



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

April 5, 2023

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

MONDAY, APRIL 10, 2023

6:00 p.m.

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

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

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

Agenda item materials, as well as materials related to agenda items submitted after distribution of the agenda packets, are available for public review at the District's office located at 2029 East Avenue Q, Palmdale (Government Code Section 54957.5). Please call Danielle Henry at 661-947-4111 x1059 for public review of materials.

PUBLIC COMMENT GUIDELINES: The prescribed time limit per speaker is three-minutes. Please refrain from public displays or outbursts such as unsolicited applause, comments, or cheering. Any disruptive activities that substantially interfere with the ability of the District to 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.

DENNIS D. LaMOREAUX
General Manager

ALESHIRE & WYNDER LLP
Attorneys



- 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 March 27, 2023.
 - 6.2) Payment of bills for April 10, 2023.
- 7) Action Items - Action Calendar (The public shall have an opportunity to comment on any action item as each item is considered by the Board of Directors prior to action being taken.)
 - 7.1) Consideration and Possible Action on Purchase of Replacement Water Meters. (\$750,000.00 – Budgeted – Finance Manager Hoffmeyer)
 - 7.2) Consideration and Possible Action on Authorizing the General Manager to Finalize Negotiations and Execute a Memorandum of Understanding with Capture6 for Pure Water AV. (No Budget Impact – Engineering Manager Rogers)
 - 7.3) Consideration and Possible Action on Awarding a Professional Service Agreement to Civiltec Engineering, Inc. to Evaluate and Prepare Construction Plans and Specifications for Rehabilitation of 6M Clearwell. (\$170,000.00 – Non-Budgeted – Assistant General Manager Ly)
 - 7.4) Consideration and Possible Action on Agreement with Barrel Springs Farms for the Protection of Palmdale Ditch. (General Manager Lamoreaux)
 - 7.5) 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 2023 Budget:
 - a) 2023 WateReuse Symposium On-Demand Webinar.
 - b) TruePoint Connect 2023 to be Held October 23-25, 2023 in Reno, NV.
- 8) Information Items:
 - 8.1) Reports of Directors:
 - a) Standing Committees; Organization Appointments; Agency Liaisons:
 - 1) Antelope Valley East Kern Water Agency (AVEK) – March 28. (Director Dino, Board Liaison/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.



DENNIS D. LaMOREAUX,
General Manager
DDL/dh

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: April 5, 2023 **April 10, 2023**
TO: BOARD OF DIRECTORS **Board Meeting**
FROM: Dennis J. Hoffmeyer, Finance Manager/CFO
VIA: Mr. Dennis D. LaMoreaux, General Manager
RE: ***AGENDA ITEM NO. 7.1 – CONSIDERATION AND POSSIBLE ACTION ON PURCHASE OF REPLACEMENT WATER METERS. (\$750,000.00 – BUDGETED – FINANCE MANAGER HOFFMEYER)***

Recommendation:

Staff recommends that the Board approve the purchase of Master multi-jet meters for the replacement of seven reading routes. This will be for a total of 3,354 meters in various sizes purchased through HydroPro Solutions, Inc. The total estimated cost is \$750,000.

Alternative Options:

The alternative option would be to purchase the meters through another vendor that has been through the District’s bid process.

Impact of Taking No Action:

Currently, we are seeing failures in the ability to read the meters electronically resulting in staff manually reading each meter. Staff is also addressing an issue with stuck meters in the system that are being estimated monthly. Both processes require extensive hours for staff to complete reads and processing.

Background:

In October 2022, staff presented the Board a project to change out 3,250 Zenner registers. As we progressed through the process and reviewed what has been occurring in the system, staff decided that would only be a temporary solution. This is based on continued failure of the Zenner registers on existing meters. This solution also does not address stuck meters and after careful review it was determined that the best course of action is to move forward with a full meter replacement project. We will continue with the purchase of the Sensus endpoints for meter reading as the best solution for moving from AMR drive-by system to the AMI reading system when activated.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 1 – Water Resource Reliability.

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

Budget:

This system will be funded through the capital lease that was approved on September 12, 2022. Any shortage in funds will be covered under the meter exchange program budget for CY 2023.

Supporting Documents:

- HydroPro Solutions, Inc – Meter Quotation



HydroPro Solutions, Inc

1180 East Francis Street
Ontario, CA 91761
Phone 949-910-9449

To: **Chad Holt**
Palmdale WD
2029 East Avenue Q
Palmdale CA 93550

Quotation

DATE April 4, 2023
Quotation # Brian Pmdl 04-04
Salesperson: Brian Jensen

Quotation valid until: 90 Days
Prepared by: Brian Jensen

Qty	Description	Unit Cost	AMOUNT	Part Number
Multi-jet Meters w E-LINX TO TP-6				
2900	3/4" X 7.5" BLMJ w E-LINX Reg Potted to Touchpad 6' Wire	\$ 185.65	\$ 538,385.00	B13-A31-B16-0126A-1
376	1" BLMJ w E-LINX Reg Potted to Touchpad 6' Wire	\$ 244.41	\$ 91,898.16	B16-A31-B16-0126A-1
34	1 1/2" MS Intermediate MJ w E-LINX Reg Potted to Touchpad 6' Wire	\$ 533.92	\$ 18,153.28	M21-A00-B16-0126A-1
44	2" MS Intermediate MJ w E-LINX Reg Potted to Touchpad 6' Wire	\$ 715.88	\$ 31,498.72	M23-A00-B16-0126A-1

Sub Total: \$ 679,935.16
Tax: \$ 69,693.35
Freight: TBD
Total: \$ 749,628.51

PLEASE NOTE: This quotation is valid through 90 Days. We reserve the right to amend prices after this period.

If required Shipping is ESTIMATED in this quote.

A 2% processing fee will be applied for all credit card purchases.

All invoices are due Net 30 per HydroPro Solutions standard terms and conditions

THANK YOU FOR YOUR BUSINESS!

**PALMDALE WATER DISTRICT
BOARD MEMORANDUM**

DATE: April 5, 2023 **April 10, 2023**
TO: BOARD OF DIRECTORS **Board Meeting**
FROM: Mr. Scott Rogers, Engineering Manager
VIA: Mr. Adam Ly, Assistant General Manager
 Mr. Dennis LaMoreaux, General Manager
RE: ***AGENDA ITEM NO. 7.2 – CONSIDERATION AND POSSIBLE ACTION ON AUTHORIZING THE GENERAL MANAGER TO FINALIZE THE NEGOTIATIONS AND EXECUTE A MEMORANDUM OF UNDERSTANDING WITH CAPTURE6 FOR PURE WATER AV. (NO BUDGET IMPACT – ENGINEERING MANAGER ROGERS)***

Recommendation:

Staff recommends that the Board approve and authorize the General Manager to finalize the negotiations and execute a Memorandum of Understanding (MOU) with Capture6 for Pure Water Antelope Valley (AV).

Alternative Options:

This is an alternative to acquiring, constructing, maintaining, and operating roughly 2 miles of pipeline and 72 acres of evaporative ponds for the management of brine from the advanced water treatment plant.

Impact of Taking No Action:

The District would miss the opportunity to save on the cost of brine treatment.

Background:

Staff and the District’s program manager, Stantec, have been pursuing the implementation of Pure Water AV, which will be a regional recycled water program to address and improve water supply resiliency and groundwater aquifer management. Pure Water AV is planned to be an indirect potable reuse (IPR) project to be permitted under Title 22 Code of California Regulations for groundwater augmentation via direct injection. The District has plans to construct an Advanced Water Treatment Demonstration Facility (Demonstration Facility) to provide a place for public education, training, tours, demonstration testing for permitting approval, and full-scale Advanced Water Purification Facility (AWPF) design criteria development.

Stantec initiated a conversation about the possible mutual benefit for both PWD and Capture6 to work together to complete the respective objectives of each organization. Capture6 is a public benefit corporation start-up with a mission to increase global carbon capture with innovative

BOARD OF DIRECTORS
PALMDALE WATER DISTRICT

VIA: Mr. Adam Ly, Assistant General Manager
Mr. Dennis D. LaMoreaux, General Manager

April 5, 2023

systems and processes. Capture6 is looking to form partnerships and coalitions that can make its plans happen. The staff has met with Capture6 to discuss the synergies that exist for both Capture6 to use their carbon capture technologies and treat the brine from Pure Water AV to produce useable byproducts like hydrochloric acid that can be used in the membrane cleaning cycles.

The Memorandum of Understanding has two phases to it:

Phase 1 - Demonstration of the Capture6. This phase will include the addition of the Capture6 technology into the Pure Water AV Demonstration Facility. The objective is to evaluate whether the technology can perform brine treatment at a reduced cost. The responsibilities of Capture6 and PWD are identified in Section 4. Responsibilities During the Demonstration Phase in the MOU. Capture6 will pay for the design, expansion of the building, and installation/operation of its equipment.

Phase 2 - Integration of Capture6. This second phase will include Capture6 facility into Pure Water AV Full Scale Facility. The responsibilities of Capture6 and PWD are identified in Section 6. Responsibilities During AWPf Phase in the MOU. The Pure Water AWPf will deliver brine to Capture6 facility for their system to use.

Phase 1 will be designed by the District's consultant, Stantec, but paid by Capture6 through an agreement between the two companies. Phase 1 will demonstrate and test if the Capture6 technology performs to a level where there are cost savings to PWD. In order to avoid any possible conflict of interest, PWD will hire an independent advisor and advisory panel to review the results and make a recommendation to PWD to utilize the Capture6 technology as a part of the Full Scale Facility. The estimated cost savings range from 20 to 40 percent but will not be known until the demonstration data in Phase 1 is collected and evaluated.

Strategic Plan Initiative/Mission Statement:

This item is under Strategic Initiative No. 1- Water Resource Reliability, No. 3 - Systems Efficiency, and 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:

- Memorandum of Understanding with Capture6

MEMORANDUM OF UNDERSTANDING
BETWEEN PALMDALE WATER DISTRICT AND CAPTURE6

This Memorandum of Understanding (“**MOU**”) is entered into on _____ (“**Effective Date**”),

BY AND BETWEEN: Capture6 Corp., with an address of 1340 Josephine Street, Berkeley, CA 94703, United States (“**Capture6**”),

AND: Palmdale Water District, with an address of 2029 East Avenue Q, Palmdale, CA 93550 (“**PWD**”),

Capture6 and PWD are collectively referred to as the “**Parties.**”

1. PURPOSE

PWD intends to construct an advanced water treatment demonstration facility located in Palmdale, California (“**Demonstration Facility**”) as well as a full-scale Advanced Water Purification Facility (“**AWPF**”).

This MOU states the current understanding between the Parties, working together to implement Capture6’s brine management, mineral extraction, water recovery, and carbon removal technology (“**Capture6 Technology**”) within the Demonstration Facility (“**Demo Project**”). Contingent upon supporting analysis of the Project results, the Parties also contemplate possible deployment of a Capture6-managed facility (“**C6 Facility**”) that integrates with the AWPF to enhance water recovery and to remove carbon dioxide from the atmosphere (“**Final Project**”).

Any decision by the Parties to complete the Final Project shall be the subject of a separate agreement.

Palmdale Water District is an independent special district located in Palmdale, Los Angeles County with a mission to provide high-quality water to its current and future customers at a reasonable cost.

Capture6 is a public benefit corporation that serves as a carbon removal and decarbonization technology provider to water and industrial partners.

2. DESCRIPTIONS OF PROJECT PHASES

2.1. The following definitions shall refer to different phases in the planned development and operation of the Project (each a “**Phase**” and together “**Demonstration Phases**”):

- a) “**Demonstration Design Phase**” shall mean the period from the date of this MOU until the commencement of construction of the Demonstration Facility.
- b) “**Demonstration Construction Phase**” shall mean the period from the date of the commencement of construction of the Demonstration Facility until the start of the testing phase.

- c) “**Demonstration Testing Phase**” shall mean a one-year period from the end of the Construction Phase during which testing of the Capture6 Technology within the Demonstration Facility will take place.
- d) “**Demonstration Continuing Operations Phase**” shall mean the period from the end of the Testing Phase until PWD makes a decision to formally decommission of the Demonstration Facility.
- e) “**Demonstration Decommissioning Phase**” shall mean the period from the end of Continuing Operations Phase until the Demonstration Facility has been assessed by PWD to have been completely and satisfactorily decommissioned.

2.2. The following definitions shall refer to different phases in the development and operation of the AWPf (each a “**Phase**” and together “**AWPF Phases**”):

- a) “**AWPF Design Phase**” shall mean the period from the beginning of design work for the AWPf until the commencement of construction of the AWPf.
- b) “**AWPF Construction and Commissioning Phase**” shall mean the period from the date of the commencement of construction of the AWPf until its formal commissioning.
- c) “**AWPF Continuing Operations Phase**” shall mean the thirty-year period commencing at the end of the Construction Phase.
- d) “**AWPF Decommissioning Phase**” shall mean the period from the end of Continuing Operations Phase until the AWPf has been assessed by PWD to have been completely and satisfactorily decommissioned.

2.3. The following definitions shall refer to different phases in the development and operation of the C6 Facility (each a “**Phase**” and together “**C6 Phases**”):

- e) “**C6 Facility Design Phase**” shall mean the period from the beginning of design work until the commencement of construction of the C6 Facility.
- f) “**C6 Facility Construction and Commissioning Phase**” shall mean the period from the date of the commencement of construction of the C6 Facility until its formal commissioning.
- g) “**C6 Facility Continuing Operations Phase**” shall mean the thirty-year period commencing at the end of the Construction Phase.
- h) “**C6 Facility Decommissioning Phase**” shall mean the period from the end of Continuing Operations Phase until the C6 Facility has been assessed by Capture6 to have been completely and satisfactorily decommissioned.

2.4. The term “**All Phases**” shall mean the Demonstration Phases, AWPf Phases, and C6 Phases collectively.

3. MUTUAL UNDERSTANDINGS

The Parties understand and agree that, unless otherwise agreed by the Parties in writing, during All Phases:

- 3.1. The Parties agree to work together and co-operate in good faith, to fully participate to develop the Demo Project, and to perform the MOU.
- 3.2. This MOU in no way restricts the ability of either Party to enter into any MOU with any other third party in relation to any other proposed project of a similar nature so long as the proposed project does not impact completion of the Demo Project.
- 3.3. Capture6 will retain ownership and sole and exclusive rights to any and all Capture6 Technology, modifications made to the Capture6 Technology as a result of the Demo Project, Confidential Information, any technology or know-how created as a result of the Demo Project, and all intellectual property rights associated with the foregoing (“**Capture6 IP**”). To the extent PWD has any rights in the Capture6 IP, PWD hereby assigns all of its rights, title, and interest, including intellectual property rights in and to the Capture6 IP to Capture6, unless otherwise agreed to by the Parties in writing or is a right necessary for PWD’s continued operation of the Demonstration Facility. For clarity, Capture6 owns all equipment that is purchased to implement the Capture6 Technology under this MOU for the Demo Project, except that Capture6 may decide in its discretion to transfer title in certain equipment to PWD in accordance with Section 4.1(c).
- 3.4. Should Capture6 seek sale of the Capture6 IP, PWD shall have a right of first refusal to purchase implementation of the Capture6 IP in the Demo Project.
- 3.5. Subject to Capture6’s rights in the Capture6 IP, this MOU, the Demo Project, and the inclusion of the Capture6 Technology into the Demonstration Facility will be public information.
- 3.6. Notwithstanding the above, any information relating to Capture6 Technology, including but not limited to detailed engineering designs, component specifications, and performance-related data (together “**Confidential Information**”), shall be considered confidential and treated as Capture6’s trade secrets and not disclosed to any third party or the public unless agreed to in writing by Capture6 or as required for legal or regulatory purposes, including compliance with the Ralph M. Brown or Public Records Act. To the extent that PWD is required by law to disclose Capture6’s Confidential Information, PWD shall use best efforts to assert any exceptions that may exempt PWD from its requirement to disclose Capture6’s Confidential Information. For the avoidance of doubt, this section shall apply to all Confidential Information for so long as it is considered proprietary trade secrets.
- 3.7. Capture6 shall specifically and clearly identify the information by marking documents as “Confidential Information” so that it clearly identifies information as such. Capture6 will make every effort to review documents as Confidential Information so to avoid marking all documents confidential. PWD reserves the right to challenge the marking of any document as “Confidential Information” and in response, Capture6 shall provide a reasonable explanation to any such challenge. Any Confidential Information remaining in dispute thereafter shall be referred by the parties to an agreed upon mediator paid for equally by the Parties.
- 3.8. Subject to the above restrictions on Confidential Information, all required data related to the Project will be made available to both Capture6 and PWD for their independent and joint evaluation purposes.
- 3.9. Capture6 will retain all rights to any carbon credits associated with the operations of the Demonstration Facility, AWPf, and C6 Facility.

4. RESPONSIBILITIES DURING DEMONSTRATION PHASES

- 4.1. **Capture6 responsibilities:** Capture6 shall perform the following duties during the Demonstration Phases:

- a) During the Demonstration Design and Demonstration Construction Phases, Capture6 will pay for the PWD's Cost of incorporating the Capture6 Technology into the Demonstration Facility, including PWD's Cost of engineering design and construction with Stantec or any other vendor(s) that have been approved/selected by Stantec and/or PWD. As used in this MOU, "**PWD's Cost(s)**" will be determined by the Parties in good faith, but will not include any costs that PWD or its employees, agents, or vendors would incur regardless of the execution or performance of this MOU.
- b) During the one-year Demonstration Testing Phase ("**Capture6 Payment Period**"), Capture6 will pay for PWD's Costs associated with incorporating, repairing, operating and maintaining the Capture6 Technology in the Demo Project, including but not limited to PWD's Costs of disposal of any unutilized by-products directly produced by the Capture6 Technology. For the avoidance of doubt, such by-products will include hydrochloric acid and carbonates in aqueous form.
- c) During the Demonstration Continuing Operation Phase, PWD and Capture6 agree to work in good faith to come to commercially reasonable terms for the shared operating costs of the Demonstration Facility, to be memorialized in a written agreement. Should such negotiations fail to a written agreement, PWD shall have the option to operate the Demonstration Facility at its own cost or decommission the facility.
- d) During the Demonstration Decommissioning Phase or upon request by PWD if earlier, Capture6 will remove equipment it chooses to keep in a reasonable amount of time at its own cost; all other decommissioning related costs, responsibilities, and obligations shall remain the responsibility of PWD. Any equipment not removed by Capture6 within 30 days of the end of the Demonstration Decommission Phase, will be considered abandoned.
- e) Without limiting Capture6's indemnification of PWD, and prior to commencement of any services under this MOU, Capture6 shall obtain, provide, and maintain at its own expense during the term of this MOU, policies of insurance of the type and amounts described below and in a form satisfactory to PWD.
 - i. General Liability Insurance. Capture6 shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than \$2,000,000 per occurrence, \$4,000,000 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.
 - ii. Automobile liability insurance. Capture6 shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of Capture6 arising out of or in connection with services to be performed under this MOU, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than \$1,000,000 combined single limit for each accident.
 - iii. Workers' compensation insurance. Capture6 shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least \$1,000,000).
 - iv. Subcontractors. Capture6 shall include all subcontractors as insureds under its policies or shall furnish separate certificates and certified endorsements for each subcontractor. All coverages for subcontractors shall include all of the requirements stated herein.
- f) Capture6 shall provide certificates of insurance to PWD as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers'

compensation. Insurance certificates and endorsements must be approved by PWD's General Manager prior to commencement of performance. General liability policies shall provide or be endorsed to provide that PWD and its officers, officials, and employees shall be additional insureds under such policies.

4.2. PWD responsibilities: PWD shall perform the following duties during the Demonstration Phases:

- a) During the Demonstration Phases, PWD will provide land and existing permits and will support any reasonable additional steps to acquire additional permits necessary to incorporate Capture6 Technology into the Demonstration Facility.
- b) During the Demonstration Phases, PWD will pay for (i) the costs of its own employees, contractors, and other personnel who are involved in the Project, and (ii) any costs that PWD or its employees, agents, or vendors would incur regardless of the execution or performance of this MOU.
- c) During the Demonstration Phases, PWD will pay Capture6 a nominal fee of \$1.00 per year to provide its Capture6 Technology.
- d) During the Demonstration Continuing Operations Phase, PWD agrees to pay a license fee of \$100 to Capture6 to provide its Capture6 Technology.
- e) During the Demonstration Phases, except as provided for elsewhere in this MOU, PWD will maintain responsibility for all initial and continuing obligations including but not limited to any legal, regulatory, and maintenance obligations associated with the design, construction, and operations of the Demonstration Facility, including any equipment paid for by Capture6. As part of this obligation, PWD is responsible for any costs associated with repairing damage to the equipment that implements the Capture6 Technology.
- f) During the Demonstration Phases and upon reasonable advance notice and subject to mutual MOU, PWD will make the Demonstration Facility available to Capture6 to bring in private entities/people for the purposes of assessing its Capture6 Technology.

4.3. Capture6 and PWD joint responsibilities: Capture6 and PWD shall jointly share responsibility for the following duties during the Demonstration Phases:

- a) During the Demonstration Testing Phase, Capture6 and PWD will engage an expert panel to assess the viability of the Demonstration Facility, including the Capture6 Technology. The results of this review will be relied upon by PWD as part of the decision-making process on the Final Project.

5. INTEGRATION OF CAPTURE6 TECHNOLOGY INTO AWPf

It is mutually agreed upon and understood by and among the Parties that, unless otherwise agreed by the Parties in writing, the Parties will agree to work in good faith to come to reasonable terms regarding the responsibilities of the Parties during AWPf Phases and C6 Phases of the Final Project, to be memorialized in a future agreement. This Section of the MOU is only applicable if (i) neither Party materially breaches this MOU during the Demonstration Phases, or, if a Party does materially breach this MOU during the Demonstration Phases, the breaching Party cures such breach within

45 days of receipt of written notice of such breach from the other Party; and (ii) Capture6 reimburses PWD for costs (if any) that PWD incurs for brine disposal during the Demonstration Testing Phase.

6. RESPONSIBILITIES DURING ALL PHASES

- 6.1. During All Phases, Capture6 and PWD will explore joint applications for grant funding from state, federal, and non-governmental agencies and organizations for the purposes of funding the Demo Project and operations at the Demonstration Facility, and other water treatment and carbon removal studies.
- 6.2. During All Phases, Capture6 and PWD will support each other's initiatives to engage local community stakeholders in support of the Demonstration Facility and AWPF.
- 6.3. During All Phases, Capture6 will pay for any of PWD's Costs that Capture6 approves in writing ahead of time to assist with any marketing of the Capture6 Technology.

7. TERM

- 7.1. This MOU shall commence on the Effective Date and continue in effect until the completion of All Phases unless MOU terminated earlier in accordance with this Section 7 ("**Term**").
- 7.2. Either Party may terminate this MOU if the other Party materially breaches this MOU and does not remedy such breach within sixty (60) days after its receipt of written notice of such breach.
- 7.3. PWD's obligations with respect to Capture6's Confidential Information and Capture6's rights to Capture6 IP, and any other term of this MOU that by its nature would reasonably be expected to survive the termination or expiration of this MOU shall survive any termination or expiration of this MOU.
- 7.4. Upon termination or expiration of this MOU, if the Demonstration Decommissioning Process has not yet begun, Capture6 shall be entitled to remove any equipment relating to the Capture6 Technology that it wishes to retain title to.

8. REPRESENTATION AND WARRANTIES

Each Party represents and warrants that (i) it is authorized fully to enter into this MOU, and (ii) its performance of this MOU does not and will not violate the rights of any third party or else violate other, if any, MOUs made between the Party and/or any other organization, person, business, or law/governmental regulation. EXCEPT AS SET FORTH IN THIS SECTION, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES UNDER THIS MOU. THE CAPTURE6 IP IS PROVIDED "AS-IS" AND CAPTURE6 DISCLAIMS ANY AND ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF RELIABILITY, MERCHANTABILITY, NON-INFRINGEMENT, OR FITNESS FOR A PARTICULAR PURPOSE.

9. INDEMNIFICATION

Each Party ("**Indemnifying Party**") agrees to indemnify and hold harmless the other Party and its affiliates, officers, directors, shareholders, employees, licensees, agents, successors and permitted assignees ("**Indemnified Party**") against any losses, damages or costs (including reasonable attorney's fees) incurred in connection with claims, demands, suits, or proceedings ("**Claims**") made or brought against the Indemnified Party by a third party relating to Indemnifying Party's breach of this MOU; provided the Indemnified Party (a) promptly gives written notice of the Claim to the Indemnifying Party; (b) gives the Indemnifying Party sole control of the defense and settlement of the Claim (provided that the Indemnifying Party may not settle or defend any Claim unless it unconditionally releases the

Indemnified Party of all liability); and (c) provides Indemnifying Party, at Indemnifying Party's cost, all reasonable assistance. If, within a reasonable period of time after receipt of such notice, the Indemnifying Party fails to assume the defense, then the Indemnified Party will have the right to undertake the defense, compromise, and settlement of Claims for the account and at the expense of the Indemnifying Party. If the Indemnified Party in its sole discretion so elects, the Indemnified Party may also participate in the defense of such actions by employing counsel at its expense, without waiving the Indemnifying Party's obligations to indemnify or defend, provided that the Indemnifying Party is not prejudiced by such actions. The Indemnifying Party will not settle or compromise any claim or consent to the entry of any judgment to the extent that the judgment or settlement would prejudice or damage the Indemnified Party, without the prior written consent of the Indemnified Party.

10. LIMITATION OF LIABILITY

UNDER NO CIRCUMSTANCES WILL EITHER PARTY BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES (INCLUDING LOST PROFITS) ARISING OUT OF OR RELATING TO THIS MOU OR THE TRANSACTIONS IT CONTEMPLATES, WHETHER FOR BREACH OF CONTRACT, TORT, NEGLIGENCE, OR OTHER FORM OF ACTION.

11. GOVERNING LAW

This MOU shall be governed by and construed in accordance with the laws of the State of California. Any action to interpret or enforce the terms of this MOU shall be brought in the Los Angeles County Superior Court.

12. AMENDMENTS

The Parties agree that any amendments made to this MOU must be in writing and signed by both Parties.

13. ASSIGNMENT

The Parties hereby agree not to assign any of the responsibilities in this MOU to a third party unless consented to by both Parties in writing. Notwithstanding the foregoing, Capture6 may assign its rights and obligations hereunder in connection with a merger, reorganization, consolidation, or sale of all or substantially all of its assets, consistent with Section 3.4.

14. SEVERABILITY

In an event where any provision of this MOU is found to be void and unenforceable by a court of competent jurisdiction, then the remaining provisions will remain to be enforced in accordance with the Parties' intention.

15. ENTIRE MOU

This MOU contains the entire MOU and understanding among the Parties hereto with respect to the subject matter hereof, and supersedes all prior MOUs, understandings and conditions, express or implied, oral or written, of any nature whatsoever with respect to the subject matter hereof. The express

terms hereof control and supersede any course of performance and/or usage of the trade inconsistent with any of the terms hereof.

SIGNATURES

Capture6 Corp.

Signature: _____

Name: Ethan Cohen-Cole, PhD

Title: Chief Executive Officer

Date: _____

Palmdale Water District

Signature: _____

Name: Dennis LaMoreux, P.E.

Title: General Manager

Date: _____

**PALMDALE WATER DISTRICT
BOARD MEMORANDUM**

DATE: April 5, 2023 **April 10, 2023**
TO: BOARD OF DIRECTORS **Board Meeting**
FROM: Adam Ly, Assistant General Manager
VIA: Dennis D. LaMoreaux, General Manager
RE: ***AGENDA ITEM NO. 7.3 – CONSIDERATION AND POSSIBLE ACTION ON AWARDING A PROFESSIONAL SERVICE AGREEMENT TO CIVILTEC ENGINEERING, INC. TO EVALUATE AND PREPARE CONSTRUCTION PLANS AND SPECIFICATIONS FOR REHABILITATION OF 6M CLEARWELL. (\$170,000.00 – NON-BUDGETED – ASSISTANT GENERAL MANAGER LY)***

Recommendation:

Staff recommends that the Board award a Professional Service Agreement to Civiltec Engineering, Inc. to evaluate and prepare construction plans and specifications for rehabilitation of the 6M Clearwell.

Alternative Options:

The alternative is for staff to prepare and complete the request for proposals process and present a recommendation to the Board. The advantage of completing the process in a prior year to pre-select qualified engineering firms would be set aside.

Impact of Taking No Action:

The District will need to find another engineering firm for the proposed work. The work is needed to maintain the District's operating permit in good standing with the State Water Resources Control Board (SWRCB).

Background:

The District hired Tank Industry Consultants (TIC) to inspect storage tanks, including the 6M Clearwell (Clearwell), in December 2021. TIC submitted a report of the assessment and recommendations for the rehabilitation of the Clearwell in April 2022. The TIC reports were requested by SWRCB staff and the District provided those reports. SWRCB staff requested the recommendations be completed by the District. Staff discussed these with SWRCB staff and tentatively agreed on a timeline to address the recommendations.

Civiltec Engineering is one of the three pre-qualified engineering consulting firms that can provide this service. The firm has the expertise and experience to evaluate the structure and baffle system of Clearwell. As such, we requested a proposal from Civiltec Engineering. Staff has reviewed the proposal and recommends the work to address the issues cited in the TIC assessment report.

The cost of the proposal exceeds the \$100,000.00 annual amount allocated by prior Board action to perform engineering work under the as-needed services agreement.

Strategic Plan Initiative/Mission Statement:

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

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

Budget:

This is a non-budgeted item and funds will come from Account 1-02-5070-007 (Consultants).

Supporting Documents:

- Civiltec Engineering, Inc. Proposal.



*Civil, Water, Wastewater, Drainage, Transportation and
Electrical/Controls Engineering • Construction Management • Surveying
California • Arizona*

April 4, 2023

Palmdale Water District
2029 East Avenue Q
Palmdale, CA 93550

Sent Via Email: srogers@palmdalewater.org

ATTN: Scott Rogers, PE | Engineering Manager

**RE: Proposal for 6MG Reservoir Tank Rehabilitation
Civiltec Proposal No. PM23010**

Dear Mr. Rogers,

Civiltec engineering, inc. (Civiltec) appreciates the opportunity to provide professional engineering services to Palmdale Water District (PWD) for the above referenced project. We understand this project is to rehabilitate the PWD 6,000,000-gallon welded steel storage water tank, also known as the "6MG Reservoir," in Palmdale, California. The project will address deficiencies in the tank outlined in an evaluation report from Tank Industry Consultants. These deficiencies include seismic deficiencies, safety-related deficiencies, and sanitary and operational deficiencies. The tank will also be evaluated for compliance with standards from the American National Standards Institute (ANSI), the Occupational Safety and Health Administration (OSHA), and the American Water Works Association (AWWA).

AUTHORIZED RESPONSIBLE ENGINEERS

Civiltec proposes to assign W. David Byrum, PE., as company representative and overall Project Manager. Mr. Byrum will be responsible for the firm's timely response and quality completion of this project. Mr. Byrum is President of the firm with the authority for all contractual matters, commitment of **Civiltec's** resources as necessary, authority to take all action necessary to meet your requests and has over 30 years of experience in the rehabilitation of existing steel tanks. Mr. Byrum will be assisted by David Song, PE, Senior Project Manager, for management and coordination of the project, and Terry Kerger, PE, Project Engineer, who will take the lead on the steel tank evaluation, technical memo production and design of improvements. Steve Walker, PE, Senior Project Engineer, will assist with evaluation and design of contact time systems necessary to meet Division of Drinking Water (DDW) requirements. Vahe Petrosian, SE, Principal Engineer, will evaluate the structure and sloshing wave impacts.

UNDERSTANDING

Below is a list of the items that PWD will address with its own forces or performed by the contractor selected for the reservoir rehabilitation work. This work will be accomplished ahead of coatings work on the tank.

ANSI/OSHA and safety-Related Deficiencies

1. The valve vault access is not locked. **A new lock will be installed by PWD personnel.**
2. The exterior ladder is not equipped with a safe-climbing device (OSHA 29 CFR 1910.28.) **PWD provides staff with OSHA approved 1926.502, harness and hooks safe-climbing devices to access tanks. The installation of a new safe-climbing device on the exterior ladder will be included as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**
3. Three conduits are attached to the ladder brackets behind the rungs which reduces the clear space behind the ladder to less than minimum required clearance. **These 3 conduits has been removed to allow complete clearance for climbing and re-installed away from the ladder. This task is considered complete.**
4. The ladder platform safety railing access opening is not equipped with a self-closing gate (OSHA 29CFR 1910.28) **Self-closing OSHA 29 CFR gate will be purchased and installed as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**
5. The gap between the safety railing toe bar and the roof is more than maximum allowed $\frac{1}{4}$ inch. (OSHA 29 CFR 1910.29) **The railing will be adjusted to meet $\frac{1}{4}$ inch clearance and resolved as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**

AWWA, Sanitary, and Operational Deficiencies

1. There is no sealant at the chime-to-ring wall interface to prevent water from penetrating and pooling under the tank floor. **New sealant will be added to ring wall interface as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**
2. The discharge end of the overflow pipe is not equipped with adequate protective screening or a flap gate. **New screening will be installed by PWD.**
3. Holes and misaligned anode hand hole cover plates resulted in uncovered openings in the roof plates. **Anode hole plate covers will be repositioned, secured in place, and receive a coat of primer and will be included as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**
4. Missing sections of the screen will allow the ingress of insects into the tank. **New screening will be installed and will be included as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**

5. The ladder brackets are not seal welded to the shell. **Seal welding of the ladder brackets to the shell and will be included as part of the rehabilitation work by the contractor and identified in the design drawings and specifications.**

Below is a list of evaluations and engineering tasks that will be performed by *Civiltec* forces.

Tank Exterior

1. Identify and develop repair/removal methods for unused brackets or erection lugs, weld burrs, weld spatter, or erection scars, unused electrical conduit, fixtures, cathodic protection apparatus, and control cabinets.
2. Identify and develop design for the addition of shell and roof manholes and 'dog doors'. The additional manholes and covers should be 30 in. in diameter, will be designed in accordance with current industry and safety standards, hinged, and located approximately 90 degrees apart from the existing shell manholes. The need for a second roof access hatch will be evaluated.
3. Specifications and plans will be developed for the pressure washing and recoating of the exterior surface. The entire exterior surfaces of the tank will be high pressure washed to remove chalked coating, mildew, and contaminants. After washing, the damaged and rusted areas will be spot cleaned to the equivalent of an SSPC-SP 6, Commercial Blast Cleaning, or SSPC-SP 11, Power Tool Cleaning to Bare Metal. All areas of excessive coating thickness and runs in the coating should be cleaned to the equivalent of an SSPC-SP 7, Brush-Off Blast Cleaning, to remove the excessive thickness. The spot cleaned areas will receive a spot prime coat compatible with the present coating system. The entire exterior surfaces will then be intermediate coated and top coated with a compatible coating system.

Tank Interior

1. Through water quality and contact time analyses, alternatives will be developed to replace the current baffle system. It is necessary to develop these alternatives and designs or replace the existing baffles.
2. All significant pitting that is found should be filled with welds, and all pitting with rough edges that would make the pitting difficult to coat properly should be filled with welds or a solventless epoxy seam sealer. The existing roof manhole and existing roof vent intersections will be sealed with an epoxy seam sealer. All unused brackets will be removed from the interior.
3. The ladder brackets will be seal welded to the shell in accordance with AWWA D100 recommendations. A new NSF 61 FRP ladder will be installed. The broken safe-climbing device will be replaced.
4. The bent rafter bracing will be replaced. After initial abrasive blast cleaning, the roof support structure should be carefully evaluated as metal loss repairs may be necessary at areas where the metal loss was not previously visible.
5. The floor penetration for the pump suction piping should be evaluated. The existing tank floor connection can be removed, and the location backfilled and sealed with a new plate on the

tank floor. A new side wall penetration would be installed to provide pump suction. This connection will require a new flex-tend. Alternatively, the floor penetration can remain in place.

6. Once all interior surfaces are prepared and improvements made, the tank interior will be cleaned to the equivalent of an SSPC-SP 10, Near-White Blast Cleaning. An ultra-high solids polyurethane or Epoxy coating system will be applied that meets the certification criteria of ANSI/NSF 61 and DDW.

Structural Evaluation

1. A comprehensive structural analysis will be performed to determine the required freeboard based on current seismic design criteria and different operational importance levels.
2. The tank was designed in 1988 based on seismic design parameters of 1987 which are likely outdated. Additionally, the United States Geological Survey (USGS) seismic risk data has undergone significant updates since the original tank design. The new design will be based on current seismic parameters from the USGS database. The sloshing wave height will be determined through updated calculations and the overflow of the tank will be lowered to a proper elevation to accommodate the sloshing wave limitations.
3. (Option) Alternatively, additional structure analysis will be performed to identify potential strengthening options to allow a greater water depth while meeting CalARP/DDW requirements for sloshing waves.
4. The application of sloshing wave forces on the roof and knuckle will affect the overall tank stability scheme with or without the updated seismic design parameters. In the past, according to the prevailing AWWA design practice, the roof was allowed to fail and alleviate the sloshing wave effects on the tank stability.
5. The existing tank is not anchored. The original design indicates that the anchoring requirements were marginal, directly at the upper limits allowed by AWWA requirements. Updated seismic design may require the addition of tank anchors. This may consequently affect the sloshing wave heights and roof reinforcement design.
6. It will be necessary to obtain and review the original tank fabrication drawings and structural calculations prepared by the original tank fabricator. Once the updated calculations are performed, the deficiencies will be identified. Optional strengthening methods will be developed with estimated costs and DDW will be contacted to set the basis for a variance request for an agreed overflow height.
7. The lower tank shell plate thickness appears to be marginal and may require reinforcement based on the current seismic design parameters and addition of sloshing wave forces on the roof and knuckle.
8. Evaluate the structural integrity of the existing girders, rafters and columns that support the roof and the ensure the roof can also support typical live loads from maintenance personnel. Develop strengthening or rehabilitation of the members to ensure support.

SCOPE OF SERVICES

Based on our project understanding and professional experience, we have identified the following scope of services.

Phase 1. Preliminary Engineering

- A. Arrange and conduct a workshop with PWD management and staff, and the *Civiltec* project team to finalize design criteria, discuss schedules and obtain any additional reservoir data, project site data, as-constructed plans, and other applicable documents. The District has provided the original tank structural engineering and shop fabrication drawings.
- B. Review data to ensure we have all existing design drawings. Obtain additional maps as necessary to complete our research. Our objective is to obtain all existing information available for the area including record drawings and underground utility information.
- C. Prepare a general arrangement site plan, floor plan, roof plan and tank elevations for reference. *Civiltec* will prepare these drawings based upon the field investigations, and any record drawings we are able to locate. We do not plan to conduct a topographic survey of the site.
- D. Conduct a sloshing wave analysis based upon USGS data, site specific geotechnical data and tank configuration. This analysis will determine the wave height based on a maximum probable seismic event. Determine sloshing wave forces acting upon the underside of the tank for the current freeboard and alternative freeboard heights. Based upon this analysis, we will identify the potential risks to the tank.
- E. Perform structural engineering to develop methods to strengthen the tank which includes structural calculations for roof knuckle and rafter reinforcement for the sloshing wave. In addition to the calculations, we will develop design details for the roof knuckle and rafter repairs and reinforcement. Lowering the operational water level may impact the results of the Computational Fluid Dynamics (CFD) Model. See the Phase 2 Tasks for the CFD study.
- F. Perform structural analysis of the overall tank stability due to the sloshing wave uplift forces, sliding and overturning including tank anchorage requirements. Prepare accompanying design details for tank reinforcement, anchors, footings, shell plate, etc.
- G. Develop alternatives for tank coating and appurtenance improvements. Develop preliminary cost estimates for each alternative. Meet with the District to discuss these alternatives.
- H. Document research, current tank conditions, status of compliance with current codes, standards and guidelines, results of the analysis and evaluations, alternative cost estimates, pros and cons of alternatives, construction feasibility, permit requirements, and final recommendations. We will submit email(s) documenting each of these items. Meet virtually with the District to discuss proceeding into the final design phase.
- I. Meet with Palmdale Water District to discuss alternatives and recommendations. Finalize approach to the rehabilitation plans specifications and cost estimates.

Phase 2. Computational Fluid Dynamics (CFD) Modeling

CFD modeling will be useful if the water level must be lowered due to the sloshing wave height (see Phase 1, Tasks D and E). The current baffle system configuration was designed based upon results of a study by Flow Science. The CFD model is based upon a plug flow of 30 MGD and a water depth of 27.5 feet. The following is Flow Science's scope of work to analyze flow characteristics if the 6MG tank baffle system requires reconfiguration.

- A. Set up CFD Model based upon revised water level and flow information. We will collect and review reservoir, piping, water quality, contact time requirements, and other pertinent data, and set up the three-dimensional CFD grid for the tank for a "Base Case" configuration based on design drawings and the current baffle system. We will conduct a virtual kick off the meeting to discuss the CFD modeling with PWD.
- B. Base Case CFD Modeling (One Simulation). We will establish, in conjunction with PWD, a simplified flow scenario (inflow/outflow rates) and water surface elevation for the Base Case modeling, perform CFD analysis of the Base Case for the aforementioned flow scenario, and define contact time (T10) and identify any poor circulation locations in the tank.
- C. Alternative Design CFD Modeling (Two Simulations). We will perform CFD analysis for two alternatives, including reconfigured water levels and modified curtain wall channelization alternative designs, different flow scenarios, or water surface elevations. CFD modeling will define contact time (T10) and identify poor circulation locations in the tank.
- D. Reports. We will provide a detailed draft report with the results of Tasks A-C that describes the methods of analysis, results, the predicted T10 and poor circulation locations. The report will present the calculations in the form of color schematic exhibits and animated videos depicting the motion of a conservative tracer in the reservoir and streamlines. The draft report will be provided in Adobe PDF format. A final report will be provided that incorporates consolidated comments received on the draft report. Preparation of the final report does not include performing additional CFD simulations.

Phase 3. Bid Package: Plans, Specifications and Estimate

- A. Prepare final drawings completely detailing the recommended improvements. All drawings will be prepared on District standard title block 24" by 36" sheets. We anticipate the design plans will have various horizontal and vertical scales. Details will be at a scale of ½ inch = 1 foot. The drawings will be produced 100% in AutoCAD in a format acceptable to the District. We presently utilize AutoCAD, Release 2022 with Civil3D, but we can provide the drawings to the District in any release format, as needed. **Civiltec** will provide final signed originals for District use plus all drawing, cost estimate and specification files in the various formats plus PDFs. **Civiltec** will submit drawings and specifications as follows:
 1. **50% Design Review** – **Civiltec** will, at a minimum, submit reservoir improvement plans, including preliminary title sheet, second sheet (including vicinity map, location map, general notes, construction notes, etc.), completed plan and detail sheet. We will submit the draft technical specifications for review and meet virtually with the District to discuss submittal to expedite the review and comment process.



2. **90% Design Review** – *Civiltec* will, at a minimum, submit complete reservoir plans and details, separate cost estimates, draft bid schedule and technical specifications to District for review and comments. We will submit for review within 60 calendar days of receiving comments on the 50% design. *Civiltec* will address the 50% design review comments. Meet virtually to discuss submittal to expedite the review and approval process.
 3. **Final Approval** – *Civiltec* will submit final signed original drawings, complete technical specifications, final cost estimates and final bidding schedule. We will submit these originals within 10 calendar days of receiving comments on the 90% design.
- B. Prepare final technical specifications and Appendices. Coordinate the technical specifications with District contract documents. *Civiltec* will provide original reproducible and biddable specifications and contract documents for District review and computer files formatted in the latest version of Word.
 - C. Prepare a final construction cost estimate in Excel and a matching bidding schedule.
 - D. Provide completed signed documents and approved signed PDF files ready for bidding. We will provide the original drawings and original technical specifications to the District for their records. Provide AutoCAD drawings and PDF files for District use.

SCHEDULE

Civiltec is available to commence this project immediately. Based on the scope of work described previously, we will require approximately 16 to 20 weeks for completion. Our objective will also be to complete the project for bidding by the District so the construction work can be conducted during low demand season.

FEE DISTRIBUTION SCHEDULE

Professional fees for the above-described services will be billed on a time and materials, not to exceed basis as summarized below. A breakdown of our hours and fees is included as Attachment A.

Phase 1. Preliminary Engineering.....	\$68,420.00
Phase 2. Computational Fluid Dynamics Model.....	\$32,000.00
<u>Phase 3. Bid Package: Plans, Specifications and Estimates.....</u>	<u>\$69,580.00</u>
Total	<u>\$170,000.00</u>

If this proposal is acceptable, please return a signed copy to our office. Again, thank you for the opportunity to submit this proposal. We look forward to working with you on this project. Please contact the undersigned directly with any comments or questions.

Scott Rogers, PE | Palmdale Water District
PWD 6MG Reservoir Tank Rehabilitation
April 4, 2023
Page 8 of 9



Sincerely,

Civiltec engineering, inc.

A handwritten signature in blue ink, appearing to read 'W. David Byrum', is written over a horizontal line.

W. David Byrum, PE (dbyrum@civiltec.com)
President, Principal Engineer

WDB:amv

Attachment(s): A – Breakdown of Hours and Fees

Proposal Acceptance:

The Terms and Conditions of this proposal are:

Accepted this _____ day of _____ 2023.

By Authorized District Representative:

Name and Title

Date

Attachment A
Breakdown of Hours and Fees

6MG Reservoir Tank Rehabilitation
Palmdale Water District
PM23010
Time and Fee Estimate
April 4, 2023

Scope of Work	HOURS					Flow Science CFD	ANB Structural	Reimb. Expenses	TOTAL COST
	PIC \$ 265.00	SrPM \$ 240.00	PE \$ 210.00	SE \$ 165.00	Admin \$ 85.00				
Phase 1 - Preliminary Engineering	20	32	128	56	8	\$ -	\$ 18,500.00	\$ 140.00	\$ 68,420.00
Task A - Workshop	8	8	8					\$ 140.00	\$ 5,860.00
Task B - Research and Review	2	4	12						\$ 4,010.00
Task C - Site Plan	2	4	24	40					\$ 13,130.00
Task D - Sloshing Wave Analysis			4				\$ 3,500.00		\$ 4,340.00
Task E - Structural Evaluation and Design - Roof			8				\$ 4,500.00		\$ 6,180.00
Task F - Structural Evaluation and Design - Tank			8				\$ 7,500.00		\$ 9,180.00
Task G - Tank Coating Alternatives		4	12						\$ 3,480.00
Task H - Documentation	4	8	48	16	8		\$ 3,000.00		\$ 19,380.00
Task I - Submittals and Meetings	4	4	4						\$ 2,860.00
Phase 2 - Computational Fluid Dynamics Modeling	0	2	12	0	0	\$ 29,000.00	\$ -	\$ -	\$ 32,000.00
Task A - Setup CFD Model						\$ 7,200.00			\$ 7,200.00
Task B - Base Case CFD Modeling			2			\$ 5,500.00			\$ 5,920.00
Task C - Alternative Design CFD Modeling			4			\$ 11,000.00			\$ 11,840.00
Task D - Reports		2	6			\$ 5,300.00			\$ 7,040.00
Phase 3 - Bid Package: Plans, Specifications and Estimates	8	16	138	120	4	\$ -	\$ 14,500.00	\$ -	\$ 69,580.00
Task A - Plans	4	8	80	120			\$ 12,500.00		\$ 52,080.00
Task B - Technical Specifications	2	4	40				\$ 2,000.00		\$ 11,890.00
Task C - Cost Estimates	2	2	16						\$ 4,370.00
Task D - Provide Bid Documents		2	2		4				\$ 1,240.00
HOURS	28	50	278	176	12				544
BUDGET	\$ 7,420.00	\$12,000.00	\$ 58,380.00	\$ 29,040.00	\$ 1,020.00	\$ 29,000.00	\$ 33,000.00	\$ 140.00	\$ 170,000.00

PIC = Principal Engineer (PE) SrE = Senior Engineer (PE) SrPM = Sr. Project Manager
 PrEE = Principal Electrical Engr. (PE) PM = Project Manager SrPE = Sr. Project Engineer (PE)
 PE = Project Engineer (PE) SrD = Senior Designer SrSE = Sr. Staff Engineer (EIT)
 SE = Staff Engineer (EIT) D = Designer D/CAD = Designer/CAD Operator
 CAD = CAD Operator JrE = Jr. Engineer (Intern) PT = Planning Technician
 Admin = Admin. Asst./Clerical CO = Construction Observer SM = Survey Manager (PLS)
 2PS = Two Person Survey Crew SLS = Staff Land Surveyor (PLS) ST = Survey Technician

**PALMDALE WATER DISTRICT
BOARD MEMORANDUM**

DATE: April 5, 2023

April 10, 2023

TO: BOARD OF DIRECTORS

Board Meeting

FROM: Mr. Dennis D. LaMoreaux, General Manager

RE: *AGENDA ITEM NO. 7.4 – CONSIDERATION AND POSSIBLE ACTION ON AGREEMENT WITH BARREL SPRINGS FARMS FOR THE PROTECTION OF PALMDALE DITCH. (GENERAL MANAGER LaMOREAUX)*

Recommendation:

Staff recommends the Board authorize the General Manager to sign the Palmdale Ditch Undergrounding Agreement (Agreement) regarding the protection of Palmdale Ditch adjacent to the Barrel Springs Farms Development.

Alternative Options:

There are no alternative options. These are the only negotiated and tentatively agreed upon terms.

Impact of Taking No Action:

The District will be obligated to perform work described in the May 2006 Settlement Agreement with the current property owner if Barrel Springs Farms Development owns the property and is fully approved by Los Angeles County Department of Regional Planning.

Background:

The terms of the Agreement are consistent with the Letter of Intent approved by the Board at the March 27, 2023 Regular Meeting. It allows for a more reasonable timeframe, up to twenty-four months, for the District to perform the necessary work to enclose the section of Palmdale Ditch adjacent to the Barrel Springs Farms Development along with other clarifications.

This Agreement will replace the May 2006 Settlement Agreement once the Barrel Springs Farms developer completes the property purchase and obtains the necessary approvals through the Los Angeles County Department of Regional Planning. It defines the process needed to protect Palmdale Ditch from contamination due to the property's development by enclosing the Ditch adjacent to the property.

Strategic Plan Initiative:

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

Budget:

This potential project is not currently budgeted. The cost of enclosing this section of Palmdale Ditch, approximately 2,300 feet, is unknown at this time. \$175,000.00 deposited with the District in 2008 will be used to offset the cost. The District also has a pending grant application with the Bureau of Reclamation to support enclosing the entire length of Palmdale Ditch.



Conference/Training Request

Event Name/Date(s):

2023 WateReuse Symposium On-Demand Webinar (Launching April 10, 2023)

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

Yes No

Smoking Room?

Yes No

Flight Needed?

If yes, please provide DL# and D.O.B. in additional info. box

Yes No

Flight Numbers

Departure/Return
Times

**ADDITIONAL INFORMATION/
REQUESTS**

Supervisor Approval
(If applicable)

Processed By:

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Register Today: WaterReuse Symposium On-Demand



The On-Demand Platform Launches April 10!

The 2023 WaterReuse Symposium On-Demand will offer over 70 hours of fresh, informative recorded sessions. Watch from the comfort of your home or office! The online portal will also include downloadable presentations, tools to claim your Professional Development Hours, and other useful content from the 2023 WaterReuse Symposium.

[Register Today](#)

A World of Learning

Here are just a sampling of the many sessions you can access with 2023 WaterReuse Symposium On-Demand:



Reimagining Water Together: Creating a Modern, Resilient, Equitable Future with Water Recycling

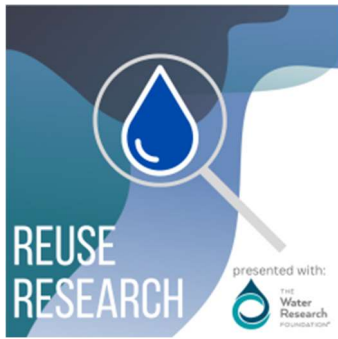
Water recycling can be a critical tool in promoting equitable solutions that ensure underserved communities see the benefits of infrastructure planning and delivery. Our panel of water leaders explore how cities can use water recycling programs to mitigate the water supply consequences of climate change, ensure broader water accessibility and affordability, particularly in disadvantaged communities, and support economic stability and growth. Hear from moderator **Victoria Johnson**, Global Equity Director for HDR; **Haley Falconer** (City of Boise), **Beverley Stinson** (AECOM), and **Keisha Thorpe** (Clayton County Water Authority).



Understand PFAS and Water Reuse

The monitoring, reporting, and removal of Per- and Polyfluoroalkyl Substances (PFAS) remains a top priority of the water community. Technical sessions on PFAS in the 2023 WaterReuse Symposium On-Demand include:

- **Collaborative Development of Non-RO IPR at Marine Corps Base Camp Pendleton:** Fred Gerring, Hazen and Sawyer
- **How to Plan for PFAS in Carbon-Based Potable Reuse Implementation:** Christopher Curran and Vijay Sundaram, AECOM
- **Reuse, RO, and PFAS? Implications for Treatment and Destruction:** Charlie Liu, Kennedy Jenks Consultants
- **Tracking Down the Sources and Fate of PFAS in Land-Applied Reused Water:** Scott Mansell and Joy Ramirez, Clean Water Services



Innovation & Research

Research is front and center in the 2023 WateReuse Symposium On-Demand, presented in collaboration with The Water Research Foundation. Just a few of the research-focused technical sessions include:

- **Standardizing Quantitative Assessment of Antimicrobial Resistance:** Dr. Jay Garland, U.S. EPA; Raul Gonzalez, Hampton Roads Sanitation District; Dr. Kerry Hamilton, Arizona State University; Dr. Amy Pruden, Virginia Tech
- **Ensure Safety in Potable Reuse: Monitoring Needs & Opportunities:** Blair Hanson, University of Colorado Boulder
- **Real-Time Data Processing for DPR:** Billy Raseman, Hazen and Sawyer
- **Virus Log Removal During Secondary Treatment:** Claire Johnson, and Julio Polanco, Orange County Water District
- **Implications of Advanced Microbial Methods for Potable Reuse Treatment Goals:** Zia Bukhari and Sunayna Dasgupta, American Water Works Service Company Inc.

[See Program and Session Descriptions](#)

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610 Madison Street, Suite 101
Box 621
Alexandria, VA 22314
United States



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2023 WateReuse Symposium Recordings ONLY

Attendee Registration Info - 2023 Symposium Recordings

Attendee Email *

First Name *

Last Name *

Suffix

Job Title *

Please select your primary role in your agency/business:

Primary Role *

To maintain member access, please enter your employer's name below exactly as shown in our [Member Listing](#).

Current Employer *

Street Address *

City *

Country

State *

Postal Code

Phone *

Email copy of confirmation to:

Would you like to receive emails from our sponsors? * Yes, I would like to receive emails from sponsors No

Event Fees

If you have a discount code, enter it here

Organization Type * Utility, non-profit, or government - \$ 1,050.00
 Business - \$ 1,200.00
 Student - \$ 250.00

Member Rate: \$750

Don't see the symposium member rate above? You are eligible for the member discount if your employer is a WateReuse member ([current member listing](#)). Please log in or [create an account](#) to receive the member discount.



Conference/Training Request

Event Name/Date(s):

TruePoint Connect 2023 / October 23-25, 2023 in Reno, NV

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

Yes No

Smoking Room?

Yes No

Flight Needed?

If yes, please provide DL# and D.O.B. in additional info. box

Yes No

Flight Numbers

Departure/Return
Times

ADDITIONAL INFORMATION/ REQUESTS

Supervisor Approval
(If applicable)

Processed By:



About (<https://www.truepointsolutions.com/Connect/2023UserGroup.shtml>) | **Accommodations** (<https://www.truepointsolutions.com/Connect/accommodations.shtml>)

TruePoint Connect 2023

The TruePoint Connect User Group is your in-person resource, designed exclusively for TrueBill users and administrators. With sessions, training, and discussions curated specifically for TrueBill users, the conference is a favorite among our customers, and has earned its reputation as the most useful, relevant, and valuable event in the industry. Attendees will learn and gain exceptional insight to leverage their TrueBill solutions even better, for enhanced efficiency, effectiveness, and service to their customers.

TruePoint Connect 2023 brings you:

- Expert-led sessions
- Roundtable discussions
- User presentations
- Product training
- Connections with your peers
- Information and instruction about product updates and new features
- Opportunity to speak with TrueBill product experts
- More!

"This is the most informative user group I attend. I always come back with new and exciting changes to make that help us make our processes more productive."
Julie Keeth
SJRA

When and Where

October 23-25, 2023

Eldorado Resort

Reno, NV

Registration

Registration includes admission to all sessions and events.

Cost: \$200/person

Register Today

(<https://forms.gle/TnwiH9eiuCFFTmUQ8>)

Register by September 25, 2023

This user group event is open to TruePoint Solutions software customers only.

Questions?

If you have a question, contact Carrie Davis (<mailto:cdavis@truepointsolutions.com>) at cdavis@truepointsolutions.com (<mailto:cdavis@truepointsolutions.com>).



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Connect





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(<https://www.truepointsolutions.com/Connect/accommodations.shtml>)

TruePoint Connect 2023 - Accommodations

The user group venue and hotel accommodations will be held at:

Eldorado Resort

345 N Virginia Street
Reno, NV 89501



We've negotiated special pricing for the 2023 TruePoint Connect user group.

\$53.00/night* (single or double occupancy)

Rates are subject to applicable resort fees and governmental room taxes.

Reserve by Monday, September 25th for special conference room block pricing

Reservations must be made directly with the hotel using the link below, and hotel room rates and fees are to be paid directly to the hotel. TruePoint Solutions does not bear responsibility or collect fees on behalf of the hotel.

**Reserve
Your Room**

(<https://book.passkey.com/go/SRTRUE3>)

Need to reserve by phone? Call (855) 516-1090 and use code **SRTRUE3**.

*A daily resort fee of \$35.00 per room, per night plus the current occupancy room tax will be charged in addition to the room rates set forth above.

This fee includes:

- In-room Keurig® coffee maker with Starbucks® K-Cup® Pods
- Unlimited local and toll-free calls

- Refrigerator and in-room safe
- Airport shuttle service and self-parking
- Access to the all-new Fitness Center inside The Spa at Silver Legacy
- Printing of boarding passes, notary services and safety deposit box access.



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