

Generally accepted accounting principles require that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

| <u>CalPERS</u>     | <u>June 30, 2021</u>          | <u>June 30, 2020</u>          |
|--------------------|-------------------------------|-------------------------------|
| Valuation Date     | June 30, 2020                 | June 30, 2019                 |
| Measurement Date   | June 30, 2021                 | June 30, 2020                 |
| Measurement Period | July 1, 2020 to June 30, 2021 | July 1, 2019 to June 30, 2020 |

**11. Postemployment Benefits Other Than Pensions (OPEB)**

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the District's Other Post-Employment Retiree Benefits Plan (Plan) and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the Plan. For this purpose, the Plan recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for money market investments and participating interest-earning investment contracts that have a maturity at the time of purchase of one year or less, which are reported at cost.

Generally accepted accounting principles require that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

| <u>OPEB</u>        | <u>December 31, 2021</u>      | <u>December 31, 2020</u>      |
|--------------------|-------------------------------|-------------------------------|
| Valuation Date     | December 31, 2020             | December 31, 2019             |
| Measurement Date   | December 31, 2021             | December 31, 2020             |
| Measurement Period | Jan. 1, 2021 to Dec. 31, 2021 | Jan. 1, 2020 to Dec. 31, 2020 |

## **PALMDALE WATER DISTRICT**

### *Notes to Financial Statements*

*December 31, 2021 and 2020*

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#### **NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (continued)**

##### **D. Assets, Deferred Outflows of Resources, Liabilities, Deferred Inflows of Resources, and Net Position (continued)**

###### **12. Net Position**

Net position is classified into three components: net investment in capital assets; restricted; and unrestricted. These classifications are defined as follows:

- **Net investment in capital assets** - This component of net position consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes, or other borrowings that are attributable to the acquisition, construction, or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of net investment in capital assets. Rather, that portion of the debt is included in the same net position component as the unspent proceeds.
- **Restricted** - This component of net position consists of constraints placed on net position use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.
- **Unrestricted** - This component of net position consists of net position that does not meet the definition of "net investment in capital assets" or "restricted".

When both restricted and unrestricted resources are available for use, it is the District's policy to use restricted resources first, then unrestricted resources as they are needed.

##### **E. Property Taxes**

Property tax in California is levied in accordance with Article XIII A of the State Constitution at one percent of county-wide assessed valuations. This one percent is allocated pursuant to state law to the appropriate units of local government. Tax levies are limited to 1% of full market value which results in a tax rate of \$1.00 per \$100 assessed valuation, under the provisions of Proposition 13. The County of Los Angeles bills and collects property taxes on behalf of the District. The County's tax year is July 1, to December 31. Property taxes attach as a lien on property on January 1. Taxes are levied on July 1 and are payable in two equal installments on November 1 and March 1, and become delinquent after December 10, and April 10.

##### **F. Water Sales**

Most water sales are billed on a monthly cyclical basis. Estimated unbilled water revenue through year-end has been accrued.

##### **G. Capital Improvement Fees**

Capital improvement fees represent cash and capital asset additions contributed to the District by property owners, granting agencies or real estate developers desiring services that required capital expenditures or capacity commitment.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 1 – DESCRIPTION OF ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES (continued)

##### H. Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenditures during the reported period. Actual results could differ from those estimates.

#### NOTE 2 – CASH AND INVESTMENTS

Cash and investments were classified in the accompanying financial statements as follows:

| Description                            | Balance,<br>Dec. 31, 2021 | Balance,<br>Dec. 31, 2020 |
|--|---------------------------|---------------------------|
| Cash and cash equivalents              | \$ 3,605,111              | \$ 1,472,530              |
| Investments                            | 10,978,339                | 10,264,065                |
| Restricted – cash and cash equivalents | 11,030,100                | 2,264,512                 |
| <b>Total</b>                           | <b>\$ 25,613,550</b>      | <b>\$ 14,001,107</b>      |

Cash and investments consisted of the following:

| Description                                      | Balance,<br>Dec. 31, 2021 | Balance,<br>Dec. 31, 2020 |
|--|---------------------------|---------------------------|
| Cash on hand                                     | \$ 5,700                  | \$ 5,700                  |
| Demand deposits held with financial institutions | 2,059,109                 | 735,924                   |
| Local Agency Investment Fund (LAIF)              | 12,693                    | 12,641                    |
| Money-market funds                               | 1,527,609                 | 718,265                   |
| Money-market funds – restricted                  | 11,030,100                | 2,264,512                 |
| Investments                                      | 10,978,339                | 10,264,065                |
| <b>Total</b>                                     | <b>\$ 25,613,550</b>      | <b>\$ 14,001,107</b>      |

The table on the following page identifies the investment types that are authorized by the California Government Code and the District's investment policy. The table also identifies certain provisions of the District's investment policy that address interest rate risk and concentration of credit risk.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 2 – CASH AND INVESTMENTS (continued)

This table does not address investments of debt proceeds held by bond trustee that are governed by the provisions of debt agreements rather than the general provisions of the California Government Code or the District's investment policy.

| <u>Authorized<br/>Investment Type</u>  | <u>Maximum<br/>Maturity</u> | <u>Maximum<br/>Percentage<br/>of Portfolio</u> | <u>Maximum<br/>Investment<br/>in One Issuer</u> |
|--|-----------------------------|--|---|
| U.S. Treasury obligations              | 5-years                     | None   | None  |
| District issued bonds                  | 5-years                     | None   | None  |
| Government sponsored agency securities | 5-years                     | None   | None  |
| Certificates-of-deposit                | 5-years                     | 60%  | None  |
| Money-market funds                     | N/A                         | None   | None  |
| Local Agency Investment Fund (LAIF)    | N/A                         | None   | None  |

#### Investments Authorized by Debt Agreements

Investment of debt proceeds held by bond trustees are governed by provisions of the debt agreements, rather than the general provisions of the California Government Code or the District's investment policy. The table below identifies the investment types that are authorized for investments held by bond trustee. The table also identifies certain provisions if these debt agreements that address interest rate risk, credit risk, and concentration of credit risk.

| <u>Authorized<br/>Investment Type</u> | <u>Maximum<br/>Maturity</u> | <u>Maximum<br/>Percentage<br/>of Portfolio</u> | <u>Maximum<br/>Investment<br/>in One Issuer</u> |
|---------------------------------------|-----------------------------|--|---|
| Investment contracts                  | None                        | None   | None  |
| Money-market funds                    | N/A                         | None   | None  |

#### Demand Deposits with Financial Institutions

At December 31, 2021 and 2020, the carrying amount of the District's demand deposits were \$2,059,109 and \$735,924, respectively, and the financial institution's balance were \$1,948,795 and \$948,472, respectively. The net difference represents outstanding checks, deposits-in-transit and/or other reconciling items between the financial institution's balance and the District's balance for each year.

#### Custodial Credit Risk – Deposits

Custodial credit risk is the risk that in the event of a bank failure, the Authority's deposits may not be returned to it. The District does not have a policy for custodial credit risk for deposits. Cash balances held in banks are insured up to \$250,000 by the Federal Depository Insurance Corporation (FDIC) and are collateralized by the respective financial institutions. In addition, the California Government Code requires that a financial institution secure deposits made by State or local governmental units by pledging securities in an undivided collateral pool held by a depository regulated under State law (unless so waived by the governmental unit). The market value of the pledged securities in the collateral pool must equal at least 110 percent of the total amount deposited by the public agencies. California law also allows financial institutions to secure public deposits by pledging first trust deed mortgage notes having a value of 150 percent of the secured public deposits and letters of credit issued by the Federal Home Loan Bank of San Francisco having a value of 105 percent of the secured deposits.

# PALMDALE WATER DISTRICT

## Notes to Financial Statements

December 31, 2021 and 2020

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### NOTE 2 – CASH AND INVESTMENTS (continued)

#### Money-Market Funds

Money-market funds are an investment whose objective is to earn modest investment earnings while maintaining a net asset value (NAV) of \$1 per share (which is the funds main goal – preservation of principal). A money-market fund's portfolio is typically comprised of short-term, or less than one year, securities representing high-quality, liquid debt and monetary instruments with minimal credit risk. Money-market funds are Level 1 investments (with quoted prices in active markets for identical assets) that are Not Rated under the current credit risk ratings format. For financial reporting purposes, the District considers money-market funds a cash equivalent due to their highly liquid nature and NAV of \$1 per share. As of December 31, 2021, the District held \$1,527,609 in unrestricted money-market funds and \$11,030,100 in restricted money-market funds. As of December 31, 2020, the District held \$718,265 in unrestricted money-market funds and \$42,264,512 in restricted money-market funds.

#### Local Agency Investment Fund (LAIF)

The California State Treasurer, through the Pooled Money Investment Account (PMIA), invests taxpayers' money to manage the State's cash flow and strengthen the financial security of local governmental entities. PMIA policy sets as primary investment objectives safety, liquidity and yield. Through the PMIA, the Investment Division manages the Local Agency Investment Fund (LAIF). The LAIF allows cities, counties and special districts to place money in a major portfolio and, at no additional costs to taxpayers, use the expertise of Investment Division staff. Participating agencies can withdraw their funds from the LAIF at any time as LAIF is highly liquid and carries a dollar-in dollar-out amortized cost methodology.

The District is a voluntary participant in LAIF. The fair value of the District's investment in this pool is reported at an amount based upon the District's pro-rata share of the fair value provided by LAIF for the entire LAIF portfolio (in relation to the amortized cost of the of that portfolio). The balance available for withdrawal is based on the accounting records maintained by LAIF. LAIF is not categorized under the fair value hierarchy established by GAAP as it is held at an amortized cost basis and it is Not Rated under the current credit risk ratings format. For financial reporting purposes, the District considers LAIF a cash equivalent due to its highly liquid nature and dollar-in dollar-out amortized cost methodology. As of December 31, 2021, and 2020, the District held \$12,693 \$12,641 in LAIF, respectively.

The investment policy of the District limits the amount that can be invested in an external investment pool (LAIF). A maximum limit has been set at \$500,000 that can be invested in LAIF at any point in time.

#### Investments

Investment maturities and credit ratings as of December 31, 2021, consisted of the following:

| Type of Investments      | Measurement Input | Credit Rating | Fair Value           | Maturity             |                   |
|--------------------------|-------------------|---------------|----------------------|----------------------|-------------------|
|                          |                   |               |                      | 12 Months or Less    | 13 to 24 Months   |
| U.S. Treasury notes      | Level 1           | Exempt        | \$ 6,521,620         | \$ 6,521,620         | \$ -              |
| Certificates-of-deposit  | Level 1           | Not Rated     | 4,456,719            | 3,958,074            | 498,645           |
| <b>Total investments</b> |                   |               | <b>\$ 10,978,339</b> | <b>\$ 10,479,694</b> | <b>\$ 498,645</b> |

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 2 – CASH AND INVESTMENTS (continued)

##### Investments (continued)

Investment maturities and credit ratings as of December 31, 2020, consisted of the following:

| Type of Investments      | Measurement Input | Credit Rating | Fair Value           | Maturity             |
|--------------------------|-------------------|---------------|----------------------|----------------------|
|                          |                   |               |                      | 12 Months or Less    |
| U.S. Treasury notes      | Level 1           | Exempt        | \$ 6,820,493         | \$ 6,820,493         |
| Certificates-of-deposit  | Level 1           | Not Rated     | 3,443,572            | 3,443,572            |
| <b>Total investments</b> |                   |               | <u>\$ 10,264,065</u> | <u>\$ 10,264,065</u> |

##### Investments – Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates. The District's investment policy limits investment purchases to investments with a term not to exceed five-years. The District's did not hold any investments that are highly sensitive to interest rate fluctuations (to a greater degree than already indicated in the information provided above).

##### Investments – Credit Risk

The District's investment policy limits investment choices to investment securities allowed by the California Government Code. At December 31, 2021 and 2020, all investments represented investment securities which were issued, registered and held by the District's agent in the District's name.

##### Investments – Concentration of Credit Risk

The District does not place limits on the amount it may invest in any one issuer. At December 31, 2021 and 2020, the District had the following investments that represented more than five percent of the Authority's net investment balance.

Investments greater than 5% for the year ended December 31, 2021, were as follows:

| Investments with Maturity Dates         | Fair Value          | Percentage of Investments |
|---|---------------------|---------------------------|
| U.S. Treasury note - March 15, 2022     | \$ 2,009,020        | 18.30%                    |
| U.S. Treasury note - March 31, 2022     | 1,003,960           | 9.14%                     |
| U.S. Treasury note - June 30, 2022      | 756,975             | 6.90%                     |
| U.S. Treasury note - September 15, 2022 | 756,420             | 6.89%                     |
| U.S. Treasury note - November 30, 2022  | 997,730             | 9.09%                     |
| <b>Total</b>                            | <u>\$ 5,524,105</u> | <u>50.32%</u>             |

Investments greater than 5% for the year ended December 31, 2020, were as follows:

| Investments with Maturity Dates       | Fair Value          | Percentage of Investments |
|---------------------------------------|---------------------|---------------------------|
| U.S. Treasury note - January 15, 2021 | \$ 1,547,772        | 14.10%                    |
| U.S. Treasury note - March 31, 2021   | 1,437,164           | 13.09%                    |
| U.S. Treasury note - May 31, 2021     | 1,206,192           | 10.99%                    |
| U.S. Treasury note - June 17, 2021    | 1,999,240           | 18.21%                    |
| U.S. Treasury note - August 15, 2021  | 630,125             | 5.74%                     |
| <b>Total</b>                          | <u>\$ 6,820,493</u> | <u>66.45%</u>             |

## **PALMDALE WATER DISTRICT**

### *Notes to Financial Statements*

*December 31, 2021 and 2020*

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#### **NOTE 3 – ACCOUNTS RECEIVABLE – WATER SALES AND SERVICES, NET**

The balances consisted of the following:

| <b>Description</b>   | <b>Balance,<br/>Dec. 31, 2021</b> | <b>Balance,<br/>Dec. 31, 2020</b> |
|--|-----------------------------------|-----------------------------------|
| Accounts receivable – water sales and services             | \$ 2,640,368                      | \$ 2,339,547                      |
| Allowance for doubtful accounts                            | <u>(35,570)</u>                   | <u>(35,570)</u>                   |
| <b>Accounts receivable – water sales and services, net</b> | <b><u>\$ 2,604,798</u></b>        | <b><u>\$ 2,303,977</u></b>        |

#### **NOTE 4 – INVESTMENT IN PALMDALE RECYCLED WATER AUTHORITY**

The Palmdale Recycled Water Authority (the Authority) was formed under a Joint Exercise of Powers Authority on September 26, 2012, pursuant to Section(s) 6506 and 6507 of the Exercise of Powers Act, codified by California Government Code section(s) 6500, which authorizes public agencies by agreement to exercise jointly any power common to the contracting parties. The Authority was formed between the City of Palmdale, a California Charter City (the City) and Palmdale Water District, an Irrigation District under Division 11 of the California Water Code (the District). The Authority is an independent public agency separate from its Members.

The purpose of the Authority is to establish an independent public agency to study, promote, develop, distribute, construct, install, finance, use and manage recycled water resources created by the Los Angeles County Sanitation District Nos. 14 and 20 for any and all reasonable and beneficial uses, including irrigation and recharge, and to finance the acquisition and construction or installation of recycled water facilities, recharge facilities and irrigation systems.

The governing body of the Authority is a Board of Directors, which consists of five directors. The governing body of each Member appoints and designates in writing two Directors who are authorized to act for and on behalf of the Member on matters within the powers of the Authority. The person(s) appointed and designated as Director(s) are member(s) of the Member's governing board. The fifth director is appointed jointly by both Members.

The Members share in the revenues and expenses of the Authority on a 50/50 pro-rata share basis. Therefore, the District accounts for its investment in the Authority as an equity interest on the statement of net position.

For 2021, the District reports its equity interest as of the date of the last audited financial statements of the Authority as of December 31, 2021, which was audited by our firm, whose report dated June 15, 2021 expressed an unmodified opinion on those financial statements.

For 2020, the District reports its equity interest as of the date of the last audited financial statements of the Authority as of December 31, 2020, which was audited by our firm, whose report dated June 15, 2021 expressed an unmodified opinion on those financial statements.



**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

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**NOTE 4 – INVESTMENT IN PALMDALE RECYCLED WATER AUTHORITY (continued)**

The following is the condensed financial statement of the Authority for the year ended December 31, 2021:

**Palmdale Recycled Water Authority**  
**Condensed Balance Sheet**  
**December 31, 2021**

|                                    | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|------------------------------------|--------------------------|---------------------------------------|-------------------------------|
| <b>Assets:</b>                     |                          |                                       |                               |
| Total assets                       | \$ 4,472,212             | \$ 2,236,106                          | \$ 2,236,106                  |
| <b>Liabilities:</b>                |                          |                                       |                               |
| Total liabilities                  | 67,248                   | 33,624                                | 33,624                        |
| <b>Net position:</b>               |                          |                                       |                               |
| Total net position                 | 4,404,964                | 2,202,482                             | 2,202,482                     |
| Total liabilities and net position | \$ 4,472,212             | \$ 2,236,106                          | \$ 2,236,106                  |

**Palmdale Recycled Water Authority**  
**Condensed Statement of Revenues, Expenses and Changes in Net Position**  
**For the Year Ended December 31, 2021**

|                                | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|--------------------------------|--------------------------|---------------------------------------|-------------------------------|
| <b>Operating revenues:</b>     |                          |                                       |                               |
| Total operating revenues       | \$ 136,495               | \$ 68,248                             | \$ 68,248                     |
| <b>Operating expenses:</b>     |                          |                                       |                               |
| Total operating expenses       | 135,262                  | 67,631                                | 67,631                        |
| Operating income               | 1,233                    | 617                                   | 617                           |
| <b>Non-operating revenues:</b> |                          |                                       |                               |
| Total non-operating revenue    | 635                      | 318                                   | 318                           |
| Change in net position         | 1,868                    | 934                                   | 934                           |
| <b>Net position:</b>           |                          |                                       |                               |
| Beginning of year              | 4,403,096                | 2,201,548                             | 2,201,548                     |
| End of year                    | \$ 4,404,964             | \$ 2,202,482                          | \$ 2,202,482                  |

**Palmdale Recycled Water Authority**  
**Condensed Statement of Cash Flows**  
**For the Year Ended December 31, 2021**

|   | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|---|--------------------------|---------------------------------------|-------------------------------|
| <b>Cash flows from operating activities:</b>  |                          |                                       |                               |
| Net cash provided by operating activities   | \$ 65,107                | \$ 32,554                             | \$ 32,554                     |
| <b>Cash flows from investing activities:</b>  |                          |                                       |                               |
| Net cash used in investing activities   | (166,028)                | (83,014)                              | (83,014)                      |
| Net increase in cash and cash equivalents   | (100,921)                | (50,461)                              | (50,461)                      |
| <b>Cash and cash equivalents:</b>   |                          |                                       |                               |
| Beginning of year   | 993,851                  | 496,926                               | 496,926                       |
| End of year   | \$ 892,930               | \$ 446,465                            | \$ 446,465                    |
| <b>Reconciliation of operating income to net cash provided by operating activities:</b> |                          |                                       |                               |
| Operating income  | \$ 1,233                 | \$ 617                                | \$ 617                        |
| Depreciation  | 53,407                   | 26,704                                | 26,704                        |
| Change in assets  | (11,695)                 | (5,848)                               | (5,848)                       |
| Change in liabilities   | 22,162                   | 11,081                                | 11,081                        |
| Net cash provided by operating activities   | \$ 65,107                | \$ 32,554                             | \$ 32,554                     |

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

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**NOTE 4 – INVESTMENT IN PALMDALE RECYCLED WATER AUTHORITY (continued)**

The following is the condensed financial statement of the Authority for the year ended December 31, 2020:

**Palmdale Recycled Water Authority**  
**Condensed Balance Sheet**  
**December 31, 2020**

|                                    | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|------------------------------------|--------------------------|---------------------------------------|-------------------------------|
| <b>Assets:</b>                     |                          |                                       |                               |
| Total assets                       | \$ 4,448,182             | \$ 2,224,091                          | \$ 2,224,091                  |
| <b>Liabilities:</b>                |                          |                                       |                               |
| Total liabilities                  | 45,086                   | 22,543                                | 22,543                        |
| <b>Net position:</b>               |                          |                                       |                               |
| Total net position                 | 4,403,096                | 2,201,548                             | 2,201,548                     |
| Total liabilities and net position | <u>\$ 4,448,182</u>      | <u>\$ 2,224,091</u>                   | <u>\$ 2,224,091</u>           |

**Palmdale Recycled Water Authority**  
**Condensed Statement of Revenues, Expenses and Changes in Net Position**  
**For the Year Ended December 31, 2020**

|                                | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|--------------------------------|--------------------------|---------------------------------------|-------------------------------|
| <b>Operating revenues:</b>     |                          |                                       |                               |
| Total operating revenues       | \$ 656,993               | \$ 328,496                            | \$ 328,497                    |
| <b>Operating expenses:</b>     |                          |                                       |                               |
| Total operating expenses       | 182,155                  | 91,077                                | 91,078                        |
| Operating income               | 474,838                  | 237,419                               | 237,419                       |
| <b>Non-operating revenues:</b> |                          |                                       |                               |
| Total non-operating revenue    | 11,814                   | 5,907                                 | 5,907                         |
| Change in net position         | 486,652                  | 243,326                               | 243,326                       |
| <b>Net position:</b>           |                          |                                       |                               |
| Beginning of year              | 3,916,444                | 1,958,222                             | 1,958,222                     |
| End of year                    | <u>\$ 4,403,096</u>      | <u>\$ 2,201,548</u>                   | <u>\$ 2,201,548</u>           |

**Palmdale Recycled Water Authority**  
**Condensed Statement of Cash Flows**  
**For the Year Ended December 31, 2020**

|   | <u>Audited<br/>Total</u> | <u>City of Palmdale<br/>50% Share</u> | <u>District<br/>50% Share</u> |
|---|--------------------------|---------------------------------------|-------------------------------|
| <b>Cash flows from operating activities:</b>  |                          |                                       |                               |
| Net cash provided by operating activities   | \$ 565,905               | \$ 282,952                            | \$ 282,953                    |
| <b>Cash flows from investing activities:</b>  |                          |                                       |                               |
| Net cash used in investing activities   | (127,160)                | (63,580)                              | (63,580)                      |
| Net increase in cash and cash equivalents   | 438,745                  | 219,372                               | 219,373                       |
| <b>Cash and cash equivalents:</b>   |                          |                                       |                               |
| Beginning of year   | 555,106                  | 277,553                               | 277,553                       |
| End of year   | <u>\$ 993,851</u>        | <u>\$ 496,925</u>                     | <u>\$ 496,926</u>             |
| <b>Reconciliation of operating income to net cash provided by operating activities:</b> |                          |                                       |                               |
| Operating income  | \$ 474,838               | \$ 237,419                            | \$ 237,419                    |
| Depreciation  | 53,407                   | 26,703                                | 26,704                        |
| Change in assets  | 5,556                    | 2,778                                 | 2,778                         |
| Change in liabilities   | 32,104                   | 16,052                                | 16,052                        |
| Net cash provided by operating activities   | <u>\$ 565,905</u>        | <u>\$ 282,952</u>                     | <u>\$ 282,953</u>             |

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

**NOTE 5 – CAPITAL ASSETS AND DEPRECIATION**

Capital asset activity for the year ended December 31, 2021, was as follows:

| Description                              | Balance,<br>Jan. 1, 2021 | Additions            | Deletions/<br>Transfers | Balance,<br>Dec. 31, 2021 |
|--|--------------------------|----------------------|-------------------------|---------------------------|
| <b>Non-depreciable assets:</b>           |                          |                      |                         |                           |
| Land and land rights                     | \$ 1,796,367             | \$ 13,310            | \$ -                    | \$ 1,809,677              |
| Construction-in-process                  | 24,059,702               | 3,024,929            | (17,899,123)            | 9,185,508                 |
| <b>Total non-depreciable assets</b>      | <b>25,856,069</b>        | <b>3,038,239</b>     | <b>(17,899,123)</b>     | <b>10,995,185</b>         |
| <b>Depreciable assets:</b>               |                          |                      |                         |                           |
| Buildings, wells and distribution system | 220,279,706              | 19,596,099           | (3,542)                 | 239,872,263               |
| SWP – participation rights               | 90,054,715               | 5,689,322            | -                       | 95,744,037                |
| Machinery and equipment                  | 11,673,911               | 271,031              | -                       | 11,944,942                |
| <b>Total depreciable assets</b>          | <b>322,008,332</b>       | <b>25,556,452</b>    | <b>(3,542)</b>          | <b>347,561,242</b>        |
| <b>Accumulated depreciation:</b>         |                          |                      |                         |                           |
| Buildings, wells and distribution system | (132,409,042)            | (4,938,054)          | 3,542                   | (137,343,554)             |
| SWP – participation rights               | (37,474,000)             | (4,222,272)          | -                       | (41,696,272)              |
| Machinery and equipment                  | (11,016,488)             | (332,120)            | -                       | (11,348,608)              |
| <b>Total accumulated depreciation</b>    | <b>(180,899,530)</b>     | <b>(9,492,446)</b>   | <b>3,542</b>            | <b>(190,388,434)</b>      |
| <b>Total depreciable assets, net</b>     | <b>141,108,802</b>       | <b>16,064,006</b>    | <b>-</b>                | <b>157,172,808</b>        |
| <b>Total capital assets, net</b>         | <b>\$ 166,964,871</b>    | <b>\$ 19,102,245</b> | <b>\$ (17,899,123)</b>  | <b>\$ 168,167,993</b>     |

Capital asset activity for the year ended December 31, 2020, was as follows:

| Description                              | Balance,<br>Jan. 1, 2020 | Additions           | Deletions/<br>Transfers | Balance,<br>Dec. 31, 2020 |
|--|--------------------------|---------------------|-------------------------|---------------------------|
| <b>Non-depreciable assets:</b>           |                          |                     |                         |                           |
| Land and land rights                     | \$ 1,796,367             | \$ -                | \$ -                    | \$ 1,796,367              |
| Construction-in-process                  | 18,310,825               | 7,019,603           | (1,270,726)             | 24,059,702                |
| <b>Total non-depreciable assets</b>      | <b>20,107,192</b>        | <b>7,019,603</b>    | <b>(1,270,726)</b>      | <b>25,856,069</b>         |
| <b>Depreciable assets:</b>               |                          |                     |                         |                           |
| Buildings, wells and distribution system | 219,371,188              | 917,340             | (8,822)                 | 220,279,706               |
| SWP – participation rights               | 84,816,508               | 5,238,207           | -                       | 90,054,715                |
| Machinery and equipment                  | 11,524,060               | 353,386             | (203,535)               | 11,673,911                |
| <b>Total depreciable assets</b>          | <b>315,711,756</b>       | <b>6,508,933</b>    | <b>(212,357)</b>        | <b>322,008,332</b>        |
| <b>Accumulated depreciation:</b>         |                          |                     |                         |                           |
| Buildings, wells and distribution system | (127,571,953)            | (4,845,911)         | 8,822                   | (132,409,042)             |
| SWP – participation rights               | (34,619,773)             | (2,854,227)         | -                       | (37,474,000)              |
| Machinery and equipment                  | (10,920,966)             | (299,057)           | 203,535                 | (11,016,488)              |
| <b>Total accumulated depreciation</b>    | <b>(173,112,692)</b>     | <b>(7,999,195)</b>  | <b>212,357</b>          | <b>(180,899,530)</b>      |
| <b>Total depreciable assets, net</b>     | <b>142,599,064</b>       | <b>(1,490,262)</b>  | <b>-</b>                | <b>141,108,802</b>        |
| <b>Total capital assets, net</b>         | <b>\$ 162,706,256</b>    | <b>\$ 5,529,341</b> | <b>\$ (1,270,726)</b>   | <b>\$ 166,964,871</b>     |

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

#### NOTE 5 – CAPITAL ASSETS AND DEPRECIATION (continued)

##### Construction-In-Process

The balance consists of the following projects:

| Project Description                            | Balance       | Balance       | Balance       |
|--|---------------|---------------|---------------|
|  | Dec. 31, 2019 | Dec. 31, 2020 | Dec. 31, 2021 |
| Sediment removal - Littlerock Dam              | \$ 4,149,560  | \$ 4,366,255  | \$ -          |
| Palmdale Regional Groundwater Recharge Project | 3,840,670     | 4,179,778     | 4,209,279     |
| Grade control structure – Littlerock Dam       | 8,789,902     | 10,697,276    | -             |
| 2020 Meter Exchange Project                    | -             | 9,044         | 294,302       |
| 2950 Zone Booster @3M Clearwell                | -             | 31,400        | 163,032       |
| Upper Armagosa Creek project                   | 382,402       | 2,127,355     | 2,127,355     |
| 45th St Tank Site - Altitude Valve Replacement | 123,584       | 123,584       | 127,466       |
| Well 36- Construction                          | -             | 19,180        | 265,377       |
| Well 14- Rehabilitation                        | -             | -             | 145,816       |
| Design and remodel District offices            | -             | 595,268       | -             |
| Spec 1601-ML Replacement Avenue P/25th         | 61,978        | 432,350       | -             |
| Spec 1504-ML Replacement Avenue V5             | 40,433        | 302,306       | -             |
| Well 7 - Rehabilitation                        | -             | 206,800       | -             |
| 2020 Large Meter/Vault Replacement Program     | 25,028        | 203,602       | -             |
| 2021 Large Meter/Vault Replacement Program     | -             | -             | 276,153       |
| Sierra Hwy Tie-in @ Harold St                  | -             | 14,908        | 709,889       |
| Various other minor projects <\$100,000        | 897,268       | 750,596       | 866,839       |
| Total construction-in-process                  | \$ 18,271,659 | \$ 24,059,702 | \$ 9,185,508  |

##### State Water Project – Participation Rights

In 1963, the District contracted with the State of California (the State) for 1,620 acre-feet per year of water from the State Water Project (SWP). In subsequent years, the annual entitlement increased to 21,300 acre-feet. The SWP distributes water from Northern California to Southern California through a system of reservoirs, canals, pumps stations, and power generation facilities.

The District is one of many participants contracting with the State of California Department of Water Resources (DWR) for a system to provide water throughout California. Under the terms of the State Water Contract, as amended, the District is obligated to pay allocable portions of the cost of construction of the system and ongoing operations and maintenance costs through at least the year 2035, regardless of the quantities of water available from the project. The District and the other contractors may also be responsible to the State for certain obligations by any contractor who defaults on its payments to the State.

Management's present intention is to exercise the District's option to extend the contractual period to at least 2052, under substantially comparable terms. This corresponds to an estimated 80-year service life for the original facilities. The State is obligated to provide specific quantities of water throughout the life of the contract, subject to certain conditions.

In addition to system on-aqueduct power facilities, the State has, either on their own or through joint ventures financed certain off-aqueduct power facilities (OAPF). The power generated is utilized by the system for water transportation and distribution purposes. Power generated in excess of system needs is marketed to various utilities and California's power market.

The District is entitled to a proportionate share of the revenues resulting from sales of excess power. The District and the other water providers are responsible for repaying the capital and operating costs of the OAPF regardless of the amount of power generated.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

#### NOTE 5 – CAPITAL ASSETS AND DEPRECIATION (continued)

The District capitalizes its share of system construction costs as participation rights in the State water facilities when such costs are billed by the DWR. Unamortized participation rights essentially represent a prepayment for future water deliveries through the State system. The District's share of system operations and maintenance costs is charged to expenses as incurred.

The District amortizes a portion of capitalized participation rights each year using a formula that considers the total estimated cost of the project, estimated useful life and estimated production capacity of the assets based upon information provided by the State of California. The participation rights have been included with the District's capital assets as shown in the schedule of changes in capital assets.

#### NOTE 6 – COMPENSATED ABSENCES

Summary changes to compensated absences balances for the year ended December 31, 2021, were as follows:

| Balance,<br>Jan. 1, 2021 | Additions  | Deletions    | Balance,<br>Dec. 31, 2021 | Due Within<br>One Year | Due in More<br>Than One Year |
|--------------------------|------------|--------------|---------------------------|------------------------|------------------------------|
| \$ 691,313               | \$ 673,944 | \$ (690,441) | \$ 674,816                | \$ 168,704             | \$ 506,112                   |

Summary changes to compensated absences balances for the year ended December 31, 2020, were as follows:

| Balance,<br>Jan. 1, 2020 | Additions  | Deletions    | Balance,<br>Dec. 31, 2020 | Due Within<br>One Year | Due in More<br>Than One Year |
|--------------------------|------------|--------------|---------------------------|------------------------|------------------------------|
| \$ 536,443               | \$ 681,447 | \$ (526,577) | \$ 691,313                | \$ 172,828             | \$ 518,485                   |

#### NOTE 7 – LONG-TERM DEBT

Changes in long-term debt for the year ended December 31, 2021, were as follows:

| Long-Term Debt                               | Balance,<br>Jan. 1, 2021 | Additions/<br>Adjustments | Payments/<br>Amortization | Balance,<br>Dec. 31, 2021 | Current<br>Portion | Non-Current<br>Portion |
|--|--------------------------|---------------------------|---------------------------|---------------------------|--------------------|------------------------|
| Capital lease payable - 2017                 | \$ 175,290               | \$ -                      | \$ (87,040)               | \$ 88,250                 | \$ 88,250          | \$ -                   |
| Loan payable - 2012                          | 3,904,026                | -                         | (1,261,002)               | 2,643,024                 | 1,300,396          | 1,342,628              |
| Revenue bonds payable - 2013                 | 18,930,000               | (9,530,000)               | (565,000)                 | 8,835,000                 | 595,000            | 8,240,000              |
| Revenue bonds payable - discount             | (97,842)                 | -                         | 4,301                     | (93,541)                  | -                  | (93,541)               |
| Revenue bonds payable - premium              | 2,421,265                | -                         | (106,429)                 | 2,314,836                 | -                  | 2,314,836              |
| Revenue bonds payable, net - 2013            | 21,253,423               | (9,530,000)               | (667,128)                 | 11,056,295                | 595,000            | 10,461,295             |
| Revenue bonds payable - 2018                 | 12,805,000               | -                         | -                         | 12,805,000                | 250,000            | 12,555,000             |
| Revenue bonds payable - premium              | 1,028,019                | -                         | (37,046)                  | 990,973                   | -                  | 990,973                |
| Revenue bonds payable, net - 2018            | 13,833,019               | -                         | (37,046)                  | 13,795,973                | 250,000            | 13,545,973             |
| Revenue refunding bonds - non-taxable - 2020 | 8,978,105                | -                         | (12,501)                  | 8,965,604                 | 12,913             | 8,952,691              |
| Revenue refunding bonds - taxable - 2020     | 14,555,000               | -                         | (200,000)                 | 14,355,000                | 165,000            | 14,190,000             |
| Revenue refunding bonds - 2020               | 23,533,105               | -                         | (212,501)                 | 23,320,604                | 177,913            | 23,142,691             |
| Revenue refunding bonds - non-taxable - 2021 | -                        | 9,390,000                 | -                         | 9,390,000                 | -                  | 9,390,000              |
| Revenue refunding bonds - taxable - 2021     | -                        | 10,549,330                | -                         | 10,549,330                | 192,830            | 10,356,500             |
| Revenue bonds payable - premium              | -                        | 877,309                   | (12,185)                  | 865,124                   | -                  | 865,124                |
| Revenue bonds payable, net - 2021            | -                        | 20,816,639                | (12,185)                  | 20,804,454                | 192,830            | 20,611,624             |
| Total long-term debt                         | \$ 62,698,863            | \$ 11,286,639             | \$ (2,264,717)            | \$ 71,708,600             | \$ 2,604,389       | \$ 69,104,211          |

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

**NOTE 7 – LONG-TERM DEBT (continued)**

Changes in long-term debt for the year ended December 31, 2020, were as follows:

| <b>Long-Term Debt</b>                        | <b>Balance,<br/>Jan. 1, 2020</b> | <b>Additions/<br/>Adjustments</b> | <b>Payments/<br/>Amortization</b> | <b>Balance,<br/>Dec. 31, 2020</b> | <b>Current<br/>Portion</b> | <b>Non-Current<br/>Portion</b> |
|--|----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------|--------------------------------|
| Capital lease payable – 2017                 | \$ 429,317                       | \$ -                              | \$ (254,027)                      | \$ 175,290                        | \$ 87,040                  | \$ 88,250                      |
| Loan payable – 2012                          | 5,128,609                        | -                                 | (1,224,583)                       | 3,904,026                         | 1,261,002                  | 2,643,024                      |
| Revenue bonds payable – 2013                 | 40,685,000                       | (21,220,000)                      | (535,000)                         | 18,930,000                        | 565,000                    | 18,365,000                     |
| Revenue bonds payable – discount             | (102,142)                        | -                                 | 4,300                             | (97,842)                          | -                          | (97,842)                       |
| Revenue bonds payable – premium              | 2,527,695                        | -                                 | (106,430)                         | 2,421,265                         | -                          | 2,421,265                      |
| Revenue bonds payable, net – 2013            | 43,110,553                       | (21,220,000)                      | (637,130)                         | 21,253,423                        | 565,000                    | 20,688,423                     |
| Revenue bonds payable - 2018                 | 12,805,000                       | -                                 | -                                 | 12,805,000                        | -                          | 12,805,000                     |
| Revenue bonds payable - premium              | 1,065,063                        | -                                 | (37,044)                          | 1,028,019                         | -                          | 1,028,019                      |
| Revenue bonds payable, net - 2018            | 13,870,063                       | -                                 | (37,044)                          | 13,833,019                        | -                          | 13,833,019                     |
| Revenue refunding bonds - non-taxable - 2020 | -                                | 9,008,523                         | (30,418)                          | 8,978,105                         | 12,501                     | 8,965,604                      |
| Revenue refunding bonds - taxable - 2020     | -                                | 14,555,000                        | -                                 | 14,555,000                        | 200,000                    | 14,355,000                     |
| Revenue refunding bonds - 2020               | -                                | 23,563,523                        | (30,418)                          | 23,533,105                        | 212,501                    | 23,320,604                     |
| Total long-term debt                         | \$ 62,538,542                    | \$ 2,343,523                      | \$ (2,183,202)                    | \$ 62,698,863                     | \$ 2,125,543               | \$ 60,573,320                  |

**A. Capital Lease Payable – 2017**

On January 18, 2019, the District entered into an \$830,000 installment purchase agreement in order to acquire, construct, equip, and furnish certain improvements to its facilities. Capital lease payments consisting of principal and interest in the amount of \$89,477 are due every six months beginning in July, 2017 until January, 2022 at an annual interest rate of 2.78%.

Annual debt service requirements for the capital lease payable are as follows:

| <b>Year</b> | <b>Principal</b> | <b>Interest</b> | <b>Total</b> |
|-------------|------------------|-----------------|--------------|
| 2022        | 88,250           | 1,227           | 89,477       |
| Total       | 88,250           | \$ 1,227        | \$ 89,477    |

**B. Loan Payable – 2012**

In November 2012, the District issued \$12,765,208 in a private-placement Loan Payable-2012, with maturities from 2013 through 2023 and an interest rate of 3.10%. The net proceeds of the issuance were used to advance refund (an in-substance defeasance) \$12,505,000 of aggregate principal amount of the District's COPs-1998 with an average interest rate of 4.73%. The District has pledged 100% of its water revenues to collateralize the debt.

The initial escrow deposit was used to purchase government sponsored agency obligation securities. These securities were deposited in an irrevocable trust with an escrow agent to provide for all future debt service payments on the COPs-1998.

The advance refunding resulted in a difference between the reacquisition price and the net carrying value amount of the old debt of \$846,845. This difference is being amortized through 2023 (the life of the debt) using the straight-line method as a deferred loss on debt defeasance. The District completed the advance refunding to reduce its total debt service payments over the next 11 years by approximately \$1.293 million and to obtain an economic gain (the difference between the present values of the old and new debt service payments) of approximately \$1.154 million.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 7 – LONG-TERM DEBT (continued)

##### B. Loan Payable – 2012 (continued)

Annual debt service requirements for the refunding certificates of participation are as follows:

| <u>Year</u>       | <u>Principal</u>    | <u>Interest</u> | <u>Total</u> |
|-------------------|---------------------|-----------------|--------------|
| 2022              | 1,300,396           | 71,933          | 1,372,329    |
| 2023              | 1,342,628           | 31,296          | 1,373,918    |
| Total             | 2,643,024           | \$ 103,229      | \$ 2,746,247 |
| Less: current     | <u>(1,300,396)</u>  |                 |              |
| Total non-current | <u>\$ 1,342,628</u> |                 |              |

##### C. Revenue Bonds Payable

###### Certificates of Participation – 2004

In August 2004, the District issued \$38,285,000 of Certificates of Participation-2004 (COPs-2004), with maturities from 2008 through 2034 and an average interest rate of 4.90%. The net proceeds are to be used to finance the acquisition, construction, and improvement of certain water facilities and to pay issuance costs of the debt. Issuance of the COPs-2004 resulted in a premium of \$328,767 which was being amortized over the life of the issue using the straight-line method. In 2013, the District advance refunded the remaining \$35,560,000 of the COPs-2004 into the revenue bonds payable issuance.

###### Revenue Bonds Payable – 2013

The Palmdale Water District Public Financing Authority (Authority) issued \$44,350,000 in Revenue Bonds Payable-2013 (Bonds-2013) with maturities from 2013 through 2043 with an interest rate range between 2.00% and 5.00% pursuant to an Indenture of Trust, dated as of May 1, 2013, by and between the Authority and The Bank of New York Mellon Trust Company, N.A., as trustee. The Bonds-2013 were issued: (i) to prepay the District's outstanding Certificates of Participation-2004; (ii) to finance certain improvements to the District's Water System; (iii) to purchase a municipal bond insurance policy to guarantee payment of the principal of and interest on the Bonds-2013 in case of default; (iv) to purchase a municipal bond debt service reserve insurance policy for deposit in the Reserve Fund; and (v) to pay the costs of issuing the Bonds-2013. The District has pledged 100% of its water revenues to collateralize the debt.

The refunding resulted in a premium on the issuance of \$3,228,354 and a discount of (\$130,456) which are being amortized over the remaining debt service years. Principal and interest payments are due in April and October of each year.

The advance refunding resulted in a difference between the reacquisition price and the net carrying value amount of the old debt of \$2,278,663. This difference is being amortized through 2043 (the life of the debt) using the straight-line method as a deferred amount on debt defeasance.

In 2020, the District advanced refunded \$21,220,000 of debt service payments from 2031 to 2043 by issuing a non-taxable and a taxable issue.

**PALMDALE WATER DISTRICT***Notes to Financial Statements**December 31, 2021 and 2020***NOTE 7 – LONG-TERM DEBT (continued)****C. Revenue Bonds Payable (continued)**

Annual debt service requirements for the revenue bonds payable are as follows:

| <u>Year</u>       | <u>Principal</u>    | <u>Interest</u>     | <u>Total</u>         |
|-------------------|---------------------|---------------------|----------------------|
| 2022              | 595,000             | 298,388             | 893,388              |
| 2023              | 620,000             | 271,300             | 891,300              |
| 2024              | 2,145,000           | 240,638             | 2,385,638            |
| 2025              | -                   | 191,625             | 191,625              |
| 2026              | -                   | 191,625             | 191,625              |
| 2027-2030         | 5,475,000           | 624,443             | 6,099,443            |
| Total             | 8,835,000           | <u>\$ 1,818,019</u> | <u>\$ 10,653,019</u> |
| Less: current     | <u>(595,000)</u>    |                     |                      |
| Total non-current | <u>\$ 8,240,000</u> |                     |                      |

**Deferred Amount on Debt Defeasance, Net**

Changes in the deferred amount on long-term debt defeasance, net for the year ended December 31, 2021, was as follows:

| <u>Description</u>                      | <u>Balance,<br/>Jan. 1, 2021</u> | <u>Additions</u> | <u>Amortization</u> | <u>Balance,<br/>Dec. 31, 2021</u> |
|---|----------------------------------|------------------|---------------------|-----------------------------------|
| Deferred amount on debt defeasance, net | <u>\$ 1,760,000</u>              |                  | <u>\$ (35,890)</u>  | <u>\$ 1,724,110</u>               |

Changes in the deferred amount on long-term debt defeasance, net for the year ended December 31, 2020, was as follows:

| <u>Description</u>                      | <u>Balance,<br/>Jan. 1, 2020</u> | <u>Additions</u>    | <u>Amortization</u> | <u>Balance,<br/>Dec. 31, 2020</u> |
|---|----------------------------------|---------------------|---------------------|-----------------------------------|
| Deferred amount on debt defeasance, net | <u>\$ -</u>                      | <u>\$ 1,795,890</u> | <u>\$ (35,890)</u>  | <u>\$ 1,760,000</u>               |

**Revenue Bonds Payable – 2018**

The Palmdale Water District Public Financing Authority (Authority) issued \$12,805,000 in Water Revenue Bonds, Series 2018A (2018A Bonds) with maturities from 2022 through 2048 with an interest rate range between 3.125% and 5.00% pursuant to an Indenture of Trust, dated as of June 1, 2018, by and between the Authority and The Bank of New York Mellon Trust Company, N.A., as trustee. The 2018A Bonds are being issued: (i) to finance certain improvements to the District’s water system, including Littlerock Dam; (ii) to purchase a municipal bond insurance policy to guarantee payment of the principal of and interest on the 2018A Bonds; (iii) to purchase a municipal bond debt service reserve insurance policy in case of default; and (iv) to pay the costs of issuing the 2018A Bonds. The District has pledged 100% of its water revenues to collateralize the debt. Interest due on the 2018A Bonds is payable semiannually on April 1 and October 1 of each year, commencing October 1, 2018, while principal payments are payable on October 1 of each year, commencing October 1, 2022.



**PALMDALE WATER DISTRICT***Notes to Financial Statements**December 31, 2021 and 2020*

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**NOTE 7 – LONG-TERM DEBT (continued)****D. Revenue Refunding Bonds Payable (continued)****Revenue Bonds Payable – 2018 (continued)**

The 2018A Bond issuance resulted in a \$1,120,632 premium which is being amortized over the remaining debt service years. Cost of the debt issuance was \$308,867 which was expensed in the year of issuance. Annual debt service requirements for the revenue bonds payable are as follows:

| <u>Year</u>       | <u>Principal</u>     | <u>Interest</u>     | <u>Total</u>         |
|-------------------|----------------------|---------------------|----------------------|
| 2022              | 250,000              | 568,893             | 818,893              |
| 2023              | 265,000              | 556,394             | 821,394              |
| 2024              | 275,000              | 545,794             | 820,794              |
| 2025              | 290,000              | 532,044             | 822,044              |
| 2026              | 305,000              | 517,544             | 822,544              |
| 2027-2031         | 1,765,000            | 2,343,719           | 4,108,719            |
| 2032-2036         | 2,195,000            | 1,905,419           | 4,100,419            |
| 2037-2041         | 2,620,000            | 1,479,619           | 4,099,619            |
| 2042-2046         | 3,300,000            | 797,512             | 4,097,512            |
| 2047-2048         | <u>1,540,000</u>     | <u>102,363</u>      | <u>1,642,363</u>     |
| Total             | 12,805,000           | <u>\$ 9,349,301</u> | <u>\$ 22,154,301</u> |
| Less: current     | <u>(250,000)</u>     |                     |                      |
| Total non-current | <u>\$ 12,555,000</u> |                     |                      |

**Revenue Refunding Bonds – Non-Taxable – 2020**

In May 2020, the Palmdale Water District Public Financing Authority (Authority) issued \$9,008,523 in Revenue Refunding Bonds – Non-Taxable – Series 2020 (Bonds-2020) with maturities from 2020 through 2043 with an interest rate range coupon of 3.29% pursuant to a private placement, dated as of May 28, 2020, by and between the Authority and Western Alliance Bank as a private-placement. The Bonds-2020 were issued: (i) to prepay the \$8,810,000 of District’s outstanding Bonds-2013 principal from 2035 to 2043; and (ii) to pay the costs of issuing the Bonds-2020 of \$130,000. The District has pledged 100% of its water revenues to collateralize the debt. Principal and interest payments are due in April and October of each year.

The advance refunding resulted in a net present value benefit to the District of \$751,628 in interest savings from the refunding.

**PALMDALE WATER DISTRICT***Notes to Financial Statements**December 31, 2021 and 2020*

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**NOTE 7 – LONG-TERM DEBT (continued)****D. Revenue Refunding Bonds Payable (continued)****Revenue Refunding Bonds – Non-Taxable – 2020 (continued)**

Annual debt service requirements for the revenue refunding bonds payable are as follows:

| <u>Year</u>       | <u>Principal</u>    | <u>Interest</u>     | <u>Total</u>         |
|-------------------|---------------------|---------------------|----------------------|
| 2022              | 12,913              | 294,968             | 307,881              |
| 2023              | 13,337              | 294,544             | 307,881              |
| 2024              | 13,776              | 294,105             | 307,881              |
| 2025              | 14,229              | 293,652             | 307,881              |
| 2026              | 14,698              | 293,183             | 307,881              |
| 2027-2031         | 81,067              | 1,458,337           | 1,539,404            |
| 2032-2036         | 1,784,416           | 1,416,789           | 3,201,205            |
| 2037-2041         | 4,858,048           | 847,555             | 5,705,603            |
| 2042-2043         | <u>2,173,120</u>    | <u>107,842</u>      | <u>2,280,962</u>     |
| Total             | 8,965,604           | <u>\$ 5,300,975</u> | <u>\$ 14,266,579</u> |
| Less: current     | <u>(12,913)</u>     |                     |                      |
| Total non-current | <u>\$ 8,952,691</u> |                     |                      |

**Revenue Refunding Bonds – Taxable – 2020**

In November 2021, the Palmdale Water District Public Financing Authority (Authority) issued \$14,555,000 in Revenue Refunding Bonds – Taxable – Series 2020 (Bonds-2020 Taxable) with maturities from 2020 through 2034 with an interest rate coupon of 2.79% pursuant to an Indenture of Trust, dated as of November 3, 2020, by and between the Authority and The Bank of New York Mellon Trust Company, N.A., as trustee. The Bonds-2020 Taxable were issued: (i) to prepay the \$12,410,000 of District’s outstanding Bonds-2013 principal from 2031 to 2034; (ii) to purchase a municipal bond insurance policy to guarantee payment of the principal of and interest on the Bonds-2020 Taxable in case of default; and (iii) to pay the costs of issuing the Bonds-2020 Taxable \$268,953. The District has pledged 100% of its water revenues to collateralize the debt. Principal and interest payments are due in October of each year.

The advance refunding resulted in a difference between the reacquisition price and the net carrying value amount of the old debt of \$1,795,890. This difference is being amortized through 2034 (the life of the debt) using the straight-line method as a deferred amount on debt defeasance.

The advance refunding resulted in a net present value benefit to the District of \$784,897 in interest savings from the refunding.

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
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**NOTE 7 – LONG-TERM DEBT (continued)**

**D. Revenue Refunding Bonds Payable (continued)**

**Revenue Refunding Bonds – Taxable – 2020 (continued)**

Annual debt service requirements for the revenue refunding bonds payable are as follows:

| <u>Year</u>       | <u>Principal</u>     | <u>Interest</u>     | <u>Total</u>         |
|-------------------|----------------------|---------------------|----------------------|
| 2022              | 165,000              | 388,990             | 553,990              |
| 2023              | 165,000              | 387,727             | 552,727              |
| 2024              | 170,000              | 386,290             | 556,290              |
| 2025              | 170,000              | 384,305             | 554,305              |
| 2026              | 170,000              | 381,894             | 551,894              |
| 2027-2031         | 3,790,000            | 1,854,498           | 5,644,498            |
| 2032-2034         | <u>9,725,000</u>     | <u>570,537</u>      | <u>10,295,537</u>    |
| Total             | 14,355,000           | <u>\$ 4,354,241</u> | <u>\$ 18,709,241</u> |
| Less: current     | <u>(165,000)</u>     |                     |                      |
| Total non-current | <u>\$ 14,190,000</u> |                     |                      |

**Deferred Amount on Debt Defeasance, Net**

Changes in the deferred amount on long-term debt defeasance, net for the year ended December 31, 2021, was as follows:

| <u>Description</u>                      | <u>Balance,<br/>Jan. 1, 2021</u> | <u>Additions</u> | <u>Amortization</u> | <u>Balance,<br/>Dec. 31, 2021</u> |
|---|----------------------------------|------------------|---------------------|-----------------------------------|
| Deferred amount on debt defeasance, net | <u>\$ 1,760,000</u>              |                  | <u>\$ (35,890)</u>  | <u>\$ 1,724,110</u>               |

Changes in the deferred amount on long-term debt defeasance, net for the year ended December 31, 2020, was as follows:

| <u>Description</u>                      | <u>Balance,<br/>Jan. 1, 2020</u> | <u>Additions</u>    | <u>Amortization</u> | <u>Balance,<br/>Dec. 31, 2020</u> |
|---|----------------------------------|---------------------|---------------------|-----------------------------------|
| Deferred amount on debt defeasance, net | <u>\$ -</u>                      | <u>\$ 1,795,890</u> | <u>\$ (35,890)</u>  | <u>\$ 1,760,000</u>               |

**NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION**

**Summary**

The following balances on the balance sheet will be addressed in this footnote as follows:

| <u>Description</u>                            | <u>2021</u>  | <u>2020</u>  |
|---|--------------|--------------|
| OPEB related deferred outflows                | \$ 3,245,025 | \$ 3,350,850 |
| Net other post-employment benefits obligation | 12,751,874   | 16,479,807   |
| OPEB related deferred inflows                 | 5,201,829    | 1,035,319    |

**Plan Description - Eligibility**

The District administers its post-employment benefits plan, a single-employer defined benefit plan (the Plan). The following requirements must be satisfied in order to be eligible for post-employment medical, dental, and vision benefits: (1) Attainment of age 55, and 20 years for full-time service, and (2) retirement from the District (the District must be the last employer prior to retirement).

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION (continued)

##### Plan Description - Benefits

The District offers post-employment medical, dental, and vision benefits to retired employees who satisfy the eligibility rules. Spouses and surviving spouses are also eligible to receive benefits. Retirees may enroll in any plan available through the ACWA-JPIA medical, dental, and vision programs. The contribution requirements of plan members and the District are established and may be amended by the Board of Directors. The following is a description of the current retiree benefit plan:

|                          | <u>Participants</u>                           |
|--------------------------|---|
| Benefit types provided   | Medical, dental and vision                    |
| Duranton of benefits     | Lifetime                                      |
| Required service         | CalPERS Retirement and 20 years service       |
| Minimum age              | 55 years and CalPERS Retirement from District |
| Dependent coverage       | Spouse and dependent up to cap                |
| District contribution    | Maximum up to \$1,850 cap                     |
| District cap on coverage | \$1,850                                       |

##### Employees covered by benefit terms

At December 31, 2021 and 2020, the following employees were covered by the benefit terms:

| <u>Plan Members</u>                                  | <u>Covered Participants</u> |             |
|--|-----------------------------|-------------|
|  | <u>2021</u>                 | <u>2020</u> |
| Active members                                       | 85                          | 86          |
| Inactives entitled to but not yet receiving benefits | -                           | -           |
| Inactives currently receiving benefits               | 23                          | 22          |
| <b>Total plan members</b>                            | <b>108</b>                  | <b>108</b>  |

##### A. Total OPEB Liability

The District's total OPEB liabilities of \$12,751,874 \$16,479,807 as of December 31, 2021 and 2020, respectively, were measured as of December 31, 2020 and 2019 (Measurement Dates), and were determined by an actuarial valuation as of December 31, 2019.

##### Actuarial assumptions and other inputs

The total OPEB liability in the December 31, 2020 and 2019 (Measurement Dates) actuarial valuation roll-forwards were determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement, unless otherwise specified:

|                           | <u>2021</u>                         | <u>2020</u>                        |
|---------------------------|-------------------------------------|------------------------------------|
| Discount Rate             | 2.12%                               | 2.74%                              |
| Inflation                 | 2.50%                               | 2.75%                              |
| Salary Increases          | 2.75% per annum, in aggregate       | 3.0% per annum, in aggregate       |
| Investment Rate of Return | 2.12%                               | 2.74%                              |
| Mortality Rate            | CalPERS Membership Data             | CalPERS Membership Data            |
| Pre-Retirement Turnover   | CalPERS Membership Data             | CalPERS Membership Data            |
| Healthcare Trend Rate     | Non-Medicare 6.5% to Medicare 5.65% | Non-Medicare 7.5% to Medicare 6.5% |

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
 December 31, 2021 and 2020

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**NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION (continued)**

**A. Total OPEB Liability (continued)**

Mortality, Retirement & Turnover Assumptions

The mortality assumptions are based on the 1997-2015 Experience Study for CalPERS Active and Retiree Mortality for Miscellaneous and Safety Employees table created by CalPERS.

Discount Rate

The discount rate used to measure the total OPEB liability was 2.12% as of December 31, 2020 and 2.74% as of December 31, 2019. The projection of cash flows used to determine the discount rate assumed that contributions would be sufficient to fully fund the obligation over a period not to exceed 30 years. The Bond Buyer 20 Bond Index was used.

**B. Changes in the Total OPEB Liability**

The following table is based on the roll-forward of the December 31, 2020 (Measurement Date) actuarial valuation:

|  | <b>Total<br/>OPEB Liability</b> |
|--|---------------------------------|
| <b>Balance at January 1, 2021 (MD Jan. 1, 2020)</b>    | <b>\$ 16,479,807</b>            |
| <b>Changes for the year:</b>                           |                                 |
| Service cost   | 677,977                         |
| Interest   | 464,926                         |
| Assumption changes                                     | 231,952                         |
| Changes of benefit terms                               | 142,064                         |
| Actual vs expected experience                          | (4,865,442)                     |
| Benefit payments                                       | (379,410)                       |
| Net changes  | (3,727,933)                     |
| <b>Balance at December 31, 2021 (MD Dec. 31, 2020)</b> | <b>\$ 12,751,874</b>            |

The following table is based on the roll-forward of the December 31, 2019 (Measurement Date) actuarial valuation:

|  | <b>Total<br/>OPEB Liability</b> |
|--|---------------------------------|
| <b>Balance at January 1, 2020 (MD Jan. 1, 2019)</b>    | <b>\$ 12,965,681</b>            |
| <b>Changes for the year:</b>                           |                                 |
| Service cost   | 459,128                         |
| Interest   | 542,470                         |
| Assumption changes                                     | 2,835,458                       |
| Benefit payments                                       | (322,930)                       |
| Net changes  | 3,514,126                       |
| <b>Balance at December 31, 2020 (MD Dec. 31, 2019)</b> | <b>\$ 16,479,807</b>            |

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

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**NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION (continued)**

**B. Changes in the Total OPEB Liability (continued)**

**Sensitivity of the total OPEB liability to changes in the discount rate**

The following presents the total OPEB liability of the District, as well as what the District's total OPEB liability would be if it were calculated using a discount rate that is one percentage-point lower or one percentage-point higher than the current discount rate.

The following table is based on the December 31, 2020 (Measurement Date) actuarial valuation:

| <u>1% Decrease</u>   | <u>Discount Rate</u> | <u>1% Increase</u>   |
|----------------------|----------------------|----------------------|
| <u>1.12%</u>         | <u>2.12%</u>         | <u>3.12%</u>         |
| <u>\$ 14,844,495</u> | <u>\$ 12,751,874</u> | <u>\$ 11,052,701</u> |

The following table is based on the December 31, 2019 (Measurement Date) actuarial valuation:

| <u>1% Decrease</u>   | <u>Discount Rate</u> | <u>1% Increase</u>   |
|----------------------|----------------------|----------------------|
| <u>1.74%</u>         | <u>2.74%</u>         | <u>3.74%</u>         |
| <u>\$ 19,422,961</u> | <u>\$ 16,479,807</u> | <u>\$ 14,120,365</u> |

**Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates**

The following presents the total OPEB liability of the District, as well as what the District's total OPEB liability would be if it were calculated using healthcare cost trend rates that are one percentage-point lower or one percentage-point higher than the current healthcare cost trend rates.

The following table is based on the December 31, 2020 (Measurement Date) actuarial valuation:

| <u>1% Decrease</u>   | <u>Healthcare Cost<br/>Current Trend</u> | <u>1% Increase</u>   |
|----------------------|--|----------------------|
| <u>\$ 10,734,986</u> | <u>\$ 12,751,874</u>                     | <u>\$ 15,362,029</u> |

The following table is based on the December 31, 2019 (Measurement Date) actuarial valuation:

| <u>1% Decrease</u>   | <u>Healthcare Cost<br/>Current Trend</u> | <u>1% Increase</u>   |
|----------------------|--|----------------------|
| <u>\$ 13,661,499</u> | <u>\$ 16,479,807</u>                     | <u>\$ 20,151,057</u> |

**PALMDALE WATER DISTRICT***Notes to Financial Statements**December 31, 2021 and 2020***NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION (continued)****C. OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB**

For the year ended December 31, 2021 and 2020, the District recognized OPEB expense/(credit) of \$1,013,307 and \$1,250,555, respectively.

At December 31, 2021, the District reported \$3,245,025 of deferred outflows of resources and \$5,201,829 of deferred inflows of resources for related to the net OPEB obligation as follows:

| <u>Description</u>  | <u>Deferred Outflows<br/>of Resources</u> | <u>Deferred Inflows<br/>of Resources</u> |
|---|---|--|
| District contributions subsequent to the measurement date of the net OPEB liability | \$ 468,905                                | \$ -                                     |
| Changes in assumptions  | 2,776,120                                 | (883,066)                                |
| Net difference in earnings on plan investments                                      | -   | (4,318,763)                              |
| Total   | <u>\$ 3,245,025</u>                       | <u>\$ (5,201,829)</u>                    |

At December 31, 2021, the District reported \$468,905 of deferred outflows of resources for employer contributions made subsequent to the measurement date which will be used to reduce the net OPEB liability balance in the coming year. Amortization of the remaining deferred outflows/(inflows) of resources related to the net OPEB obligation is as follows:

|                     | <u>Amount</u>         |
|---------------------|-----------------------|
| Year Ended June 30: |                       |
| 2022                | \$ (271,660)          |
| 2023                | (271,660)             |
| 2024                | (271,660)             |
| 2025                | (271,660)             |
| 2026                | (287,461)             |
| Thereafter          | (582,703)             |
| Total               | <u>\$ (1,956,804)</u> |

At December 31, 2020, the District reported \$3,350,850 of deferred outflows of resources and \$1,035,319 of deferred inflows of resources for related to the net OPEB obligation as follows:

| <u>Description</u>  | <u>Deferred Outflows<br/>of Resources</u> | <u>Deferred Inflows<br/>of Resources</u> |
|---|---|--|
| District contributions subsequent to the measurement date of the net OPEB liability | \$ 379,410                                | \$ -                                     |
| Changes in assumptions  | 2,971,440                                 | (1,035,319)                              |
| Total   | <u>\$ 3,350,850</u>                       | <u>\$ (1,035,319)</u>                    |

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

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**NOTE 8 – NET OTHER POSTEMPLOYMENT BENEFITS (OPEB) OBLIGATION (continued)**

**C. OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB (continued)**

At December 31, 2020, the District reported \$379,410 of deferred outflows of resources for employer contributions made subsequent to the measurement date which will be used to reduce the net OPEB liability balance in the coming year. Amortization of the remaining deferred outflows/(inflows) of resources related to the net OPEB obligation is as follows:

|                     | <u>Amount</u>       |
|---------------------|---------------------|
| Year Ended June 30: |                     |
| 2021                | \$ 248,957          |
| 2022                | 248,957             |
| 2023                | 248,957             |
| 2024                | 248,957             |
| 2025                | 248,957             |
| Thereafter          | <u>691,336</u>      |
| Total               | <u>\$ 1,936,121</u> |

**NOTE 9 – PENSION PLAN**

**Summary**

The following balances on the balance sheet will be addressed in this footnote as follows:

| <u>Description</u>                | <u>2021</u>  | <u>2020</u>  |
|-----------------------------------|--------------|--------------|
| Pension related deferred outflows | \$ 1,778,407 | \$ 2,055,953 |
| Net pension liability             | 6,056,636    | 11,573,771   |
| Pension related deferred inflows  | 5,498,117    | 264,680      |

Qualified employees are covered under a multiple-employer defined benefit pension plan maintained by agencies of the State of California known as the California Public Employees' Retirement System (CalPERS), or "The Plan". The net pension liability balances have a Measurement Date of June 30, 2021 and June 30, 2020, respectively, which are rolled-forward for the District's fiscal years ended December 31, 2021 and December 31, 2020.



**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

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**NOTE 9 – PENSION PLAN (continued)**

**A. General Information about the Pension Plan**

**The Plan**

The District has engaged with CalPERS to administer the following pension plans for its employees (members):

|   | <b>Miscellaneous Plans</b>  |                                |
|---|-----------------------------|--------------------------------|
|   | <b>Classic<br/>Tier 1</b>   | <b>PEPRA<br/>Tier 2</b>        |
|   | Prior to<br>January 1, 2013 | On or after<br>January 1, 2013 |
| Hire date   |                             |                                |
| Benefit formula                                   | 2.0% @ 55                   | 2.0% @ 62                      |
| Benefit vesting schedule                          | 5-years of service          | 5-years of service             |
| Benefits payments                                 | monthly for life            | monthly for life               |
| Retirement age                                    | 50 - 67 & up                | 52 - 67 & up                   |
| Monthly benefits, as a % of eligible compensation | 1.426% to 2.418%            | 1.0% to 2.5%                   |
| Required member contribution rates                | 6.906%                      | 6.750%                         |
| Required employer contribution rates – FY 2021    | 10.221%                     | 6.985%                         |
| Required employer contribution rates – FY 2020    | 10.221%                     | 6.985%                         |

**Plan Description, Benefits Provided and Employees Covered**

The Plan is a cost-sharing multiple-employer defined benefit pension plan administered by the California Public Employees' Retirement System (CalPERS). The District contributes to the miscellaneous risk pool within the Plan. A full description of the pension plan benefit provisions, assumptions for funding purposes but not accounting purposes, and membership information is listed in the June 30, 2020 Annual Actuarial Valuation Report. This report is a publicly available valuation report that can be obtained at CalPERS website under Forms and Publications.

The California Public Employees' Pension Reform Act (PEPRA), which took effect in January 2013, changes the way CalPERS retirement benefits are applied, and places compensation limits on members. As a result of these changes since PEPRA's adoption in January 2013, the District now has two unique CalPERS plans to which it makes contributions within the miscellaneous risk pool: the "classic" plan, which includes covered employees who have established membership in a CalPERS plan prior to January 2013, as well as the "PEPRA/new" plan, which includes covered employees who have established membership in a CalPERS plan after January 2013. Each plan or membership contains unique benefits levels, which are enumerated in the June 30, 2021 and 2020 Annual Actuarial Valuation Reports.

At June 30, 2021, the following members were covered by the benefit terms:

| <b>Plan Members</b>                | <b>Miscellaneous Plans</b> |                         | <b>Total</b> |
|------------------------------------|----------------------------|-------------------------|--------------|
|                                    | <b>Classic<br/>Tier 1</b>  | <b>PEPRA<br/>Tier 2</b> |              |
| Active members                     | 55                         | 31                      | 86           |
| Transferred and terminated members | 42                         | 6                       | 48           |
| Retired members and beneficiaries  | 58                         | 1                       | 59           |
| <b>Total plan members</b>          | <b>155</b>                 | <b>38</b>               | <b>193</b>   |

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 9 – PENSION PLAN (continued)

##### A. General Information about the Pension Plan (continued)

###### Plan Description, Benefits Provided and Employees Covered (continued)

At June 30, 2020, the following members were covered by the benefit terms:

| Plan Members                       | Miscellaneous Plans |           | Total      |
|------------------------------------|---------------------|-----------|------------|
|                                    | Classic             | PEPRA     |            |
|                                    | Tier 1              | Tier 2    |            |
| Active members                     | 59                  | 26        | 85         |
| Transferred and terminated members | 44                  | 4         | 48         |
| Retired members and beneficiaries  | 54                  | -         | 54         |
| <b>Total plan members</b>          | <b>157</b>          | <b>30</b> | <b>187</b> |

###### Contribution Description

Section 20814(c) of the California Public Employees' Retirement Law (PERL) requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through the CalPERS annual actuarial valuation process. For public agency cost-sharing plans covered by either the Miscellaneous or Safety risk pools, the Plan's actuarially determined rate is based on the estimated amount necessary to pay the Plan's allocated share of the risk pool's costs of benefits earned by employees during the year, and any unfunded accrued liability. The employer is required to contribute the difference between the actuarially determined rate and the contribution rate of employees.

Contributions for the year ended December 31, 2021, (Measurement Date June 30, 2021) were as follows:

| Contribution Type          | Total               |
|----------------------------|---------------------|
| Contributions – employer   | \$ 1,619,062        |
| Contributions – members    | -                   |
| <b>Total contributions</b> | <b>\$ 1,619,062</b> |

Contributions for the year ended December 31, 2020, (Measurement Date June 30, 2020) were as follows:

| Contribution Type          | Total               |
|----------------------------|---------------------|
| Contributions – employer   | \$ 1,493,530        |
| Contributions – members    | 522,632             |
| <b>Total contributions</b> | <b>\$ 2,016,162</b> |

Employer contributions rates may change if plan contracts are amended. It is the responsibility of the employer to make necessary accounting adjustments to reflect the impact due to any Employer Paid Member Contributions or situations where members are paying a portion of the employer contribution.

For the years ended December 31, 2021 and 2020, the contributions recognized as part of pension expense for the Plan were \$1,619,062 and \$1,493,530.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 9 – PENSION PLAN (continued)

##### B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)

###### *Proportionate Share of Net Pension Liability and Pension Expense*

The following table shows the plan's proportionate share of the risk pool collective net pension liability over the measurement period:

Changes in the net pension liability for the year ended December 31, 2021, were as follows:

| <u>Plan Type and Balance Descriptions</u>      | <u>Plan Total Pension Liability</u> | <u>Plan Fiduciary Net Position</u> | <u>Change in Plan Net Pension Liability</u> |
|--|-------------------------------------|------------------------------------|---|
| <b>CalPERS – Miscellaneous Plan:</b>           |                                     |                                    |   |
| Balance as of June 30, 2020 (Measurement Date) | \$ 47,806,269                       | \$ 36,232,498                      | \$ 11,573,771                               |
| Balance as of June 30, 2021 (Measurement Date) | \$ 51,562,557                       | \$ 45,505,922                      | \$ 6,056,635                                |
| <b>Change in Plan Net Pension Liability</b>    | <b>\$ 3,756,288</b>                 | <b>\$ 9,273,424</b>                | <b>\$ (5,517,136)</b>                       |

Changes in the net pension liability for the year ended December 31, 2020, were as follows:

| <u>Plan Type and Balance Descriptions</u>      | <u>Plan Total Pension Liability</u> | <u>Plan Fiduciary Net Position</u> | <u>Change in Plan Net Pension Liability</u> |
|--|-------------------------------------|------------------------------------|---|
| <b>CalPERS – Miscellaneous Plan:</b>           |                                     |                                    |   |
| Balance as of June 30, 2019 (Measurement Date) | \$ 44,392,170                       | \$ 33,700,832                      | \$ 10,691,338                               |
| Balance as of June 30, 2020 (Measurement Date) | \$ 47,806,269                       | \$ 36,232,498                      | \$ 11,573,771                               |
| <b>Change in Plan Net Pension Liability</b>    | <b>\$ 3,414,099</b>                 | <b>\$ 2,531,666</b>                | <b>\$ 882,433</b>                           |

For the year ended December 31, 2021 and 2020 pension expense was \$829,587 and \$1,509,083, respectively.

The following is the approach established by the plan actuary to allocate the net pension liability and pension expense to the individual employers within the risk pool.

- (1) In determining a cost-sharing plan's proportionate share, total amounts of liabilities and assets are first calculated for the risk pool as a whole on the valuation dates (June 30, 2020 and 2019). The risk pool's fiduciary net position ("FNP") subtracted from its total pension liability (TPL) determines the net pension liability (NPL) at the valuation date.
- (2) Using standard actuarial roll forward methods, the risk pool TPL is then computed at the measurement date (June 30, 2021 and 2020). Risk pool FNP at the measurement date is then subtracted from this number to compute the NPL for the risk pool at the measurement date. For purposes of FNP in this step and any later reference thereto, the risk pool's FNP at the measurement date denotes the aggregate risk pool's FNP at June 30, 2021 and 2020 less the sum of all additional side fund (or unfunded liability) contributions made by all employers during the measurement period (FY 2020-2021 and FY 2019-2020).
- (3) The individual plan's TPL, FNP and NPL are also calculated at the valuation date.

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

**NOTE 9 – PENSION PLAN (continued)**

**B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)**

***Proportionate Share of Net Pension Liability and Pension Expense (continued)***

- (4) Two ratios are created by dividing the plan’s individual TPL and FNP as of the valuation date from (3) by the amounts in step (1), the risk pool’s total TPL and FNP, respectively.
- (5) The plan’s TPL as of the Measurement Date is equal to the risk pool TPL generated in (2) multiplied by the TPL ratio generated in (4). The plan’s FNP as of the Measurement Date is equal to the FNP generated in (2) multiplied by the FNP ratio generated in (4) plus any additional side fund (or unfunded liability) contributions made by the employer on behalf of the plan during the measurement period.
- (6) The plan’s NPL at the Measurement Date is the difference between the TPL and FNP calculated in (5).

As of December 31, 2021 and 2020, the District reported a net pension liability for its proportionate share of the net pension liability of the Plan of \$6,056,636 and \$11,573,771, respectively.

The District’s net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan is measured as of December 31, 2020 and 2019, and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2019 and 2017 rolled forward to December 31, 2020 and 2019 using standard update procedures. The District’s proportion of the net pension liability was based on a projection of the District’s long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined.

The District’s proportionate share of the net pension liability for the June 30, 2021, measurement date was as follows:

|   | <b>Percentage Share of Risk Pool</b> |                               | <b>Change<br/>Increase/<br/>(Decrease)</b> |
|---|--------------------------------------|-------------------------------|--|
|   | <b>Fiscal Year<br/>Ending</b>        | <b>Fiscal Year<br/>Ending</b> |  |
|   | <b>December 31, 2021</b>             | <b>December 31, 2020</b>      |  |
| Measurement Date                                  | June 30, 2021                        | June 30, 2020                 |  |
| Percentage of Risk Pool Net Pension Liability     | 0.31897%                             | 0.27439%                      | 0.04458%                                   |
| Percentage of Plan (PERF C) Net Pension Liability | 0.11199%                             | 0.10637%                      | 0.00562%                                   |

The District’s proportionate share of the net pension liability for the June 30, 2020, measurement date was as follows:

|   | <b>Percentage Share of Risk Pool</b> |                               | <b>Change<br/>Increase/<br/>(Decrease)</b> |
|---|--------------------------------------|-------------------------------|--|
|   | <b>Fiscal Year<br/>Ending</b>        | <b>Fiscal Year<br/>Ending</b> |  |
|   | <b>December 31, 2020</b>             | <b>December 31, 2019</b>      |  |
| Measurement Date                                  | June 30, 2020                        | June 30, 2019                 |  |
| Percentage of Risk Pool Net Pension Liability     | 0.27439%                             | 0.26698%                      | 0.00741%                                   |
| Percentage of Plan (PERF C) Net Pension Liability | 0.10637%                             | 0.10434%                      | 0.00203%                                   |

**PALMDALE WATER DISTRICT***Notes to Financial Statements**December 31, 2021 and 2020***NOTE 9 – PENSION PLAN (continued)****B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)*****Proportionate Share of Net Pension Liability and Pension Expense (continued)***

The total amount of \$835,739 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2021. At December 31, 2021, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

| <u>Account Description</u>  | <u>Deferred Outflows<br/>of Resources</u> | <u>Deferred (Inflows)<br/>of Resources</u> |
|---|---|--|
| Pension contributions made after the measurement date                         | \$ 835,739                                | \$ -                                       |
| Difference between actual and proportionate share of employer contributions   | -   | (210,995)                                  |
| Adjustment due to differences in proportions                                  | 263,481                                   | -  |
| Differences between expected and actual experience                            | 679,187                                   | -  |
| Differences between projected and actual earnings on pension plan investments | -   | (5,287,122)                                |
| Changes in assumptions  | -   | -  |
| <b>Total Deferred Outflows/(Inflows) of Resources</b>                         | <b>\$ 1,778,407</b>                       | <b>\$ (5,498,117)</b>                      |

The total amount of \$799,171 reported as deferred outflows of resources related to contributions subsequent to the measurement date was recognized as a reduction of the net pension liability in the year ended December 31, 2021. At December 31, 2020, the District reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

| <u>Account Description</u>  | <u>Deferred Outflows<br/>of Resources</u> | <u>Deferred (Inflows)<br/>of Resources</u> |
|---|---|--|
| Pension contributions made after the measurement date                         | \$ 799,171                                | \$ -                                       |
| Difference between actual and proportionate share of employer contributions   | -   | (182,131)                                  |
| Adjustment due to differences in proportions                                  | 316,534                                   | -  |
| Differences between expected and actual experience                            | 596,431                                   | -  |
| Differences between projected and actual earnings on pension plan investments | 343,817                                   | -  |
| Changes in assumptions  | -   | (82,549)                                   |
| <b>Total Deferred Outflows/(Inflows) of Resources</b>                         | <b>\$ 2,055,953</b>                       | <b>\$ (264,680)</b>                        |

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

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**NOTE 9 – PENSION PLAN (continued)**

**B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)**

***Proportionate Share of Net Pension Liability and Pension Expense (continued)***

Other remaining amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions for the year ended December 31, 2021, will be amortized to pension expense in future periods as follows:

| <b>Amortization Period</b>           | <b>Deferred</b>           |
|--------------------------------------|---------------------------|
| <b>Fiscal Year Ended December 31</b> | <b>Outflows/(Inflows)</b> |
|                                      | <b>of Resources</b>       |
| 2022                                 | \$ 908,090                |
| 2023                                 | 1,009,095                 |
| 2024                                 | 1,177,177                 |
| 2025                                 | 1,461,087                 |
| 2026                                 | -                         |
| <b>Total</b>                         | <b>\$ 4,555,449</b>       |

Other remaining amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions for the year ended December 31, 2020, will be amortized to pension expense in future periods as follows:

| <b>Amortization Period</b>           | <b>Deferred</b>           |
|--------------------------------------|---------------------------|
| <b>Fiscal Year Ended December 31</b> | <b>Outflows/(Inflows)</b> |
|                                      | <b>of Resources</b>       |
| 2021                                 | \$ 176,692                |
| 2022                                 | 370,610                   |
| 2023                                 | 279,896                   |
| 2024                                 | 164,904                   |
| 2025                                 | -                         |
| <b>Total</b>                         | <b>\$ 992,102</b>         |

***Actuarial Methods and Assumptions Used to Determine Total Pension Liability***

For the measurement period ending June 30, 2021 and 2020 (the measurement date), the total pension liability was determined by rolling forward the June 30, 2020 and 2019, total pension liability. The December 31, 2021 and 2020, total pension liability was based on the following actuarial methods and assumptions:

|                                  |   |
|----------------------------------|---|
| Actuarial Cost Method            | Entry age normal  |
| Actuarial Assumptions:           |   |
| Discount Rate                    | 7.15%   |
| Inflation                        | 2.50%   |
| Salary Increases                 | Varies by Entry Age and Service   |
| Mortality Rate Table             | Derived using CalPERS' Membership Data  |
| Post Retirement Benefit Increase | Contract COLA up to 2.50% until Purchasing Power Protection Allowance Floor on Purchasing Power applies, 2.50% thereafter |

**PALMDALE WATER DISTRICT**

*Notes to Financial Statements*

*December 31, 2021 and 2020*

**NOTE 9 – PENSION PLAN (continued)**

**B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)**

***Discount Rate***

The discount rate used to measure the total pension liability for PERF B was 7.15%. A projection of expected benefit payments and contributions was performed to determine if the assets would run out. The test revealed the assets would not run out. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability for PERF B. The results of the crossover testing for the Plan are presented in a detailed report that can be obtained on CalPERS' website.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.

The table below reflects long-term expected real rate of return by asset class. The rate of return was calculated using the capital market assumptions applied to determine the discount rate and asset allocation. These geometric rates of return are net of administrative expenses.

| <u>Investment Type</u> | <u>Assumed Allocation</u> | <u>Real Return<br/>Years 1 - 10<sup>1</sup></u> | <u>Real Return<br/>Years 11+<sup>2</sup></u> |
|------------------------|---------------------------|---|--|
| Global Equity          | 50%                       | 4.80%   | 5.98%  |
| Global Fixed Income    | 28%                       | 1.00%   | 2.62%  |
| Inflation Assets       | 0%                        | 0.77%   | 1.81%  |
| Private Equity         | 8%                        | 6.30%   | 7.23%  |
| Real Assets            | 13%                       | 3.75%   | 4.93%  |
| Liquidity              | 1%                        | 0.00%   | -0.92%                                       |
|                        | <u>100%</u>               |   |  |

<sup>1</sup> An expected inflation rate-of-return of 2.5% is used for years 1-10.

<sup>2</sup> An expected inflation rate-of-return of 3.0% is used for years 11+.

***Sensitivity of the Net Pension Liability to Changes in the Discount Rate***

The following presents the net pension liability/(asset) of the Plan as of the measurement date, calculated using the discount rate of 7.15%, as well as what the net pension liability/(asset) would be if it were calculated using a discount rate that is 1 percentage-point lower (6.15%) or 1 percentage-point higher (8.15%) than the current rate:

Changes in the discount rate for the year ended June 30, 2021, was as follows:

| <u>Plan Type</u>             | <u>Plan's Net Pension Liability/(Asset)</u> |  |                                     |
|------------------------------|---|--|-------------------------------------|
|                              | <u>Discount Rate - 1%<br/>6.15%</u>         | <u>Current Discount<br/>Rate 7.15%</u> | <u>Discount Rate + 1%<br/>8.15%</u> |
| CalPERS – Miscellaneous Plan | \$ 12,864,486                               | \$ 6,056,635                           | \$ 428,682                          |

**PALMDALE WATER DISTRICT**  
*Notes to Financial Statements*  
*December 31, 2021 and 2020*

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**NOTE 9 – PENSION PLAN (continued)**

**B. Pension Liabilities, Pension Expenses, and Deferred Outflows/Inflows of Resources Related to Pensions (continued)**

***Sensitivity of the Net Pension Liability to Changes in the Discount Rate (continued)***

Changes in the discount rate for the year ended June 30, 2020, was as follows:

| Plan Type                    | Plan's Net Pension Liability/(Asset) |                                |                             |
|------------------------------|--------------------------------------|--------------------------------|-----------------------------|
|                              | Discount Rate - 1%<br>6.15%          | Current Discount<br>Rate 7.15% | Discount Rate + 1%<br>8.15% |
| CalPERS – Miscellaneous Plan | \$ 17,935,619                        | \$ 11,573,771                  | \$ 6,317,175                |

***Pension Plan Fiduciary Net Position***

Detailed information about the pension plan's fiduciary net position is available in the separately issued CalPERS financial report and can be obtained from CalPERS' website under Forms and Publications.

**C. Payable to the Pension Plans**

At December 31, 2021 and 2020, the District reported no payables for outstanding contributions to the CalPERS pension plan required for the year ended December 31, 2021 and 2020.

**NOTE 10 – NET POSITION – NET INVESTMENT IN CAPITAL ASSETS**

The District's net -position – net investment in capital assets for the years ended December 31, 2021 and 2020 were calculated as follows:

| Description                              | Balance<br>Dec. 31, 2021 | Balance<br>Dec. 31, 2020 |
|--|--------------------------|--------------------------|
| Restricted – cash and cash equivalents   |                          |                          |
| – revenue bond proceeds for construction | \$ 11,030,100            | \$ 2,264,512             |
| Capital assets – not being depreciated   | 10,995,185               | 25,856,069               |
| Capital assets, net – being depreciated  | 157,172,808              | 141,108,802              |
| Deferred loss on debt defeasance, net    | 4,049,130                | 3,611,747                |
| Capital lease payable – current          | (88,250)                 | (87,040)                 |
| Loan payable – current                   | (1,300,396)              | (1,261,002)              |
| Revenue bonds payable – current          | (1,215,743)              | (777,501)                |
| Capital lease payable                    | -                        | (88,250)                 |
| Loan payable                             | (1,342,628)              | (2,643,024)              |
| Revenue bonds payable, net               | (67,761,583)             | (57,842,046)             |
| Total net investment in capital assets   | \$ 111,538,623           | \$ 110,142,267           |



## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 11 – NET POSITION – UNRESTRICTED (DEFICIT)

As of December 31, 2021 and 2020, the District has an unrestricted net position deficit of (\$15,597,356) and (\$13,320,683). Due to the nature of the deficit from the implementation of GASB Statements No. 68 & 75 in the past fiscal years, the District will continue to make its actuarial determined contributions to CalPERS and annually review its outstanding net pension and net OPEB obligations funding requirements for future periods to reduce its deficit position.

#### NOTE 12 – RISK MANAGEMENT

The District is a member of the Association of California Water Agencies/Joint Powers Insurance Authority (ACWA/JPIA), an intergovernmental risk sharing pool that provides insurance coverage and related services.

|   |   |
|---|---|
| <b>A. Entity</b>  | ACWA-JPIA                                       |
| <b>B. Purpose</b>   | To pool member contributions and realize the    |
| <b>C. Participants</b>  | As of September 30, 2021 – 396 member districts |
| <b>D. Governing board</b>   | Nine representatives employed by members        |
| <b>E. District payments for FY 2021:</b>                            |   |
| Property policy   | \$62,654  |
| Auto/General liability  | \$171,544                                       |
| <b>F. Condensed financial information</b>                           | September 30, 2021                              |
| Audit signed  | March 30, 2022                                  |
| <b>Statement of financial position:</b>                             | <b>Sept. 30, 2021</b>                           |
| Total assets  | <u>\$ 271,770,359</u>                           |
| Deferred outflows   | <u>1,189,142</u>                                |
| Total liabilities   | <u>123,558,690</u>                              |
| Deferred inflows  | <u>(409,721)</u>                                |
| Net position  | <u><u>\$ 149,810,532</u></u>                    |
| <b>Statement of revenues, expenses and changes in net position:</b> |   |
| Total revenues  | \$ 200,883,781                                  |
| Total expenses  | <u>(174,760,456)</u>                            |
| Change in net position  | 26,123,325                                      |
| Beginning – net position  | <u>123,687,207</u>                              |
| Ending – net position   | <u><u>\$ 149,810,532</u></u>                    |
| <b>G. Member agencies share of year-end financial position</b>      | Not Calculated                                  |

## **PALMDALE WATER DISTRICT**

### *Notes to Financial Statements*

*December 31, 2021 and 2020*

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#### **NOTE 12 – RISK MANAGEMENT (continued)**

The District is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. At December 31, 2021 and 2020, the District participated in the self-insured liability, property, and worker's compensation insurance programs provided by ACWA/JPIA through AON Risk Insurance Services West, Inc. as follows:

#### **General and Auto Liability**

Each member limits of \$60 million per occurrence for auto and general liability coverage. The program protects the member agencies against third-party claims for bodily injury and property damage. The following coverages are also included:

- Personal Injury
- Errors and Omissions
- Products Hazard
- Inverse Condemnation
- Employment Practices
- Broadened Pollution
- Failure to Supply Water
- Care, Custody, & Control

#### **Property**

Each member Special Form Property Coverage including coverage for buildings, personal property, fixed equipment, mobile equipment, and licensed vehicles. Member agencies have various deductible selections. Boiler and Machinery Coverage is also included.

The following is an overview of the program:

- Real Property, Fixed Equipment, Personal Property at replacement cost
- Crime Coverage – up to \$100,000 Public Employee Dishonesty and Computer Fraud
- Terrorism Coverage – up to \$100 million per occurrence for property damage caused by an act declared to involve terrorism
- \$10 million Accounts Receivables for the amount of accounts uncollectible due to a covered loss
- \$100,000 Catastrophic coverage for vehicles

#### **Workers' Compensation**

Each member is covered for bodily injury by accident, \$2 million each accident, or bodily injury by disease, \$2 million each employee, including death, of employee arising out of and in the course of employment.

In addition, the District since August 2014 continued a separate policy with underwriters at Landmark American Insurance Company for commercial earthquake/business income interruption insurance. This insurance was purchased to safeguard the District in case of a major earthquake until disaster relief funds are made available by state and federal agencies. This policy has provisions as follows:

- The loss limit is \$9,284,980 per occurrence and in the annual aggregate.
- Deductible is 5% of values per unit of insurance subject to \$25,000 minimum per occurrence.
- Coverage for 2029 East Avenue Q location is \$2.891 million building limit and \$393,120 contents, including \$6 million business income.

Settled claims have not exceeded any of the coverage amounts in any of the last three fiscal years and there were no reductions in the District's insurance coverage during the years ending December 31, 2021, 2020, and 2019. Liabilities are recorded when it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated net of the respective insurance coverage. Liabilities include an amount for claims that have been incurred but not reported (IBNR). There were no IBNR claims payable as of December 31, 2021, 2020, and 2019.

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 13 – DEFERRED COMPENSATION SAVINGS PLAN

For the benefit of its employees, the District participates in an IRS Code Section 457 Deferred Compensation Program. The purpose of this Program is to provide deferred compensation for public employees that elect to participate in the Program. Generally, eligible employees may defer receipt of a portion of their salary until termination, retirement, death, or unforeseeable emergency. Until the funds are paid or otherwise made available to the employee, the employee is not obligated to report the deferred salary for income tax purposes.

Federal law requires deferred compensation assets to be held in trust for the exclusive benefit of the participants. Accordingly, the District is in compliance with this legislation. Therefore, these assets are not the legal property of the District, and are not subject to claims of the District's general creditors.

The District has implemented GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans*. Since the District has little administrative involvement and does not perform the investing function for this plan, the assets and related liabilities are not shown on the accompanying financial statements.

#### NOTE 14 – COMMITMENTS AND CONTINGENCIES

##### State Water Contract

Estimates of the District's share of the project fixed costs of the State Water Project (SWP) are provided annually by the State. The estimates are subject to future increases or decreases resulting from changes in planned facilities, refinements in cost estimates, and inflation. During the next five years, payments under the State Water Contract, exclusive of variable power costs, are currently estimated by the State to be as follows:

| <u>Fiscal Year</u> | <u>Amount</u> |
|--------------------|---------------|
| 2021               | \$ 7,481,343  |
| 2022               | 7,393,176     |
| 2023               | 7,772,012     |
| 2024               | 7,740,754     |
| 2025               | 7,872,448     |

As of December 31, 2021, the District has expended approximately \$123,574,668 since the District started participating in the State Water Contract.

According to the State's latest estimates, the District's long-term obligations under the contract, for capital and minimum operations and maintenance costs, including interest to the year 2035, are as follows:

| <u>Type of Long-Term Obligation</u> | <u>Amount</u>        |
|-------------------------------------|----------------------|
| State Water Project Contract:       |                      |
| Transportation facilities           | \$85,437,147         |
| Delta water charges                 | 27,334,170           |
| Off-aqueduct power facilities       | 64,604               |
| Revenue bond surcharge              | 4,348,555            |
| Total                               | <u>\$117,184,476</u> |

## PALMDALE WATER DISTRICT

### Notes to Financial Statements

December 31, 2021 and 2020

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#### NOTE 14 – COMMITMENTS AND CONTINGENCIES (continued)

##### Bay/Delta Regulatory and Planning Activities

The State Water Resources Control Board (State Board) is the agency responsible for setting water quality standards and administering water rights throughout California. Decisions of the State Board can affect the availability of water to the District and other water users by means of public proceedings leading to regulations and decisions. In 1995, the State Board adopted a Water Quality Control Plan establishing water quality standards and flow improvements in the Bay/Delta watershed. In August 2000, the California Federal (CALFED) Bay/Delta Program Record of Decision (the Decision) was approved with mandates to improve water quality, enhance water supply reliability, augment ecosystem restoration, and assure long-term protection for Delta levees. During its first three years, CALFED has invested more than \$2.0 billion in hundreds of local and regional projects to meet these program goals. In May 2004, a Delta Improvement Package was proposed to facilitate implementation of the Decision. Funding is expected to be provided by state and federal appropriations and contributions from local users, including the District. CALFED's objective is to allocate project costs based on beneficiaries pay policy, that is new costs commensurate with benefits received. At this time, the exact allocation of costs between the federal, state, and local users has not been determined, and therefore, the District cannot estimate the extent of timing of its contributions at this time.

##### Construction Contracts

The District has a variety of agreements with private parties relating to the installation, improvement, or modification of water facilities and distribution systems within its service area. The financing of such construction contracts is being provided primarily from the District's replacement reserves and advances for construction.

The District has committed to approximately \$1,413,366 to complete the open construction contracts as of December 31, 2021. These include the following:

| <u>Project Description</u>                    | <u>Cost of Project<br/>to Date</u> | <u>Estimated Costs<br/>to Complete</u> | <u>Total Expected<br/>Project Cost</u> |
|---|------------------------------------|--|--|
| Sediment removal – Littlerock Dam             | \$ 4,366,255                       | \$ -                                   | \$ 5,500,000                           |
| Littlerock Creek Groundwater Recharge Project | 4,209,279                          | 790,721                                | 5,000,000                              |
| Upper Armagosa Creek project                  | 2,127,355                          | 622,645                                | 2,750,000                              |
| <b>Total</b>                                  | <u>\$ 10,702,889</u>               | <u>\$ 1,413,366</u>                    | <u>\$ 13,250,000</u>                   |

##### Other Litigation

In the ordinary course of operations, the District is subject to claims and litigation from outside parties. Nevertheless, after consultation with legal counsel, the District believes that these actions, when finally concluded and determined are not likely to have a material adverse effect on the District's financial position, results of operations, or cash flows.

#### NOTE 15 – CURRENT AND SUBSEQUENT EVENTS

The District has evaluated subsequent events through May 21, 2022, the date which the financial statements were available to be issued.

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***Required Supplementary Information***

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**PALMDALE WATER DISTRICT***Schedule of Proportionate Share of the Net Pension Liability  
For the Years Ended December 31, 2021 and 2020***Last Ten Fiscal Years\*****California Public Employees' Retirement System (CalPERS) Miscellaneous Plan**

| <b>Measurement Date</b> | <b>District's Proportion of the Net Pension Liability</b> | <b>District's Proportionate Share of the Net Pension Liability</b> | <b>District's Covered Payroll</b> | <b>District's Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll</b> | <b>Plan's Fiduciary Net Position as a Percentage of the Plan's Total Pension Liability</b> |
|-------------------------|---|--|-----------------------------------|---|--|
| June 30, 2014           | 0.10201%  | \$ 6,347,533   | \$ 6,027,591                      | 105.31%   | 79.93%   |
| June 30, 2015           | 0.09802%  | 6,727,907  | 6,377,315                         | 105.50%   | 79.62%   |
| June 30, 2016           | 0.10037%  | 8,685,489  | 6,778,010                         | 128.14%   | 75.59%   |
| June 30, 2017           | 0.10166%  | 10,081,661   | 6,482,822                         | 155.51%   | 74.68%   |
| June 30, 2018           | 0.10180%  | 9,809,458  | 6,735,592                         | 145.64%   | 76.68%   |
| June 30, 2019           | 0.10434%  | 10,691,338   | 7,391,878                         | 144.64%   | 75.92%   |
| June 30, 2020           | 0.10637%  | 11,573,771   | 7,675,493                         | 150.79%   | 75.79%   |
| June 30, 2021           | 0.11199%  | 6,056,636  | 8,369,880                         | 72.36%  | 88.25%   |

**Notes to Schedule:****Benefit Changes:**

There were no changes in benefits.

**Changes in Assumptions:****For fiscal years June 30, 2015 and June 30, 2016:**

GASB 68, paragraph 68 states that the long-term expected rate of return should be determined net of pension plan investment expense but without reduction for pension plan administrative expense. The discount rate of 7.50% used for the June 30, 2014, measurement date was net of administrative expenses. The discount rate of 7.65% used for the June 30, 2015, measurement date is without reduction of pension plan administrative expense.

**From fiscal year June 30, 2016 to June 30, 2017:**

There were no changes in assumptions.

**From fiscal year June 30, 2017 to June 30, 2018:**

The discount rate was reduced from 7.65% to 7.15%.

**From fiscal year June 30, 2018 to June 30, 2019:**

There were no significant changes in assumptions.

**From fiscal year June 30, 2019 to June 30, 2020:**

There were no significant changes in assumptions.

**From fiscal year June 30, 2020 to June 30, 2021:**

There were no significant changes in assumptions.

\*Fiscal year 2014 was the first measurement date year of implementation; therefore, only seven years are shown.

**PALMDALE WATER DISTRICT**  
*Schedule of Pension Contributions*  
*For the Years Ended December 31, 2021 and 2020*

**Last Ten Fiscal Years\***

**California Public Employees' Retirement System (CalPERS) Miscellaneous Plan**

| <b>Fiscal Year</b> | <b>Actuarially Determined Contribution</b> | <b>Contributions in Relation to the Actuarially Determined Contribution</b> | <b>Contribution Deficiency (Excess)</b> | <b>Covered Payroll</b> | <b>Contributions as a Percentage of Covered Payroll</b> |
|--------------------|--|---|---|------------------------|---|
| 2014               | \$ 805,370                                 | \$ (805,370)  | \$ -                                    | \$ 6,027,591           | 13.36%  |
| 2015               | 819,205                                    | (819,205)   | -                                       | 6,377,315              | 12.85%  |
| 2016               | 945,678                                    | (945,678)   | -                                       | 6,778,010              | 13.95%  |
| 2017               | 1,026,759                                  | (1,026,759)   | -                                       | 6,482,822              | 15.84%  |
| 2018               | 1,178,448                                  | (1,178,448)   | -                                       | 6,735,592              | 17.50%  |
| 2019               | 1,373,023                                  | (1,373,023)   | -                                       | 7,391,878              | 18.57%  |
| 2020               | 1,559,864                                  | (1,559,864)   | -                                       | 7,675,493              | 20.32%  |
| 2021               | 1,655,630                                  | (1,655,630)   | -                                       | 8,369,880              | 19.78%  |

**Notes to Schedule:**

| <b>Measurement Date</b> | <b>Valuation Date</b> | <b>Actuarial Cost Method</b> | <b>Asset Valuation Method</b> | <b>Inflation</b> | <b>Investment Rate of Return</b> |
|-------------------------|-----------------------|------------------------------|-------------------------------|------------------|----------------------------------|
| June 30, 2014           | June 30, 2013         | Entry Age                    | Market Value                  | 2.75%            | 7.50%                            |
| June 30, 2015           | June 30, 2014         | Entry Age                    | Market Value                  | 2.75%            | 7.65%                            |
| June 30, 2016           | June 30, 2015         | Entry Age                    | Market Value                  | 2.75%            | 7.65%                            |
| June 30, 2017           | June 30, 2016         | Entry Age                    | Market Value                  | 2.75%            | 7.65%                            |
| June 30, 2018           | June 30, 2017         | Entry Age                    | Market Value                  | 2.75%            | 7.15%                            |
| June 30, 2019           | June 30, 2018         | Entry Age                    | Market Value                  | 2.50%            | 7.15%                            |
| June 30, 2020           | June 30, 2019         | Entry Age                    | Market Value                  | 2.50%            | 7.15%                            |
| June 30, 2021           | June 30, 2020         | Entry Age                    | Market Value                  | 2.50%            | 7.15%                            |

|                                  |  |
|----------------------------------|--|
| <b>Amortization Method</b>       | Level percentage of payroll, closed  |
| <b>Salary Increases</b>          | Depending on age, service, and type of employment  |
| <b>Investment Rate of Return</b> | Net of pension plan investment expense, including inflation  |
| <b>Retirement Age</b>            | 50 years (2%@55), 52 years (2%@62)   |
| <b>Mortality</b>                 | Mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board. |

\*Fiscal year 2014 was the first measurement date year of implementation; therefore, only seven years are shown.

**PALMDALE WATER DISTRICT**

*Schedule of Changes in the District's Total OPEB Liability and Related Ratios  
For the Years Ended December 31, 2021 and 2020*

| Fiscal Year Ended<br>Measurement Date  | Last Ten Fiscal Years*      |                             |                             |                             |
|--|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
|  | <u>Dec. 31, 2021</u>        | <u>Dec. 31, 2020</u>        | <u>Dec. 31, 2019</u>        | <u>Dec. 31, 2018</u>        |
| <b>Total OPEB liability:</b>   |                             |                             |                             |                             |
| Service cost   | \$ 677,977                  | \$ 459,128                  | \$ 533,709                  | \$ 471,435                  |
| Interest   | 464,926                     | 542,470                     | 480,852                     | 475,129                     |
| Changes of assumptions   | 231,952                     | 2,835,458                   | (1,339,825)                 | 695,190                     |
| Differences between expected and actual experience                               | (4,865,442)                 | -                           | -                           | -                           |
| Changes of benefit terms   | 142,064                     | -                           | -                           | -                           |
| Benefit payments   | <u>(379,410)</u>            | <u>(322,930)</u>            | <u>(307,191)</u>            | <u>(283,520)</u>            |
| <b>Net change in total OPEB liability</b>  | <b>(3,727,933)</b>          | <b>3,514,126</b>            | <b>(632,455)</b>            | <b>1,358,234</b>            |
| <b>Total OPEB liability - beginning</b>  | <b><u>16,479,807</u></b>    | <b><u>12,965,681</u></b>    | <b><u>13,598,136</u></b>    | <b><u>12,239,902</u></b>    |
| <b>Total OPEB liability - ending</b>   | <b><u>\$ 12,751,874</u></b> | <b><u>\$ 16,479,807</u></b> | <b><u>\$ 12,965,681</u></b> | <b><u>\$ 13,598,136</u></b> |
| <b>Covered-employee payroll</b>  | <b><u>\$ 8,522,694</u></b>  | <b><u>\$ 8,492,001</u></b>  | <b><u>\$ 8,067,557</u></b>  | <b><u>\$ 7,459,193</u></b>  |
| <b>District's net OPEB liability as a percentage of covered-employee payroll</b> | <b><u>149.62%</u></b>       | <b><u>194.06%</u></b>       | <b><u>160.71%</u></b>       | <b><u>182.30%</u></b>       |

**Notes to Schedule:**

**Benefit Changes:**

Measurement Date December 31, 2017 – There were no changes in benefits  
 Measurement Date December 31, 2018 – There were no changes in benefits  
 Measurement Date December 31, 2019 – There were no changes in benefits  
 Measurement Date December 31, 2020 – There were no changes in benefits

**Changes in Assumptions:**

Measurement Date December 31, 2017 – Discount rate was updated to 3.44% from 3.78% as of December 31, 2016  
 Measurement Date December 31, 2018 – Discount rate was updated to 4.09% from 3.44% as of December 31, 2017  
 Measurement Date December 31, 2019 – Discount rate was updated to 2.74% from 4.09% as of December 31, 2018  
 Measurement Date December 31, 2020 – Discount rate was updated to 2.12% from 2.74% as of December 31, 2019

\* Fiscal year 2018 was the first year of implementation; therefore, only three years are shown.



**PALMDALE WATER DISTRICT**

*Schedule of OPEB Contributions*

*For the Years Ended December 31, 2021 and 2020*

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**Last Ten Fiscal Years\***

**The Plan is not administered through a qualified trust.  
Therefore, there is no Actuarially Determined Contribution (ADC)**

| <b>Fiscal Year Ended</b> | <b><u>Dec. 31, 2021</u></b> | <b><u>Dec. 31, 2020</u></b> | <b><u>Dec. 31, 2019</u></b> | <b><u>Dec. 31, 2018</u></b> |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Contributions made       | \$ 381,892                  | \$ 305,410                  | \$ 245,893                  | \$ 240,695                  |
| Implied subsidy          | <u>87,013</u>               | <u>74,000</u>               | <u>77,037</u>               | <u>66,496</u>               |
| Total contributions      | <u>\$ 468,905</u>           | <u>\$ 379,410</u>           | <u>\$ 322,930</u>           | <u>\$ 307,191</u>           |

**Notes to Schedule:**

| <b>Valuation Date</b>  | <b>Dec. 31, 2019</b> | <b>Dec. 31, 2019</b> | <b>Dec. 31, 2018</b> | <b>Dec. 31, 2017</b> |
|--|----------------------|----------------------|----------------------|----------------------|
| <b>Methods and Assumptions Used to Determine Contribution Rates:</b> |                      |                      |                      |                      |
| Discount rate  | 2.12%                | 2.74%                | 4.09%                | 3.44%                |
| Inflation  | 2.50%                | 2.75%                | 2.75%                | 2.75%                |
| Payroll increases  | 2.75%                | 3.00%                | 3.00%                | 3.00%                |
| Mortality  | 1                    | 1                    | 1                    | 1                    |
| Disability   | 1                    | 1                    | 1                    | 1                    |
| Retirement   | 1                    | 1                    | 1                    | 1                    |
| Termination  | 1                    | 1                    | 1                    | 1                    |
| Healthcare trend rates   | 2                    | 2                    | 2                    | 2                    |

(1) CalPERS 1997-2015 Experience Study

(2) Pre-65 - 7.50% trending down to 4.00% in 2076

Post-65 - 6.50% trending down to 4.00% in 2076

\* Fiscal year 2018 was the first year of implementation; therefore, only two years are shown.

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***Supplementary Information***

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**PALMDALE WATER DISTRICT**  
*Schedules of Debt Service Net Revenues Coverage*  
*For the Year Ended December 31, 2021 and 2020*

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|   | <u>2021</u>          | <u>2020</u>         |
|---|----------------------|---------------------|
| <b>Total revenues:</b>  |                      |                     |
| Operating revenues  | \$ 30,361,197        | \$ 27,553,220       |
| Non-operating revenues  | 8,217,314            | 8,379,165           |
| Capital contributions – capital improvement fees and grants         | <u>5,716,336</u>     | <u>1,235,438</u>    |
| <b>Total revenues</b>   | <u>44,294,847</u>    | <u>37,167,823</u>   |
| <b>Total expenses:</b>  |                      |                     |
| Operating expenses before depreciation expense                      | <u>28,491,804</u>    | <u>25,282,387</u>   |
| Non-operating expenses  | 7,081,128            | 5,731,408           |
| Less debt service items:  |                      |                     |
| Interest expense – long-term debt                                   | <u>(2,525,060)</u>   | <u>(2,478,228)</u>  |
| <b>Total non-operating expenses adjusted for debt service items</b> | <u>4,556,068</u>     | <u>3,253,180</u>    |
|   | <u>33,047,872</u>    | <u>28,535,567</u>   |
| <b>Net revenues available for debt service</b>                      | <u>\$ 11,246,975</u> | <u>\$ 8,632,256</u> |
| <b>Debt service for the fiscal year</b>                             | <u>\$ 4,450,448</u>  | <u>\$ 4,505,466</u> |
| <b>Debt service net revenues coverage ratio</b>                     | <u>253%</u>          | <u>192%</u>         |

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***Other Independent Auditors' Reports***

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**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL  
REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN  
AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE  
WITH GOVERNMENT AUDITING STANDARDS**

Board of Directors  
Palmdale Water District  
Palmdale, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of Palmdale Water District (District) as of and for the year ended December 31, 2021, and the related notes to the financial statements, which collectively comprise the District's basic financial statements, and have issued our report thereon dated June 21, 2022.

**Internal Control Over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the District's internal control over financial reporting (internal control) as a basis for designing audit procedures to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control. Accordingly, we do not express an opinion on the effectiveness of the District's internal control.

*A deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the District's financial statements will not be prevented, or detected and corrected on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the District's financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

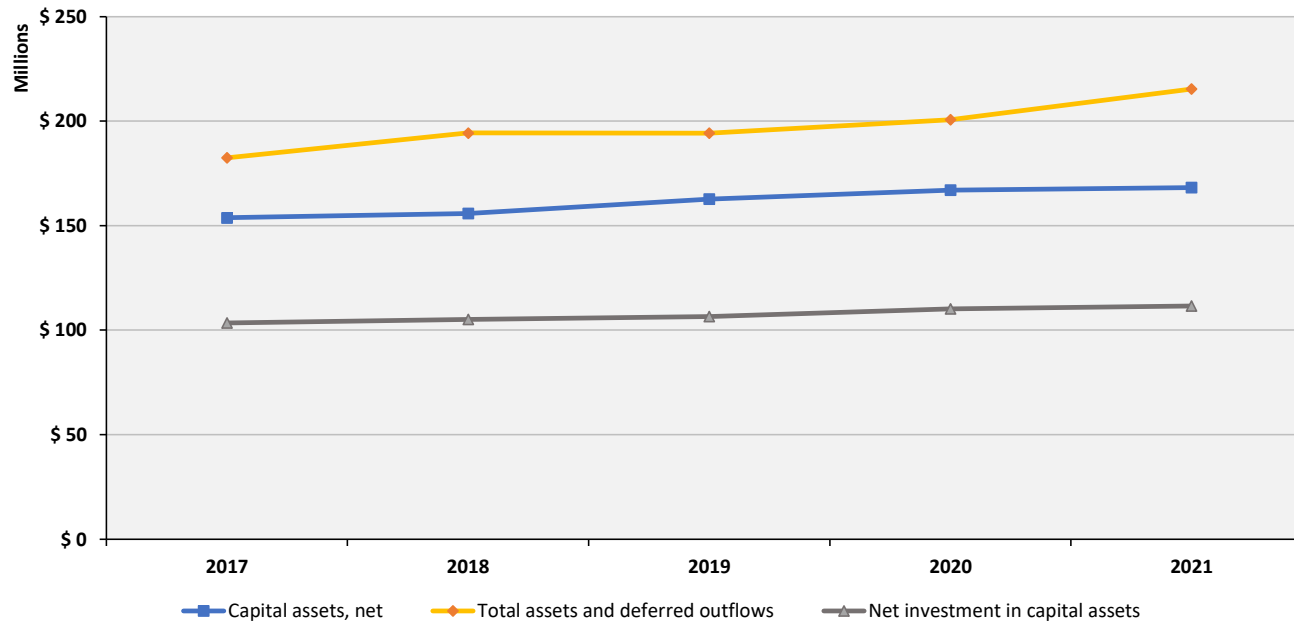
**Purpose of this Report**

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the District's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the District's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Murrieta, California  
June 21, 2022

**Palmdale Water District**  
**Condensed Balance Sheet at December 31,**  
**5-year Analysis of Net Position**

|   | 2017                  | 2018                  | 2019                  | 2020                  | 2021                  |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Assets:</b>  |                       |                       |                       |                       |                       |
| Current assets  | \$ 22,153,998         | \$ 19,590,071         | \$ 20,032,372         | \$ 20,210,560         | \$ 24,885,227         |
| Non-current assets  | 1,371,868             | 13,374,737            | 6,324,308             | 4,466,060             | 13,232,582            |
| Capital assets, net   | 153,742,324           | 155,765,727           | 162,706,256           | 166,964,871           | 168,167,993           |
| <b>Total assets</b>   | <b>177,268,190</b>    | <b>188,730,535</b>    | <b>189,062,936</b>    | <b>191,641,491</b>    | <b>206,285,802</b>    |
| <b>Deferred outflows of resources</b>                       | <b>5,158,974</b>      | <b>5,530,101</b>      | <b>5,101,099</b>      | <b>9,018,550</b>      | <b>9,072,562</b>      |
| <b>Total assets and deferred outflows</b>                   | <b>\$ 182,427,164</b> | <b>\$ 194,260,636</b> | <b>\$ 194,164,035</b> | <b>\$ 200,660,041</b> | <b>\$ 215,358,364</b> |
| <b>Liabilities:</b>   |                       |                       |                       |                       |                       |
| Current liabilities   | 8,077,898             | 8,225,820             | 9,212,469             | 10,168,200            | 12,222,577            |
| Non-current liabilities                                     | 75,438,581            | 86,440,682            | 84,670,431            | 89,145,383            | 88,418,833            |
| <b>Total liabilities</b>                                    | <b>83,516,479</b>     | <b>94,666,502</b>     | <b>93,882,900</b>     | <b>99,313,583</b>     | <b>100,641,410</b>    |
| <b>Deferred inflows of resources</b>                        | <b>3,993,082</b>      | <b>3,885,837</b>      | <b>5,101,356</b>      | <b>4,599,999</b>      | <b>14,799,946</b>     |
| <b>Net position:</b>  |                       |                       |                       |                       |                       |
| Net investment in capital assets                            | 103,487,203           | 105,089,394           | 106,542,240           | 110,142,267           | 111,538,623           |
| Restricted  | 1,371,868             | 1,668,290             | 1,958,222             | 2,201,548             | 2,202,482             |
| Unrestricted  | (9,941,468)           | (11,049,387)          | (13,320,683)          | (15,597,356)          | (13,824,097)          |
| <b>Total net position</b>                                   | <b>94,917,603</b>     | <b>95,708,297</b>     | <b>95,179,779</b>     | <b>96,746,459</b>     | <b>99,917,008</b>     |
| <b>Total liabilities, deferred inflows and net position</b> | <b>\$ 182,427,164</b> | <b>\$ 194,260,636</b> | <b>\$ 194,164,035</b> | <b>\$ 200,660,041</b> | <b>\$ 215,358,364</b> |





# Conference/Training Request

**Event Name/Date(s):**

ACWA Region 8 Program & Member Meeting/August 12, 2022

**REQUESTED BY:**

First Name

Last Name

Date

**ACCOMMODATION INFORMATION (If applicable)**

*Rooms and rates are subject to availability. Complete and submit this form as soon as possible as reservation blocks at host hotels book quickly. In the event that the host hotel is full, every effort will be made to secure a room at the nearest hotel within comparable rates.*

Arrival Date

Departure Date

No. of  
Guests

Room Type

Dietary Restrictions?

If yes, please provide specifics in additional info. box

Smoking Room?

Yes     No

Yes     No

**Flight Needed?**

If yes, please provide DL# and D.O.B. in additional info. box

Flight Numbers

Departure/Return  
Times

Yes     No

**ADDITIONAL INFORMATION/  
REQUESTS**

Supervisor Approval  
(If applicable)

Processed By:





# ACWA REGION 8 PROGRAM & MEMBER MEETING

PASADENA, CA

## WHEN

August 12

11:30 am – 3:00 pm

 [Add to Calendar](#)

## LOCATION

Brookside Golf Club, 1133 Rosemont Avenue, Pasadena, CA, USA

 [Get Directions](#)

## COST

\$50.00

Member Pre-Registration Fee

\$70.00

Non-Member Pre-Registration Fee

## DEADLINE

August 5, 2022

Join ACWA Region 8 for an informative program and an opportunity to connect with your colleagues in the region. Jeffrey Kightlinger, Interim General Manager for Pasadena Water and Power, will offer a keynote titled “Adapting to Climate Change: The Future of Southern California’s Water Supply.” A panel discussion will highlight regional innovations in conservation and new strategies for messaging as the drought persists. In addition, ACWA Leadership will share updates on advocacy efforts and answer your questions on current priorities.

## AGENDA

11:00 a.m. Check-in and Coffee

11:30 a.m. Welcome and Introductions

**Gloria Gray**, Chair, ACWA Region 8

**Pam Tobin**, President, ACWA Board of Directors

11:45 a.m. ACWA Update and Legislative Update

**Dave Eggerton**, Executive Director, ACWA

**Cindy Tuck**, Deputy Executive Director, Government Relations, ACWA

12:15 p.m. Lunch

1:00 p.m. Adapting to Climate Change: The Future of Southern California's Water Supply

**Jeffrey Kightlinger**, General Manager, Pasadena Water and Power

1:30 p.m. Panel Discussion: Regional Innovations in Conservation Strategies

2:45 p.m. Closing Remarks

**Bill Cooper**, Vice Chair, ACWA Region 8

## SPONSORS

Sponsorship opportunities available. [Learn more here.](#)

## QUESTIONS

Contact Regional Affairs Representative Sarah Hodge at [sarahh@acwa.com](mailto:sarahh@acwa.com) or (916) 669-2384.

### **This event is presented by the 2022-2023 ACWA Region 8 Board**

**Chair:** Gloria Gray, West Basin Municipal Water District • **Vice Chair:** Bill Cooper, Santa Clarita Valley Water Agency

**Board Members:** Brian Bowcock, Three Valleys Municipal Water District; Anthony R. Fellow, Upper San Gabriel Valley Municipal Water District; Robert W. Lewis, Rowland Water District; Melvin L. Matthews, Foothill Municipal Water District; Leonard Polan, Las Virgenes Municipal Water District

**MINUTES OF MEETING OF THE OUTREACH COMMITTEE OF THE PALMDALE WATER DISTRICT, MAY 24, 2022:**

*A meeting of the Outreach Committee of the Palmdale Water District was held Tuesday, May 24, 2022, at 2029 East Avenue Q, Palmdale, CA 93550 and via teleconference. Chair Mac Laren-Gomez called the meeting to order at 3:19 p.m.*

**1) Roll Call.**

**Attendance:**

Committee:

Kathy Mac Laren-Gomez, Chair  
Don Wilson, Committee Member

**Others Present:**

Dennis LaMoreaux, General Manager  
Adam Ly, Assistant General Manager  
Judy Shay, Public Affairs Director  
Claudia Bolanos, Resource & Analytics Spvrs.  
Scott Kellerman, PWD Director  
Danielle Henry, Management Analyst  
0 members of the public

**2) Adoption of Agenda.**

It was moved by Committee Member Wilson, seconded by Chair Mac Laren-Gomez, and unanimously carried by all members of the Committee present at the meeting to adopt the agenda, as written.

**3) Public Comments for Non-Agenda Items.**

There were no public comments for non-agenda items.

**4) Action Items: (The Public Shall Have an Opportunity to Comment on Any Action Item as Each Item is Considered by the Committee Prior to Action Being Taken.)**

**4.1) Consideration and Possible Action on Approval of Minutes of Meeting Held April 20, 2022.**

It was moved by Committee Member Wilson, seconded by Chair Mac Laren-Gomez, and unanimously carried by all members of the Committee present at the meeting to approve the minutes of the Outreach Committee meeting held April 20, 2022, as written.

**4.2) Discussion of the District's Response to the Drought. (Public Affairs Director Shay/Resource & Analytics Supervisor Bolanos)**

Public Affairs Director Shay stated that digital drought messaging ads have started within the District's zip codes; that the May 26 Let's Talk H2O event will focus on mandatory water conservation; that a billing insert will be sent in June detailing watering restrictions; that watering days and hours are printed on billing envelopes; and that social media reactions and shares regarding watering days have been mostly positive.

Resource & Analytics Supervisor Bolanos then stated that enforcement of watering restrictions began May 1; that 155 warnings have been issued with no repeat offenders; that more requests for information on the Water Wise Landscape Conversion and Rebate Programs have been received; and that staff continues to provide additional support to the schools and to the City of Palmdale for reducing water use.

**4.3) Discussion of 2022 Outreach Activities. (Public Affairs Director Shay)**

**a) Outreach Report.**

Public Affairs Director Shay stated that a written Outreach Report of current events through May 17, 2022 was included with the agenda packets if there are any questions and then updated the Report with additional press releases and articles in various print publications, the 15 community members who graduated from the 4<sup>th</sup> annual Water Ambassadors Academy, and social media interactions.

**b) Upcoming Events/2022 Plans.**

She then stated that upcoming events include the May 24 presentation by General Manager LaMoreaux and Assistant General Manager Ly at the A.V. Community Emergency Response Team's meeting, Let's Talk H2O on May 26, Coffee-with-Director Dino on June 1, a booth at Antelope Valley College's Block Party on June 8 at the Palmdale campus, and the CSDA Membership Chapter Luncheon on June 22.

**4.4) Discussion of Board Engagement Level. (Chair Mac Laren-Gomez)**

Various methods for increasing the Board's level of engagement were discussed including outreach to the City of Palmdale's Neighborhood Watch groups regarding

the drought, Director coffees, and Directors becoming more involved in upcoming events to communicate with customers.

**5) Reports.**

**5.1) Lobbying Activities. (Assistant General Manager Ly)**

Assistant General Manager Ly stated that a recent legislative update report was distributed to the Board and that the District has taken the position of oppose unless amended on SB1157 regarding the lowering of per capita water use from 50 to 42 by 2030 as negotiations with the various stakeholders on how to ramp down water use is needed.

**6) Board Members' Requests for Future Agenda Items.**


There were no requests for future agenda items.

**7) Date of Next Committee Meeting.**

It was stated that the next Outreach Committee meeting will be held June 22, 2022 at 4:00 p.m.

**8) Adjournment.**

There being no further business to come before the Outreach Committee, the meeting was adjourned at 3:40 p.m.

  
Chair