CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Agenda

## Regular Meeting

**Thursday, December 9, 2021**
Camrosa Board Room
5:00 P.M.

**TO BE HELD REMOTELY**

*In light of public health responses to the threat of COVID-19 and Governor Newsom's Executive Order N-25-20, the Camrosa office is still closed to the public. Board meetings are accessible to the public* ***only*** *via web-based teleconference, as described below.*

To participate via the web to see the board meeting presentation, click https://us02web.zoom.us/j/9235309144 on your computer, tablet, or smartphone. You'll need to download and install the ZOOM app before logging on.

*If you'd like to make a comment, you'll have to log in via the app so we can identify you and invite you to participate.*

To listen in via phone, call **(669) 900-6833**; when prompted, enter the meeting ID: **923 530 9144**.

We are willing and able to make reasonable accommodation for individuals with disabilities. If you require assistance, please contact Ian Prichard at IanP@camrosa.com or 805.482.6562.

### Call to Order

### Public Comments

At this time, the public may address the Board on any item not appearing on the agenda which is subject to the jurisdiction of the Board. Persons wishing to address the Board should fill out a white comment card and submit it to the Board Chairman prior to the meeting. All comments are subject to a 5-minute time limit.

Matters appearing on the Consent Agenda are expected to be non-controversial and will be acted upon by the Board at one time, without discussion, unless a member of Board or the Staff requests an opportunity to address any given item. Items removed from the Consent Agenda will be discussed at the beginning of the Administrative Items. Approval by the Board of Consent Items means that the recommendation of the Staff is approved along with the terms and conditions described in the Board Memorandum.

### Consent Agenda

1. **Approve Minutes of the Special Meeting of November 10, 2021**
2. **Approve Minutes of the Special Meeting of November 16, 2021**
3. **Approve Minutes of the Regular Meeting of November 18, 2021**

4. ****Approve Vendor Payments**

   **Objective:** Approve the payments as presented by Staff.

   **Action Required:** Approve accounts payable in the amount of $644,639.70.

5. ****Tier 2 Historian**

   **Objective:** Increase the security of SCADA servers.

   **Action Required:** Authorize the General Manager to issue a purchase order in the amount of $28,965.00 to E&M, Inc. dba Wonderware for the Tier 2 Historian server.

## Primary Agenda

6. ****Tierra Rejada Well Rehabilitation Project, Specification No. PW21-03**

   **Objective:** Authorize Change Orders for additional cleaning, pump installation, and specialty inspection at Tierra Rejada Well.

   **Action Required:** It is recommended that the Board of Directors:

   1) Authorize additional funding in the amount of $30,000.00 for the Tierra Rejada Well Rehabilitation; and
   2) Authorize the General Manager to award two Change Orders to General Pump Company, in the combined amount of $62,691.23, for additional out-of-scope work for the rehabilitation of the Tierra Rejada Well in accordance with Specifications No. PW21-03; and
   3) Authorize a Change Order to Hopkins Groundwater Consulting (Hopkins) for additional out of scope hydrogeological inspection and administrative services in the amount of $5,490.00.

7. ****Reservoir 4C Welded Steel Tank and Hydro-pneumatic Pump Station Replacement Update**

   **Objective:** Complete the design for system improvements at the District's 4C site.

   **Action Required:** It is recommended that the Board of Directors accept District staff's findings and recommendation to proceed with the design of Alternative No.1; replacement of the 4C Hydro-pneumatic Pump Station and one-million-gallon 4C Reservoir in kind.

8. ****Penny Well – Air Entrainment Remediation**

   **Objective:** Authorize a Purchase Order for cleaning of Penny Well and reinstallation of pump.

   **Action Required:** Authorize the General Manager to issue a Purchase Order to General Pump in the amount $81,329.29, to provide cleaning, rehabilitation, and re-installation of the existing pump for the Penny Well.

9. ****PV Well #2 Ratification**

   **Objective:** Repair PV Well #2 and return it to service on an "emergency" basis.

   **Action Required:** Ratify the action of the General Manager to approve the repair of PV Well #2 on a time-and-materials basis and the subsequent issuance of a purchase order to General Pump in the amount of $116,265.65.

10. **Lobby Redesign**

    **Objective:** Complete the District's lobby remodel.

    **Action Required:** Ratify the expenditures in exceedance of the General Manager's authority in the amount of $416.26 made to J.E. Armstrong Architect, Inc., to complete architectural services for the District's lobby redesign.

11. ****Real Estate Developments**

    **Objective:** Discuss real estate developments occurring within the District service area.

    **Action Required:** No action necessary; for information only.

**CLOSED SESSION:** The Board may enter a closed session to confidentially discuss litigation matters as authorized by Government code 54956.9.

12. **Closed Session Conference with Legal Counsel – Pending Litigation**

    **Objective:** To confer with and receive advice from counsel regarding pending litigation.

    **Action Required:** No action necessary; for information only.

## Comments by General Manager; Comments by Directors; Adjournment

PLEASE NOTE: The Board of Directors may hold a closed session to discuss personnel matters or litigation, pursuant to the attorney/client privilege, as authorized by Government Codes. Any of the items that involve pending litigation may require discussion in closed session on the recommendation of the Board's Legal Counsel.

Note: ** indicates agenda items for which a staff report has been prepared or backup information has been provided to the Board. Copies of the full agenda are available for review at the District Office and on our website at www.camrosa.com.

CAMROSA WATER DISTRICT

BUILDING WATER SELF-RELIANCE

**December 9, 2021**

# Board of Directors Agenda Packet

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Minutes

## Special Meeting

**Wednesday, November 10, 2021**
Via teleconference
5:00 P.M.

**Call to Order** The meeting was convened at 5:00 P.M. as a web-based teleconference. All participants attended remotely.

Present: Eugene F. West, President
Terry L. Foreman, Vice-President
Al E. Fox, Director
Jeffrey C. Brown, Director
Timothy H. Hoag, Director

Staff: Tony Stafford, General Manager
Ian Prichard, Assistant General Manager
Greg Jones, Legal Counsel
Kevin Wahl, Superintendent of Operations

### Public Comments

None

### Primary Agenda

CLOSED SESSION: The Board entered a closed session at 5:01 P.M. to confidentially discuss litigation matters as authorized by Government code 54956.9.

1. **Closed Session Conference with Legal Counsel – Pending Litigation**

   The Board conferred with and received advice from counsel regarding pending litigation.

   **No action was taken in closed session.**

   **The Board returned to open session at 5:19 P.M.**

### Primary Agenda (Cont.)

2. **Purchase GAC Motor Control Centers**

   The Board authorized the General Manager to issue a purchase order to Royal Industrial Solutions in the amount of $1,054,110.97 for the MCC for the Conejo Wellfield GAC treatment plant.

   **Motion:** Fox **Second:** Brown
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

## Comments by General Manager

- A company vehicle was stolen out of an employee's driveway: it was insured, has been reported to insurers and the police, and has yet to be recovered.

## Comments by Directors

- Director Fox inquired whether there would be any effect from the new Conejo Wellfield GAC Treatment Plant on a potential RV Park at the County Park site west of Hill Canyon Road. Mr. Stafford responded there would not.

## Adjournment

There being no further business, the meeting was adjourned at 5:26 P.M.

_____
Tony L. Stafford, Secretary/Manager
Board of Directors
**Camrosa Water District**

_____ (ATTEST)
Eugene F. West, President
Board of Directors
**Camrosa Water District**

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Minutes

## Special Meeting

**Tuesday, November 16, 2021**
Via teleconference
5:00 P.M.

**Call to Order** The meeting was convened at 5:00 P.M. as a web-based teleconference. All participants attended remotely.

Present: Eugene F. West, President
Terry L. Foreman, Vice-President
Jeffrey C. Brown, Director
Timothy H. Hoag, Director

Absent: Al E. Fox, Director

Staff: Tony Stafford, General Manager
Ian Prichard, Assistant General Manager
Greg Jones, Legal Counsel

### Public Comments

None

### Primary Agenda

CLOSED SESSION: The Board entered a closed session at 5:01 P.M. to confidentially discuss litigation matters as authorized by Government code 54956.9.

1. **Closed Session Conference with Legal Counsel – Pending Litigation**

   The Board conferred with and received advice from counsel regarding pending litigation.

   **No action was taken in closed session.**

   **The Board returned to open session at 6:32 P.M.**

### Comments by General Manager

None

### Comments by Directors

None

**Adjournment**

There being no further business, the meeting was adjourned at 6:33 P.M.

| | |
|---|---|
| _____ | _____ (ATTEST) |
| Tony L. Stafford, Secretary/Manager<br>Board of Directors<br>**Camrosa Water District** | Eugene F. West, President<br>Board of Directors<br>**Camrosa Water District** |

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Minutes

## Regular Meeting

**Thursday, November 18, 2021**
Camrosa Board Room
5:00 P.M.

**Call to Order** The meeting was convened at 5:00 P.M. as a web-based teleconference.

Present: Eugene F. West, President (via teleconference)
Terry L. Foreman, Vice-President (via teleconference)
Al E. Fox, Director (via teleconference)
Jeffrey C. Brown, Director (via teleconference)
Timothy H. Hoag, Director (via teleconference)

Staff: Tony Stafford, General Manager (via teleconference)
Ian Prichard, Assistant General Manager (via teleconference)
Joe Willingham, I.T. and Special Projects Manager (via teleconference)
Terry Curson, District Engineer (via teleconference)
Greg Jones, Legal Counsel (via teleconference)

Guest: Todd Robins, Robins Borghei, LLP (via teleconference)

### Public Comments

None

### Consent Agenda

1. **Approve Minutes of the Regular Meeting of October 28, 2021**

   The Board approved the Minutes of the Regular Meeting of October 28, 2021.

   **Motion:** Fox **Second:** Hoag
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

2. **Approve Vendor Payments**

   A summary of accounts payable in the amount of $1,393,143.68 was provided for Board information and approval. The Board approved the payments to vendors as presented by staff in the amount of $1,393,143.68.

   **Motion:** Fox **Second:** Hoag
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

3. **Quit Claims – Shea Homes, Tract 5976**

   The Board authorized the General Manager to sign and accept the Quit Claim deed and exhibits (attached) modifying an existing easement for Shea Homes Tract 5976.

   **Motion:** Fox **Second:** Hoag
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

4. **Board of Directors Meeting Calendar for 2022**

   The Board adopted a calendar of regular Board meetings for calendar year 2022.

   **Motion:** Fox **Second:** Hoag
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

## Primary Agenda

CLOSED SESSION: The Board entered a closed session at 5:02 P.M. to confidentially discuss litigation matters as authorized by Government code 54956.9.

5. **Closed Session Conference with Legal Counsel – Pending Litigation**

   The Board conferred with and received advice from counsel regarding pending litigation.

   **No action was taken in closed session.**

   **The Board returned to open session at 6:37 P.M.**

## Primary Agenda (Cont.)

6. **Conejo Wellfield GAC Construction, Specification No. PW 21-04**

   The Board took the following actions:

   1) Appropriated an additional $7,000,000.00 to fully fund the Conejo Wellfield GAC Treatment Plant project from the potable capital replacement fund.
   2) Authorized the General Manager to enter into an agreement with and issue a purchase order to James C. Cushman in an amount not to exceed $5,792,150.00 to construct the Conejo Wellfield GAC treatment plant, specification number PW 21-04.
   3) Authorized the General Manager to enter into an agreement with and issue a purchase order to MKN & Associates in an amount not to exceed $179,850.00 for construction management services associated with the Conejo Wellfield GAC treatment plant.
   4) Authorized the General Manager to issue a purchase order to General Pump Company in an amount not to exceed $579,943.00 to rehabilitate Conejo Wells #2, #3, and #4, and Santa Rosa Well #8.

   **Motion:** Brown **Second:** Fox
   **Roll Call:** Fox-Yes; Brown-Yes; Hoag-Yes; Foreman-Yes; West-Yes

## Information Item

7. **Drought Conditions**

   The Board received an update on current drought conditions.

   No action necessary; for information only.

## Comments by General Manager

- None

## Comments by Directors

- None

**Adjournment**

There being no further business, the meeting was adjourned at 6:52 P.M.

| | |
|---|---|
| _____ | _____ (ATTEST) |
| Tony L. Stafford, Secretary/Manager<br>Board of Directors<br>**Camrosa Water District** | Eugene F. West, President<br>Board of Directors<br>**Camrosa Water District** |

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** General Manager

**From:** Sandra Llamas, Sr. Accountant

**Subject: Approve Vendor Payments**

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**Objective:** Approve the payments as presented by Staff.

**Action Required:** Approve accounts payable in the amount of $644,639.70.

**Discussion:** A summary of accounts payable is provided for Board information and approval.

| | |
|---|---|
| Payroll PR 11-2 & ME | $ 100,760.11 |
| Accounts Payable 11/11/2021-12/01/2021 | $ 543,879.59 |
| Total Disbursements | $ 644,639.70 |

**DISBURSEMENT APPROVAL**

BOARD MEMBER DATE

BOARD MEMBER DATE

BOARD MEMBER DATE

Tony L. Stafford, General Manager

# Camrosa Water District

Accounts Payable Period:

11/11/2021-12/01/2021

| Expense | Account Description | Amount |
|---|---|---|
| 11100 | Accounts Rec-Other | |
| 15773 | Deferred Outflows-UAL Prep. | |
| 11700 | Meter Inventory | |
| 11900 | Prepaid Insurance | |
| 11905 | Prepaid Maintenance Ag | |
| 13000 | Land | |
| 13400 | Construction in Progress | 327061.83 |
| 20053 | Current LTD Bond 2016 | |
| 20052 | Current LTD Bond 2012 | |
| 20400 | Contractor's Retention | -22324.24 |
| 20250 | Non-Potable Water Purchases | |
| 23001 | Refunds Payable | 3215.08 |
| 50110 | Payroll FLSA Overtime-Retro | |
| 50010 | Water Purchases & SMP | |
| 50020 | Pumping Power | -10073.70 |
| 50100 | Federal Tax 941 1st QTR | |
| 50140 | Unemployment | 63.91 |
| 50153 | Social Security Tax | |
| 50200 | Utilities | 13300.17 |
| 50210 | Communications | 3439.13 |
| 50220 | Outside Contracts | 108662.26 |
| 50230 | Professional Services | 28572.50 |
| 50240 | Pipeline Repairs | 39268.55 |
| 50250 | Small Tool & Equipment | |
| 50260 | Materials & Supplies | 22978.94 |
| 50270 | Repair Parts & Equip Maint | 29440.41 |
| 50280 | Legal Services | |
| 50290 | Dues & Subscriptions | 240.00 |
| 50300 | Conference & Travel | |
| 50310 | Safety & Training | |
| 50330 | Board Expenses | |
| 50340 | Bad Debt | |
| 50350 | Fees & Charges | 34.75 |
| 50360 | Insurance Expense | |
| 50500 | Misc Expense | |
| 50600 | Fixed Assets | |
| 50700 | Interest Expense | |
| | TOTAL | **$543,879.59** |

**Agenda Item #4**

# Expense Approval Report

By Vendor Name

Payable Dates 11/11/2021 - 12/1/2021 Post Dates 11/11/2021 - 12/1/2021

| Payment Number | Post Date | Vendor Name | Payable Number | Description (Item) | Account Name | Purchase Order N | Amount |
|---|---|---|---|---|---|---|---|
| 42 | 12/01/2021 | BONDY GROUNDWATER CONSULTING, INC. | 077-02-GSA | PM: Santa Rosa GSP | Prof services | FY22-0137 | 2125.5 |
| **TOTAL VENDOR PAYMENTS-GSA** | | | | | | | **$ 2,125.50** |
| **Vendor: *CAM* - DEPOSIT ONLY-CAMROSA WTR** | | | | | | | |
| 3306 | 11/18/2021 | DEPOSIT ONLY-CAMROSA WTR | 11-18-21-AP | Transfer to Disbursements Account-AP | Transfer to disbursements-holding accc | | 1217000 |
| 3307 | 11/18/2021 | DEPOSIT ONLY-CAMROSA WTR | 11-18-21-PR | Transfer to Disbursements Account | Transfer to disbursements-holding accc | | 116000 |
| | | | | | **Vendor *CAM* - DEPOSIT ONLY-CAMROSA WTR Total:** | | **1333000** |
| 57355 | 11/22/2021 | AG RX INC. | 98945 | Weed Abatement | Outsd contracts | FY22-0153 | 3023.61 |
| **Vendor: ALL11 - ALL PEST AND REPAIR, INC.** | | | | | | | |
| 57356 | 11/19/2021 | ALL PEST AND REPAIR, INC. | 024949 | Pest Control -VTA1-1900 | Outsd contracts | | 600 |
| 57356 | 11/19/2021 | ALL PEST AND REPAIR, INC. | 024982 | Pest Control -VTA1-7385 | Outsd contracts | | 420 |
| | | | | | **Vendor ALL11 - ALL PEST AND REPAIR, INC. Total:** | | **1020** |
| 57357 | 11/22/2021 | ARBITRAGE COMPL SPEC, INC | G7390 | Arbitrage 2016 5th Year | Prof services | | 1130 |
| 57358 | 12/01/2021 | Atmospheric Analysis and Consulting, Inc. | A-24195 | Outside Lab Analysis - Well Gasses | Outsd contracts | | 195 |
| 57359 | 11/29/2021 | B&H FARMS LLC | 00008503 | Deposit Refund Act 8503- 1722 Lewis Rd | Refunds payable | | 1637 |
| 57360 | 11/19/2021 | BASELINE ENTERPRISES | 19155 | Fuel Tank Inspection | Outsd contracts | | 981.75 |
| 57361 | 11/19/2021 | BRENNTAG PACIFIC, INC. | BPI195400 | Materials & Supplies - Chemicals RMWTP | Materials & Supplies-RMWTP | | 3651.37 |
| **Vendor: BUF01 - BUFFUM'S** | | | | | | | |
| 57362 | 11/22/2021 | BUFFUM'S | 12162 | Replace Locks and Keys Main Office & O&M Shop | Repair parts & equipment | | 411.6 |
| 57362 | 11/22/2021 | BUFFUM'S | 12165 | Replace Locks & Keys - CWRF & RMWTP | Repair parts & equipment | | 479.43 |
| | | | | | **Vendor BUF01 - BUFFUM'S Total:** | | **891.03** |
| **Vendor: CAN03 - Cannon Corporation** | | | | | | | |
| 57363 | 11/23/2021 | Cannon Corporation | 78339 | 4C Hydropneumatic Pump Station Design | Construction in progress | FY21-0191-R1 | 6785 |
| 57363 | 11/17/2021 | Cannon Corporation | 78431 | Contract Inspection Services | Outsd contracts | FY22-0081 | 10156.75 |
| 57363 | 11/17/2021 | Cannon Corporation | 78432 | Contract Inspection Services | Outsd contracts | FY22-0081 | 840 |
| 57363 | 11/23/2021 | Cannon Corporation | 78457 | Contract Inspection Services | Outsd contracts | FY22-0081 | 7771.25 |
| | | | | | **Vendor CAN03 - Cannon Corporation Total:** | | **25553** |
| 57364 | 11/23/2021 | CENTRAL COAST TANK TESTING | 19206 | Fuel Tank Inspection | Outsd contracts | | 981.75 |
| **Vendor: LAS02 - CINDY SALDIVAR** | | | | | | | |
| 57365 | 11/17/2021 | CINDY SALDIVAR | 111021 | Notary - Camino Ruiz Development | Prof services | | 25 |
| 57365 | 11/30/2021 | CINDY SALDIVAR | 112921 | Notary Services-Shea Homes | Prof services | | 20 |
| | | | | | **Vendor LAS02 - CINDY SALDIVAR Total:** | | **45** |
| 57366 | 12/01/2021 | CLIFTON LARSON ALLEN LLP | 3088503 | FY20-21 Audit Serv and Investment Agreed Upon Proc | Prof services | FY21-0261-R1 | 500 |
| 57367 | 12/01/2021 | CORELOGIC INFORMATION SOLUTIONS, INC | 30574273 | County of Ventura Assessors Parcel Information | Outsd contracts | | 150 |
| 57368 | 11/29/2021 | DAVID CASTILLO | 00007241 | Deposit Refund Act 7241 - 4468 Calle Argolla | Refunds payable | | 16.86 |
| 57369 | 11/23/2021 | DAVMAR AIR | 11248 | Air Compressor Maintenance | Outsd contracts | FY22-0154 | 3356.29 |
| **Vendor: EJH01 - E.J. HARRISON & SONS INC** | | | | | | | |
| 57370 | 11/22/2021 | E.J. HARRISON & SONS INC | 27876 | Trash Removal - CWRF | Outsd contracts | | 478.27 |
| 57370 | 11/22/2021 | E.J. HARRISON & SONS INC | 5384 | Trash Removal - CWRF | Outsd contracts | | 478.27 |
| | | | | | **Vendor EJH01 - E.J. HARRISON & SONS INC Total:** | | **956.54** |
| 904 | 11/19/2021 | EMPLOYMENT DEVELOP. DEPT. | 3rd Qtr 2021 | Unemployment Charges Qtr Ended Sept 2021 | Benefits human resources | | 63.91 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Vendor: ENH01 - Enhanced Landscape Development, Inc** | | | | | | | |
| 57371 | 12/01/2021 | Enhanced Landscape Development, Inc | 73650 | Landscaping | Outsd contracts | | 1627 |
| 57371 | 12/01/2021 | Enhanced Landscape Development, Inc | 75224 | Landscaping | Outsd contracts | | 1627 |
| | | | | | **Vendor ENH01 - Enhanced Landscape Development, Inc Total:** | | **3254** |
| 57372 | 11/22/2021 | ENTERPRISE CONSTRUCTON, INC, | 00000008 | Fire Hydrant Deposit Refund -Adolfo Camarillo HS | Refunds payable | | 430.19 |
| 57373 | 11/29/2021 | ESQUIRE PROPERTY MANAGEMENT | 00001913 | Final Acct Overpayment Refund | Refunds payable | | 56.97 |
| **Vendor: FAM01 - FAMCON PIPE & SUPPLY, INC** | | | | | | | |
| 57374 | 11/30/2021 | FAMCON PIPE & SUPPLY, INC | S1000067757-001 | Repair Parts - Lynnwood Well | Repair parts & equipment | | 291.72 |
| 57374 | 11/22/2021 | FAMCON PIPE & SUPPLY, INC | S100065965-001 | Hit FIre Hydrant 9 Isabel Ave. | Pipeline repairs | FY22-0152 | 2208.28 |
| 57374 | 12/01/2021 | FAMCON PIPE & SUPPLY, INC | S100066977-001 | Meter Repair | Repair Parts & Equipment Maintenance | | 1203.35 |
| | | | | | **Vendor FAM01 - FAMCON PIPE & SUPPLY, INC Total:** | | **3703.35** |
| 57375 | 11/22/2021 | FERGUSON WATERWORKS #1083 | 0758771-3 | Fire Hydrants | Repair parts & equipment | FY21-0239-R1 | 6945.51 |
| 57376 | 11/30/2021 | Frontier Communications | November 2021 | VOIP Land Lines | Communications | | 429.32 |
| **Vendor: FRU01 - FRUIT GROWERS LAB. INC.** | | | | | | | |
| 57377 | 12/01/2021 | FRUIT GROWERS LAB. INC. | 114844A | Outside Lab Analysis | Outsd contracts | | 150 |
| 57377 | 12/01/2021 | FRUIT GROWERS LAB. INC. | 114846A | Outside Lab Analysis | Outsd contracts | | 265 |
| 57377 | 12/01/2021 | FRUIT GROWERS LAB. INC. | 115030A | Outside Lab Analysis | Outsd contracts | | 179 |
| 57377 | 11/23/2021 | FRUIT GROWERS LAB. INC. | 115713A | GAC Project | Construction in progress | | 69 |
| | | | | | **Vendor FRU01 - FRUIT GROWERS LAB. INC. Total:** | | **663** |
| **Vendor: GEN06 - GENERAL PUMP COMPANY, INC** | | | | | | | |
| 57378 | 12/01/2021 | GENERAL PUMP COMPANY, INC | 28951 | Repair Parts - Packing Replacement | Repair parts & equipment | | 832.5 |
| 57378 | 12/01/2021 | GENERAL PUMP COMPANY, INC | 28953 | Pump Repair RMWTP RO 2 | Repair Parts & Equipment-RMWTP | FY22-0166 | 13184.24 |
| | | | | | **Vendor GEN06 - GENERAL PUMP COMPANY, INC Total:** | | **14016.74** |
| 57379 | 12/01/2021 | GMH, Inc | S120409 | AC Maintenance | Outsd contracts | | 155 |
| **Vendor: HAC01 - HACH COMPANY** | | | | | | | |
| 57380 | 11/22/2021 | HACH COMPANY | 12739153 | Materials & Supplies - Reagents RMWTP | Materials & Supplies-RMWTP | | 314.15 |
| 57380 | 11/22/2021 | HACH COMPANY | 12739342 | Materials & Supplies - Reagents CWRF | Materials & supplies | | 220.68 |
| 57380 | 11/17/2021 | HACH COMPANY | 12741693 | Materials & Supplies for the Laboratory | Materials & supplies | | 379.56 |
| 57380 | 11/22/2021 | HACH COMPANY | 12746859 | Materials & Supplies - Reagents CWRF | Materials & supplies | | 104.63 |
| 57380 | 11/23/2021 | HACH COMPANY | 12748380 | Materials and Supplies | Materials & supplies | | 120.52 |
| 57380 | 11/22/2021 | HACH COMPANY | 12750051 | Materials & Supplies - Reagents RMWTP | Materials & Supplies-RMWTP | | 658.79 |
| 57380 | 11/30/2021 | HACH COMPANY | 12767027 | Materials & Supplies for the Laboratory | Materials & supplies | | 173.75 |
| | | | | | **Vendor HAC01 - HACH COMPANY Total:** | | **1972.08** |
| 57381 | 12/01/2021 | HADRONEX INC. | 19418 | SmartCover Sewer Monitoring | Construction in progress | FY22-0027 | 62973.1 |
| 905 | 11/17/2021 | HealthEquity | fcn3xac | Consumer Driven Health Savings Plan Adm Fees 11-21 | Fees & charges | | 14.75 |
| 57382 | 11/29/2021 | JAIN JEFFREY CHEN | 00008765 | Closed Account Overpayment - 5448 Castillo de Rosa | Refunds payable | | 79.49 |
| 57383 | 12/01/2021 | Janitek Cleaning Solutions-Allstate Cleaning, Inc. | 43060A | Cleaning Service | Outsd contracts | | 1655.56 |
| 57384 | 11/30/2021 | JULIANA HIDALGO LOPEZ | 00001062 | Deposit Refund Act 1062 - 5966 Paseo Encantada | Refunds payable | | 14.28 |
| 57385 | 11/30/2021 | KARI WETTER | 00007178 | Deposit Refund Act 7178 - 5103 Corte Vistora | Refunds payable | | 34.05 |
| 57386 | 11/30/2021 | KERRI M RUTHERFORD | 00002714 | Deposit Refund Act 2714- 1615 Old Ranch Rd | Refunds payable | | 78.75 |
| 57387 | 11/30/2021 | KEVIN STANDAGE | 00006726 | Deposit Refund Act 6726 - 1404 La Culebra Cir | Refunds payable | | 1.57 |
| 57388 | 11/30/2021 | LINDE GAS & EQUIPMENT INC | 67305404 | Acetylene Gas Cylinders | Materials & supplies | | 62.56 |
| 57389 | 11/29/2021 | LYDIA GONZALEZ | 00000923 | Deposit Refund Act 923- 6328 Corte Lucinda | Refunds payable | | 40 |
| 57390 | 11/30/2021 | LYNN MCKNERNEY | 00000976 | Deposit Refund Act 976- 869 Paseo Tosamar | Refunds payable | | 40.58 |
| 57391 | 11/30/2021 | MARIO PINEDA | 00004431 | Deposit Refund Act 4431- 1720 Harvest Ln | Refunds payable | | 66.19 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Vendor: MCM01 - McMASTER-CARR SUPPLY CO** | | | | | | | |
| 57392 | 11/22/2021 | McMASTER-CARR SUPPLY CO | 68456068 | Repair Parts - Penny Well CL2 | Repair parts & equipment | | 660.06 |
| 57392 | 11/22/2021 | McMASTER-CARR SUPPLY CO | 68633574 | Repair Parts - Mast Hardware Radio Endopoints | Repair parts & equipment | | 489.06 |
| 57392 | 12/01/2021 | McMASTER-CARR SUPPLY CO | 68995536 | Materials & Supplies - Fuses | Materials & supplies | | 732.72 |
| 57392 | 12/01/2021 | McMASTER-CARR SUPPLY CO | 69079055 | Materials & Supplies - Well Sounding Hardware | Materials & supplies | | 998.71 |
| 57392 | 12/01/2021 | McMASTER-CARR SUPPLY CO | 69086136 | Materials & Supplies - Fuses | Materials & supplies | | 370.95 |
| | | | | | **Vendor MCM01 - McMASTER-CARR SUPPLY CO Total:** | | **3251.5** |
| 57393 | 11/17/2021 | MNS ENGINEERS, INC. | 78968 | Engineering Support services during construction | Construction in progress | FY21-0254-R1 | 813.75 |
| 57394 | 11/29/2021 | MONICA FAVORITE | 00006693 | Final Acct Overpayment Refund - 5308 Corte Pico Ve | Refunds payable | | 84.12 |
| 57395 | 11/29/2021 | NANCY DAHLBERG | 00005512 | Deposit Refund Act 5512 - 11908 Pradera Rd | Refunds payable | | 13.24 |
| **Vendor: NBS01 - NBS GOVERNMENT FINANCE GROUP** | | | | | | | |
| 57396 | 11/17/2021 | NBS GOVERNMENT FINANCE GROUP | 1021000108 | Develop In Lieu Mitigation Fee schedule | Prof services | FY22-0104 | 10142.5 |
| 57396 | 11/23/2021 | NBS GOVERNMENT FINANCE GROUP | 921000397 | Develop In Lieu Mitigation Fee schedule | Prof services | FY22-0104 | 11265 |
| | | | | | **Vendor NBS01 - NBS GOVERNMENT FINANCE GROUP Total:** | | **21407.5** |
| 57397 | 11/30/2021 | NICHOLAS JOSEPH | 00000939 | Deposit Refund Act 939 - 814 Via Lorente | Refunds payable | | 87.75 |
| **Vendor: NOR07 - NORTHSTAR CHEMICAL** | | | | | | | |
| 57398 | 11/22/2021 | NORTHSTAR CHEMICAL | 210504 | Materials Chemicals - CWRF | Materials & supplies | | 3468.78 |
| 57398 | 11/22/2021 | NORTHSTAR CHEMICAL | 210505 | Materials Chemicals - RMWTP | Materials & Supplies-RMWTP | | 1728.91 |
| 57398 | 11/22/2021 | NORTHSTAR CHEMICAL | 210506 | Materials Chemicals - RMWTP | Materials & Supplies-RMWTP | | 3989.7 |
| | | | | | **Vendor NOR07 - NORTHSTAR CHEMICAL Total:** | | **9187.39** |
| 57399 | 11/17/2021 | OAKRIDGE GEOSCIENCE, INC. | 047-009-02 | PV Well No. 2 Geotechnical Services | Construction in progress | FY22-0014 | 1115 |
| **Vendor: PRO05 - PROVOST & PRITCHARD ENGINEERING GROUP INC.** | | | | | | | |
| 57400 | 12/01/2021 | PROVOST & PRITCHARD ENGINEERING GROUP INC. | 02958-20-002-b | GAC Engineering | Construction in progress | FY20-0326-R2 | 20950 |
| 57400 | 12/01/2021 | PROVOST & PRITCHARD ENGINEERING GROUP INC. | 02958-20-02 | GAC CEQA | Construction in progress | FY21-0176-R1 | 4638.19 |
| | | | | | **Vendor PRO05 - PROVOST & PRITCHARD ENGINEERING GROUP INC. Total:** | | **25588.19** |
| 57401 | 11/23/2021 | PUMPMAN INC. | 11708 | Pump Repair CWRF Plant Water | Repair parts & equipment | FY22-0049 | 2846 |
| 57402 | 11/30/2021 | REBECCA HILL | 00002135 | Deposit Refund Act 2135- 185 Calle Tamega | Refunds payable | | 145.9 |
| 57403 | 11/29/2021 | RICHARD BURTON | 00006776 | Deposit Refund Act 6776- 5289 San Francesca DR | Refunds payable | | 103.19 |
| 57404 | 11/30/2021 | ROBERT HUNDT | 00004392 | Closed Acct Overpayment Refund - 1709 Danbury Dr | Refunds payable | | 27.52 |
| **Vendor: ROY03 - ROYAL INDUSTRIAL SOLUTIONS** | | | | | | | |
| 57405 | 11/23/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1010892 | SL RR SCADA Equipment | Construction in progress | FY22-0058 | 337.45 |
| 57405 | 11/23/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1011187 | SL RR SCADA Equipment | Construction in progress | FY22-0058 | 206.99 |
| 57405 | 11/23/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1012774 | SL RR SCADA Equipment | Construction in progress | FY22-0058 | 4254.82 |
| 57405 | 11/23/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1013778 | Repair Parts - Container Lights | Repair parts & equipment | | 746.98 |
| 57405 | 12/01/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1013780 | Repair Parts - SL2 | Repair parts & equipment | | 31.33 |
| 57405 | 12/01/2021 | ROYAL INDUSTRIAL SOLUTIONS | 9009-1013903 | Repair Parts - SL2 | Repair parts & equipment | | 932.46 |
| | | | | | **Vendor ROY03 - ROYAL INDUSTRIAL SOLUTIONS Total:** | | **6510.03** |
| 57406 | 12/01/2021 | RT LAWRENCE CORPORATION | 45052 | Processing October 2021 Payment-Lockbox | Outsd contracts | | 748.09 |
| **Vendor: SAM01 - SAM HILL & SONS, INC.** | | | | | | | |
| 57407 | 11/22/2021 | SAM HILL & SONS, INC. | 3960 | Leak Repair 1" Service | Pipeline repairs | FY22-0159 | 14866.85 |
| 57407 | 11/22/2021 | SAM HILL & SONS, INC. | 3961 | Leak Repair 2" Blow Off | Pipeline repairs | FY22-0160 | 12922.96 |
| 57407 | 12/01/2021 | SAM HILL & SONS, INC. | 3964 | Leak Repair 1" Service | Pipeline repairs | FY22-0167 | 9270.46 |
| | | | | | **Vendor SAM01 - SAM HILL & SONS, INC. Total:** | | **37060.27** |
| **Vendor: SCF01 - SC Commercial, LLC** | | | | | | | |
| 57408 | 11/22/2021 | SC Commercial, LLC | 1996478IN | Material & Supplies - Fuel | Materials & supplies | | 1355.59 |
| 57408 | 11/22/2021 | SC Commercial, LLC | 2001697IN | Material & Supplies - Fuel | Materials & supplies | | 1699.19 |
| 57408 | 11/30/2021 | SC Commercial, LLC | 2007463IN | Material & Supplies - Fuel | Materials & supplies | | 1484.95 |
| | | | | | **Vendor SCF01 - SC Commercial, LLC Total:** | | **4539.73** |
| 57409 | 11/29/2021 | SHERYL GRANT | 00007196 | Deposit Refund Act 7196 - 285 Via Cantilena | Refunds payable | | 64.69 |
| 57410 | 11/22/2021 | SHUMATE SERVICES, INC | 21-053 | Painting / Industrial Cleaning SRPH | Outsd contracts | FY22-0047 | 3500 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Vendor: SCE01 - SOUTHERN CALIF. EDISON** | | | | | | | |
| 908 | 11/19/2021 | SOUTHERN CALIF. EDISON | November 2021 | Credit | Pumping power Non-Potable | | -3803.31 |
| 908 | 11/19/2021 | SOUTHERN CALIF. EDISON | November 2021 | Credit | Pumping power-Potable | | -13671.85 |
| 908 | 11/19/2021 | SOUTHERN CALIF. EDISON | November 2021 | November Current Usage Charges | Pumping Power-RMWTP | | 7401.46 |
| 908 | 11/19/2021 | SOUTHERN CALIF. EDISON | November 2021 | November Current Usage Charges | Utilities | | 13283.9 |
| | | | | | **Vendor SCE01 - SOUTHERN CALIF. EDISON Total:** | | **3210.2** |
| 909 | 12/01/2021 | SOUTHERN CALIFORNIA GAS | November 2021 | November Usage Charges Act-12378717941 | Utilities | | 16.27 |
| 57411 | 12/01/2021 | SPARKLETTS | 4667386-112821 | Distilled Bottled Water | Outsd contracts | | 42.92 |
| 57412 | 12/01/2021 | TALLEY COMMUNICATIONS | 10401526 | Repair Parts - Endpoint Radio Antennas | Repair parts & equipment | | 386.17 |
| **Vendor: UND01 - UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA, INC** | | | | | | | |
| 57413 | 12/01/2021 | UNDERGROUND SERVICE ALERT OF SOUTHERN CAL | 1120210201 | Monthly Dig Alert Tickets | Outsd contracts | | 245.95 |
| 57413 | 12/01/2021 | UNDERGROUND SERVICE ALERT OF SOUTHERN CAL | dsb20205872 | Monthly Dig Alert Tickets | Outsd contracts | | 47.44 |
| | | | | | **Vendor UND01 - UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA, INC Total:** | | **293.39** |
| **Vendor: UNI12 - UNIFIED FIELD SERVICES CORPORATION** | | | | | | | |
| 57414 | 11/23/2021 | UNIFIED FIELD SERVICES CORPORATION | Pymt 3 | PV Well No. 2 Construction Services | Construction in progress | FY22-0010 | 223242.43 |
| 57414 | 11/23/2021 | UNIFIED FIELD SERVICES CORPORATION | Pymt3-Retention | Retention Pymt 3 | Contractor's retention | | -22324.24 |
| | | | | | **Vendor UNI12 - UNIFIED FIELD SERVICES CORPORATION Total:** | | **200918.19** |
| **Vendor: UNI08 - UNIFIRST CORPORATION** | | | | | | | |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 328-1325560 | Uniform Cleaning Service | Outsd contracts | | 258 |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 328-1325567 | Office Cleaning Supplies -Towel - Mat Services | Outsd contracts | | 66.14 |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 328-1327465 | Uniform Cleaning Service | Outsd contracts | | 258 |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 328-1327472 | Office Cleaning Supplies -Towel - Mat Services | Outsd contracts | | 64.58 |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 328-1329371 | Uniform Cleaning Service | Outsd contracts | | 258 |
| 57415 | 12/01/2021 | UNIFIRST CORPORATION | 358-1329378 | Office Cleaning Supplies - Towel-Mat Service | Outsd contracts | | 66.14 |
| | | | | | **Vendor UNI08 - UNIFIRST CORPORATION Total:** | | **970.86** |
| **Vendor: USA01 - USA BLUE BOOK** | | | | | | | |
| 57417 | 11/17/2021 | USA BLUE BOOK | 786529 | Materials & Supplies for the Lab | Materials & supplies | | 333.69 |
| 57417 | 11/17/2021 | USA BLUE BOOK | 789517 | Chloride Standard for the Lab | Materials & supplies | | 68.25 |
| 57417 | 11/23/2021 | USA BLUE BOOK | 795294 | Materials & Supplies | Materials & supplies | | 143.08 |
| | | | | | **Vendor USA01 - USA BLUE BOOK Total:** | | **545.02** |
| 57418 | 12/01/2021 | VENTURA COUNTY STAR | 0004171164 | Public Hearing Notice-Gac Notice-CWRF Dewatering P | Construction in progress | | 1676.1 |
| 57354 | 11/18/2021 | VENTURA POLICE DEPARTMENT RECORDS UNIT | Report -21-73126 | Request Police Report -21-73126 | Fees & charges | | 20 |
| 57419 | 12/01/2021 | VENTURA REGIONAL SANITATION DISTRICT, INC | 200200-83121 | VRSD Sewer Cleaning | Outsd contracts | FY22-0033 | 33945.5 |
| 57420 | 12/01/2021 | VERIZON WIRELESS | 9893403941 | Cell Phone | Communications | | 3009.81 |
| 57421 | 11/30/2021 | VILLAGE MANAGEMENT | 00002951 | Deposit Refund Act 2951 - 1024 Hickory View Cir | Refunds payable | | 192.74 |
| 57422 | 12/01/2021 | W W GRAINGER, INC. | 9134038422 | Material & Supplies -Binder Chains | Materials & supplies | | 918.41 |
| 57423 | 12/01/2021 | WATER SYSTEMS CONSULTING, INC. | 5689 | AWIA RRA - final billing | Prof services | FY22-0165 | 5490 |
| **Vendor: WAT12 - WATER SYSTEMS OPTIMIZATION INC.** | | | | | | | |
| 57424 | 12/01/2021 | WATER SYSTEMS OPTIMIZATION INC. | 2107 | Water Loss Audit Validation | Outsd contracts | FY22-0164 | 2500 |
| 57424 | 12/01/2021 | WATER SYSTEMS OPTIMIZATION INC. | 2112 | WSO Leak Detection | Outsd contracts | FY22-0082 | 17895 |
| | | | | | **Vendor WAT12 - WATER SYSTEMS OPTIMIZATION INC. Total:** | | **20395** |
| 57425 | 12/01/2021 | WIENHOFF DRUG TESTING | 101747 | Annual Consortium Membership | Dues & subscrip | | 240 |
| 57426 | 11/22/2021 | ZEBRON, INC | 52802 | Manhole Rehabilitation | Outsd contracts | FY22-0030 | 13675 |
| **TOTAL VENDOR PAYMENTS-CAMROSA** | | | | | | **$** | **543,879.59** |

| | | | | | | |
|---|---|---|---|---|---|---|
| 910 | 12/01/2021 | ACWA/JPIA | 11-21-PR ME | Health, Dental & Vision Premium for December 2021 | Medical ins. | 51659.99 |
| **Vendor: PER05 - CAL PERS 457 PLAN** | | | | | | |
| DFT0003642 | 11/18/2021 | CAL PERS 457 PLAN | INV0010778 | Deferred Compensation | Deferred comp - ee paid | 50 |
| DFT0003643 | 11/18/2021 | CAL PERS 457 PLAN | INV0010779 | Deferred Compensation | Deferred comp - ee paid | 6328 |
| | | | | | **Vendor PER05 - CAL PERS 457 PLAN Total:** | **6378** |
| DFT0003638 | 11/18/2021 | COLONIAL SUPPLEMENTAL INS | INV0010774 | Colonial Benefits | Colonial benefits | 279.22 |
| **Vendor: EDD01 - EMPLOYMENT DEVELOP. DEPT.** | | | | | | |
| DFT0003659 | 11/18/2021 | EMPLOYMENT DEVELOP. DEPT. | INV0010804 | Payroll-SIT | P/R-sit | 3872.34 |
| DFT0003663 | 11/18/2021 | EMPLOYMENT DEVELOP. DEPT. | INV0010811 | Payroll-SIT | P/R-sit | 11.18 |
| | | | | | **Vendor EDD01 - EMPLOYMENT DEVELOP. DEPT. Total:** | **3883.52** |
| **Vendor: HEA02 - HealthEquity** | | | | | | |
| DFT0003646 | 11/18/2021 | HealthEquity | INV0010784 | HSA-Employee Contribution | HSA Contributions Payable | 480.84 |
| DFT0003647 | 11/18/2021 | HealthEquity | INV0010785 | HSA Contributions | HSA Contributions Payable | 250 |
| | | | | | **Vendor HEA02 - HealthEquity Total:** | **730.84** |
| 906 | 11/18/2021 | LINCOLN FINANCIAL GROUP | INV0010780 | Deferred Compensation | Deferred comp - ee paid | 1900 |
| 907 | 11/18/2021 | LINCOLN FINANCIAL GROUP | INV0010798 | Profit Share Contribution | Profit share contributions | 2618.42 |
| DFT0003644 | 11/18/2021 | PUBLIC EMPLOYEES | INV0010782 | PERS-Retirement | P/R-state ret. | 17388.58 |
| DFT0003648 | 11/18/2021 | SYMETRA LIFE INS CO. | INV0010786 | Life Insurance | Life ins. | 293.75 |
| **Vendor: UNI10 - UNITED STATES TREASURY** | | | | | | |
| DFT0003656 | 11/18/2021 | UNITED STATES TREASURY | INV0010801 | FIT | P/R-fit | 10371.22 |
| DFT0003657 | 11/18/2021 | UNITED STATES TREASURY | INV0010802 | Payroll-Social Security Tax | P/R - ee social security | 664.96 |
| DFT0003658 | 11/18/2021 | UNITED STATES TREASURY | INV0010803 | Payroll- Medicare Tax | P/R - ee medicare | 3146.87 |
| | | | | | **Vendor UNI10 - UNITED STATES TREASURY Total:** | **14183.05** |
| 57416 | 11/18/2021 | UNITED WAY OF VENTURA CO. | INV0010773 | Charity-United Way | P/R-charity | 20 |
| 911 | 12/01/2021 | UNUM LIFE INSURANCE | 11-21 PR ME | Short & Long Term Disability Insurance Premium | STD & LTD | 1424.74 |

**TOTAL PAYROLL VENDOR PAYMENTS-CAMROSA** **$ 100,760.11**

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** Board of Directors

**From:** Ian Prichard, Assistant General Manager

**Subject:** **Tier 2 Historian**

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**Objective:** Increase the security of SCADA servers.

**Action Required:** Authorize the General Manager to issue a purchase order in the amount of $28,965.00 to E&M, Inc. dba Wonderware for the Tier 2 Historian server.

**Discussion:** The District's supervisory control and data acquisition (SCADA) system is what "automates" the District's infrastructure. The existing Wonderware Tier 1 Historian servers are the backbone of this SCADA system. They connect and collect data directly from the District's many and various controllers—on wells, reservoirs, pump stations, throughout our treatment plants, etc. This information is relayed to and supports the operator stations and other human-machine interfaces, including office workstations, where it is used to generate reports for administrative staff.

This all takes place on protected SCADA subnets; the Tier 2 Historian would provide an additional level of security between the office and the SCADA subnets. In the ever-evolving cybertechnology landscape, it is increasingly important to provide critical infrastructure with sufficient safeguards.

The District long ago standardized on Wonderware for SCADA-related technology and currently maintain a support contract with them. The Tier 2 Historian project is an approved project in the FY2021-22 budget. Additional costs will be required for outside programming from Rovisys, one of the District's preferred integrators, but the total cost is anticipated to remain below the budgeted $65,000.00.

The Tier 2 Historian is a prerequisite for the laboratory information management system (LIMS), which is also an approved project in the FY2021-22 budget; staff has obtained a quote for the LIMS and will return to the Board at a future date for approval.

126 Mill Street
Healdsburg, CA 95448
(866) WONDER N
(866) 966-3376

AVEVA Distributor

# QUOTE 215669.2

CAMROS

Tier 2 Historian

11/04/2021

Direct Opp
In Process

**Ship To:** CAMROSA WATER DISTRICT
7385 SANTA ROSA RD
CAMARILLO, CA 93012

**Attn:** **Kevin Wahl**
**CAMROSA WATER DISTRICT**
*direct* (805) 482-8673
*main* ( ) -
*fax*

**Bill To:** CAMROSA WATER DISTRICT
7385 SANTA ROSA RD
CAMARILLO, CA 93012

**From:** Carla Brown
carla.brown@california.wonderware.com
*direct* (707) 473-3163
*main* (866) 966-3376
*fax* (707) 473-3190

Thank you for the opportunity to offer you this quote!

SiteID: 112274 Camrosa Water, 7385 Santa Rosa Rd, Camrosa Water California 93012

**Note: Customer Support has been prorated to be added to CS# 51262, Exp 12-21-2019**

Included with Wonderware Premium Customer First Program are the following services:

- Emergency 24/7/365 Technical Telephone Support
- Wonderware Direct Technical Support: Access to technical resources at both the local distributor and directly from Wonderware
- No Charge for Version Upgrades
- Access to the Wonderware Global Customer Support Website Access: Search for answers to your questions and log and track cases
- Customer Support Shipments Including New Releases of Software, maintenance releases, Service Packs, and Patches, updates and hotfixes
- Online Training Webinars: Access to library of eLearning webinars
- Support Usage and Summary Reports: Automatically receive a monthly summary of all of your support activity
- Software Asset Manager

***Please note: Customer first support contracts START from the date of license issue and are due for renewal one (1) year after date of contract inception. Support is calculated based on the list price of all licenses at the site.***

Interested in additional training? Please visit our website and view our events schedule at www.california.wonderware.com.

Access the status of your order on our Online Order Status system!! Just click on the link contained in your order confirmation to begin the login process. Once signed up you can access via www.california.wonderware.com.

| Quantity | Part Number/Description | Availability* | Tax | Price | Extension |
|---|---|---|---|---|---|
| 1<br>Line:1 | HSTENT-01-N-20<br>AVEVA Historian 2020, Enterprise 5,000 Tag | 1 Estimated | N | $25,030.00 | $25,030.00 |
| 1<br>Line:2 | 10-7050<br>Add to Existing CFP #51262, Exp 12-21-2019 | 1 Estimated 1-2 Weeks | N | $3,935.00 | $3,935.00 |

| | |
|---|---|
| Sub-Total | $28,965.00 |

## Base Quotation Pricing Summary

**Availability:**

- Part availability is subject to change and is based on the availability at the time this quote was created.
- Time in transit is subject to change depending on the "Ship To" address that is provided by the customer at the time the order is placed and the method in which customer requests that the part(s) ship.
- For "In Stock" parts, orders must be received by 3:00PM PST to ship same day.
- For Factory Stock parts, please allow approximately one week for delivery via our standard shipping methods.

***Freight is NOT included in this total. Your final invoice may include freight charges.***

| | |
|---|---|
| **Taxable:** | $0.00 |
| **Non-Taxable:** | $28,965.00 |
| **Subtotal:** | $28,965.00 |
| **Tax (7.25%):** | $0.00 |
| **Freight:** | TBD |
| **TOTAL:** | **$28,965.00** |

**PO Number:**
**Duration:** This quote is valid for 30 days. **FOB:** Healdsburg, CA
**Freight:** Prepaid and Add
**Terms:** Net 30 Days
**Pages:** 1 of 1

This quotation may contain engineering services that are subject to additional terms and conditions.

**Remit to: E&M, Inc. 126 Mill Street, Healdsburg, CA 95448**

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** General Manager

**From:** Terry Curson, District Engineer

**Subject:** **Tierra Rejada Well Rehabilitation Project, Specifications No. PW21-03**

**Objective:** Authorize Change Orders for additional cleaning, pump installation, and specialty inspection at Tierra Rejada Well.

**Action Required**: It is recommended that the Board of Directors:

1) Authorize additional funding in the amount of $30,000.00 for the Tierra Rejada Well Rehabilitation; and
2) Authorize the General Manager to award two Change Orders to General Pump Company, in the combined amount of $62,691.23, for additional out-of-scope work for the rehabilitation of the Tierra Rejada Well in accordance with Specifications No. PW21-03; and
3) Authorize a Change Order to Hopkins Groundwater Consulting (Hopkins) for additional out of scope hydrogeological inspection and administrative services in the amount of $5,490.00.

**Discussion:** Hopkins Groundwater Consulting was contracted to re-evaluate the Tierra Rejada Well, identify the issues related to declining production, and provide an overall long-term rehabilitation plan. The declining basin levels have greatly impacted the available drawdown above the current well's pump setting. Based on Hopkin's analysis and report, it was decided to perform additional analysis of the well and well formation, along with replacing the existing pump and lowering the pump setting by approximately 100 feet to increase capacity.

In August of 2021, the Board authorized awarding a contract to General Pump Company (General Pump) to rehab the well. Prior to removing the existing pump, a spinner log and dynamic video were performed by Pacific Surveys and the information submitted to Hopkins for review. The original scope for General Pump was to perform a general brushing and disinfection of the well; however, because of the video findings and current condition, both General Pump and Hopkins recommended a more complete cleaning process that includes brushing, airlifting, chemical disinfection, and follow-up video. During this work, specialty inspection services are required along with other administrative tasks.

It should also be noted that the existing 8-inch column pipe was expected to be reused and placed back into the well along with the new pump. After removal, it was observed that the casing pipe exhibited extensive corrosion and pitting, and General Pump recommended replacing the pipe. District staff concurred and is currently reviewing options and will come back to the Board later with additional costs to replace the 8-inch column pipe.

As part of the original scope, a new pump and motor have been ordered, and tentative delivery dates are expected around the end of February. However, based on recent experiences, it is anticipated that this delivery date may be delayed. District staff recommends cleaning of the well now and installing a

temporary pump to return the well to production in the interim and offset imported water until the new pump arrives and can be installed.

This project is an approved Capital Improvement Project and the approximate project costs are listed as follows:

| | |
|---|---|
| Hydrogeological Design/Inspection Services (*Note: additional expenditures were charged against the prior year operational budget in the amount of $13,818.75*) | $ 9,641.25 |
| Well Rehabilitation/Construction | $222,223.00 |
| **Additional cleaning** | **$ 32,925.50** |
| **Additional pump installation/removal** | **$ 29,765.73** |
| **Additional Specialty Inspection Services/Spinner overview** | **$ 5,490.00** |
| Total revised Project Cost: | $300,045.48 |
| Total Budget | $295,000.00 |
| Additional Funding | $ 30,000.00 |

Additional funding is available from the District's Potable Water Capital Improvement Fund.

GENERAL PUMP COMPANY

934 W. VERDULERA STREET - CAMARILLO, CA 93010
PHONE: (805) 482-1215 - FAX: (805) 484-2135

**WELL & PUMP SERVICE SINCE 1952** Lic. #496765

*"Serving All Southern California and Central Coast!"*

Camrosa Water District
7385 Santa Rosa Road
Camarillo, California 93012

November 29, 2021

*Attn*: Terry Curson

***Subject: Tierra Rejada Change order for Wire-Brushing-Airlift Swab and additional Chemicals***

General Pump Company, Inc. (GPC) is pleased to provide this estimated cost for the additional work described by Hopkins Groundwater. We have also added a post video to the scope after speaking with Curtis. The additional estimated cost is as follows:

***Shop Time:***

| | | |
|---|---|---|
| • Load-Unload materials and equipment as needed. | | 20 Hours |
| • Engineering support | 10 Hours | Included |
| ***20 Hours Total Estimated Shop Labor @ $112.00/Hour*** | | ***$2,240.00*** |

***Field Labor:***

- Brush well 16-inch well casing (250 to 310 feet) and 10-inch well screen between the depths of 310 and 510 feet to dislodge slime and mineral deposits.
- Dual Swab airlift well from 510 to 280

| | |
|---|---|
| 10 Hours 2 Man Crew and equipment @ $484.00/Hour | $4,840.00 |
| 30 Hours 3-Man Crew and equipment @ 624.00/Hour | $18,720.00 |
| ***Total Field Labor*** | ***$23,560.00*** |

**Materials/Rentals (Non Taxable);**

| | |
|---|---|
| • Brush Rental | $950.00 |
| • Swab Rental | $950.00 |
| • Airlift Pipe and tool rental | $928.00 |
| • Rental of Air Compressor for airlift development | $1,137.00 |
| ***Total Materials/Rentals (Non-Taxable)*** | ***$3,965.00*** |

**Materials/Rentals (Taxable);**

| | |
|---|---|
| • Fuel for Air Compressor | $364.00 |
| • Additional 45 gallons Chlorine added to original mixture | $591.00 |
| • Estimated Freight | $445.00 |
| • Estimated Local Taxes at 7.25% | $45.50 |
| ***Total Materials/Rentals (Taxable)*** | ***$1,445.50*** |

**Outside Services;**

| | |
|---|---|
| • Additional Video | $1,715.00 |
| • | |
| Total **Outside Services** | **$1,715.00** |
| ***Total Estimated Project cost*** | ***$32,925.50*** |

Should you have any questions or need additional information regarding the above summary and associated costs, please do not hesitate to contact us.

Sincerely,

**GENERAL PUMP COMPANY, INC.**

*Ray Reece*
General Manager

GENERAL PUMP COMPANY

934 W. VERDULERA STREET - CAMARILLO, CA 93010
PHONE: (805) 482-1215 - FAX: (805) 484-2135

**WELL & PUMP SERVICE SINCE 1952** Lic. #496765

*"Serving All Southern California and Central Coast!"*

Camrosa Water District
7385 Santa Rosa Road
Camarillo, California 93012
*Attn*: Terry Curson

November 30, 2021

***Subject: Tierra Rejada Change order to install either the original pump or a temporary pump in the well until the final pump arrives.***

General Pump Company, Inc. (GPC) is pleased to provide this estimated cost for the additional work described by Hopkins Groundwater. We have also added a post video to the scope after speaking with Curtis. The additional estimated cost is as follows:

***Shop Time:***

| | | |
|---|---|---|
| • Load-Unload materials and equipment as needed. | | 35 Hours |
| • Engineering support | 10 Hours | Included |
| ***30 Hours Total Estimated Shop Labor @ $112.00/Hour*** | | ***$3,360.00*** |

***Field Labor:***

- Install temporary submersible test pump to 383' and then remove after new pump is ready for install.

| | |
|---|---|
| 40 Hours 3-Man Crew and equipment @ 624.00/Hour | $24,960.00 |
| ***Total Field Labor*** | ***$24,960.00*** |

**Materials/Rentals (Taxable);**

| | |
|---|---|
| • Replacement SST Airline | $941.00 |
| • Electrical components to connect motor leads | $137.00 |
| • Miscellaneous consumables including fittings, tape, banding etc. | $146.00 |
| • Estimated Freight | $124.00 |
| • Estimated Local Taxes at 7.25% | $97.73 |
| ***Total Materials/Rentals (Taxable)*** | ***$1,445.73*** |
| ***Total Estimated Project cost*** | ***$29,765.73*** |

Should you have any questions or need additional information regarding the above summary and associated costs, please do not hesitate to contact us.

Sincerely,

**GENERAL PUMP COMPANY, INC.**

*Ray Reece*
General Manager

**HOPKINS**
**GROUNDWATER**
**CONSULTANTS, INC.**
**THE WATER RESOURCE SPECIALISTS**

November 22, 2021
Project No. 14-005-02

Camrosa Water District
7385 Santa Rosa Road
Camarillo, California 93012

Attention: Mr. Terry Curson
District Engineer

Subject: Proposal for Additional Services for the Tierra Rejada Well Rehabilitation Project.

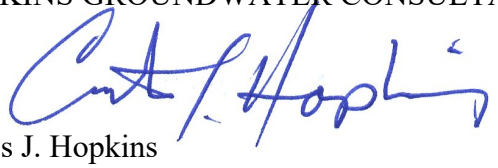
Dear Mr. Curson:

Hopkins Groundwater Consultants, Inc. (Hopkins) is pleased to provide this proposal for professional consulting services to assist the Camrosa Water District (District) with additional work to continue the Tierra Rejada Well rehabilitation work. Based on the preliminary work performed to date, it is our understanding that the District desires to perform down hole cleaning work to remove mineral precipitate and bacterial fouling and to facilitate the subsequent well disinfection effort. The additional work provided by Hopkins will include observation and documentation during downhole brushing and airlift removal of materials from the well. Upon completion of the well cleaning work, Hopkins will coordinate and observe performance of a down hole video to document well condition. The amount of time required to complete this effort is estimated to require approximately 30 man-hours of staff professional time. We recommend a project budget of $4,650 be established for this component of work which will be designated as Task 6 for project organization and billing purposes. It is our understanding the District desires our participation in a future Board of Directors meeting for which we estimate up to 3 hours of effort for preparation and participation and a budget of $840.

We trust this proposal is responsive to the needs of the District and as always, Hopkins is pleased to have this opportunity to be of service. If you have questions or need any additional information, please give us a call.

Sincerely,

HOPKINS GROUNDWATER CONSULTANTS, INC.



Curtis J. Hopkins
Principal Hydrogeologist

C:\HGC\Job Files 2021\14-005-02\Admin\Proposal 11-23-21.doc

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** General Manager

**From:** Terry Curson, District Engineer

**Subject:** **Reservoir 4C Welded Steel Tank and Hydro-pneumatic Pump Station Replacement Update**

**Objective:** Complete the design for system improvements at the District's 4C site.

**Action Required**: It is recommended that the Board of Directors accept District staff's findings and recommendation to proceed with the design of Alternative No.1; replacement of the 4C Hydro-pneumatic Pump Station and one-million-gallon 4C Reservoir in kind.

**Discussion:** On January 14, 2021, the Board of Directors authorized the General Manager to enter a contract for design services with Cannon Corporation for replacement of Reservoir 4C's welded steel water tank and hydro-pneumatic pump station. As a condition of the award process, the Board directed staff to initiate a more comprehensive assessment of the existing facilities that directly serve Pressure Zone 4. These facilities include, but are not limited to Pump Station 3, Pump Station 5, Pressure Reducing Station BR, 4C Hydro-pneumatic Pump Station, Reservoir 3C, and Reservoir 3D. In addition, the analysis included evaluation of alternative facilities or options along with recommendations. Cannon Corporation contracted with a sub-consultant, Akel Engineering, to perform analysis (Akel Report), which is complete, along with other draft results related to geotechnical conditions, preliminary design layouts, and overall engineering recommendations.

**Executive Summary & Recommendation**

The Akel Report looked at a few options/alternatives related to replacing the 4C Reservoir and 4C Hydro-pneumatic pump station project that included: *Alternative 1* - replacing the facility "in-kind"; *Alternative 1A* - Replacing the facility with increased storage capacity resulting from a high fire hazard zone designation; or *Alternative 2* - eliminate the existing storage tank and convert Zone 3 and 4 into hydro-pneumatic pumping zones.

Although all these options are feasible, staff recommends *Alternative 1*. The original proposed design criteria is considered the most practical and feasible project. Upsizing the 4C Hydro-pneumatic Pump Station and replacing the existing 1-million-gallon reservoir tank will provide the necessary operational, emergency, and fire flow storage to meet current District and other waterworks standards. The other two alternatives are listed below but are not recommended by staff.

*Alternative 1A* would provide additional storage for what is considered a Very High Fire Hazard Area, however, given the redundancy of pumping to Zone 4 through Pump Station 3 and 5, along with the identified geological conditions, this option is not necessary, and therefore not recommended.

*Alternative 2* is impractical and considered a poor operational/engineering alternative compared to constructing a water system that provides on-site storage and gravity flow. These sites are highly congested and the pumping and ancillary equipment is located significantly closer to the existing

southern slope. Any additional work within these sites would most likely encounter the same geohazards as identified in the slope stability analysis. Staff does not recommend this option.

**System Analysis**

The Akel Report utilized current usage and demands based on the District's potable water model recently completed by Water System Consultant's (WSC) in late 2020. The Akel Report recommended baseline usage in addition to other recommended components, such as:

| | |
|---|---|
| Operation Storage | Operational Storage based on pump station and meter station tank level controls as simulated in the water model. |
| Fire Flow | Low Density Residential, 1500 GPM for 2 hours |
| Emergency Storage | Maximum Day Demand (MDD) for 24 Hours |
| Additional Proposed Emergency Storage | MDD for 12 Hours because of Very High Fire Severity Zone (VHFSZ) |

The Akel Report looked at current usage related to average day, maximum day, and peak hour demands along with current fire flow standard requirements. From the usage information and recommended Operational, Emergency, Fire Flow and additional Emergency storage, an evaluation was performed that looked at several alternatives, including a "No Tank" alternative.

The existing Reservoir 4C tank and hydro-pneumatic pump station are located along Priscilla Road within Pressure Zone No. 4. Along with these facilities, the County of Ventura operates and maintains a communication facility comprised of an equipment building, generator, radio, and antenna site. This zone is serviced by a single 1.0-million-gallon welded steel water tank that was designed and built in 1967. Other than exterior coating, the tank does not appear to have had any other interior or exterior modifications including interior recoating during its lifetime. Between 1990 and 2017, several seismic analysis and tank condition reports had been prepared, along with the most recent, that identified Reservoir 4C as a poor candidate for retrofitting. Complete replacement is recommended.

The hydro-pneumatic pump station (Hydro) is located next to Reservoir 4C and was built in 1975. The Hydro serves a small pressure zone known as the 4C Hydro that includes approximately 30 homes. The Hydro consist of two constant-speed 25 HP pumps, a hydro-pneumatic tank, surge tank on the suction line, and various electrical switchgear and controls. Except for general maintenance over the last 45 years, the Hydro has not been refurbished and is at the end of its useful lifespan. In addition, the Hydro does not meet the District's current fire flow standards. As part of the project scope, staff will be looking at a few different design alternatives that include a skid mounted pre-packaged unit along with VFDs; diesel-driven fire pumps' updated emergency standby generator; and a permanent structure to house the switchgear, controls, and pumps, to mitigate pump noise, and to protect electrical and mechanical components from the weather.

The Akel Report identified several alternatives known as Alternative 1, Alternative 1A, and Alternative 2 (no tank), and are summarized as follows:

*Alternative 1*: This alternative is considered the baseline scenario and involves replacing the reservoir tank "in-kind" along with increasing the existing sub-standard fire flow capacity of the 4C Hydro-pneumatic Pump Station.

*Alternative 1A*: This alternative is like alternative 1, with the exception that Zone 4 has been identified as a Very High Fire Hazard Severity Zone (VHFHSZ). An additional storage volume (12 hours of MDD) for areas within VHFHSZ with minimal supply redundancy is proposed and would add an additional 200,000 gallons to the reservoir tank's capacity.

*Alternative 2*: This alternative evaluates the 4C zone with the removal of the existing 4C Reservoir Tank and converting the 4C Pressure Zone into an exclusive hydro-pneumatic zone. By removing all storage requirements, storage capacity would need to be transferred to Zone 3 and would require additional pumping capacity to meet peak hour demands along with a minimum 1500 GPM fire flow at Pump Station No. 3. Improvements would also be required for the 4C Hydro-pneumatic pump station. An additional alternative that is not formally identified would abandon the existing 4C site and include the addition of a new one-mile waterline in Presilla Road. Regardless, several other additional facilities consisting of several surge tanks, pumps, and fire pumps would be required.

**Geotechnical Slope Stability Analysis**

The 4C Reservoir, 4C hydro-pneumatic pump station, and Ventura County Sheriff's communication station, located on what is known as the 4C Site is near the Simi-Santa Rosa Fault, but outside of the area requiring a fault analysis. However, as part of the geological site investigation, a slope stability analysis was completed to determine if the 4C Site meets the current Ventura County Grading Ordinance. The Grading Ordinance does not provide specific guidelines on how this analysis is to be completed, other than referencing other geotechnical guidelines developed by the State of California (California Geologic Survey, CGS Special Publication 117A). In most instances, the Ventura County guidelines are in general agreement with the CGS SP117A slope stability guidelines published in 2007. The Reservoir 4C was originally constructed in 1967 and the hydro-pneumatic pump station facility was completed in 1975. The Ventura County Sheriff's communication facility was added around 1997.

In August 2021, Oakridge Geoscience conducted their geological survey that utilized a hollow stem auger drill hole, along with other published maps, various data, and topographic surveys provided by the District. For these areas along Presilla Road, the geological bedding planes are generally more favorable regarding the south slope compared to the north slope for stability. All the District's pumping and storage facilities in this area are located adjacent to the south slope. As previously mentioned, the County ordinance does not provide specific guidelines in carrying out the slope stability evaluation; however, it does identify certain Factors of Safety (FS) related to the static and pseudostatic (seismic) evaluations. These guidelines typically require a minimum static factor of safety of 1.5 and pseudostatic factory of safety of 1.0.

Several static and pseudostatic slope stability evaluations were performed at the 4C Site and can be found in the attached draft report under Table 2. In summary, the static Factor of Safety was calculated at 1.17 and 1.19 at the edge of the slope and adjacent to the proposed tank location, respectively. The pseudostatic Factor of Safety were 0.98 and 1.10 at the edge of the tank and 10-feet south of the tank, respectively. In most cases these factors are below the FS of 1.50 and 1.0.

Except for some minor superficial erosion on the southwest corner of the property, which was stabilized in the early 1990s, there has been no visual observation or other indication of subsidence or damage to any of the facilities related to geological movement.

Typically, slope stability hazards are mitigated by either adjusting the location of the facility within the site, over-excavating and recompacting the adjacent slope, structurally supporting the site with the installation of piles or other structural elements or implementing other project approaches.

These mitigation options are discussed in more detail as follows:

1. Setback from Hazard: Based on the slope analysis, any facilities constructed within the site would have to be moved to the northside of Presilla Road. This would require the acquisition of additional property and based on current mapping and geologic site conditions, there are greater geohazards on the northern slopes. This option does not appear feasible.
2. Grading Solution: This involves over-excavating the site with the removal of soil material and replace it with compacted fill or soil buttress. The existing descending slope is at least 300 feet high. To build back at a 2:1 slope with benching, this would require the acquisition of a

significant amount of property and the movement of millions of yards of earth material. This option does not appear feasible.

3. Structural Solutions (Piles): Structural solutions usually include poured in placed or driven piles to support and strengthen the soil materials within the slope to improve strength and increase the Factor of Safety. Preliminary estimates would involve piles near the slopes edge at approximately 180 feet and 410 feet deep at the structures. This option does not appear feasible.
4. Ground Improvements: Another solution could involve the strengthening of the soil material beneath the site using soil cement or other treatment method. This method is somewhat problematic as it is difficult to determine the extent of the scope to confirm the results and the estimated costs would be impractical. This option does not appear feasible.

Camrosa is a self-governing agency, and in accordance with California Government Code, Section 53091, "Building or Zoning Ordinances of a County or City shall not apply to the location or construction of facilities for the production, generation, storage or transmission of water, wastewater, or electrical energy by a local agency." Both Akel Engineering and District staff recommend to proceed with the project as originally proposed (Alternative 1) and replace the existing reservoir tank with a new 1.0 million-gallon tank and reconstruct the existing hydro-pneumatics pump station to include additional fire flow capacity.

It is worth noting that during the last 55 years of operation, no movement or settlement of the site has been observed. Regardless of the alternative selected, the geotechnical report recommends that a minimum of 4 permanent survey markers around the reservoir foundation and four permanent survey markers along the top of the slope should be installed. Following the installation, an annual survey monitoring program along with periodic site observations be performed following any geohazard event such as a seismic event or heavy rainfall. It is expected that these survey markers and monitoring program guidelines will be added to Cannon's scope of work during the design.

CAMROSA WATER DISTRICT

BUILDING WATER SELF-RELIANCE

CAMROSA WATER DISTRICT

TECHNICAL MEMORANDUM

# PRESSURE ZONE 4C TANK AND PUMP STATION ANALYSIS

Preliminary

October 2021

AKEL ENGINEERING GROUP, INC.

AKEL
ENGINEERING GROUP, INC.

October 19, 2021

Cannon
11900 West Olympic Blvd, Suite 530
Los Angeles, CA 90064

Attention: J. Eric Porkert, P.E.
General Manager/Senior Principal Engineer

**Subject: Technical Memorandum – Pressure Zone 4C Tank and Pump Station Analysis**

We are pleased to submit this technical memorandum documenting the Pressure Zone 4C and Hydropneumatic Pressure Zone Facility Analysis study. Camrosa Water District (District) is in the process of replacing a 1.0 MG reservoir tank and hydropneumatic pump station within its 4C & 4C Hydro Pressure Zones (PZ 4C & 4C Hydro) that are outdated and have exceeded their useful lifespans.

The following memorandum documents the evaluation of the pumping requirements, storage capacity requirements, and a hydraulic analysis using a recently completed water model to simulate facility alternatives.

## 1.0 SYSTEM PERFORMANCE AND DESIGN CRITERIA

The District's performance and design criteria, which was used in this analysis for identifying system capacity requirements for storage reservoirs and booster stations is documented on **Table 1** and summarized as follows;

- **Storage Requirements**: The total storage is the summation of operational (field operating range), fire (varies), and emergency (Maximum Day Demand for 24 hours).
- **Distribution Mains**: The maximum pipeline velocities are to not exceed 5 feet per second (ft/s)
- **Pump Station Requirements**: Meet Maximum Day Demand (MDD) plus required fire storage replacement pumping over 72 hours with largest unit out of service and hydropnumatic systems must meet peak hour demands and include fire flow.
- **Service Pressures**: Minimum pressures are to be greater than 45 psi during peak hour demands and greater than 20 psi during MDD plus fire flows.

## 2.0 HYDRAULIC ANALYSIS ALTERNATIVES

The hydraulic analysis included the following alternatives;

- **Existing System (Baseline)**: This scenario is to establish a baseline of system operations, minimum pressures and available fire flows.

- **Alterative 1 - New 4C Tank and 4C Hydro Fire Pump**: This alternative includes an upgraded 4C hydro pump station including a fire flow pump and a new 4C Storage Tank based on the currently adopted tank storage requirements.

- **Alternative 1A - New 4C Tank (VHFHSZ Requirement) and 4C Hydro Fire Pump**: This alternative includes a new 4C hydro pump station including a fire flow pump and a new Zone 4C Storage Tank based on the proposed additional storage requirement for pressure zones within the Very high Fire Hazard Severity Zone (VHFHSZ) as documented on **Table 1**.

  Due to previous fires (Thomas and Woolsey) plus increased woodland/urban interface, an additional emergency storage volume (12 hours of MDD) for areas within the VHFHSZ is proposed, which could be required for zones that are deemed high risk due to little supply redundancy/reliability.

- **Alternative 2 - New 4C Hydropneumatic Zone (remove Tank 4C):** This scenario included removing Tank 4C and converting the existing 4C Pressure Zone to a hydropneumatic zone.

**Table 2** documents the scenarios simulated for each alternative in the hydraulic model.

## 3.0 STORAGE CAPACITY REQUIREMENTS

The storage analysis for this evaluation is documented on **Table 3** and summarized as follows;

- **Alternative 1**: Using the existing storage capacity requirements, the Zone 4C tank requirement = **1.0 MG**

- **Alternative 1A**: When adding the VHFHSZ requirement, Zone 4C will require a **1.2 MG** tank.

  Zone 4C Fire Storage Impact: An extra 0.23 MG is required and can be viewed as a 1,500 gpm fire for 4.6 hours (+2.6 hours).

  Zone 3D Fire Storage Impact: An extra 0.06 MG is required and can be viewed as a 1,500 gpm fire for 2.6 hours (+0.6 hours).

- **Alternative 2**: If Zone 4C is converted to a hydro zone, storage requirements will need to accounted for in Zone 3. With the additional storage requirements on Zone 3, there will still be a surplus of 1.12 MG (a reduction from the existing 1.59 MG surplus).

## 4.0 PUMPING CAPACITY REQUIREMENTS

The pumping capacity analysis for this evaluation is documented on Table 4 and summarized as follows;

- **Alternative 1 and 1A**:
    - Zone 4C (Pump Station 3) has a surplus pump capacity of 237 gpm (not including PS5 capacity due to lack of redundant pump at that station)
    - 4C Hydro is deficient during fire flows and requires a 1,500 gpm fire pump upgrade.
- **Alternative 2:**
    - Zone 4C (Pump Station 3) will be deficient for both domestic demands and fire flow. Since Tank 4C is removed in this alternative, an 800 gpm domestic pump station (firm capacity) will be required for to account for Zone 4C peak hour demands and 4C hydro pump firm capacity. Also required is a new 1,500 gpm fire pump at BS 3.

      Please note 4C Hydro has a theoretical peak hour demand of 105 gpm and an existing pumping capacity of 348 gpm. Camrosa staff have indicated that flows at the existing 4C hydro reach up to 473 gpm with spikes of 656 gpm. Since this flow is larger than what is currently in the model, it should be verified and potentially will need to be incorporated into the design capacity of the BS 3 and 4C Hydro pump stations for this alternative.
    - 4C Hydro is deficient during fire flows and requires a 1,500 gpm fire pump upgrade.

## 5.0 HYDRAULIC ANALYSIS

A calibrated hydraulic model provided by Camrosa Water District was utilized to perform analysis for peak hour demands and maximum day demand plus fire flow to determine the system impacts to pressures, fire flows, and operations. Table 2 documents the alternatives and scenarios included in the evaluation.

### Existing System (Baseline Scenarios):

Two scenarios were simulated for the existing system to establish a baseline;

- **Peak Hour Demands:** Figure 2 documents the minimum pressures observed during peak hour demands with the existing system. The model indicates service pressures in Zone 3D, 4C, and 4C hydro are above the criteria of 45 psi. The lowest pressure of 4 psi occurs near the suction of 4C hydro pump station.

- **Maximum Day Demands plus Fire Flows:** Figure 3 documents the available fire flow at 20 psi residual pressure during maximum day demands. Pressure Zone 4C hydro is unable to meet the 1,500 gpm fire flow due to not having a fire pump.

### Alternative 1 and 1A: New Tank 4C

- **Peak Hour Demands:** No change from baseline
- **Maximum Day Demands plus Fire Flows:** For this scenario a new 1,500 gpm fire pump was included at the 4C Hydro Pump Station. Figure 4 documents the available fire flow at 20 psi residual pressure during maximum day demands. The available fire flow in 4C hydro now meets criteria.

The peak hour pressures and available fire flows are identical between Alternative 1 and 1A; the only difference would be a longer duration of fire flow in 1A due to the additional VHFHSZ storage requirement.

### Alternative 2: New Hydropneumatic 4C Zone (Remove Tank 4C)

In Alternative 2, the 4C tank will be abandon and Zone 4C will be converted to a hydropneumatic zone, resulting with existing 4C Hydro Zone connecting to the newly created hydro zone.

- **Peak Hour Demands:** Figure 5 documents the minimum system pressures if Tank 4C were abandon and the 4C zone was converted to a hydro-pneumatic zone. During peak hour demands, pressures near the 4C hydro pump station drop to 0 psi. The pressure controls at the new BS3 station would need to be raised approximately 5-10 psi to mitigate these low pressures, however it will also raise pressures in the rest of the system.

- **Maximum Day Demands plus Fire Flows:** Figure 6 documents the fire flow pressures if Tank 4C were abandon and the 4C zone was converted to a hydro-pneumatic zone. During the 1,500 gpm fire flow, pressures near the 4C hydro pump station drop to 0 psi. The pressure controls at the new BS3 station would need to be raised approximately 15-20 psi to mitigate these low pressures, however it will also raise pressures in the rest of the system.

In this alternative there is a potential for harmful pressure surges in Zone 4C. In the absence of a thorough surge analysis, new hydro tanks would be required at the discharge of BS3, suction of 4C Hydro, and the discharge of BS5.

## 6.0 ANALYSIS SUMMARY AND RECOMMENDATIONS

Converting the 4C Zone to a hydropnumatic system (Alternative 2) could create potential surge problems and would require further surge analysis to determine proper surge tank sizes and system operation. Another potential issue is having the existing 4C hydro zone connected to the new hydro zone. Pump station operations, especially during a fire flow in the existing 4C hydro, could cause pressure and supply issues. Additionally, pressures near the existing 4C Hydro pump station can

potentially fall below 0 psi during high demands (potential cavitation at 4C hydro). These may be mitigated by raising the HGL of the pressure zone, however minimum pressure in 4C already exceed 100 psi in some areas during peak hours.

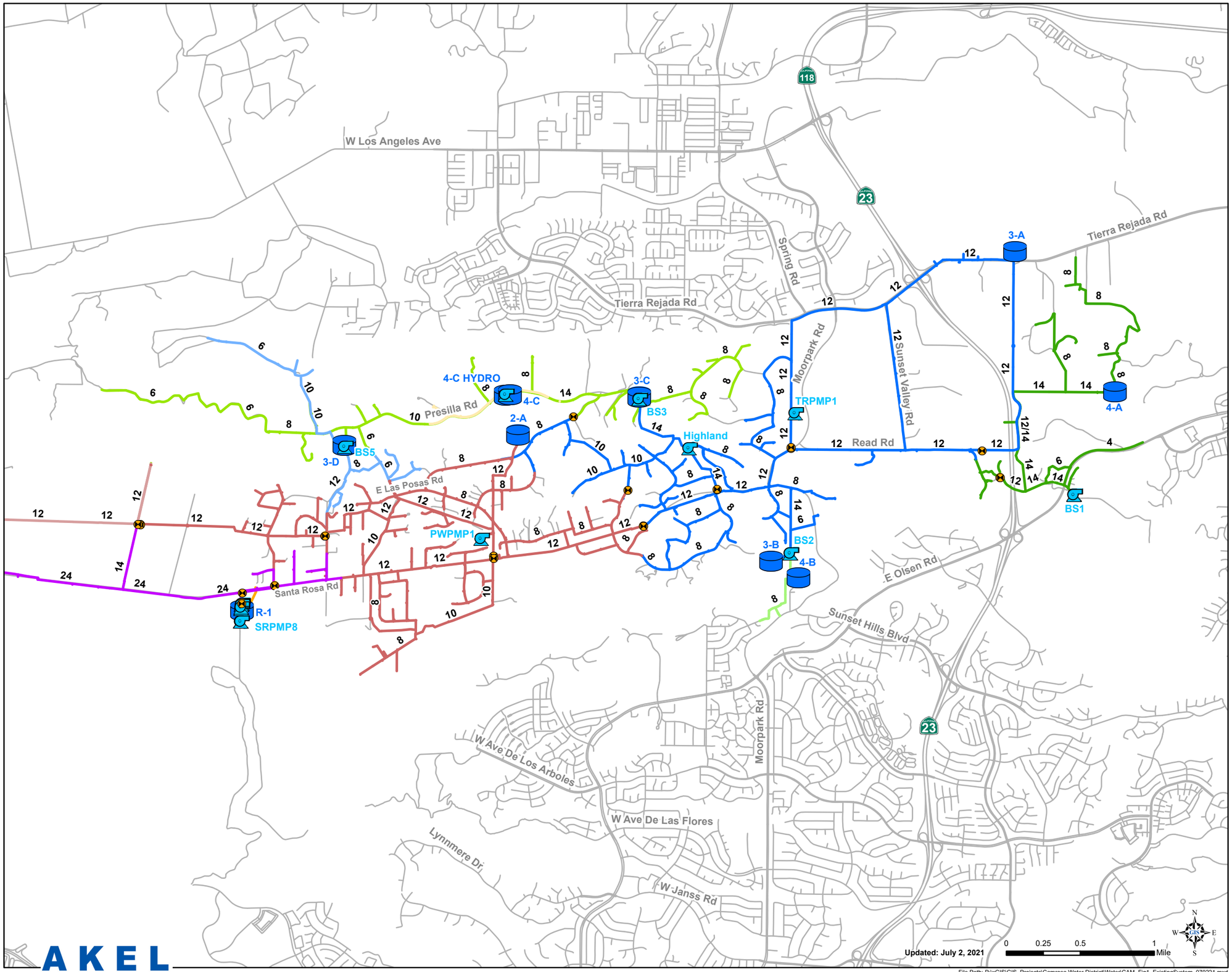
The hydraulic analysis indicates the recommended option is Alternative 1, which is constructing a New 1.0 MG 4C tank, a new 1,500 gpm fire pump for the 4C Hydro Zone with an emergency generator. This alternative adheres to the criteria Camrosa Water District has adopted for pump stations, pipelines, and storage capacity. Also, having a gravity storage tank provides operation staff reliability for day to day operations and during emergency or fire flow situations. The recommended improvements for each alternative are documented on **Table 5.**

If Alternative 1 is deemed impractical, another option would be to abandon Tank 4C, convert Zone 4C to a hydro zone, move the existing 4C hydro pump station to the BS3 site (new 4C hydro pumps would be required), and construct 1 mile of pipeline to connect 4C hydro to Zone 3. This option would mitigate the low pressures at the suction side of 4C hydro and solve the difficult operations of having 2 hydro zones linked to each other.

Sincerely,

AKEL ENGINEERING GROUP, INC.

Tony Akel, P.E.
Principal




## Legend

**Existing System**

- Tanks
- Booster Station
- Valves

Pipes by Pressure Zone

- 1
- 1B
- 2
- 2A
- 2B
- 3
- 3D
- 4A
- 4B
- 4C
- 5
- Hydropneumatic
- Roads

**PRELIMINARY**

Updated: July 2, 2021

0 0.25 0.5 1 Mile

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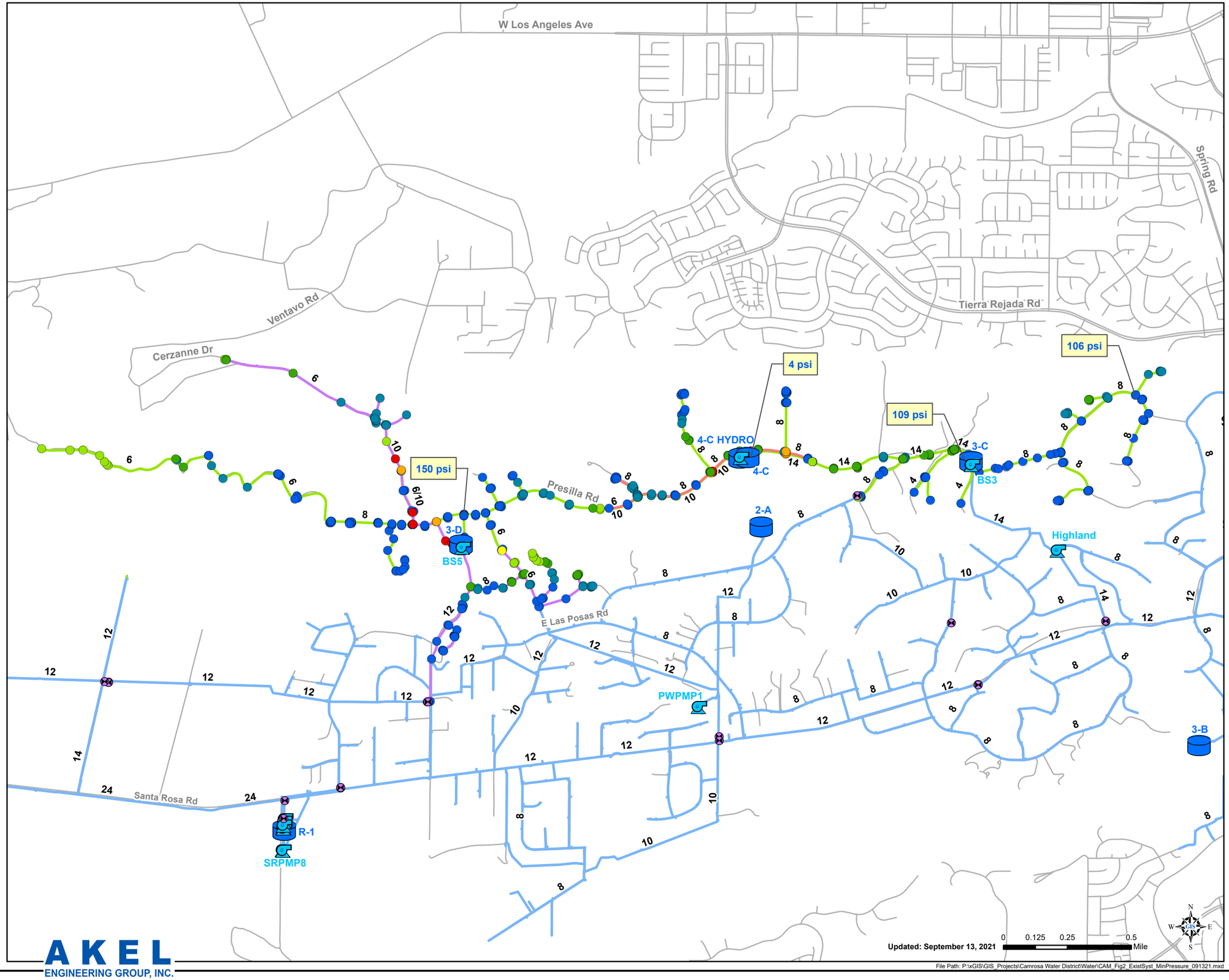
**Figure 1**
**Existing Water System**

Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.




## Legend

### Minimum Pressures

- 4 - 25 psi
- 25 - 30 psi
- 30 - 40 psi
- 40 - 60 psi
- 60 - 80 psi
- 80 - 100 psi
- 100 - 190 psi

### Existing System

- Tanks
- Booster Station
- Valves

Pipes by Pressure Zone

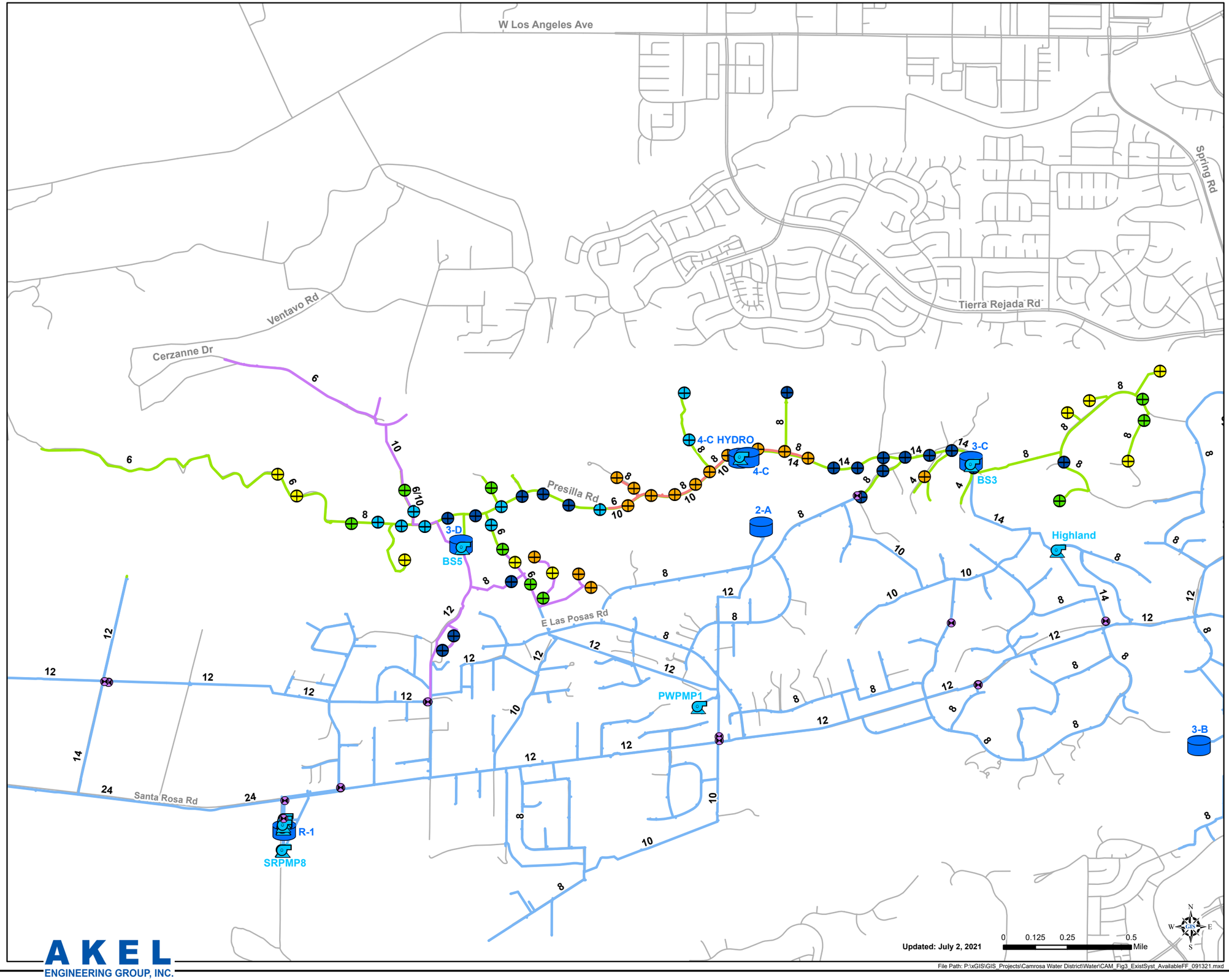
- 3D
- 4C
- Hydropneumatic
- Other
- Roads

**PRELIMINARY**

**Figure 2**
**Existing System**
**Minimum Pressures**
Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.




# Legend

## Available Fire Flow

- 553 - 1,000 gpm
- 1,000 - 1,500 gpm
- 1,500 - 2,000 gpm
- 2,000 - 2,500 gpm
- 2,500 - 5,587 gpm

## Existing System

- Tanks
- Booster Station
- Valves

## Pipes by Pressure Zone

- 3D
- 4C
- Hydropneumatic
- Other
- Roads

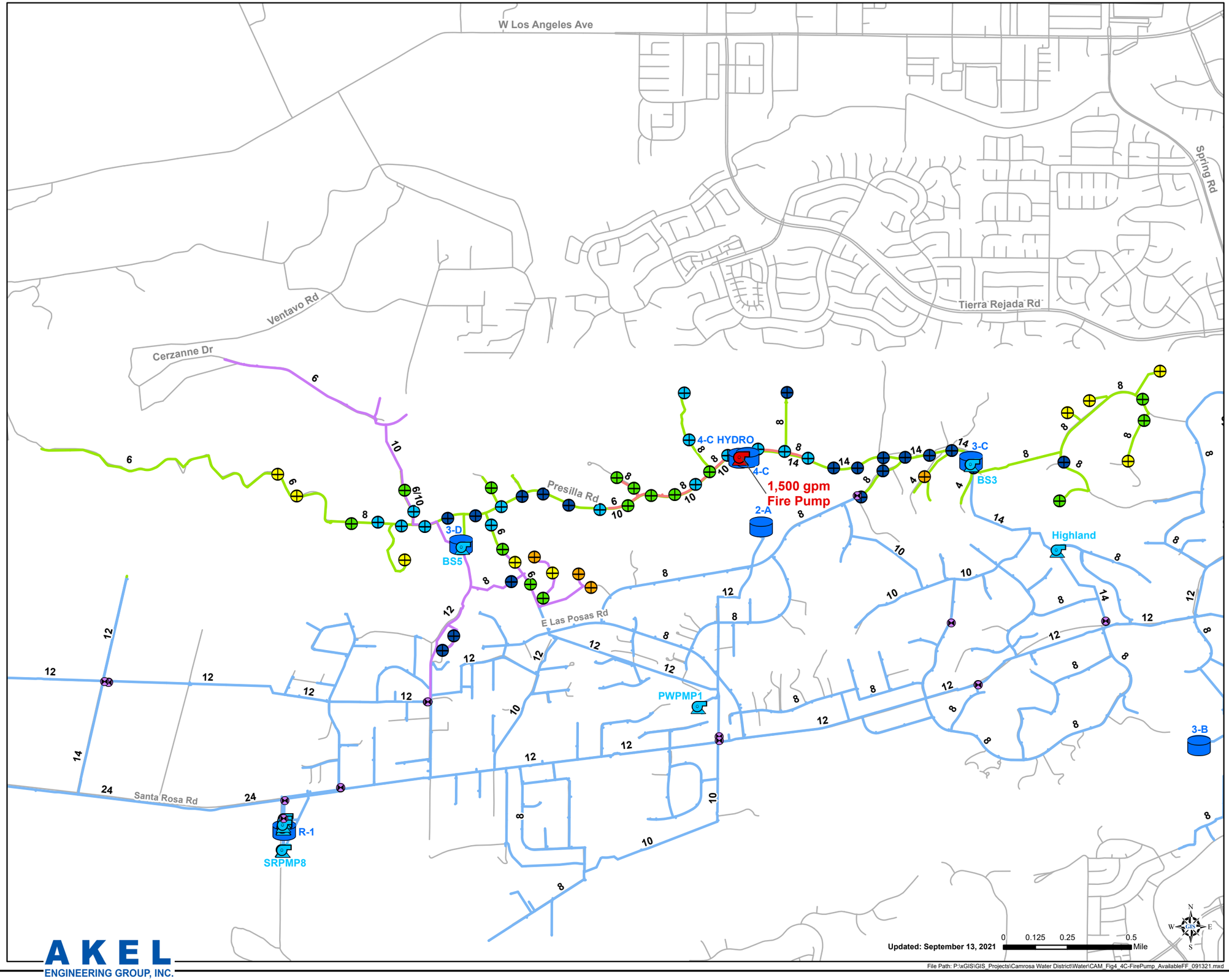
**Note:**
1. Pump Station 3 and 5 inactive
2. Tank 4C at 60% full

**PRELIMINARY**

**Figure 3**
**Existing System**
**Available Fire Flow**
Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.




## Legend

- Potential Fire Pump

**Available Fire Flow**

- 739 - 1,000 gpm
- 1,000 - 1,500 gpm
- 1,500 - 2,000 gpm
- 2,000 - 2,500 gpm
- 2,500 - 5,587 gpm

**Existing System**

- Tanks
- Booster Station
- Valves

Pipes by Pressure Zone

- 3D
- 4C
- Hydropneumatic
- Other
- Roads

**Note:**
1. Pump Station 3 and 5 inactive
2. Tank 4C at 60% full

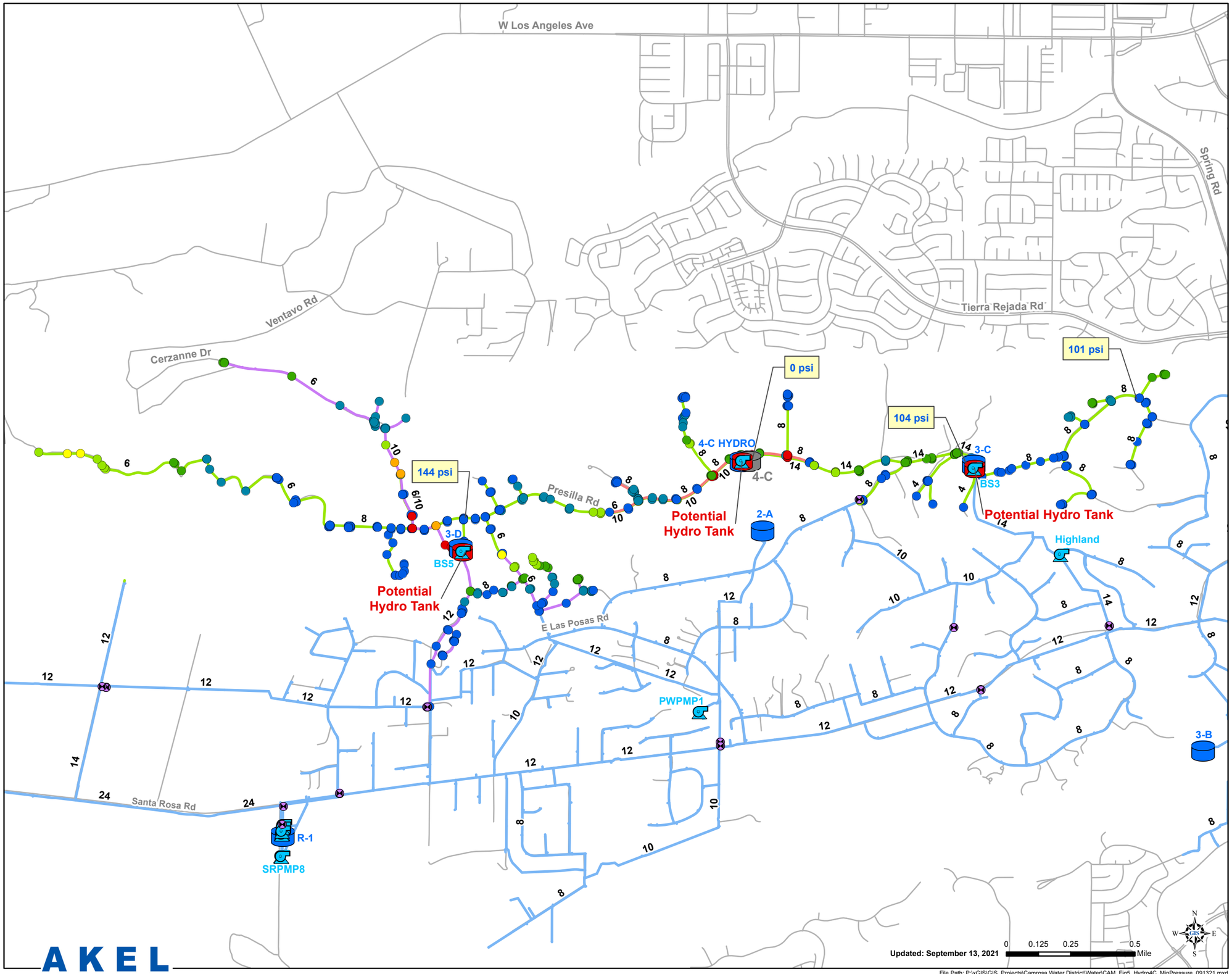
**PRELIMINARY**

# Figure 4
# Available Fire Flow with 4C Fire Flow Pump

Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.




## Legend

- Potential Hydro Tank
- Abandoned Tank

**Minimum Pressures**

- 5 - 25 psi
- 25 - 30 psi
- 30 - 40 psi
- 40 - 60 psi
- 60 - 80 psi
- 80 - 100 psi
- 100 - 190 psi

**Existing System**

- Tanks
- Booster Station
- Valves

Pipes by Pressure Zone

- 3D
- 4C
- Hydropneumatic
- Other
- Roads

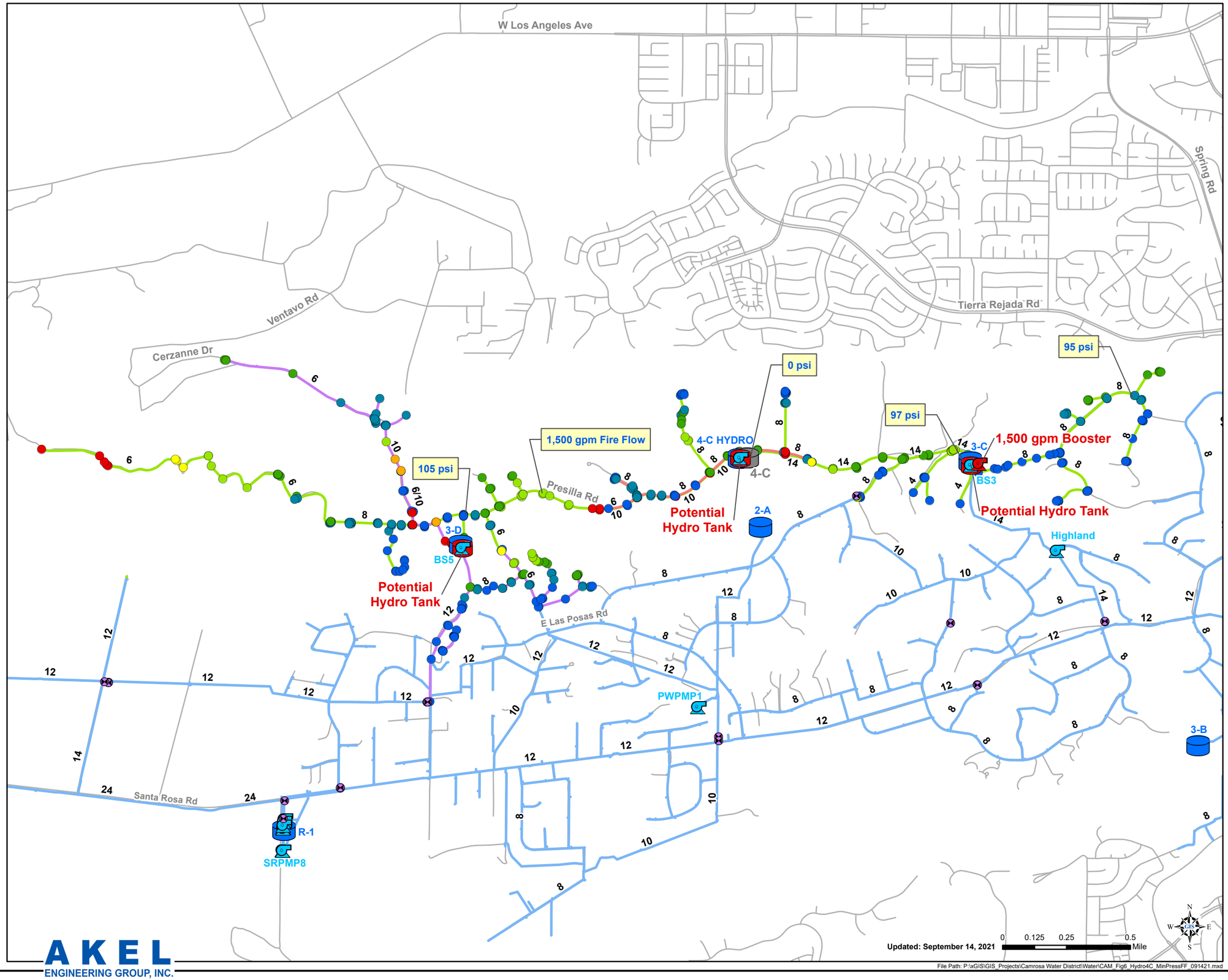
**PRELIMINARY**

# Figure 5
# Hydropneumatic 4C Minimum Pressures

Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.




## Legend

- Potential Hydro Tanks
- Potential Booster Station
- Abandoned Tank

**Minimum Pressures**

- 5 - 25 psi
- 25 - 30 psi
- 30 - 40 psi
- 40 - 60 psi
- 60 - 80 psi
- 80 - 100 psi
- 100 - 190 psi

**Existing System**

- Tanks
- Booster Station
- Valves

Pipes by Pressure Zone

- 3D
- 4C
- Hydropneumatic
- Other
- Roads

**PRELIMINARY**

# Figure 6
# Hydropneumatic 4C Minimum Pressures with 1,500 gpm Fire Flow

Pressure Zone 4C Facility Analysis
Hydraulic Modeling Analysis

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

AKEL ENGINEERING GROUP, INC.

## Table 1 Planning and Design Criteria

Pressure Zone 4C Facility Analysis

Camrosa Water District

PRELIMINARY

| Design Parameter | Criteria | | |
|---|---|---|---|
| **Supply** | Supply to meet Maximum Day Demands | | |
| **Storage** | Total Required Storage = Operational + Emergency + Fire | | |
| | **Operational Storage** | | |
| | | Field Operating Range | Operational storage based on pump station and meter station tank level controls as simulated in the hydraulic model |
| | **Emergency Storage** | | |
| | | Emergency Storage | MDD for 24 hours |
| | **PROPOSED** (additional requirement) | Very High Fire Hazard Severity Zone (VHFHSZ) | MDD for 12 hours for pressure zones deemed high risk. High risk zones = boosted zones with little supply redundancy/reliability |
| | **Fire Flow Storage** | | |
| | Low/ Medium Density Residential | | 0.18 MG |
| | High Density Residential | | 0.24 MG |
| | Commercial | | 0.30 MG |
| | Industrial | | 0.54 MG |
| | Public Facilities | | 0.54 MG |
| **Distribution Mains** | Maximum Pipeline Velocity | | |
| | ADD, MDD and PHD | | 5 ft/s |
| **Pump Stations** | Meet Maximum Day Demand plus Required Fire Storage Replacement Pumping over 72 hours with largest unit out of service<br>Hydropnumatic systems must meet peak hour demands and include fire flow | | |
| **Service Pressures** | Maximum Pressure | | 150 psi |
| | Minimum Pressure | | 45 psi |
| | Any Service with a pressure greater than 80 psi at the meter should have a pressure regulator | | |
| **Demand Peaking Factors** | Average Day Demand | | |
| | Maximum Day Demand | | 1.7 x Average Day Demand |
| | Peak Hour Demand | | 2.8 x Average Day Demand |
| **Fire Flows** | Low Density Residential | | 1,500 gpm for 2 hours |
| | High Density Residential | | 2,000 gpm for 2 hours |
| | Commercial | | 2,500 gpm for 2 hours |
| | Industrial | | 3,000 gpm for 3 hours |
| | Public Facilities | | 3,000 gpm for 3 hours |

## Table 2 Hydraulic Analysis Alterntives

Pressure Zone 4C Facility Analysis

Camrosa Water District

PRELIMINARY

| Scenario | Description | Figure No. | Modeling Task | Results |
|---|---|---|---|---|
| **Existing System** | | | | |
| **1** | Existing System | Figure 2 | Minimum Pressures | |
| **2** | Existing System + FF | Figure 3 | Available fire flow with Tanks at 60 %, and PS3 and PS5 pump stations inactive | Zone 4C Hydro has less than 1,000 gpm available fire flow |
| **Alternative 1 and 1A - New 4C Tank and 4C Hydro Pump Station** | | | | |
| **3** | Existing System + Fire Flow with 4C Fire Flow Pump | Figure 4 | Available fire flow with Tanks at 60 %, new 4C Hydro Fire Pump, and PS3 and PS5 pump stations inactive | Fire Flow in 4C Hydro is increase due to new fire pump |
| **Alternative 2 - New 4C Hydropneumatic Zone (remove Tank 4C)** | | | | |
| **4** | New Hydropneumatic 4C Minimum Pressures (remove Tank 4C) | Figure 5 | Minimum Pressures | 1. 3 new hydro tanks potentially required (PS3 discharge, PS5 discharge, and 4C Hydro Suction).<br>2. Pressure near the 4C Hydro pump station drop to 0 psi<br>3. Zone pressure would need approximately 15-20 psi increase |
| **5** | New Hydropneumatic 4C, 1,500 gpm Fire Flow Pressures (remove Tank 4C) | Figure 6 | Fire Flow Minimum Pressures | 1. 3 new hydro tanks potentially required (PS3 discharge, PS5 discharge, and 4C Hydro Suction).<br>2. Pressure near the 4C Hydro pump station drop to 0 psi<br>3. Zone pressure would need approximately 15-20 psi increase |

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## Table 3 Storage Capacity Sensitivity Analysis

Pressure Zone 4C Facility Analysis
Camrosa Water District

PRELIMINARY

| Pressure Zone | Average Day Demands (gpm) | Maximum Day Demands (gpm) | Existing Storage Volume (MG) | Tank IDs | Storage Requirements | | | | | Storage Analysis | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Fire Flow | | Operational | Emergency | | Total (MG) | Surplus /Deficit (MG) |
| | | | | | Land Use Requirement | Volume (MG) | Tank Control Range (MG) | MDD for 24 hrs (MG) | VHFHSZ (MDD for 12 hours for high risk zones) (MG) | | |
| **Alternative 1: New Tank 4C** | | | | | | | | | | | |
| **3** | 718 | 1,220 | 4.52 | Tank 3A Tank 3B Tank 3C | Public Facility: 3,000 gpm x 3 hr | 0.54 | 0.64 | 1.76 | - | 2.94 | **1.59** |
| **3D** | 50 | 86 | 1.28 | Tank 3D | Residential: 1,500 gpm x 2 hr | 0.18 | 0.21 | 0.12 | - | 0.51 | **0.76** |
| **4C + Hydro** | 189 | 321 | 1.01 | Tank 4C | Residential: 1,500 gpm x 2 hr | 0.18 | 0.33 | 0.46 | - | **0.97** | **0.04** |
| **Alternative 1A: New Tank 4C (VHFHSZ Requirement)** | | | | | | | | | | | |
| **3** | 718 | 1,220 | 4.52 | Tank 3A Tank 3B Tank 3C | Public Facility: 3,000 gpm x 3 hr | 0.54 | 0.64 | 1.76 | - | 2.94 | **1.59** |
| **3D** | 50 | 86 | 1.28 | Tank 3D | Residential: 1,500 gpm x 2 hr | 0.18 | 0.21 | 0.12 | 0.06 | 0.58 | **0.70** |
| **4C + Hydro** | 189 | 321 | 1.01 | Tank 4C | Residential: 1,500 gpm x 2 hr | 0.18 | 0.33 | 0.46 | **0.23** | **1.20** | **-0.19** |
| **Alternative 2: New 4C Hydro Zone (Remove Tank 4C)** | | | | | | | | | | | |
| 3 | 718 | 1,220 | 4.52 | Tank 3A Tank 3B Tank 3C | Public Facility: 3,000 gpm x 3 hr | 0.54 | 0.64 | 1.76 | - | | |
| 4C + 4C Hydro | 189 | 321 | - | | | | | 0.46 | - | | |
| **Total (3 + 4C + 4C Hydro)** | 907 | 1,541 | 4.52 | | | | | 2.22 | - | 3.40 | **1.12** |
| **3D** | 50 | 86 | 1.28 | Tank 3D | Residential: 1,500 gpm x 2 hr | 0.18 | 0.21 | 0.12 | - | 0.51 | **0.76** |

## Table 4 Booster Station Capacity Analysis

Pressure Zone 4C Facility Analysis

Camrosa Water District

PRELIMINARY

| Pressure Zone | Booster Station | Average Day Demand (gpm) | Maximum Day Demand (gpm) | Peak Hour Demand (gpm) | Supply Dependent Demand (gpm) | Total Demand Requirement (gpm) | Fire Flow Pumping Requirement (gpm) | Total Station Requirement (gpm) | Pump Station Total Capacity (gpm) | Pump Station Firm Capacity (gpm) | Surplus/ Deficiency +/- (gpm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Alternative 1 and 1A: New Tank 4C** | | | | | | | | | | | |
| **4C** | Pump Station 3<br>Pump Station 5 | 151 | 257 | 424 | 64 | 321 | 41.7<br>(Fire flow over 3 days) | 363 | 1,932 | 600 | **237** |
| **4C Hydro (Domestic)** | 4C Hydro | 38 | 64 | 105 | 0 | 105 | 0 | 105 | 714 | 348 | **243** |
| **4C Hydro (Fire)** | 4C Hydro | 0 | 0 | 0 | 0 | 0 | 1,500 | 1,500 | 0 | 0 | **-1,500** |
| **Alternative 2: New 4C Hydro Zone (Remove Tank 4C)** | | | | | | | | | | | |
| **New BS 3 Domestic (Hydro)[1]** | Pump Station 3<br>Pump Station 5 | 151 | 257 | 424 | 105 | 772 | | **772** | 1,932 | 600 | **-172** |
| **New BS 3 (Fire, Hydro)** | | - | - | - | - | - | 1,500 | **1,500** | 0 | 0 | **-1,500** |
| **4C Hydro (Domestic)** | 4C Hydro | 38 | 64 | 105 | 0 | 105 | 0 | **105** | 714 | 348 | **243** |
| **4C Hydro (Fire)** | 4C Hydro | 0 | 0 | 0 | 0 | 0 | 1,500 | **1,500** | 0 | 0 | **-1,500** |

## Table 5 Recommended Improvements

Pressure Zone 4C Facility Analysis

Camrosa Water District

PRELIMINARY

| No. | Facility | Location | Size/Capacity |
|---|---|---|---|
| **Alternative 1 - New 1.0 MG Tank 4C - Recommended Alternative** | | | |
| 1-1 | Tank | Tank 4C | 1.0 MG |
| 1-2 | Fire Pump | 4C Hydro PS | 1,500 gpm |
| 1-3 | Emergency Generator | 4C Hydro PS | |
| **Alternative 1A - New 1.2 MG Tank 4C** | | | |
| 1-1A | Tank | Tank 4C | 1.2 MG |
| 1-2A | Fire Pump | 4C Hydro PS | 1,500 gpm |
| 1-3A | Emergency Generator | 4C Hydro PS | |
| **Alternative 2 - New Hydropneumatic 4C Zone (Remove Tank 4C)** | | | |
| 2-1 | Surge Tank | PS 3 Discharge | - |
| 2-2 | Surge Tank | PS 5 Discharge | - |
| 2-3 | Surge Tank | 4C Hydro PS Suction | - |
| 2-4 | Domestic Pump | Pump Station 3 | 800 gpm |
| 2-5 | Fire Pump | Pump Station 3 | 1,500 gpm |
| 2-6 | Fire Pump | 4C Hydro PS | 1,500 gpm |
| 2-7 | Emergency Generator | 4C Hydro PS | |

9/13/2021

Oakridge Geoscience, Inc.

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August 16, 2018
Project No. 014.003

Cannon
11900 West Olympic Blvd., Suite 530
Los Angeles, California 90064

Attention: Mr. Eric Porkert, P.E.

Subject: Slope Stability Evaluation, Pressure Zone 4C Welded Steel Reservoir Project, Camarillo, California

Reference: Oakridge Geoscience, Inc. (2021), *Geotechnical Report, Camrosa Water District, Pressure Zone 4C Welded Steel Reservoir and Hydropneumatic Pump Station Project, Camarillo, California*, prepared for Cannon, dated May 26, OGI Project No. 014.003

Dear Mr. Porkert:

This letter summarizes the findings of our slope stability evaluation for Camrosa Water District's (CWD's) Reservoir 4C project in Camarillo, California. Cannon and CWD requested the slope stability evaluation as summarized in our proposal letter dated July 7, 2021. The slope stability evaluations were performed in general accordance with the slope stability guidelines published by the California Geologic Survey (CGS), Special Publication 117A (CGS, 2008) with supporting data presented in the American Society of Civil Engineers (ASCE, 2002).

**SITE CONDITIONS**

As summarized in the referenced geotechnical report (OGI, 2021), the project site is located on a westerly-trending anticlinal ridgeline in the Las Posas Hills separating Little Simi Valley to the north and Santa Rosa Valley to the south. The existing 4C Reservoir site is bordered by Presilla Road to the north, an about 400-foot-high, steeply descending slope with evidence of erosion and slope instability to the south, and residences to the east and west (Plate 1). The site is about 250 feet wide (east-west direction) by 150 feet wide (north-south direction) and contains an existing 75-foot diameter one-million-gallon (1MG) steel reservoir constructed in about 1967 and existing pump machinery, generator, electrical services, and a communications tower. As indicated on the Google Earth imagery on Plate 2, the reservoir pad appears to have been graded and a circular road surface constructed for a second reservoir on the western side of the existing reservoir.

Regional geologic mapping by Dibblee (1992) and the Weber (1973) indicates the 4C Reservoir site is underlain by Pleistocene-age bedrock of the Saugus Formation. Dibblee describes the Saugus Formation as crudely bedded sandy deposits with gravel and cobbles interbedded with lesser amounts of sand and clay. Dibblee's mapping also indicates the bedding strikes northeast-southwest (generally parallel to the ridgeline in the vicinity of the reservoir site) and dips to the northwest at about 10 to 15 degrees (Plate 3). The mapped bedding orientations

are favorable with respect to the existing steep descending slope on the southern side of the project site.

The Simi-Santa Rosa fault, a source of potential strong ground shaking, is located about 700 feet south of the site as indicated on the regional geologic map (Plate 3). Review of published mapping by the CGS indicates the site, while near the Simi-Santa Rosa fault system, is not located in an area of required evaluation for faulting.

The CGS, Dibblee, and Weber do not show any mapped landslides in the immediate vicinity of the existing reservoir site, however, the CGS does identify the steep descending slope bordering the southern side of the project site as an area of potential earthquake-induced landsliding. The descending slope is about 400 feet high overall and inclined at an overall inclination of about 1.25 horizontal to 1 vertical (1.25h:1v). Locally, steeper portions of the slope are inclined at about 1h:1v. Evidence of erosion and slope instability were observed on the existing descending slope during our site visits and CWD staff have indicated slope repair was performed near the existing communications equipment area on the southern edge of the 4C Reservoir pad at some point in the past.

**GEOTECHNICAL DATA AND INTERPRETED GEOLOGIC CROSS SECTION**

As part of the referenced geotechnical study (OGI, 2021), S/G Drilling advanced a hollow-stem auger drill hole near the location of the proposed 4C Reservoir indicated on Plate 2 to a depth of about 35 feet on April 28, 2021, using a truck-mounted CME-85 hollow-stem auger drill rig equipped with 8-inch diameter augers. The drill hole was sampled using a driven modified California split spoon sampler and a standard penetration test (SPT) sampler at 2.5-foot intervals to a depth of 10 feet and at 5-foot intervals below a depth of 10 feet. The sampler was driven by a 140-pound CME automatic trip hammer free-falling 30 inches. The drill hole log is presented in Appendix A of the referenced geotechnical report.

Site specific topography for the project site was provided by CWD (Plate 4). As depicted on Plate 4, the proposed reservoir site is at an elevation (El.) of about El. +1,050 feet and is setback about 40 feet from the top of the southerly descending slope. The descending slope to the south is inclined at about 1.25h:1v for a height of about 300 feet (approximately El. +750 feet). Below about El. +750 feet, the slope continues to descend toward the south about another 100 feet in elevation (approximately El. +650 feet) along a southeast trending canyon but at a lesser slope.

Cross Section A-A' (Plate 4) depicts our interpretation of the geologic conditions based on our review of published geologic mapping, site exploration, and the topography provided by CWD. The cross section was prepared in a general north-south direction through the proposed reservoir site approximately perpendicular to the topographic contours. The primary geologic units underlying the proposed 4C Reservoir site include the Saugus Formation (QTs) and the Las Posas Sand (QTls) of Pleistocene age. As summarized in the geotechnical report (OGI, 2021), the Saugus Formation encountered in drill hole DH-1 consists of dense to very dense sand with variable amounts of gravel. Based on past geotechnical studies in the project area, the underlying Las Posas Sand has similar geotechnical properties to the Saugus Formation. As depicted on the cross section, the Saugus Formation and Las Posas Sand are underlain by the Sespe Formation (Tsp) and Conejo Volcanics (Tcv); however, the Sespe Formation and Conejo Volcanics do not impact the slope stability evaluation.

Based on regional geologic mapping, the Saugus Formation strikes generally east-west and dips about 10 to 15 degrees to the north into the southerly descending slope. The resulting apparent dip (AD on Plate 4) is about 12 degrees to the north as depicted on Cross Section A-A'. Based on interpreted site conditions, potential circular failure surfaces within the south facing slope below the reservoir site generally cross the bedding planes. We note that soil strengths are typically higher for across bedding conditions (such as for the steep slope south of the 4C Reservoir site) than for along bedding conditions which exist on the north-facing slopes north of Precilla Road based on published mapping. The shear strength along the bedding planes in fine grained silt and clay layers within the Saugus Formation is weak and susceptible to landsliding. Large, regional landslides are present on the northward descending slope (north of Presilla Road) descending towards Moorpark. Those large landslides likely moved along laterally unsupported (daylighted) weak clay bedding planes in the Saugus Formation.

## SLOPE STABILITY EVALUATION

### General

As described in CGS SP117A (CGS, 2008), there are three primary components to the slope stability evaluations: 1) topography, 2) geologic features such as bedding planes, and 3) shear strength of the earth materials. For the southerly descending slope south of the 4C Reservoir site, the geologic bedding planes are generally favorable with regard to the slope stability evaluation; the bedding dips into the slope and the resulting failure surfaces generally cross the bedding planes. The primary inputs are the topography and earth material properties. The topographic profile and interpreted geologic conditions are presented on Plate 4.

### Shear Strength

Laboratory shear strength testing was performed on samples of the Saugus Formation obtained from drill hole DH-1 advanced on the 4C Reservoir pad. Additional published shear strength data were selected from the CGS Seismic Hazard Report for the Moorpark Quadrangle (CGS, 2002). The shear strength parameters utilized in our slope stability evaluations are summarized in the following table.

**Table 1. Summary of Shear Strengths**

| Material Type | Ultimate Strength (static evaluations) | | Peak Strength (pseudostatic evaluations) | |
|---|---|---|---|---|
| | Cohesion (psf) | Phi (degrees) | Cohesion (psf) | Phi (degrees) |
| Saugus Formation (QTs) | 600[1] | 35.8[1] | 1,350[1] | 42[1] |
| Las Posas Sand (QTlp) | 400[2] | 31[2] | 1,000[3] | 36[3] |
| Sespe Formation (Tsp) | 400[2] | 30[2] | 1,000[3] | 36[3] |

[1] Developed based on laboratory shear strength testing from OGI (2021).
[2] Based on published data from CGS (2002), Moorpark Quadrangle Seismic Hazard Report.
[3] Estimated from data published by CGS (2002), Moorpark Quadrangle Seismic Hazard Report

## Slope Stability Evaluations

**General Guidelines.** For reference, slopes associated with project development in Ventura County are typically required to have a minimum static factor of safety (FS) of 1.5. Pseudostatic (seismic) evaluations have a minimum FS of 1.0 utilizing the procedure in CGS (2008). If the pseudostatic evaluations indicate a FS of less than 1.0, a Newmark sliding block evaluation is typically performed. Evaluation criteria developed by ASCE/SCEC (2002) based on information from CGS SP117A (2008) suggests the sliding block evaluation should limit estimated median displacements of 5 cm (2 inches) or less for potential slip surfaces that intersect "stiff improvements" such as foundations. Potential slip surfaces occurring in ductile soil that do not intersect engineered improvements (landscape areas and patios) should maintain estimated median displacements of 15 cm (6 inches) or less.

**Slope Stability Evaluation.** Overall slope stability evaluations based on potential circular failure surfaces were performed for the existing 1.25h:1v slope and interpreted geologic conditions depicted on Cross Section A-A'. The slope stability evaluations were performed in general accordance with the procedures described in CGS SP117A with clarifications per ASCE/SCEC (2002). Per CGS SP117A, ultimate shear strengths are used for static evaluations and peak shear strengths are used for pseudostatic (seismic) evaluations. As described above and shown on the slope stability output plates provided in Appendix A, potential circular failure surfaces passing through the toe of the descending slope generally cut across the bedding planes within the Saugus Formation.

Several static and pseudostatic slope stability evaluations were performed. The results are summarized in the following table and the output plots are provided in Appendix A.

**Table 2. Summary of Slope Stability Evaluations**

| Run No. / Condition | Factor of Safety (FS) | Comment |
|---|---|---|
| 1) Static – Baseline | 1.17 | Lowest FS near edge of slope |
| 2) Static – Potential failure surface near reservoir | 1.19 | Reservoir set back about 40 feet from edge of slope |
| 3) Static – Potential failure surface with 1.5 FS | 1.50 | 1.5 FS about 230 feet north of slope face (about 30 feet north of Presilla Road. |
| 4) Pseudostatic – 5 cm threshold | 0.98 | 5 cm movement threshold about 10 feet south of reservoir for most critical surface |
| 5) Pseudostatic – 5 cm threshold at edge of reservoir | 0.98 | 5 cm movement threshold at south side reservoir |
| 6) Pseudostatic – 15 cm threshold | 1.10 | 15 cm movement threshold about 10 feet south of reservoir for most critical surface |
| 7) Pseudostatic – 15 cm threshold at edge of reservoir | 1.11 | 15 cm movement threshold at south side reservoir |
| 8) Static – with 400-foot-deep piles, potential failure surface near reservoir | 1.50 | Structural solution to provide a 1.5 SF for static evaluations. Requires 400-foot-deep piles. Not considered |
| 9) Pseudostatic with piles – 5 cm threshold | 1.00 | 5 cm movement threshold about 10 feet south of reservoir for most critical surface |

As summarized in the table above, the static slope stability evaluations have an estimated FS of 1.17 near the slope edge (Run #1) and an estimated FS of 1.19 near the edge of reservoir (Run #2) which is setback about 40 feet from the edge of the slope. The minimum static factor of safety per the Ventura County Grading Ordinance is FS 1.5. Based on the slope stability evaluations, the static factors of safety are less than the required minimum value of FS 1.5 at the edge of the reservoir. To achieve a static FS of 1.5, the reservoir would need to be setback from the southern slope edge by about 230 feet (Run #3) which is about 30 feet north of Presilla Road.

The pseudostatic evaluations consider two possible movement scenarios: 5 cm (2 inches) recommended by ASCE/SCEC (2002) for hardscape (i.e. foundations) and 15 cm (6 inches) for landscape areas. The pseudostatic evaluations at the project site incorporate a peak ground acceleration of 0.927g and a $K_h$ coefficient of 0.236g. The pseudostatic evaluations indicate the most critical failure surface (MCS) has a FS of 0.98 about 10 feet south of the reservoir edge (Run#4) and a FS of 0.98 at the reservoir edge is (Run #5). The pseudostatic evaluations using the 15 cm movement threshold has a FS of 1.10 for the MCS located about 10 feet south of the reservoir (Run #6) and a FS of 1.11 for the potential failure surface at the southern reservoir edge (Run #7). The pseudostatic evaluations indicate the site has a FS of 0.98 for the 5 cm movement threshold which is slightly below the requirement of FS 1.0 and a FS of 1.11 for the 15 cm movement threshold which is above the required FS of 1.0.

One possible mitigation to improve the static FS to 1.5 involves drilled piers which would provide increased shear strength to the earth materials below the reservoir. As described in more detail in the following section, the pile depth is typically based on the depth of the potential FS 1.5 failure surface below the tank which is estimated to be approximately 180 feet based on our evaluations. Additionally, preliminary evaluations indicate the piles would need to extend about 230 feet below the MCS resulting in a pile length of about 410 feet. As shown on Run #8 and Run #9, the approximately 410 foot-long-piles would increase the static FS to 1.5 and pseudostatic FS for the 5 cm movement threshold to above FS 1.0. However, the cost of piles as a mitigation to increase the safety factor is likely not feasible.

**POTENTIAL SLOPE MITIGATIONS**

Slope stability hazards such as landslides or unstable slopes are typically mitigated through one of three primary methods: 1) setback from the hazard, 2) grading solution, 3) structural solution such as pile foundations, or 4) implement an alternative project approach. We note there are a range of structural solutions that could potentially be used but this evaluation focuses on the primary solutions commonly utilized.

1) **Setback from the Hazard.** Based on the slope stability evaluations, it appears the new 4C reservoir would need to be setback from the southern slope face by about 230 feet to achieve a static FS of 1.5. That would require the reservoir to be located offsite about 30 feet north of Presilla Road (and acquisition of additional property). In addition, as noted in the geologic site conditions described above, there are large regional landslides mapped north of Presilla Road that are potentially a greater geohazard than the steep descending southern slope at the existing project site. Setting back from the southern slope to meet slope stability FS does not appear to be a feasible option.

2) **Grading Solution.** Landslides and other geologic hazards are often mitigated through removal of material and replacement with compacted fill or soil buttress or by combinations of both removal and replacement with a buttress. The existing descending slope is at least 300 feet high. A typical grading solution would be to reduce the slope height (not possible for this application) or build a slope buttress against the base of the hill that would likely create a 2h:1v fill slope with benches per the Ventura County Grading Ordinance requirements. Building a buttress of that magnitude would involve moving millions of yards of earth materials and acquisition of a fairly large amount of property. From an environmental permitting and cost perspective, a grading solution does not appear to be a feasible option.

3) **Structural Solution - Piles.** A structural solution typically involves installation of pile foundations to support the structure or strengthen the soil materials in the slope to improve the soil strength and corresponding slope stability FS. To evaluate the pile depth, the procedure typically considers the depth of the static slope stability surface with a minimum FS of 1.5 (estimated to be approximately 180 feet deep near the edge of slope for the 4C site). For an initial pile evaluation estimate, a factor of 1.3 is added to the critical surface depth to estimate pile depth, which corresponds to a pile depth of about 410 feet. While it may be technically feasible to install steel-reinforced concrete piles to that depth, it likely would be extremely challenging and very costly (possibly millions of dollars). Therefore, a structural solution such as piles does not appear to be a feasible option.

4) **Structural Solution – Ground Improvement**. Another possible structural solution could involve strengthening the granular earth materials beneath the site using cement or chemical treatment. This option would need to be evaluated further to determine whether it is feasible to improve the earth materials to the required depths. Additionally, it likely would be challenging to develop a method to confirm that the treatment successfully improved the earth material strength to provide for the FS of 1.5. The cost would need to be evaluated further but likely could be millions of dollars or possibly much higher. Based on the site conditions, ground improvement does not appear to be a feasible option.

5) **Alternative Water Conveyance System**. A less invasive approach would be to construct a pump station at a lower elevation that could meet the needs of the water delivery system. The cost for this option would need to be evaluated by the project civil engineer but is likely more cost effective than the potential earthwork options described above.

## CONCLUSIONS AND OPINIONS

Based on our slope stability evaluation, the existing natural descending slope south of the 4C Reservoir site does not meet current slope stability requirements for static conditions (FS of 1.5) or pseudostatic conditions (FS of 1.0) for a movement threshold of 5 cm (foundations). As described above, our evaluations indicate the most critical surface is located near the slope edge and has a FS of 1.17 (Run #1). Additionally, there is a potential failure surface which extends about 40 feet back from the slope edge near the proposed reservoir location with a FS of 1.19. In our opinion, the FS 1.17 surface near the slope edge suggests that shallow slope failures are the likely failure mechanism of the primarily granular soil materials versus deeper seated slope failures. However, our evaluations suggest the potential also exists for deeper seated slope failures that could damage the reservoir and thus cannot be ruled out. As described previously, CWD staff have indicated pile supports were previously installed near the existing communication equipment on the southern slope edge to mitigate surficial slippage.

While this slope stability evaluation is focused on the conditions interpreted at the 4C reservoir site, the earth materials exposed along the ridgeline in the project vicinity are similar and likely have similar low safety factors. As part of our slope stability evaluation, we have suggested potential mitigation measures that could possibly be used to raise the factors of safety to the Ventura County Grading Ordinance requirements. However, as described above, there does not appear to be a cost-effective mitigation that can be implemented for the site. From a comparative standpoint, the further the reservoir is located away from the slope edge, the higher the slope stability FS, but it does not appear the reservoir can be moved far enough from the slope on the existing site to improve the FS to above the grading ordinance slope stability requirements (i.e., static FS of 1.5 or higher).

We understand that CWD is self-governing and does not have to meet the slope stability safety factors required by the Ventura County grading ordinance. On that basis, CWD can choose to construct the reservoir as planned and accept there is a higher potential for damage to the reservoir site and improvements due to slope instability. If CWD selects this option, we suggest they initiate an annual survey monitoring and visual inspection program for the reservoir site, improvements, and the descending slope. We recommend the survey monitoring plan include installing and monitoring a minimum of four permanent survey markers around the reservoir foundations (north, south, east, and west directions) and four permanent survey markers along the top of the slope. Following installation, an annual survey monitoring program (post rainy season) and visual observation of the site and slope conditions should be performed to evaluate if any movement is occurring. We also recommend the survey monitoring and site observations be performed following any geohazard events such as heavy rainfall or seismic events. The purpose of the monitoring program is to identify potential slope movement early enough to provide shallow slope mitigations that could help to reduce the potential for deeper slope failures.

## CLOSURE

We appreciate the opportunity to provide this slope stability evaluation for the Camrosa Water District's 4C Reservoir site. This slope stability letter-report has been prepared for the exclusive use of Cannon and CWD relative to evaluation of the 4C Reservoir site on Presilla Road in the Santa Rosa Valley area of Ventura County. The findings, conclusions, and recommendations presented herein were prepared in accordance with generally accepted

geotechnical engineering practices of the project region. No other warranty, express or implied, is made.

In performing our professional services, we have used generally accepted geologic and geotechnical engineering principles and have applied the degree of care and skill ordinarily exercised under similar circumstances by reputable geotechnical engineers currently practicing in this or similar localities. No other warranty, express or implied, is made as to the professional opinions or advice included in this report.

We appreciate the opportunity to provide geologic services to the Cannon. Please contact us if you have any questions on the information contained in this letter.

SINCERELY,
OAKRIDGE GEOSCIENCE, INC.

Joseph Barr, III, PE
Principal Engineer

Craig D. Prentice, CEG
Principal Engineering Geologist

Enclosures: Plates 1 through 4
Appendix A – Slope Stability Plots; Run #1 through Run #9

## REFERENCES

American Society of Civil Engineers (ASCE)/Southern California Earthquake Center (SCEC, 2002), *Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California.*

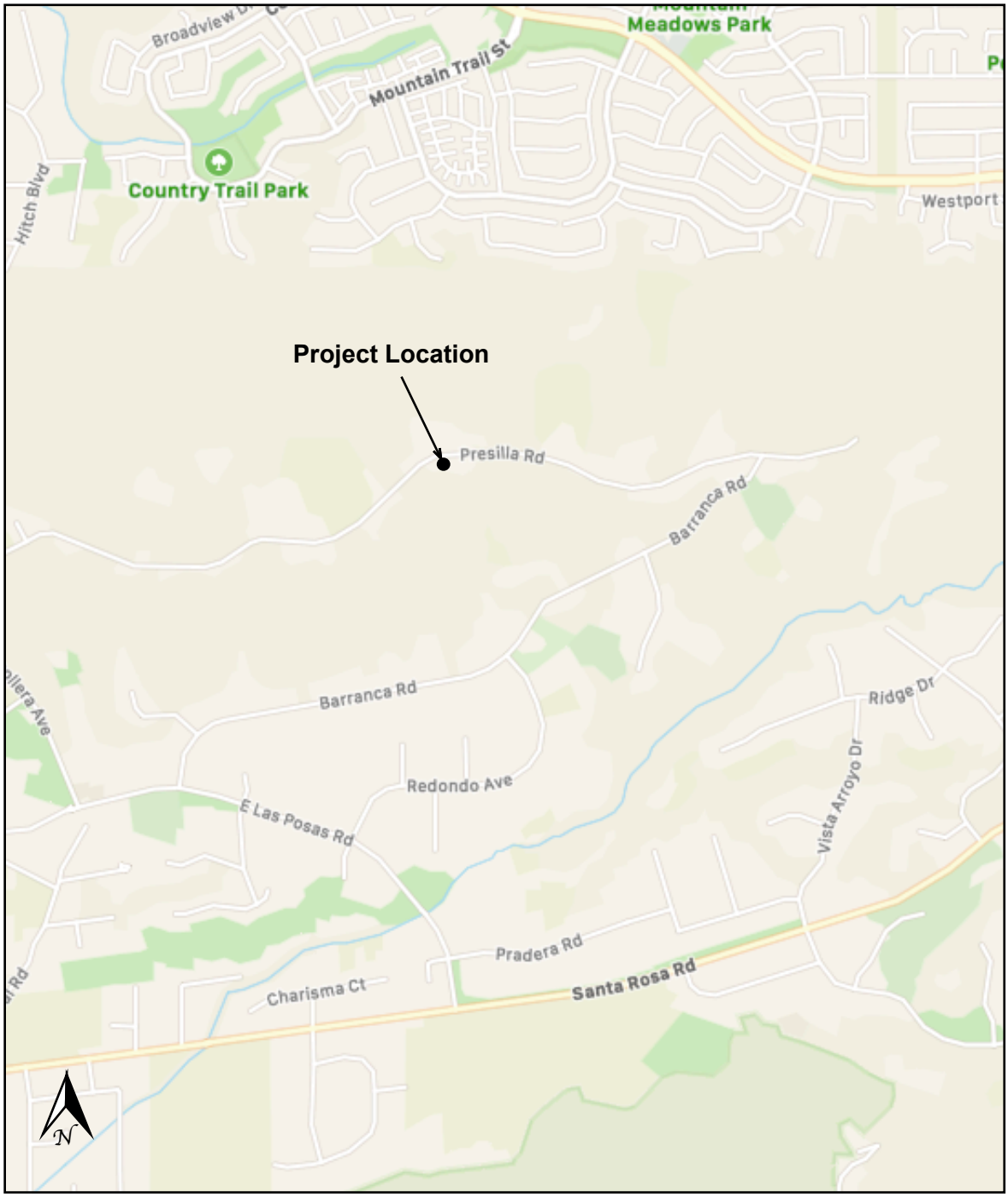
California Geologic Survey (CGS, formerly California Division of Mines and Geology, 2008), *Special Publication 117, Guidelines for Analyzing and Mitigating Landslide Hazards in California.*

____ (2002), *Seismic Hazard Report, Moorpark Quadrangle, Ventura County, California.*

Dibblee, T.W., Jr. (1992), *Geologic Map of the Moorpark Quadrangle, Ventura County, California*.

Weber, H.F., Jr., et al. (1973), in *Geology and Mineral Resources Study of Southern Ventura County, California*, California Division of Mines and Geology (CDMG) Preliminary Report No. 14, 102 pp.

# PLATES




Source: Maps; not to scale

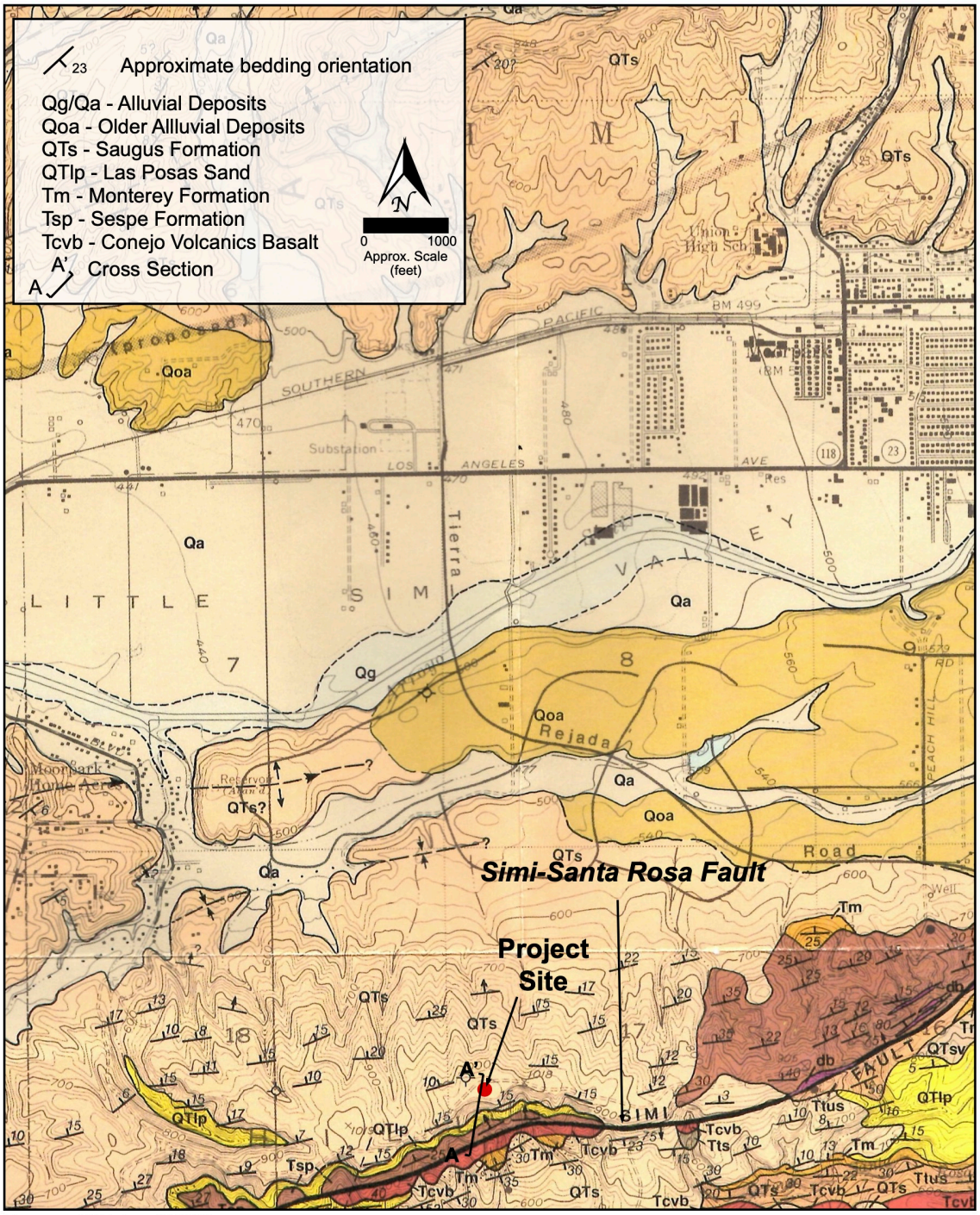
**SITE LOCATION MAP**
**Camrosa Water District 4C Steel Tank Project**
**Camarillo, California**

**PLATE 1**


**DH-1** Approximate location of Drill Hole advanced for this study

**EXPLORATION LOCATION MAP**
**Camrosa Water District 4C Steel Tank Project**
**Camarillo, California**

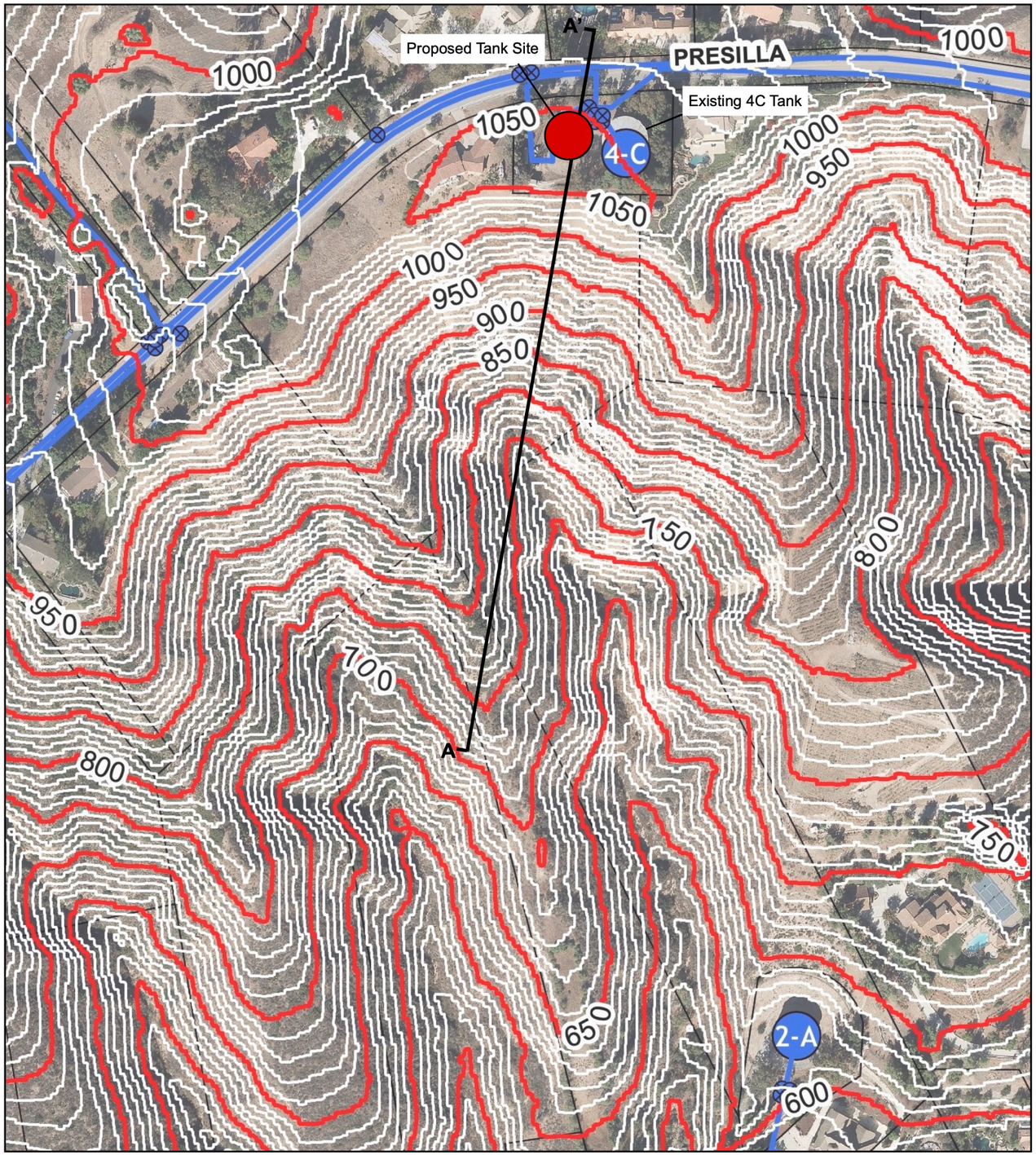
**PLATE 2**



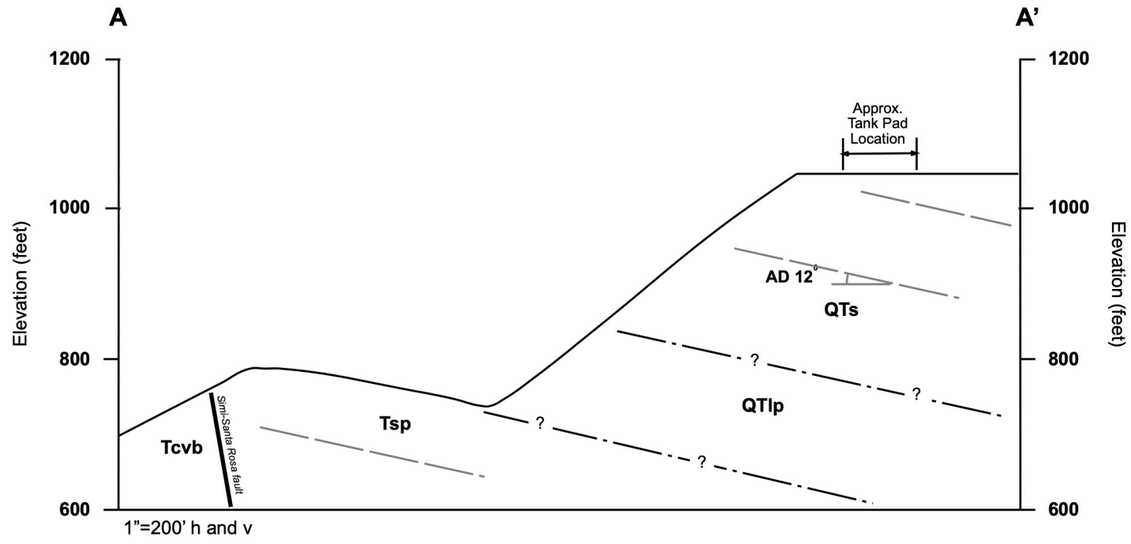

Source: Dibblee (1992)

**REGIONAL GEOLOGIC MAP**
**Camrosa Water District 4C Steel Tank Project**
**Camarillo, California**

**PLATE 3**




Source: Camrosa Water District



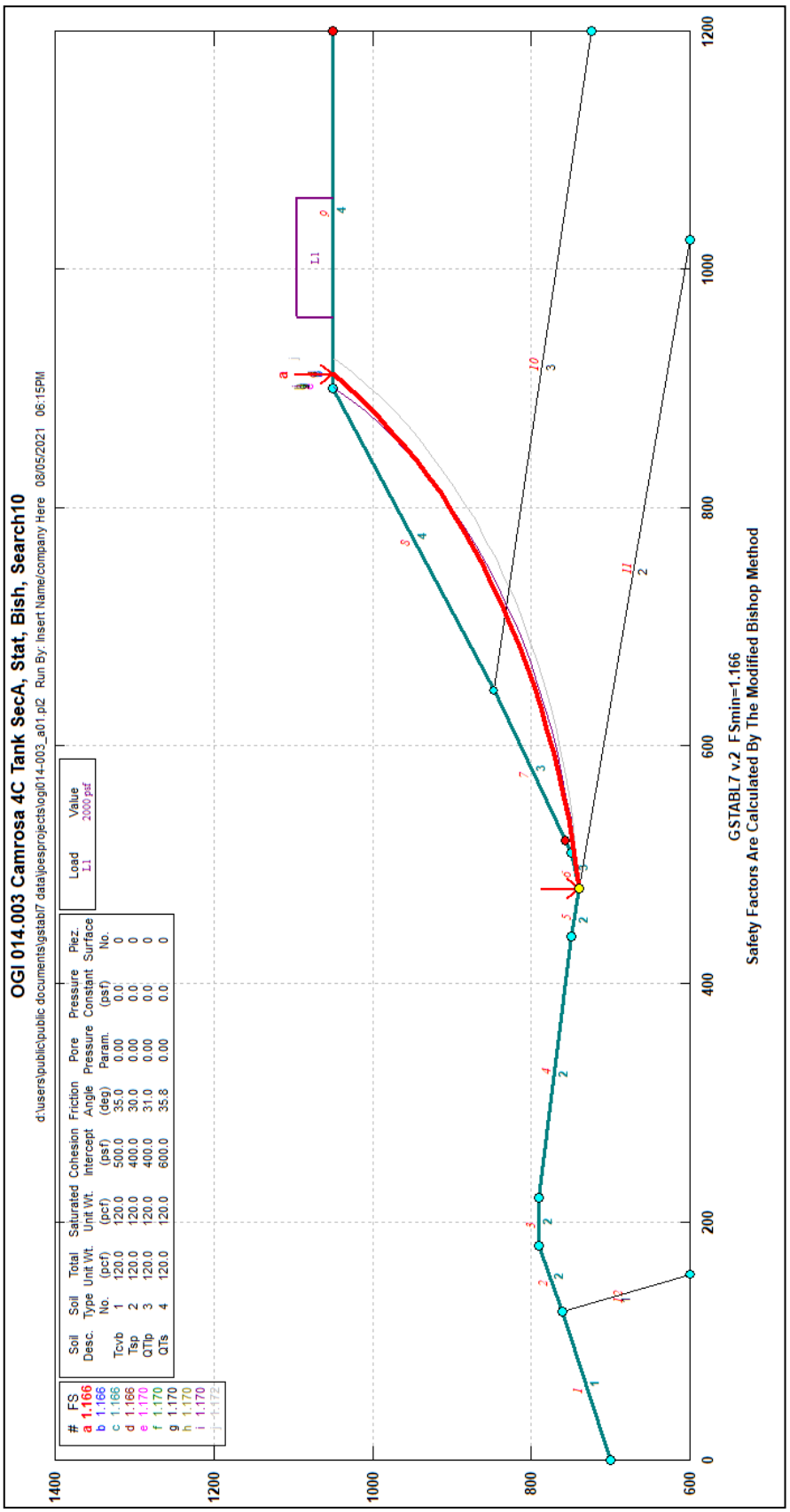

QTs - Saugus Formation
QTls - Las Posas Sand
Tsp - Sespe Formation
Tcvb - Conejo Volcanics

**CROSS SECTION A-A'**
**Camrosa Water District 4C Steel Tank Project**
**Camarillo, California**

**PLATE 4**

# APPENDIX A

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #1**

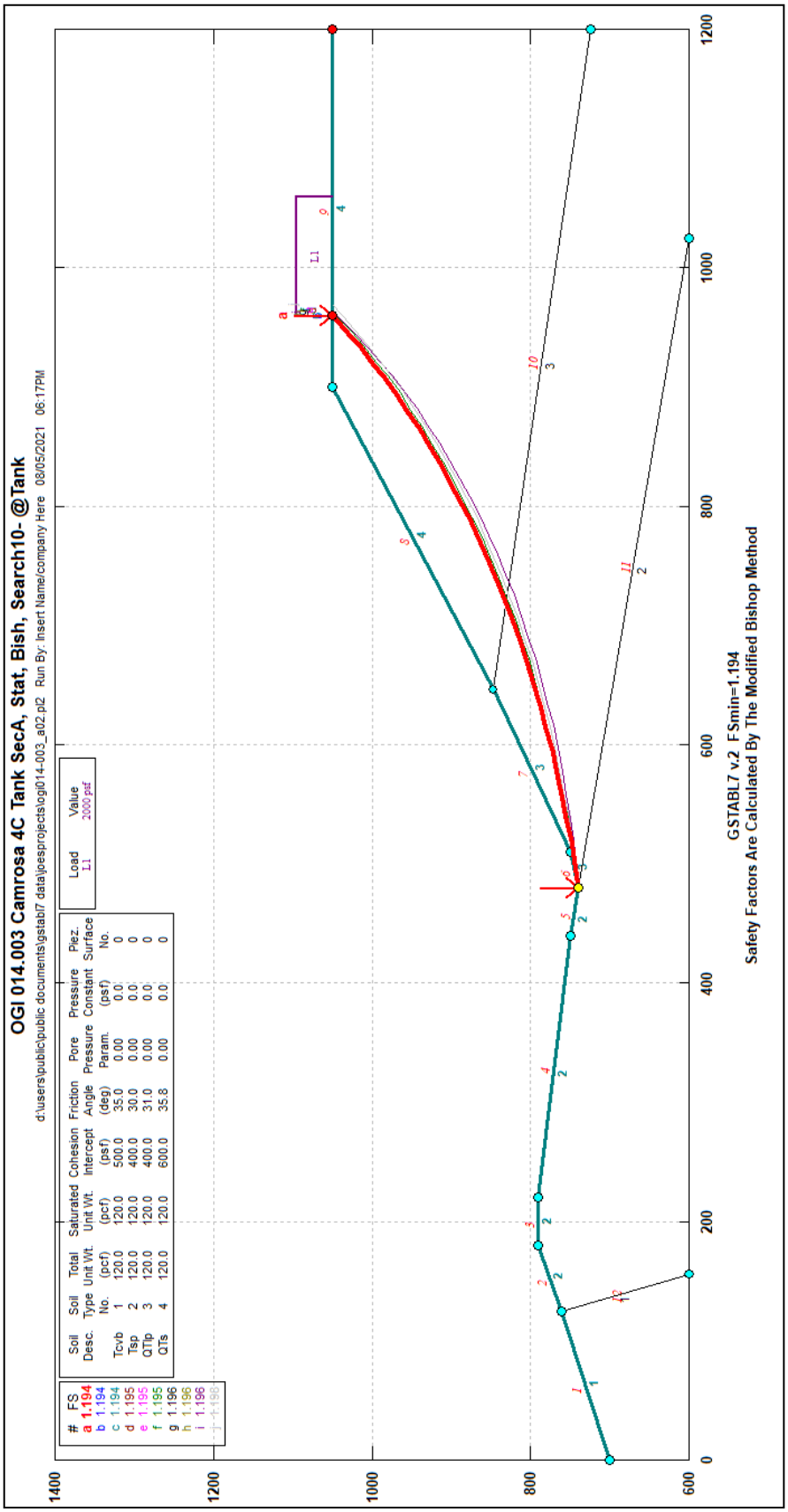
Analysis:

Entire Hillside,

Static Condition,

Material Strength from SHZR & Lab

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #2**

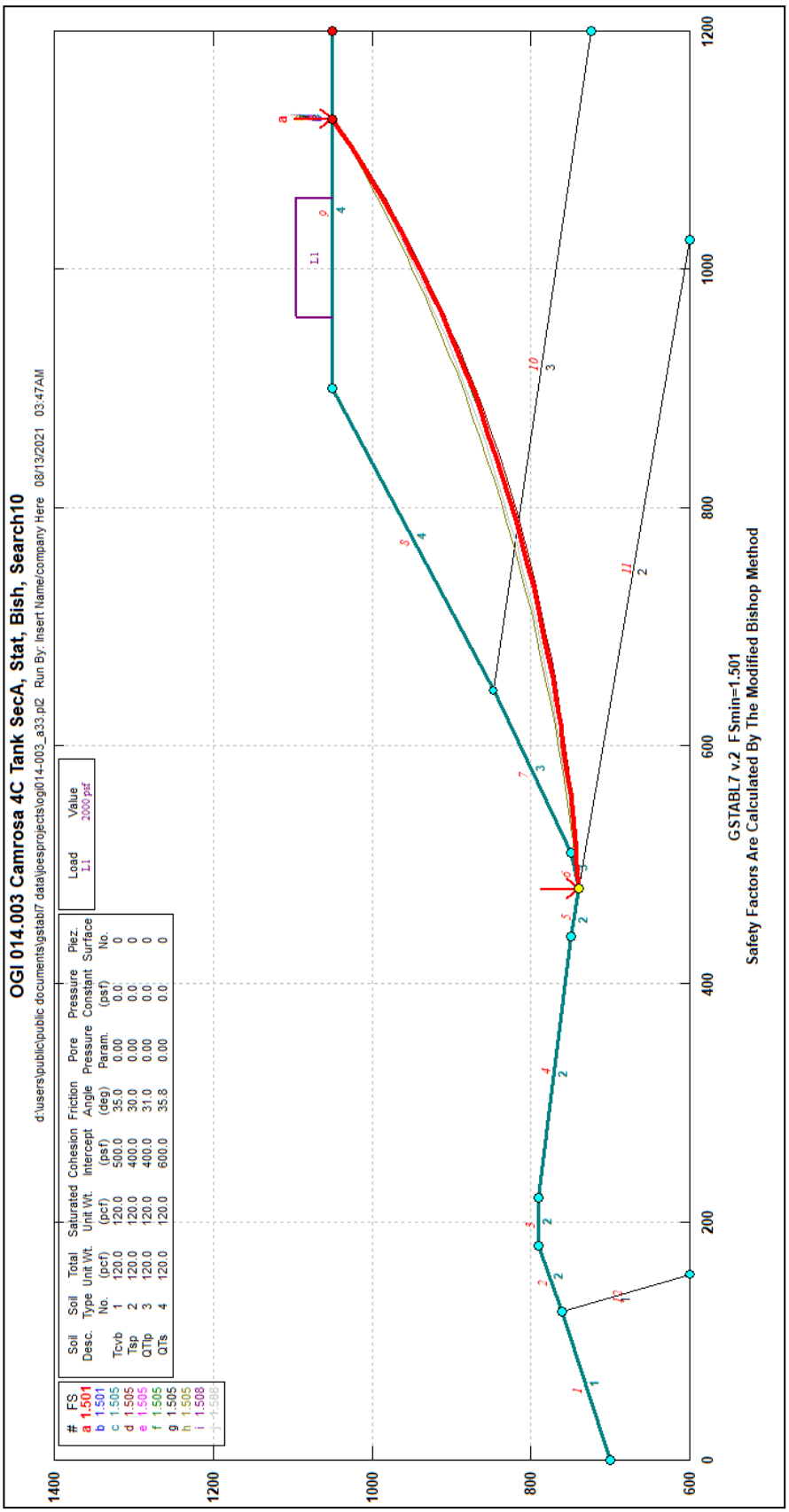
Analysis:

Edge of Tank,

Static Condition,

Material Strength from SHZR & Lab

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #3**

Analysis:

Entire Hillside,

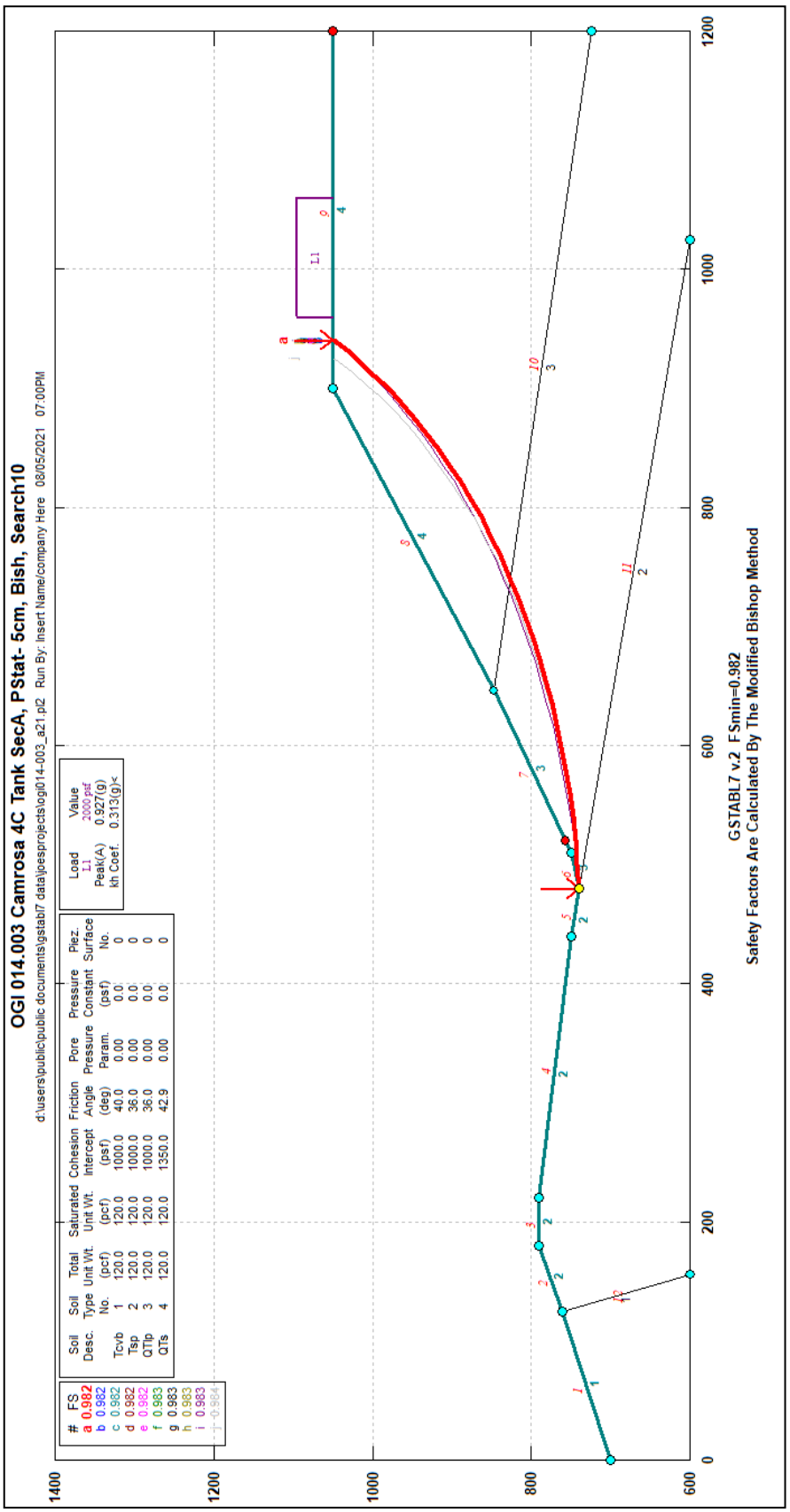
Static Condition,

Material Strength from SHZR/Lab,

Location of Crit. Surf. w/ FS >/= 1.5

(1126.7, 1050)

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #4**

Analysis:

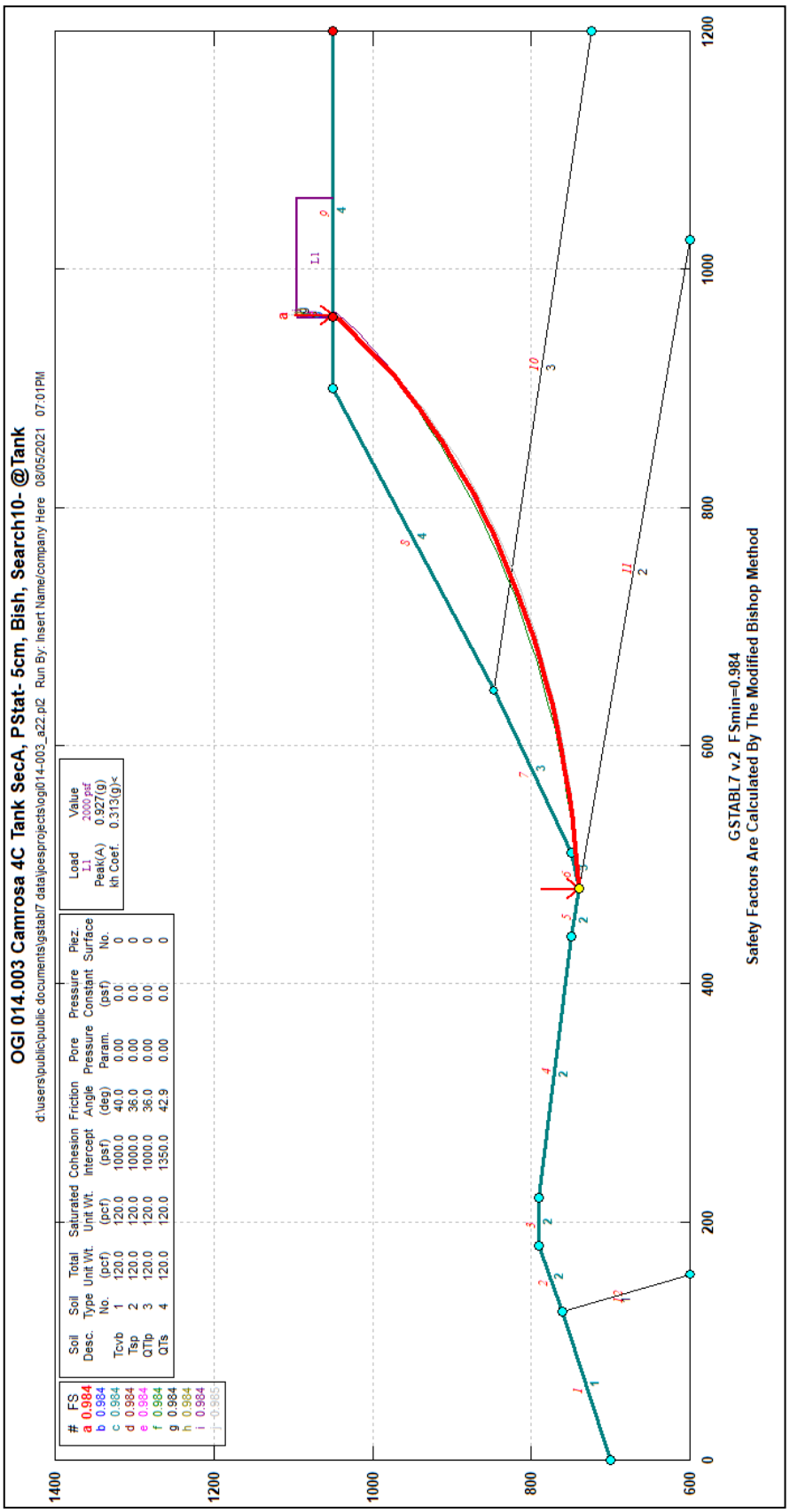
Entire Hillside,

Seismic Cond. w/

$\mu$ = 5cm Thres.,

Material Strength Assumed

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #5**

Analysis:

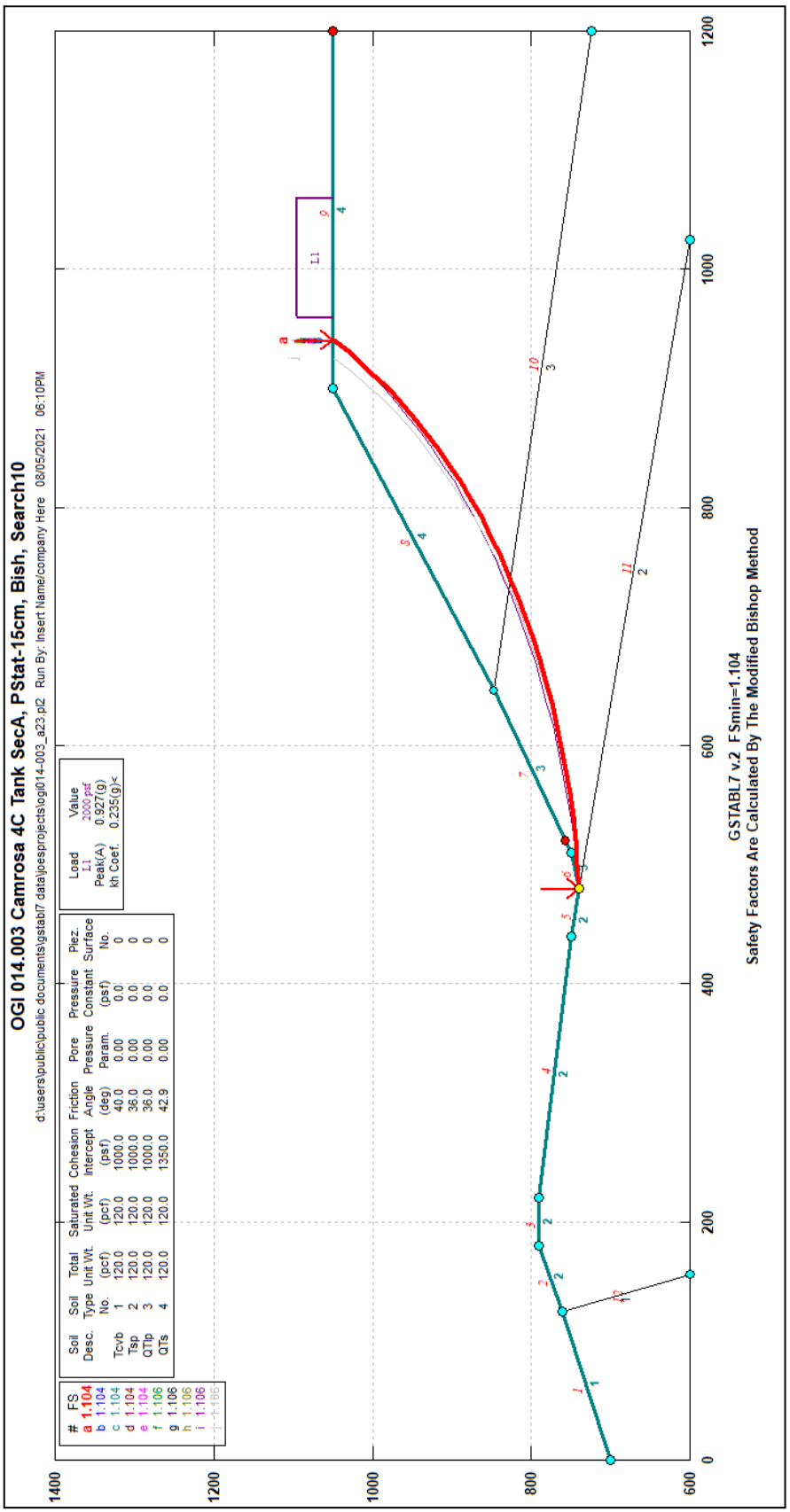
Edge of Tank,

Seismic Cond. w/

$\mu$ = 5cm Thres.,

Material Strength Assumed

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #6**

Analysis:

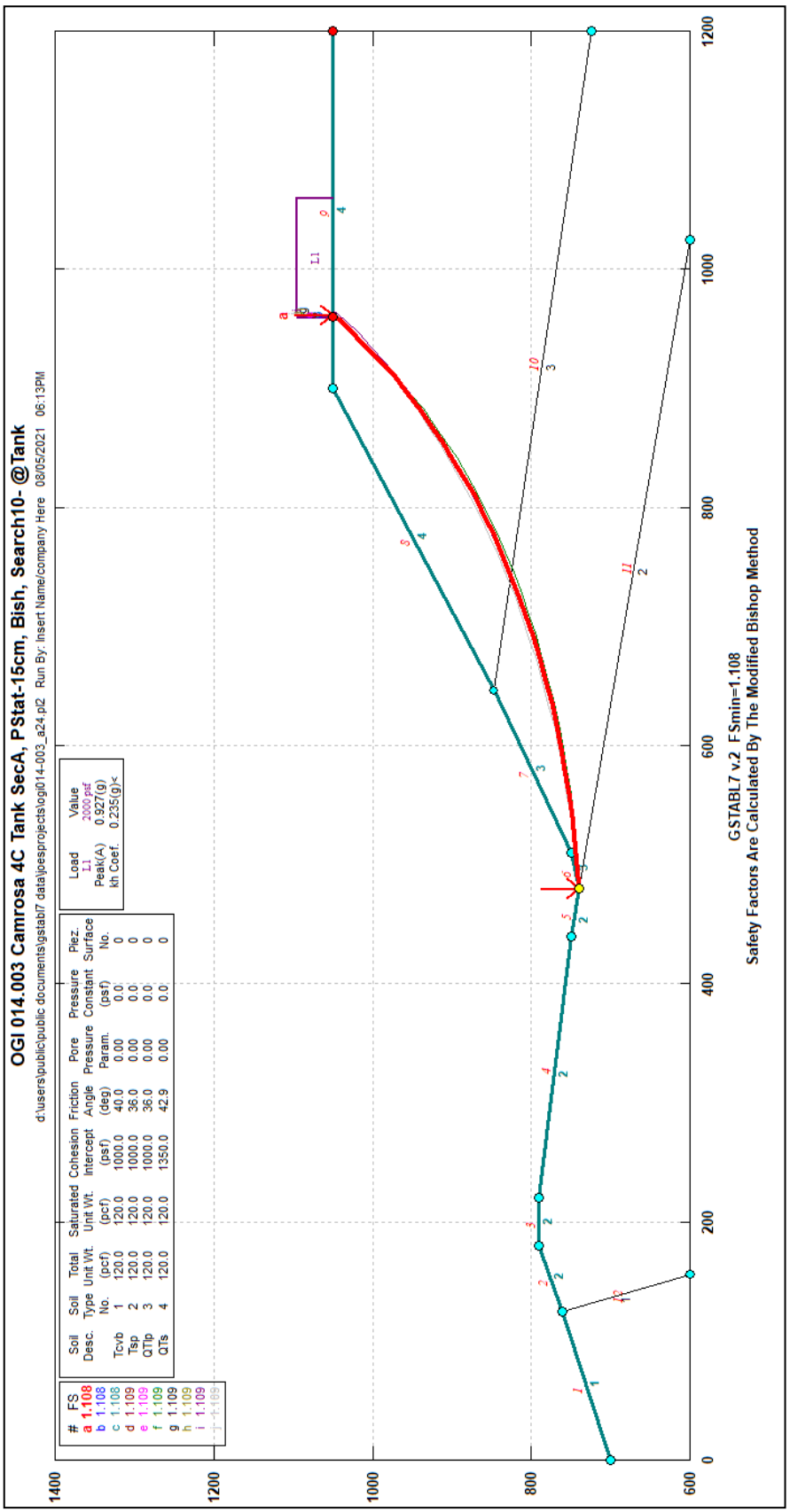
Entire Hillside,

Seismic Cond. w/

$\mu$ = 15cm Thres.,

Material Strength Assumed

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #7**

Analysis:

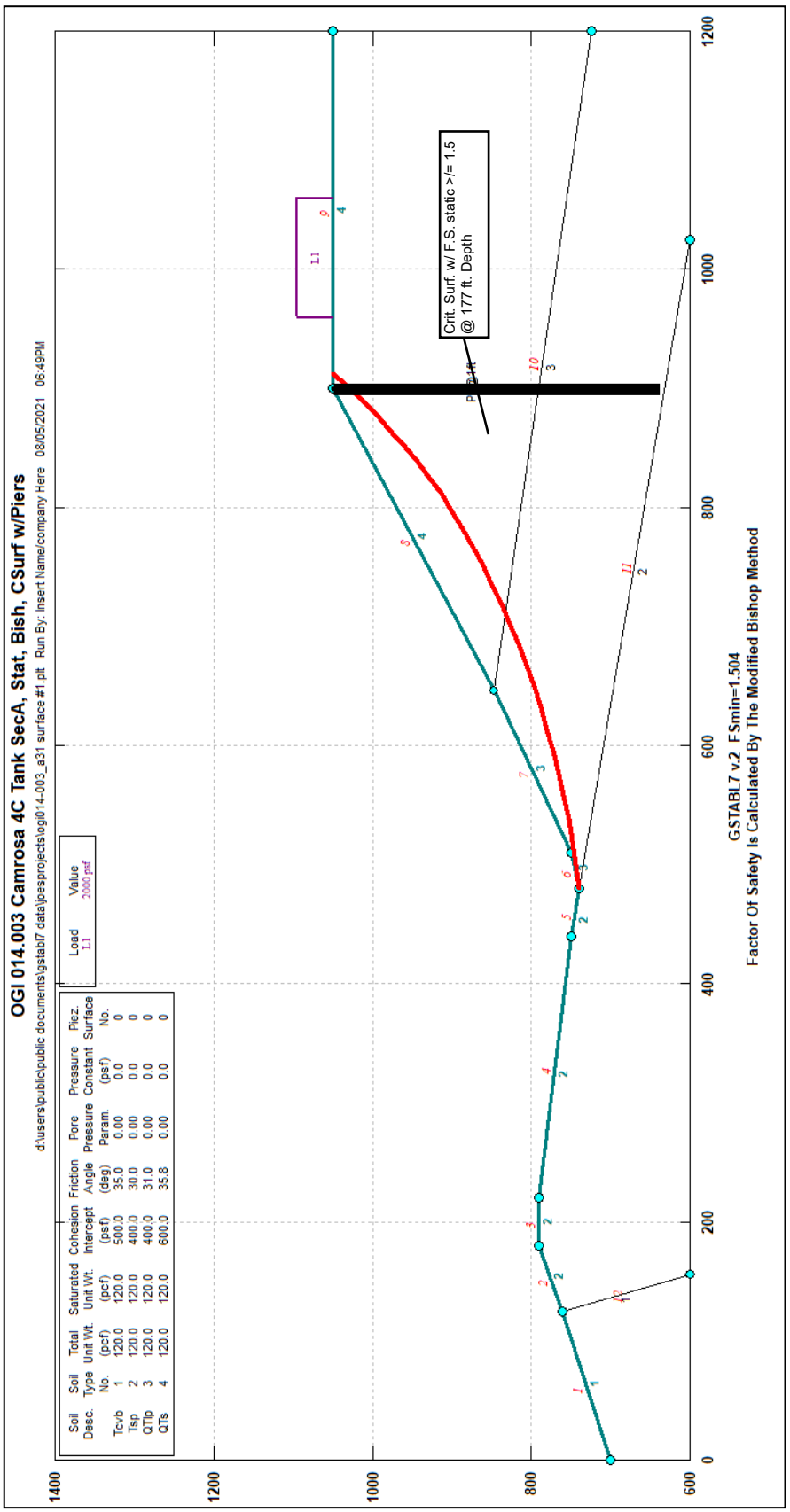
Edge of Tank,

Seismic Cond. w/

$\mu$ = 15cm Thres.,

Material Strength Assumed

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #8**

Analysis:

Entire Hillside,

Static Condition,

Material Strength from SHZR/Lab,

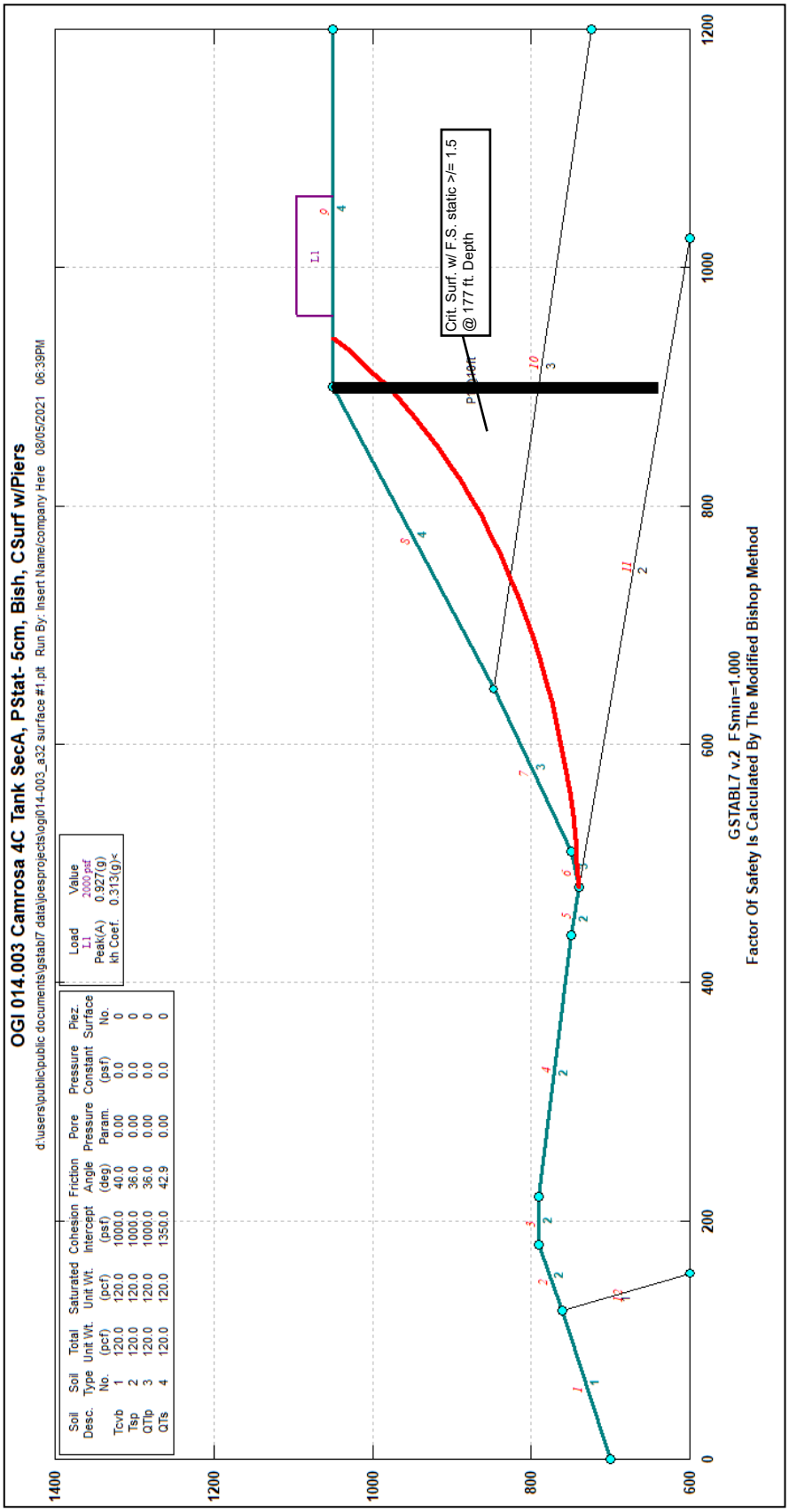
Piles 408 ft. Deep,

Embedment Start @ 177 ft. Deep,

& Stabilization EFP = 115pcf,

Considered Unfeasible

# OGI 014.003 Camrosa 4C Tank Stability Plots




**Run #9**

Analysis:

Entire Hillside,

Seismic Cond. w/

$\mu$ = 5cm Thres.,

Material Strength Assumed,

Piles 408 ft. Deep,

Embedment Start @ 177ft deep,

& Stabilization EFP = 115pcf,

Static Condition Governs.

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** General Manager

**From:** Terry Curson, District Engineer

**Subject:** **Penny Well – Air Entrainment Remediation**

---

**Objective:** Authorize a Purchase Order for cleaning of Penny Well and reinstallation of pump.

**Action Required**: Authorize the General Manager to issue a Purchase Order to General Pump in the amount $81,329.29, to provide cleaning, rehabilitation, and re-installation of the existing pump for the Penny Well.

**Discussion:** To remediate the entrained air issue at the Penny Well, in June 2021, a Request for Proposal was released for consulting design services; on September 23, 2021, the Board authorized entering into an agreement with MNS to provide these services. The project scope requires a technical memorandum evaluating findings from a dynamic well pumping survey, along with alternatives related to equipment options, layout alternatives, various site improvements, pilot testing, preliminary budget cost estimates, and several other features related to a complete and comprehensive design.

MNS contracted with General Pump to prepare the well for a dynamic video survey. A previous attempt several years ago to perform a dynamic video was unsuccessful because of limited space between the pump's column and well casing. As part of General Pump's scope, the existing pump and motor were pulled, and a smaller temporary pump was installed. During the dynamic video, it was observed that there was significant bio growth and scaling along the casing and many of the slotted perforations were plugged. Both General Pump and District staff believe that a complete well cleaning and rehabilitation is necessary to help restore production and longevity to the well.

The temporary pump was left in the well to facilitate MNS's ability to perform any necessary pilot testing and provide a "proof of concept" for any proposed equipment to remove the entrained air. District staff solicited a proposal from General Pump to perform a complete cleaning and rehabilitation of the well, which includes, but not limited to, swabbing, airlift, airburst, and chemical treatment. The proposal also includes reinstallation of the existing pump that can be used to restore production to help offset imported water and facilitate any pilot testing. Inspection will be performed with in-house resources. Once the project is designed, placed out to bid, and construction costs known, staff will go back to the Board and request additional funding, if needed.

Below is a current breakdown of design costs:

| | |
|---|---|
| Consulting Services (MNS) | $155,713.00 |
| **Additional Cleaning/reinstallation (General Pump)** | **$ 81,329.29** |
| Total Cost Project Cost | $237,042.29 |
| Construction | $ TBD |
| Total Budget | $362,000.00 |

There is available funding in the project for the additional cleaning and reinstallation. Once approved, work is expected to start immediately.

GENERAL PUMP COMPANY

159 N. ACACIA STREET * SAN DIMAS, CA 91773
PHONE: (909) 599-9606 * FAX: (909) 599-6238

CAMARILLO, CA 93010 * PHONE: (805) 482-1215
www.genpump.com

**WELL & PUMP SERVICE SINCE 1952** Lic. #496765

***Serving Southern California and Central Coast***

Camrosa Water District
7385 Santa Rosa Road
Camarillo, California 93012

November 29, 2021

*Attn*: Terrance Curson; Kevin Wahl

***Subject: Penny Well "Full-Rehabilitation" and Pump Installation***

General Pump Company (GPC) is pleased to provide this estimate for the defined scope of work that includes the Rehabilitation approach. Based on the video log of November 8th, the well does appear to be "dirty" and needs to be cleaned. Based on the recent discussions associated with production, the well has not shown any significant loss of production. The normal time frame for well to require cleaning is 7 to 8 years. Our records do not show any rehabilitation efforts being deployed in the history of this well.

The estimated cost for the Full-Rehabilitation and pump Installation is as follows:

***Shop Time***

| | | |
|---|---|---|
| • Load-Unload materials and equipment as needed. | | 50 Hours |
| • Engineering support | 10 Hours | Included |

***50 Hours Total Estimated Shop Labor @ $114.00/Hour*** ***$5,700.00***

***Field Labor***

- Mobilize crews and perform Airbust throughout the screens of the well
- Mobilize crew and equipment to site, set up rig, Install injection tooling, mix chemical and inject into 7-zones.
- Agitate well for 6 hours
- Install airline and airlift development swab until clean at 2 minute each of 7 zones
- Re-Install Pump, Column, Discharge head and Motor
- Overtime/man hour >8 weekdays and Saturdays up to 8 hours

| | |
|---|---|
| 60 Hours 3 Man Crew and equipment @ $714.00/Hour | $42,840.00 |
| 8 Hours 2 Man Crew and equipment @ $510.00/Hour | $4,080.00 |
| 36 Hours Overtime at $72.00 per man Hour | $2,592.00 |
| ***Total Field Labor*** | ***$49,512.00*** |

**Materials/Rentals (Non-Taxable);**

| | |
|---|---|
| • Swab Rental | $950.00 |
| • Airlift Pipe rental | $819.00 |
| • Rental of Air Compressor for airlift development | $1,773.00 |
| • Rental of Airburst Equipment | $3,273.00 |
| • Rental of Chemical Treatment Trailer | $3,855.00 |
| • Rental of baker tank and GPC gray tank | $2,728.00 |
| ***Total Materials/Rentals (Non-Taxable)*** | ***$13,398.00*** |

**Materials/Rentals (Taxable);**

| | |
|---|---|
| • Fuel For Air Compressor | $682.00 |
| • Batch of Sulfamic Acid and Rock Salt chemistry | $5,125.00 |
| • Replacement Airline Gauge and fittings | $228.00 |
| • Replacement SST Airline | $982.00 |
| • Bolting and gasket kit and field consumables | $364.00 |
| • Electrical components to splice motor leads | $137.00 |
| • Miscellaneous consumables including fittings, tape, banding etc. | $1,364.00 |
| • Estimated Freight | $1,784.00 |
| • Estimated Local Tax | $773.29 |
| ***Total Materials/Rentals (Taxable)*** | ***$11,439.29*** |

***Outside Services:***

| | |
|---|---|
| • Post Rehabilitation Video Log Well (Lump Sum) | $1,280.00 |
| ***Total Outside Services*** | ***$1,280.00*** |
| ***Total Estimated Project cost*** | ***$81,329.29*** |

GPC**'s** Standard Terms and Conditions apply and all invoices. At the discretion of accounting, a 20-day preliminary notice *may* be filed. This is not a lien nor a reflection on the integrity of any person or business, but simply a notice as prescribed in California Civil Code sections 3097 and 3098. Warranty for work and materials are restricted to parts and materials replaced as part of this project.

Should you have any questions or need additional information regarding the above summary and associated costs, please do not hesitate to contact us.

Sincerely,

**GENERAL PUMP COMPANY, INC.**

*Ray Reece*
General Manager

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** Board of Directors

**From:** Ian Prichard, Assistant General Manager

**Subject:** **PV Well #2 Ratification**

---

**Objective:** Repair PV Well #2 and return it to service on an "emergency" basis.

**Action Required:** Ratify the action of the General Manager to approve the repair of PV Well #2 on a time-and-materials basis and the subsequent issuance of a purchase order to General Pump in the amount of $116,265.65.

**Discussion:** On August 28, 2021, PV Well #2 failed. General Pump, who originally installed the well in 2016, were engaged to pull the well and investigate. Camrosa staff and General Pump determined that bearings around approximately 100 feet of the the drive shaft had broken, due in all likelihood to a failure of the lube system. Camrosa staff and General Pump designed an alternative system, including a foot valve and additional sensors, to create redundancy in the lube system and ensure the entire shaft is lubed at all times. The pump failure and plan to get the well back online was presented at the September 9, 2021 Board meeting.

Pulling the well revealed significant corrosion on sections of the column pipe. Approximately 50 feet needed to be discarded and reordered. Expert analysis of the pitting along the threads between the epoxy coating and the coupling indicated the corrosion was due to water quality components, rather than electrolysis, and a procedure was developed to touch up coating after assembling sections of column pipe; wrapping the joint with waterproof tape; and securing the tape with stainless steel bands.

Since PV Well #2 came online in September of 2020, drawdown has been more dramatic than anticipated. District staff has optimized pumping between PV Well #2 and the nearby Woodcreek Well by running both wells short of their individual capacities. Since the column pipe at PV Well #2 was out of the hole as a result of the failure, staff decided it was a good time to lower the bowls. Meeting the next screened interval required approximately 60 additional feet of pipe, which General Pump added to the order for replacement sections.

General Pump mobilized on Monday, November 15 and completed work, including test pumping, the afternoon of November 24. Staff tested for bacti on Friday, November 26, got a clear result Saturday, November 27, and returned the well to service that afternoon.

There is available funding in the PV Well #2 capital project for this expenditure.

GENERAL PUMP COMPANY
934 W. VERDULERA STREET - CAMARILLO, CA 93010
PHONE: (805) 482-1215 - FAX: (805) 484-2135
**WELL & PUMP SERVICE SINCE 1952** Lic. #496765
*"Serving All Southern California and Central Coast!"*

Camrosa Water District
7385 Santa Rosa Road
Camarillo, California 93012
*Attn*: Kevin Wahl

November 29, 2021

***Subject: Lynwood Well Pump Repair, Modification and Re-install Draft invoice***

***Shop Time:***

| | | |
|---|---|---|
| • Load-Unload materials and equipment as needed. | | 16 Hours |
| • Touch up pump and prepare suction for check valve adaption | | 12 Hours |
| • Build Straps to strap suction to column above pump | | 10 Hours |
| • Clean all column with pressure wash, tighten couplings | | 20 Hours |
| • Straighten all line shafts and reface if necessary | | 60 Hours |
| • Clean head and replace any broke or failed pieces. | | 6 Hours |
| • Engineering support | 10 Hours | Included |
| ***124 Hours Total Estimated Shop Labor @ $112.00/Hour*** | | ***$13,888.00*** |

***Field Labor:***

- Mobilize crew and equipment to site, set up rig, Install Pump with additional setting, suction device per asbuilt
- Utilize Crane to re-install building
- Connect Pumping equipment to power supply, start and test pump
- Overtime/man hour >8 weekdays and Saturdays up to 8 hours

| | |
|---|---|
| 80 Hours 3 Man Crew and equipment @ $624.00/Hour | $49,920.00 |
| 61 Hours Overtime at $69.00 per man Hour | $4,209.00 |
| ***Total Field Labor*** | ***$54,129.00*** |

***Materials/Rentals (Taxable):***

| | |
|---|---|
| • 110-feet of 10" X .500 Wall X 10' column assembly | $15,500.00 |
| • 110-feet Sand blast and NSF Coating ID and OD of column | $7,200.00 |
| • 60-feet 1-11/16" SST line shafts with SST couplings | $7,691.00 |
| • 6 each 10" X 1-11/16" SST retainer with inserts | $1,473.00 |
| • 10" Suction control check valve | $6,546.00 |
| • 10" X 2' close nipple to attach valve | $491.00 |
| • Replacement Head shaft material and packing box bearing | $717.00 |
| • Replacement Airline fittings and related equipment | $410.00 |
| • Replacement SST Airline | $1,233.00 |
| • Bolting and gasket kit, Motor oil and field consumables | $82.00 |
| • Electrical components to connect motor leads | $137.00 |
| • Miscellaneous consumables including fittings, tape, banding etc. | $1,364.00 |
| • Estimated Freight | $2,143.00 |
| • Estimated local tax | $3,261.56 |
| ***Total Estimated Materials/Rental (Taxable)*** | ***$48,248.56*** |
| ***Total Invoice Draft*** | ***$116,265.65*** |

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** General Manager

**From:** Jozi Zabarsky, Customer Service Manager

**Subject:** **Lobby Redesign**

---

**Objective:** Complete the District's lobby remodel.

**Action Required:** Ratify the expenditures in exceedance of the General Manager's authority in the amount of $416.26 made to J.E. Armstrong Architect, Inc., to complete architectural services for the District's lobby redesign.

**Discussion:** The Board approved the lobby redesign on August 5, 2021, to improve office safety and security. The District contracted J.E. Armstrong Architect, Inc., for architectural services to redesign the lobby. The contract amount was $23,877.50. However, during demolition, additional architectural services were needed to ensure ADA compliance. The final invoice received exceeded the General Manager's spending authority of $25,000 by $416.26.

Staff requests the Board ratify expenditures exceeding the General Manager's spending authority.

This is an approved capital improvement project in the Fiscal Year 2021-22 Budget with a budgeted amount of $300,000.00.

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** Board of Directors

**From:** Tony Stafford, General Manager

**Subject:** **Real Estate Developments**

---

**Objective:** Discuss real estate developments occurring within the District service area.

**Action Required:** No action necessary; for information only.

**Discussion:** There are a handful of real estate developments within the District service area in various stages of planning and pre-construction. Camrosa maintains its moratorium on unmitigated new demand, which, with the Board's adoption of Resolution 2014-08 on August 14, 2014, was extended to all classes of water: potable, nonpotable, and recycled. This moratorium requires that new developments "bring their own water" equal to or greater than the proposed demand of the development. This often takes the form of a pro-rata contribution to existing water-supply projects the District is pursuing.

Single-family homes with a meter size of one inch or less, including renovations and the addition of accessory dwelling units ("ADUs"), are exempted from the moratorium.

During the height of the last dry period, once the Board declared a Stage Three Drought Emergency on August of 2015, no new potable connections were allowed. Nonpotable and recycled water connections had to be mitigated. Three developments that had received Water Availability Letters but had not received Water Will Serve Letters entered into agreements with the District to provide, in addition to their development's anticipated supply, a "drought demand offset" equal to the required Districtwide conservation target established by the Brown administration (originally 36 percent, adjusted down to 32 percent). This requirement expired with the drought emergency; the Board rescinded all drought stages on May 4, 2017.

On October 19, 2021, Governor Newsom issued a Proclamation that expanded the Drought Proclamation statewide, now covering all 58 counties. Discussion is ongoing among the state administration and our imported water wholesalers regarding potential conservation actions should the current dry period extend through the 2021-22 rainy season. Given this environment, the Board may wish to discuss the District's policy towards issuing Water Will Serve letters to new development.

Staff will brief the Board on developments in progress and the current moratorium on unmitigated demand.

NEWS FOR IMMEDIATE RELEASE

**December 1, 2021**

**Contact:**
Ryan Endean, Public Affairs, Department of Water Resources
Ryan.endean@water.ca.gov

# DWR Announces Initial State Water Project Allocation, Additional Actions to Prepare for Third Dry Year

**SACRAMENTO, Calif.** – Today, the Department of Water Resources (DWR) announced its initial State Water Project (SWP) allocation for 2022 along with several steps to manage the state's water supply in anticipation of a third dry year with reservoirs at or near historic lows.

Given the unprecedented drought conditions, the SWP's initial allocation for December 1 will focus on the health and safety needs for 2022 of the 29 water agencies that contract to receive SWP supplies. DWR has advised these water agencies to expect an initial allocation that prioritizes health and safety water needs and that the SWP will not be planning water deliveries through its typical allocation process until the state has a clearer picture of the hydrologic and reservoir conditions going into the spring.

DWR is focused on prioritizing water supply in four categories: water for health and safety needs and Delta salinity control; water for endangered species; water to reserve in storage; and water for additional supply allocations if the hydrology allows.

"Despite a wet start to the water year, conditions have dried out since that first storm and we are still planning for a below-average water year. That means we need to prepare now for a dry winter and severe drought conditions to continue through 2022," said DWR Director Karla Nemeth. "We will be working with our federal partners and SWP contractors to take a conservative planning approach to balance limited water supplies with the needs of residents, businesses, and the environment."

In addition to limiting the initial allocation to health and safety needs, DWR is making plans to adjust SWP operations this winter and spring. DWR is capturing and storing water when possible in Lake Oroville and south of the Delta in San Luis Reservoir to increase available

supplies for 2022 and will continue to do so throughout the winter. Health and safety demands for the Bay Area and Central and Southern California will be met with water available from the Delta as well as water stored in San Luis Reservoir. Water in Lake Oroville will be reserved to maintain Delta water quality, protect endangered species, and meet senior water right needs. Beyond minimal exports to meet South Bay health and safety needs, water stored in Lake Oroville will be used for south of Delta deliveries only if hydrology conditions improve. DWR plans to conserve as much storage as possible in Oroville in anticipation of a third dry year, and potentially a dry 2023.

Also, today, DWR along with the U.S. Bureau of Reclamation, submitted a new Temporary Urgency Change Petition (TUCP) to the State Water Resources Control Board. If approved, the petition would allow for the State Water Project and the Central Valley Project to operate under modifications to the water quality and water right permit requirements in the Delta from February through April 2022, should conditions warrant. These modifications may be needed to conserve water in Lake Oroville to ensure minimum health and safety water supplies are available later in the year if dry conditions persist. If significant precipitation materializes in the next few months, standards may be met through natural means and modifications to SWP and CVP operations may not be necessary.

DWR is also delaying the removal of the Emergency Drought Salinity Barrier in the Delta. The rock barrier across West False River was scheduled to be removed by November 30, however drought conditions have persisted and leaving the barrier in place will enable a more efficient drought response in spring 2022 if needed. DWR plans to create a notch in the barrier in January 2022 to allow for fish passage and boat traffic until April 2022.

“It is going to take a multi-pronged approach to successfully respond to these unprecedented drought conditions,” said Nemeth.

Each year, DWR provides the initial State Water Project allocation by December 1 based on available water storage and projected water supply demands. Allocations are updated monthly as snowpack and runoff information is assessed, with a final allocation typically determined in May or June.

The lowest initial allocations were 5 percent in 2010 and 2014. Last year, the initial SWP allocation was 10 percent, however due to increasing dry conditions, the final allocation was lowered to 5 percent.

**Resources**

- Latest on California’s Drought Response
- Current Statewide Reservoir Conditions
- Save Our Water: Tips to Conserve Water During a Drought

###

*For more information, follow us on Twitter or Facebook and read our news releases and DWR updates.*

The Metropolitan Water District of Southern California

NEWS RELEASE

P. O. Box 54153, Los Angeles, California 90054-0153 • (213) 217-6485 • www.mwdh2o.com

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Dec. 1, 2021

# METROPOLITAN GENERAL MANAGER ISSUES STATEMENT ON ANNOUNCEMENT OF ZERO PERCENT ALLOCATION FOR STATE WATER PROJECT

*Adel Hagekhalil, general manager of the Metropolitan Water District of Southern California, issues the following statement on the Department of Water Resources' announcement today of a zero percent initial State Water Project allocation:*

"The conditions on the State Water Project are unlike anything we've ever seen before. While we certainly hope they improve, we must be prepared for the reality that the state project may not have any water to allocate in 2022. Parts of Southern California depend on this supply almost exclusively for their water. We are working with our member agencies serving those communities – in parts of Ventura and northern Los Angeles counties as well as the Inland Empire – to make sure residents and businesses understand the severity and complexity of the situation and are responding by reducing their water use as much as necessary. At the same time, Metropolitan will continue doing everything we can to get water from other sources to these communities.

"Metropolitan's board last month declared a drought emergency in anticipation of the zero percent allocation. While Southern California's diverse supply portfolio means other parts of our region can turn to water from the Colorado River and local sources during this time, the dramatic reduction of our Northern California supplies means we all must step up our conservation efforts. Earlier this year, Gov. Newsom asked all Californians to voluntarily reduce their water use by 15 percent. We all need to keep working toward this goal. Reduce the amount you are watering outside by a day, or two. Take shorter showers. Fix leaks. If we all do our part, we'll get through this together."

"Climate change is creating a new normal. Looking ahead, we need to increase our investments in water efficiency, recycling and storage. Southern California has done a lot, but we need to do more. And we can't do it alone. We need our state and federal partners to help accelerate these investments through a coordinated strategy for resilient, integrated and balanced water management. We are one."

###

***The Metropolitan Water District of Southern California is a state-established cooperative that, along with its 26 cities and retail suppliers, provide water for 19 million people in six counties. The district imports water from the Colorado River and Northern California to supplement local supplies, and helps its members to develop increased water conservation, recycling, storage and other resource-management programs.***

# Local Water Districts Call for Urgent Conservation Action in Response to 0% Allocation Announcement as Drought Impacts Worsen

*Las Virgenes Municipal Water District (LVMWD), Triunfo Water & Sanitation District (TWSD), and Calleguas Municipal Water District (Calleguas) jointly request immediate water conservation action from all customers as the region faces worsening water supply challenges amid deepening drought conditions.*

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**For Immediate Release**

December 1, 2021

**Calabasas, CA** – A collaborative of local water districts including LVMWD, TWSD, & Calleguas is urging significant water use reductions by their customers after the California Department of Water Resources (CADWR) announced a 0% initial allocation from the State Water Project (SWP) for the upcoming year. The December 1 announcement comes amid worsening drought conditions throughout the state.

With limited to no local sources of water, LVMWD, along with TWSD and Calleguas, depend heavily on imported water from the SWP purchased through the Metropolitan Water District of Southern California (MWD). Given their location in MWD's service area, all three agencies substantially rely on SWP supplies; only a limited amount of Colorado River water can reach the westernmost portion of MWD's service area due to pumping and infrastructure constraints – increasing the urgency to step up conservation actions locally. Logistically, the 0% allocation will impact this region the most.

Prior to the December 1 announcement, the CADWR signaled to water agencies throughout California to prepare for a 0% initial allocation from the SWP later this year. A 0% allocation means available water supplies will be prioritized to satisfy the health and safety needs of residents and businesses, but not for typical outdoor irrigation usage. Looking ahead, significant restrictions on outdoor watering may be required if snowpack conditions in the Northern Sierras do not improve this winter.

"This certainly isn't what anyone wanted to hear," commented LVMWD Board President Jay Lewitt. "We know that tightening water usage restrictions are difficult, and we appreciate all of

our customers for stepping up to help all of us by conserving. We trust you to do your best and we hope you trust us to continue providing reliable water service through these challenging times. Getting through this means working together, for each other."

Another factor in this decision is the state's long-term precipitation forecast. California has experienced two consecutive dry water years, and La Niña indicates that dry conditions may persist throughout winter and spring for the entire Southwest U.S.

LVMWD, TWSD, and Calleguas call on all customers to kick their water conservation actions into high gear. This can be accomplished most efficiently outdoors, where up to 70% of all residential water use occurs. Replacing thirsty turf with drought-tolerant landscaping, installing efficient drip irrigation systems, checking for leaks, and replacing old watering timers with smart irrigation controllers can provide significant water and money savings.

LVMWD customers can visit LVMWD.com/DroughtResponse for more information on the District's Local Drought Emergency, restrictions under Stage 3 of its Water Shortage Contingency Plan, and penalties for excessive water use and wasteful practices.

"We urgently need to save water, period," said TWSD Board Chair Ray Tjulander. "Our region is no stranger to drought, and uniting to meet conservation needs has never been more critical."

TWSD customers can visit triunfowsd.com for more information on water usage guidelines, as well as conservation incentives offered by the District.

"The severity of this drought cannot be understated," stated Calleguas Board President Steve Blois. "Our region's water supply is already incredibly stressed – it is paramount that we get serious about conserving state water supplies wherever and however possible."

Calleguas customers can click here for more information on the resources their agency has to offer, as well as current water use guidelines.

Conservation rebates can be found at www.socalwatersmart.com.

*The Conejo – Las Virgenes Regional Drought Partnership includes Las Virgenes Municipal Water District, Calleguas Municipal Water District, and Triunfo Water & Sanitation District. All three agencies are connected to the Metropolitan Water District of Southern California and rely on supplies from the State Water Project to meet customer demands. Together, they serve approximately 735,000 residential and commercial customers in Los Angeles and Ventura counties.*

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CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE



# Board Memorandum

December 9, 2021

**To:** Board of Directors

**From:** General Manager

**Subject:** **Closed Session Conference with Legal Counsel – Pending Litigation**

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**Objective:** To confer with and receive advice from counsel regarding pending litigation.

**Action Required:** No action necessary; for information only.

**Discussion:** Pending litigation may be discussed in closed session pursuant to paragraph (1) of subdivision (d) of Government Code section 54956.9.

CAMROSA WATER DISTRICT
BUILDING WATER SELF-RELIANCE

# Read File

**The following material is provided to members of the Board for information only and is not formally a part of the published agenda.**

**A. Budget Development Schedule**
**B. Change Order Listing (as of 11/8/21)**
**C. Cash Balances (as of 10/31/21)**
**D. 2022 Board Calendar**

| Staff Action | Date | Board Action |
|---|---|---|
| Requesting Action<br>Receiving Action | | |
| | 12/9 | FY 22-23 Budget Schedule |
| Request FY21-22 Program Accomplishments<br>Request FY22-23 Program Goals<br>Request FY 21-22 Capital Projects & Fixed Assets Projections<br>Request FY22-23 Capital Projects & Fixed Assets | 1/10 | |
| | 1/13 | |
| | 1/27 | |
| | 2/10 | 2nd Qtr Review |
| Receive Program Accomplishments FY21-22 from Mgrs<br>Receive FY22-23 Program Goals from Mgrs<br>Receive FY22-23 Capital Projects & Fixed Assets from Mgrs<br>Receive FY21-22 Capital Projects & Fixed Assets projections | 2/11 | |
| Request End of Year Projections FY21-22<br>Request Draft of FY22-23 Expenses | 2/14 | |
| | 2/24 | |
| | 3/10 | Program Accomplishments FY21-22<br>Program Goals for FY22-23 |
| Receive FY22-23 Expenses from Mgrs<br>Receive FY21-22 End of Year Projections from Mgrs<br>FY22-23 Water Sales Projections<br>FY22-23 Wastewater Sales Projections<br>FY22-23 Tax Revenue Projections<br>FY22-23 Interest/Misc. Revenue Projections<br>FY22-23 Debt Service Expense<br>Complete Draft Revenue/Expense Budget | 3/11 | |
| | 3/24 | FY21-22 Capital Projects Review<br>FY22-23 Capital Projects & Fixed Assets |
| FY21-22 Reserve Balances | 3/25 | |
| | 4/7 | End of Year Budget Projections FY21-22<br>Projected FY21-22 Reserve Balances |
| | 4/21 | 3rd Qtr Review<br>Draft Revenue Budget<br>Draft Expense Budget<br>Projected FY22-23 Reserve Balances |
| | 5/12 | |
| | 5/26 | Appropriation Limit for FY22-23<br>Draft FY22-23 Budget |
| | 6/9 | Adoption of FY22-23 Budget |
| | 6/23 | |

# CURRENT PROJECT CHANGE ORDERS

| Project # | PW/Agreement# | Project | Total Budget | Available Budget | Contractor | Award Date | Brd/Gmgr | Change Order | Original Bid | Negotiated Value | Scope of Services/Change Order Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **900-18-01** | | **CWRF Chemical Storage & Feed System** | **$ 1,057,500.00** | **$ 85,201.93** | | | | | | | |
| | 2019-58 | | | | Cannon Corporation | 12/13/2018 | BD | | $ 100,705.00 | $ 71,765.00 | engineering services to rehabilitate the CRWF's chemical storage and feed system- Originally a combined project to include equipment storage shed. The project scope was reduced to eliminate storage shed and price for the Chemical Feed System was negotiated. |
| | | | | | | 9/19/2019 | GM | CO #1 | $ 1,700.00 | $ 1,700.00 | Engineeering for 3 additional pumps |
| | | | | | | 12/12/2019 | BD | CO #2 | $ 24,553.00 | $ 18,944.00 | Construction support services |
| | | | | | | 6/23/2020 | GM | CO #3 | $ 4,407.00 | $ 4,407.00 | Construction support services |
| | | | | | | | | | | $ 96,816.00 | |
| | S 19-05 | | | | | | | | | | |
| | | | | | Travis Ag | 12/12/2019 | BD | | $ 747,862.00 | $ 747,862.00 | Construction |
| | | | | | | 5/26/2020 | GM | CO #1 | $ 5,520.00 | $ 5,520.00 | Modify single to dual chemical feed pump |
| | | | | | | 8/28/2020 | GM | CO #2 | $ 2,840.00 | $ 2,840.00 | Provide additional skid mounting supports (total of 16) |
| | | | | | | 2/16/2021 | GM | CO #3 | $ 8,335.02 | $ 7,324.51 | Provide Foundation Soil Stability for Canopy Footing |
| | | | | | | 11/23/2021 | GM | CO #4 | $ 11,335.55 | $ 11,335.55 | Install 2 additional 4inch flange on top of tanks fosr ultrasonic sensor installation |
| | | | | | | | | | | $ 774,882.06 | |
| **900-18-03** | | **Effluent Pond Relining** | **$ 1,501,500.00** | **$ 282,007.62** | | | | | | | |
| | 2017-30 | | | | MNS Engineeers, Inc | 7/27/2017 | BD | | $ 71,988.00 | $ 69,208.00 | Award and up to $14,000 out-of-scope |
| | | | | | | 7/27/2017 | GM | CO #1 | $ 7,165.00 | $ 7,165.00 | Geotechnical Investigations (Included in 7/27/20 BM) |
| | | | | | | 7/27/2017 | GM | CO #2 | $ 1,380.00 | $ 1,380.00 | Groundwater management alternatives (Included in 7/27/20 BM) |
| | | | | | | 2/28/2019 | BD | CO #3 | $ 19,795.00 | $ 19,795.00 | Additional project elements, slope stabilization and surface water management |
| | | | | | | 5/28/2020 | BD | CO #4 | $ 11,330.00 | $ 11,330.00 | Services to amend and update plans and specs |
| | | | | | | 5/13/2021 | BD | CO#5 | $ 15,355.00 | $ 15,355.00 | Engineering support services during construction |
| | | | | | | | | | | $ 124,233.00 | |
| | | | | | Oakridge Geoscience, Inc. | 5/13/2021 | BD | | | $ 22,200.00 | compaction and material testing services |
| | | | | | | 10/11/2021 | GM | CO#1 | $ 3,360.00 | $ 3,360.00 | supplemental materials testing services |
| | | | | | | | | | | $ 25,560.00 | |
| | RW21-01 | | | | BOSCO Constructors, Inc. | 5/13/2021 | BD | | $ 1,055,401.00 | $ 1,055,401.00 | Construction of CWRF Effluent Storage Basin Improvements |
| **900-18-02** | | **CWRF Dewatering Press** | **$ 2,158,000.00** | **$ 1,985,646.35** | | | | | | | |
| | 2017-33 | | | | MNS Engineers, Inc. | 8/31/2017 | BD | | $ 97,932.00 | $ 97,932.00 | Award and up to $10,000 contingency |
| | | | | | | 12/8/2017 | GM | CO #1 | $ 5,370.00 | $ 5,370.00 | Surveying services |
| | | | | | | 5/28/2020 | BD | CO #2 | $ (44,900.00) | $ (44,900.00) | Credit |
| | | | | | | 5/28/2020 | BD | CO #3 | $ 87,911.00 | $ 87,911.00 | professional engineering services to amend and update existing plans and specifications |
| | | | | | | 9/24/2020 | BD | CO #4 | $ 24,670.00 | $ 24,670.00 | Modify plans to rotate solids handling building 90 degrees |
| | | | | | | | | | | $ 170,983.00 | |
| **600-15-01** | | **Pressure Zone 2 - 3 Pump Station** | **$ 1,280,000.00** | **$ 64,860.43** | | | | | | | |
| | 2015-55 | Engineering Design PZ 2 to 3 | | | Perliter & Ingalsbe | 4/23/2015 | BD | | $ 33,200.00 | $ 33,200.00 | Award and up to $5,000 out-of scope |
| | | | | | | 11/19/2015 | BD | | | $ 30,000.00 | Additional out-of-scope $30,000 Flo Science |
| | | | | | | 11/19/2015 | BD | CO #1 | $ 22,425.00 | $ 22,425.00 | Surge Analysis |
| | | | | | | 9/13/2018 | BD | CO #2 | $ 14,706.00 | $ 17,312.00 | Additional design and construction services |
| | | | | | | 3/20/2019 | GM | CO #3 | $ 2,900.00 | $ 2,900.00 | Control diagram drawing |
| | | | | | | 8/8/2019 | BD | CO #4 | $ 18,526.00 | $ 18,526.00 | Engineering & construction support |
| | | | | | | 9/22/2019 | GM | CO #5 | $ 3,000.00 | $ 3,000.00 | T&M electrical engineering support & other technical services as needed |
| | | | | | | 8/23/2021 | GM | CO#6 | $ 4,200.00 | $ 4,301.00 | As-Builts |
| | | | | | | | | | | $ 131,664.00 | |
| | PW19-03 | | | | Pacific Hydrotech Corporation | 8/8/2019 | BD | | $ 1,059,401.00 | $ 1,059,401.00 | Construct pump stations |
| | | | | | | 5/29/2020 | GM | CO #1A | $ 16,953.91 | $ 11,953.91 | Mismarked waterline rock excavation- Negotiated down from $16,953.91 |
| | | | | | | 5/29/2020 | GM | CO #1B | $ 887.95 | $ 887.95 | Adjustment to Discharge Tie-in Point |
| | | | | | | 5/11/2021 | GM | CO #2 | $ 11,500.00 | $ 2,415.31 | Extra work resulting in replacing of electrical for pump and motor |
| | | | | | | | | | | $ 1,074,658.17 | |
| **650-15-01** | | **PV Well (Lynwood Well)** | **$ 5,967,000.00** | **$ 123,933.29** | | | | | | | |
| | 2014-56 | | | | Perliter & Ingalsbe | 10/22/2014 | BD | | $ 156,600.00 | $ 156,600.00 | Award and to amend up to $15,000 for out-of-scope |
| | | | | | | 5/26/2015 | GM | CO #1 | $ 2,950.00 | $ 2,950.00 | Additional work field locating |
| | | | | | | 11/15/2016 | GM | CO #2 | $ 3,821.00 | $ 3,821.00 | PV well rendering |
| | | | | | | 11/7/2017 | GM | CO #3 | $ 14,922.00 | $ 14,922.00 | Prepare Pre-bid documents for pump and motor |
| | | | | | | 7/26/2018 | BD | CO #4 | $ 8,826.00 | $ 8,826.00 | Construction services to pump only installation |
| | | | | | | 12/12/2019 | BD | CO #5 | $ 34,956.00 | $ 34,956.00 | Review iron and manganese filter & finalize contract plans & specs |
| | | | | | | 9/2/2020 | GM | CO #6 | $ 3,090.00 | $ 3,090.00 | T&M Future FE/MN revisions |
| | | | | | | 3/11/2021 | BD | CO #7 | $ 4,935.00 | $ 4,935.00 | Finalize plans and specifications |
| | | | | | | 3/11/2021 | BD | CO #8 | $ 795.00 | $ 795.00 | engineering design of the removal of filters and reconfiguration of the diesel generator |
| | | | | | | 3/11/2021 | BD | CO #9 | $ 7,182.00 | $ 7,182.00 | engineering design of the removal of filters and reconfiguration of the diesel generator |
| | | | | | | 6/24/2021 | BD | CO #10 | $ 76,062.00 | $ 76,062.00 | engineering & construction support services |
| | | | | | | | | | $ 314,139.00 | $ 314,139.00 | |
| **600-20-02** | | **Conejo Wellfield Treatment** | **$ 11,275,000.00** | **$ 6,878,570.45** | | | | | | **$ 3.00** | |
| | 2020-86 | | | | Provost & Pritchard | 6/11/2020 | BD | | $ 437,000.00 | $ 375,000.00 | GAC Engineering Design |
| | | | | | | 9/4/2020 | GM | CO#1 | $ 5,000.00 | $ 5,000.00 | alternative design evaluation |
| | | | | | | 9/29/2020 | GM | CO#2 | $ 7,000.00 | $ 7,000.00 | second survey for modified footprint and land acquisition |
| | | | | | | 2/25/2021 | BD | CO#3 | $ 58,200.00 | $ 58,200.00 | Environmental compliance |
| | | | | | | 10/14/2021 | BD | CO#4 | $ (10,200.25) | $ (10,200.25) | Enviromental compliance credit |
| | | | | | | 10/14/2021 | BD | CO#5 | $ 10,200.25 | $ 10,200.25 | Phase CDFW/MMRP |
| | | | | | | | | | | $ 445,200.00 | |
| **400-22-01** | | **District Headquarters Security** | **$ 300,000.00** | **$ 78,376.09** | | | | | | | |
| | 2020-75 | | | | J. E. Armstrong | 2/12/2020 | GM | | $ 18,900.00 | $ 18,900.00 | Architect interior remodel |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 11/5/2020 | GM | CO#1 | $ 4,977.50 | $ 4,977.50 | ADA Compliance additional electrical engineering work |
| | | | | | | | | | | | $ 23,877.50 | |
| | FY22-0074 | | | | | Apex | 8/5/2021 | BD | | | $ 208,500.00 | |
| | | | | | | | 9/20/2021 | GM | CO#1 | | $ 3,620.00 | remove concret & install |
| | | | | | | | 10/18/2021 | GM | CO#2 | | $ 500.00 | install tile & stone |
| | | | | | | | | | CO #3 | | $ - | declined |
| | | | | | | | | | CO#4 | | $ - | declined |
| | | | | | | | 11/9/2021 | GM | CO#5 | | $ 1,955.00 | Seal parking lot area |
| | | | | | | | 11/9/2021 | GM | CO#6 | | $ 2,070.00 | Install 2 8" pipe ballards |
| | | | | | | | 11/9/2021 | GM | CO#7 | | $ 2,877.00 | install concrete pedestrian ramp |
| | | | | | | | 11/19/2021 | GM | CO#8 | | $ (1,273.00) | reduce sow for carpet installation and relocation of toilet partition |
| | | | | | | | | | | | $ 218,249.00 | |
| **900-20-01** | | **CWRF Emergency Generator Fuel Tank** | **$ 288,000.00** | **$ 61,818.29** | | | | | | | | |
| **800-20-02** | | **Pump Station #2 Generator Fuel Tank** | **$ 363,000.00** | **$ 56,828.22** | | | | | | | | |
| | 2020-80 | | | | | Cannon | 4/9/2020 | BD | | 105,382.00 | $ 95,772.00 | Engineering design services |
| | | | | | | | 2/11/2021 | BD | CO#1 | 25,072.00 | $ 12,734.00 | Construction support services |
| | | | | | | | | | | | $ 108,506.00 | |
| | | | | | | Noho Constructors | 2/11/2021 | BD | | 297,701.00 | $ 297,701.00 | installation emergency standby generator and replacement fuel tank |
| | | | | | | | 5/20/2021 | GM | CO#1 | 2,667.00 | $ 2,667.13 | undergrounding conduits |
| | | | | | | | 8/30/2021 | GM | CO#2 | 2,360.00 | $ 2,360.00 | exchange 8 OCAL LB fittings for 8 OCAL explosion fittings |
| | | | | | | | | | | | $ 302,728.13 | |
| **400-20-02** | | **Reservoir 1B Comm Facility** | **$ 670,000.00** | **$ 56,090.04** | | | | | | | | |
| | | | | | | Cannon | 10/24/2019 | BD | | | $ 70,752.00 | Design services for various communication improvements at Res1B radio site |
| | | | | | | | 7/22/2021 | BD | CO# 1 | | $ 14,268.00 | construction support services |
| | | | | | | | | | | | $ 85,020.00 | |
| **800-20-04** | | **Reservoir 4C Replacement** | **$ 160,000.00** | **$ 110,503.00** | | | | | | | | |
| **800-20-03** | | **Reservoir 4C Hydro-pneumatic Pump Station** | **$ 160,000.00** | **$ 115,958.58** | | | | | | | | |
| | | | | | | Cannon | 1/14/2021 | BD | | $ 297,855.00 | $ 265,881.00 | provide professional engineering services for the Reservoir 4C welded steel tank and hydropneumatic pump station replacements |
| | | | | | | | 4/22/2021 | BD | CO# 1 | 35,840.00 | $ 35,840.00 | provide additional professional engineering analysis for the Reservoir 4C welded steel tank and hydro-pneumatic pump station |
| | | | | | | | 7/12/2021 | | CO#2 | 0.00 | 0.00 | slope stability evaluation |
| | | | | | | | 8/30/2021 | GM | CO#3 | 3,347.00 | $ 3,347.00 | additional analysis eliminating reservoir storage |
| | | | | | | | | | | | $ 305,068.00 | |
| **650-22-02** | | **Tierra Rejada Well** | **$ 295,000.00** | **$ 62,185.75** | | | | | | | | |
| | | | | | | Hopkins Groundwater Consultants | 11/16/2020 | GM | | 3,960.00 | $ 3,960.00 | Task 1 Well Information Review and Analysis |
| | | | | | | | 2/1/2021 | GM | CO#1 | 12,720.00 | $ 12,720.00 | Task 2,3,& 4 |
| | | | | | | | 6/25/2021 | GM | CO#2 | 3,540.00 | $ 3,540.00 | Technical Support. Review update specifications Task 5 |
| | | | | | | | 7/14/2021 | GM | CO#3 | 3,240.00 | $ 3,240.00 | Additional technical support Task 2 & Task 3 |
| | | | | | | | 12/9/2021 | BD | CO #4 | 5,490.00 | $ 5,490.00 | Additional inspection servies/spinner overview |
| | | | | | | | | | | | $ 28,950.00 | |
| | | | | | | General Pump | 8/15/2021 | BD | | | $ 222,223.00 | Rehabilitation of Tierra Rejada Well |
| | | | | | | | 10/21/2021 | GM | CO#1 | | $ 950.00 | Conduct dynamic video and provide report |
| | | | | | | | 12/9/2021 | BD | CO#2 | | $ 32,925.50 | Additional cleaning |
| | | | | | | | 12/9/2021 | BD | CO#3 | | $ 29,765.73 | additional pump installation/removal |
| | | | | | | | | | | | $ 285,864.23 | |

**FUNDS FY 21-22**

| UNRESTRICTED FUNDS | JULY | AUGUST | SEPTEMBER | OCTOBER | | NOVEMBER | DECEMBER | JANUARY |
|---|---|---|---|---|---|---|---|---|
| LAIF | 29,063,071.14 | 29,063,071.14 | 29,063,071.14 | 28,460,564.62 | 1,2,6 | | | |
| UNION BANK DEPOSIT ACCOUNT | 540,806.84 | 652,148.31 | 637,269.75 | 640,504.35 | | | | |
| UNION BANK DISBURSEMENTS ACCOUNT | 709,022.24 | 1,191,275.90 | 493,799.34 | 693,438.01 | | | | |
| BANK OF AMERICA-RTL ACCOUNT | 402,940.55 | 521,841.75 | 164,260.51 | 363,986.18 | | | | |
| TOTAL | $ 30,715,840.77 | $ 31,428,337.10 | $ 30,358,400.74 | $ 30,158,493.16 | | $ - | $ - | $ - |
| **RESTRICTED FUNDS** | | | | | | | | |
| PAYMENT FUND 2016 | 83.30 | 179.53 | 271.13 | 356.63 | 3,4 | | | |
| RESERVES 2016 | 879,528.69 | 879,528.69 | 879,528.69 | 879,528.69 | 3 | | | |
| WATER ACQUISITION FUND 2016 | 3,438,209.23 | 3,253,934.00 | 3,253,934.00 | 3,253,934.00 | 4 | | | |
| INSURED CASH SHELTER ACCOUNT (Wastewate | 13,793.94 | 13,795.70 | 13,797.40 | 13,798.57 | 5 | | | |
| TOTAL | $ 4,331,615.16 | $ 4,147,437.92 | $ 4,147,531.22 | $ 4,147,617.89 | | $ - | $ - | $ - |
| GRAND TOTAL | $ 35,047,455.93 | $ 35,575,775.02 | $ 34,505,931.96 | $ 34,306,111.05 | | $ - | $ - | $ - |

**Series 2016-Reserve Fund**

| Cusip Number | Financial Institution | Settlement Date | Coupon Rate | Maturity | Amount | Accrued Income |
|---|---|---|---|---|---|---|
| 09248u445 | Blackrock Liquidity Funds | 10/19/2016 | 0.03% | N/A | 879,528.69 | 18.91 |

**Series 2016-Water Acquisition Fund**

| Cusip Number | Financial Institution | Settlement Date | Coupon Rate | Maturity | Amount | Accrued Income |
|---|---|---|---|---|---|---|
| 09248u445 | Blackrock Liquidity Funds | 10/19/2016 | 0.03% | N/A | 3,253,934.00 | 69.44 |

| ANTICIPATED OUTFLOWS | |
|---|---|
| Water Purchases October 2021 | 895,820.13 |
| Payroll PR 11-1, 11-2 & ME | 350,000.00 |
| AP Check Run 11/10 | 600,000.00 |
| Large CIP Project Payments | - |
| Bond Payments | - |
| | $ 1,845,820.13 |

**FINANCE MEETING**

**DATE** **11/16/2021**

Tony Stafford -General Manager

Tamara Sexton-Finance Manager

Sandra Llamas-Senior Accountant

**MEETING NOTES:**

1. LAIF received interest earnings through September 30, 2021 in the amount of $17,493.48
2. A transfer from LAIF to operations in the amount of $620,000 took place on October 29, 2021
3. The Reserve Fund earned $18.30 in interest in the month of October. The full amount was transferred to the Payment Fund
4. The Water Acquisition Fund earned $67.20 in interest in the month of October. The full amount was transferred to the Payment Fund
5. The Insured Cash Shelter Account earned $1.17 in interest in the month of October
6. LAIF's average monthly rate of return for the period was 0.203%

# 2022 Camrosa Board Calendar

### JANUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

### FEBRUARY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | | | | | |

### MARCH

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

### APRIL

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

### MAY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

### JUNE

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | | |

### JULY

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

### AUGUST

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

### SEPTEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | |

### OCTOBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

### NOVEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | | | |

### DECEMBER

| S | M | T | W | T | F | S |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

Camrosa Water District
7385 Santa Rosa Road
Camarillo, CA 93012

**Note:** Board of Directors meetings are highlighted in RED. Board Meetings are held on the **2nd & 4th Thursday** of each month at 5pm unless indicated.

*Calleguas Board Meetings are held 1st & 3rd Wednesday - 5:00 PM*

### 2022 Holidays

- January 3rd - New Year's Holiday (Observed)
- February 21st - President's Day
- May 30th - Memorial Day
- July 4th - Independence Day
- September 5th - Labor Day
- November 11th - Veteran's Day
- November 24th & 25th - Thanksgiving
- December 23rd & 26th - Christmas
- December 30th - New Year's Eve

### 2022 Conferences

- CASA Winter Conf. (Palm Springs) - Jan. 19th - 21st
- ACWA Spring Conf. (Sacramento) - May 3rd - 6th
- CASA 67th Annual Conf. (Squaw Creek) - Aug. 10th - 12th
- ACWA Fall Conf. (Indian Wells) - Nov. 29th - Dec. 2nd

### 2022 AWA Meetings

- *"Water Issues" Third Tuesday (except Apr., Aug., Dec.)*
- Waterwise Breakfast (See yellow on calendar)
- AWA Board Meetings (See orange on calendar)
- ***August - DARK (No Meetings or Events)***
- September 29th - Reagan Library Reception
- **DATE ?? - **Annual Symposium****
- December 8th - Holiday Mixer

### 2022 VCSDA Meetings

- February 1st - Annual Dinner
- April 5th
- June 7th
- August 2nd
- October 4th
- December 6th