



# REQUEST FOR PROPOSALS

## Title: Operation and Maintenance of County Maintained Small Water Systems

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The County of San Mateo Department of Public Works (Department) is seeking sealed proposals from fully licensed and insured domestic water distribution and treatment system operation and maintenance service providers (Contractor) for the County Service Area No. 7 (CSA 7) and County Service Area No. 11 (CSA 11) water systems.

<b>Solicitation Number</b>	DPW-2025 Water Systems RFP
<b>Number of contracts expected to be awarded</b>	1
<b>Estimated Value or Range per contract</b>	\$1,500,000-\$2,000,000
<b>Funding Sources</b>	<input type="checkbox"/> Federal <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> County <input checked="" type="checkbox"/> Other
<b>Expected Contract Duration</b>	60 months
<b>Options to Renew</b>	1 option of 12 months
<b>Hard copy &amp; Electronic proposals required</b>	1 original and 2 copies (3 hard copies in total); 1 electronic copy to be submitted via OpenGov.com
<b>County Mailing Address</b> <i>(for hard-copy communication &amp; proposal submissions)</i>	County of San Mateo Department of Public Works 555 County Center, 5th Floor Redwood City, CA 94063
<b>Authorized Contact Person</b>	Tiffany Deng, Senior Civil Engineer
<b>Authorized Contact Person E-mail</b>	qdeng@smcgov.org
<b>E-mail Address for Protests</b>	astillman@smcgov.org
<b>RFP Released</b>	March 26, 2025 5:00 P.M. PST
<b>Pre-proposal meeting date and time</b>	N/A
<b>Pre-proposal meeting location</b>	N/A
<b>Deadline for Questions, Comments and Exceptions</b>	April 14, 2025 5:00 P.M. PST
<b>Proposal Due Date and Time</b>	April 18, 2025 5:00 P.M. PST
<b>Interviews, if needed</b>	Week of April 28, 2025
<b>Submission to County Board of Supervisors for approval</b>	May 6, 2025
<b>Anticipated Contract Award Date</b>	May 6, 2025

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## **SECTION I - DEFINITIONS**

**Business Day:** Monday through Friday except for holidays as observed per the California Government Code.

**Confidential Information:** Information in any form that is not generally known and treated as confidential by a party, including business, financial, statistical, and non-public personal information, trade secrets, know-how, applications, documentation, schematics, procedures, Personally Identifiable Information, information covered by legal privilege, and other proprietary information that may be disclosed or incorporated in materials provided to one party by the other, whether or not designated as confidential, whether or not intentionally or unintentionally disclosed, and whether or not subject to legal protections or restrictions.

**Contract Materials:** finished or unfinished documents, data, studies, maps, photographs, reports, specifications, lists, manuals, software, and other written or recorded materials produced or acquired by the Contractor pursuant to the Contract for or on behalf of the County, whether or not copyrighted.

**Contract:** The agreement between San Mateo County and Contractor awarded pursuant to this solicitation.

**Contractor:** The person or other entity awarded a Contract in conformance with the terms of this solicitation and any subsequently-agreed upon terms.

**County Data:** All information, data, and other content, including Confidential Information and other information whether or not made available by San Mateo County or San Mateo County's agents, representatives or users, to a Contractor or potential Contractor or their employees, agents, representatives or Subcontractors, and any information, data and content directly derived from the foregoing, including data reflecting user access or use.

**County Systems:** The information technology infrastructure of San Mateo County or any of its designees, including computers, software, databases, networks, and related electronic systems. For this Request for Proposals, County Systems are specifically referenced as the County Service Area No. 7 (CSA 7) and County Service Area No. 11 (CSA 11) water systems.

**County:** San Mateo County

**Deliverables:** Goods or services required to be provided to San Mateo County under the Contract.

**DUNS (Data Universal Numbering System):** a proprietary nine-digit number issued by Dun and Bradstreet, Inc. to identify unique business entities.

**Force Majeure:** An event or circumstance not caused by or under the control of a party, and beyond the reasonable anticipation of the affected party, which prevents the party from complying with any of its obligations under the Contract, including acts of God, fires, floods, explosions, riots, wars, hurricane, sabotage, terrorism, vandalism, accident, governmental acts, and other events.

**Hosting:** Storage, maintenance, and management of hardware, software, and San Mateo County Data by a party other than San Mateo County, on machines and at locations other than those operated by San Mateo County, where a party other than San Mateo County has regular responsibility for back-up, disaster recovery, security, upgrades, replacement, and overall responsibility for ensuring that all hardware and software continues to function as intended.

**Key Employee:** Employees of the Contractor jointly identified by San Mateo County and the Contractor as possessing unique skill and experience that was a material consideration in San Mateo County's decision to award a contract.

**Maintenance Updates:** Any revision, update, improvement, modification, enhancement, correction, bug fix, patch, or new release for a system, platform, software or other product, including any change made as a result of applicable federal, State, or local law.

Major Change: A change to the specified performance, maintainability, operation, power requirements, compatibility, measurement, user interface, reliability, quantity, scale, quality, terms, delivery method, or requirement of any product or service that affects the obligations of the parties or reflects a substantial alteration in circumstances surrounding the agreement, or is of such a nature that knowledge of the change would affect a person's decision-making process.

PII (Personally Identifiable Information): information in any format that can be used to identify a specific individual, either used alone or combined with other private or public information that can be linked in some way to a specific individual.

Project Manager: The individual identified by San Mateo County as San Mateo County's primary contact for the receipt and management of the goods and services required under the Contract.

PST: Pacific Standard Time, including Pacific Daylight Time when in effect

Subcontractor: Firms engaged by the Contractor to perform work or provide goods pursuant to the Contract, including vendors and suppliers

Task Order or Purchase Order: A written request from San Mateo County to a vendor to provide goods or services, indicating types, quantities, prices and delivery criteria.

## **SECTION II - INSTRUCTIONS FOR PROPOSERS**

### **2.1 PRE-SUBMITTAL ACTIVITIES**

#### **A. Registration**

- (1) Organizations or individuals interested in responding to this solicitation must subscribe and register online with the County of San Mateo at:

<https://procurement.opengov.com/portal/smcgov>

Detail instruction on how to become a registered vendor with the County could be found at:

<https://www.smcgov.org/media/151569/download?inline=>

- (2) The County does not maintain the OpenGov system and is not liable for site failures or technical problems. To resolve technical issues, contact OpenGov at:

<https://opengov.com/contact-us/>

#### **B. Questions, Comments, Exceptions**

Submit questions, comments, and exceptions, including notifications of apparent errors, to the OpenGov site by the Deadline for Questions, Comments and Exceptions. Questions and comments received after the deadline may not be acknowledged.

- (1) Request for changes

If requesting changes to a part of this solicitation, identify the specific words or phrases and the sections and paragraphs in which they occur. State the reason for each request and provide alternative suggested language. Failure to submit requests by the deadline will be deemed a waiver of any exception. The County's consideration of a suggestion does not imply acceptance. If sufficient proposals are received with no requested changes, the County may reject those requesting changes.

- (2) Request for Substitution of Specified Equipment, Material, or Process

- (a) Unless otherwise stated in the solicitation, references to items or processes by trade names, models or catalog numbers are to be regarded as establishing a standard of quality and not construed as limiting competition.
- (b) If requesting a substitution for a required item, submit requests by the Deadline for Questions, Comments, and Exceptions. Furnish all necessary information required for the County, in its sole judgement, to make a determination as to the comparative quality and suitability of any suggested alternatives. The County's decision will be final. If alternatives are accepted, the County will issue an addendum to the solicitation.

#### **C. Revisions to the Solicitation**

The County may cancel, revise, or reissue this solicitation, in whole or in part, for any reason. Revisions will be posted as addenda on <https://procurement.opengov.com/portal/smcgov>. No other revision of this solicitation will be valid. Proposers are responsible for ensuring that they have received all addenda from OpenGov.

#### **D. Contact with County Employees**

Violation of the following prohibitions may result in a proposer being found non-responsible, barred from participating in this or future procurements, and becoming subject to other legal penalties.

- (1) As of the issuance date of this RFP and continuing until it is canceled or an award is made, no proposer or person acting on behalf of a prospective proposer may discuss any matter relating to the RFP with any officer, agent, or employee of the County, other than through OpenGov, to the Authorized Contact Person, or as outlined in the evaluation or protest procedures.

- (2) Proposers may not agree to pay any consideration to any company or person to influence the award of a contract by the County, nor engage in behavior that may be reasonably construed by the public as having the effect or intent of influencing the award of a contract.

E. Pre-proposal conference and site visits

If a pre-proposal conference or site visit is scheduled, answers to questions raised prior to and at the events will be posted on OpenGov.

## 2.2 PROPOSAL CONTENT REQUIREMENTS

A. Proposal Format

Number all pages of the proposal. Label and order each section as follows:

- (1) Cover letter - no longer than one page, signed by an individual authorized to execute legal documents for the proposer, identifying the materials submitted.
- (2) Authorized contacts - identify the name and title of the person to contact regarding the proposal, as well as all other individuals authorized to represent the organization in contract negotiations.
- (3) Table of Contents, listing all major topics and their respective page numbers.
- (4) Exceptions to the solicitation, or to the final revised solicitation, if any.
- (5) Technical Proposal
- (6) Supplementary Documents, as requested
- (7) Price Proposal

B. Technical Proposal Contents

- (1) Explain responses so as to be understood by people unfamiliar with industry jargon. Use drawings, diagrams, schematics and illustrations as needed, but do not simply refer readers to an exhibit or other section of the proposal in lieu of a complete response.
- (2) Addressing each requirement outlined in this solicitation in the order presented, describe how the requested goods and services will be provided.
- (3) If applicable or requested, include a project schedule with milestones, deliverables, dates, and a project management plan.
- (4) Specify any needs for physical space or equipment that the County must provide during the engagement.
- (5) Explain how work, equipment, and knowledge will be transitioned to the County or a new vendor at the end of the contract period.

C. Supplementary Documents

If additional documents and materials are appropriate, or have been requested by the County, provide in the following order as applicable:

- (1) Minimum Qualifications, using County forms if provided.
- (2) Organizational Capacity and Experience, describing work of a similar nature undertaken for a similar entity.
- (3) Financial Documents.
- (4) Samples, drawings, illustrations and related items.
- (5) Attachments, certifications, and forms, executed as applicable.

D. Price Proposal

- (1) Place all cost and pricing data in a separate sealed envelope clearly marked "PRICE PROPOSAL".

- (2) If forms and templates are provided for the Price Proposal, use them without modification. Failure to use the forms or templates provided, or modification of them, may result in rejection of the entire proposal.
- (3) Alternative Price Proposals may be submitted, but only in addition to, not in lieu of, the requested Price Proposal. If submitting an alternative Price Proposal, clearly identify it as an alternative.
- (4) Include prices for the base period of service and if applicable, for each additional year including option years.
- (5) Unless otherwise indicated, when applicable, in the price of an item, include all licenses required for operation, as well as upgrades and revisions to software over the term.

### **2.3 PROPOSAL SUBMISSION**

#### **A. Submit proposals as directed below.**

##### **(1) Electronic Submissions**

Include the proposer name and the RFP title and number in each filename. Submit proposals via the OpenGov website, allowing sufficient time for the upload to complete by the Due Date and Time. Partial uploads will automatically terminate and proposals will be rejected. The OpenGov submission time will be the official submission time. Contact OpenGov with technical questions regarding the site. The County will not be responsible for and may not accept proposals that are late due to slow internet connections or for any other failure of the OpenGov system.

##### **(2) Conflicts between Certain Requirements**

Prior to the submission deadlines and solely relating to a determination of the timeliness of questions, comments, and proposal submissions, information displayed on the OpenGov site will take precedence in the event of a discrepancy between that information and the information within the solicitation documents. For all other discrepancies, the information in the solicitation documents will take precedence.

##### **(3) Hard copy submissions**

- (a) If hard copy submissions are also requested, submit proposals with all required documents in a sealed package to the designated County Mailing Address. Within the package, submit the Technical Proposal and the Price Proposal in separate envelopes. Clearly mark the following information on the outside of the package:

- Proposer Name
- Return address
- Solicitation title
- Solicitation number

- (b) Submit proposals and all required documentation so as to physically reach the designated address by the Due Date and Time.

- (4) Hand-written responses, whether or not submitted electronically, will be rejected, with the exception that signatures may be hand-written.

#### **B. Errors in Proposals**

The County will not be liable for any errors in proposals. Proposals may be rejected as unresponsive if they are incomplete, are missing pages or information, or cannot be opened for any reason. The County may waive minor irregularities but such waiver will not modify any remaining RFP requirements.

### **2.4 PROPOSER CERTIFICATIONS**

By submitting a proposal, each proposer certifies under penalty of perjury that:

- Its submission is not the result of collusion or any other activity that would tend to directly or indirectly influence the selection process; and

- Proposer is able or will be able to comply with all requirements of this solicitation at the time of contract award; and
- Neither proposer, its employees, nor any affiliated firm providing the requested goods and services has prepared plans, specifications, terms or requirements for this solicitation, or has any other actual or potential conflict of interest; and
- Proposer is aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the California Government Code relating to conflict of interest of public officers and employees, and is unaware of any financial or economic interest of any County officer or employee relating to this solicitation.

## **2.5 WITHDRAWAL OF PROPOSALS**

Proposals may be withdrawn, modified, or replaced at any time prior to the Due Date and Time. After that time, whether or not a new solicitation is issued for the same subject matter, withdrawal of a proposal may preclude the proposer from participating in the procurement as a proposer or subcontractor, except that an original equipment manufacturer may participate indirectly through a reseller.

## **2.6 NO COMMITMENT**

Neither submission of a proposal nor the County's receipt of proposal materials confers any right to the proposer nor any obligation on the County. This RFP does not commit the County to award a contract, nor will the County defray any costs incurred in preparing proposals or participating in any presentations or negotiations.

## **2.7 ESTIMATED QUANTITIES**

If the solicitation results in an indefinite quantity or a requirements Agreement, the goods and services actually requested by the County may be less than the maximum value of the Agreement and there is no guarantee, either expressed or implied, as to the actual quantity of goods and services that will be authorized under the Agreement.

## **2.8 PROPOSER SELECTION**

At any time in the evaluation process, the County may request clarifications from proposers.

### **A. Determination of Responsiveness**

A responsive proposal conforms to the instructions set forth in this solicitation and any modifications to it. Non-responsive proposals will be rejected. The County, in its sole discretion, may waive non-consequential deviations if the deviations cannot have provided an advantage over other proposers.

### **B. Proposal Evaluation**

The County will establish an evaluation committee which will evaluate responsive proposals based on the criteria specified in the solicitation. The committee may then recommend one or more top-ranked proposers for final negotiation of contract terms, or may invite one or more proposers for oral presentations and demonstrations, following which those proposers may be allowed to amend their proposals. After evaluating presentations and amended proposals, the committee may recommend one or more top-ranked proposers for final negotiation of contract terms.

### **C. Determination of Responsibility**

The County will make a determination of the responsibility of any proposer under consideration for award, taking into consideration matters such as the proposer's integrity, compliance with public policy and laws, past performance, fiscal responsibility, trustworthiness, financial and technical resources, capacity, and experience to satisfactorily carry out its responsibilities. The County will notify any proposer found non-responsible and allow the finding to be contested.

## **2.9 CONTRACT AWARD**

### **A. Notice of Intent to Award**

Once a decision has been made to award a contract to one or more proposers, the County will post a Notice of Intent to Award, notifying the remaining proposers of their non-selection. The posting may be inclusion of the recommendation to award as an agenda item on the Board of Supervisors schedule.

### **B. Award Procedure**

Contract negotiations are neither an offer nor an implicit guarantee that a contract will be executed. Award, if made, will be to the responsive, responsible proposer offering the overall best value to the County for the services and goods described in this solicitation, or as applicable, for a specific portion of the services and goods described. Any agreement reached will be memorialized in a formal agreement using the attached Standard Agreement template.

### **C. Commencement of Performance**

After all parties have signed the Agreement, the County will notify the proposer and performance may proceed. Prior to County execution of the Agreement, no County employee may authorize work. Any work performed prior to that time may be uncompensated.

## **2.10 PROTESTS**

Protests that do not comply with the protest procedures outlined below will be rejected.

### **A. Protest Eligibility, Format, and Address**

- (1) Protests or objections may be filed regarding the procurement process, the content of the solicitation or any addenda, or contract award.
- (2) The County will only review protests submitted by an interested party, defined as an actual or prospective proposer whose direct economic interest could be affected by the County's conduct of the solicitation. Subcontractors do not qualify as interested parties.
- (3) Submit protests to the Director of Public Works by e-mail to [astillman@smcgov.org](mailto:astillman@smcgov.org) or via hard copy to: Director of Public Works, 555 County Center, 5<sup>th</sup> Fl, Redwood City, CA 94063

### **B. Protest Deadlines**

Submit protests with any supplemental materials by 5 p.m. PST, as appropriate, on the deadlines set forth below. The date of filing is the date the County receives the protest, unless received after 5 p.m. PST, or on other than a Business Day, in which case the date of filing will be the next Business Day. Failure to file by the relevant deadline constitutes a waiver of any protest on those grounds. Supplemental materials filed after the relevant deadline may be rejected by the County.

- (1) If relating to the content of the solicitation or to an addendum, file within five Business Days after the date the County releases the solicitation or addendum.
- (2) If relating to any notice of non-responsiveness or non-responsibility, file within five Business Days after the County issues such notice.
- (3) If relating to intent to award, file within five Business Days after the County issues notice of Intent to Award. No protests will be accepted once actual award has been made.

### **C. Protest Contents**

- (1) The letter of protest must include all of the following elements:
  - (a) Detailed grounds for the protest, fully supported with technical data, test results, documentary evidence, names of witnesses, and other pertinent information related to the subject being protested; and

- (b) The law, rule, regulation, ordinance, provision or policy upon which the protest is based, with an explanation of the violation.

(2) Protests that simply disagree with decisions of the Evaluation Committee will be rejected.

D. Reply to Protest

The County will send a written response to the protestor and to any other party named in the protest.

E. No Stay of Procurement Action during Protest

Nothing in these protest requirements will prevent the County from proceeding with negotiations or awarding a purchase order or contract while a protest is pending.

## 2.11 PUBLIC RECORDS

A. General

- (1) All proposals, protests, and information submitted in response to this solicitation will become the property of the County and will be considered public records. As such, they may be subject to public review.
- (2) Any contract arising from this RFP will be a public record.
- (3) Submission of any materials in response to this RFP constitutes:
  - (a) Consent to the County's release of such materials under the Public Records Act without notice to the person or entity submitting the materials; and
  - (b) Waiver of all claims against the County and/or its officers, agents, or employees that the County has violated a proposer's right to privacy, disclosed trade secrets, or caused any damage by allowing the proposal or materials to be inspected; and
  - (c) Agreement to indemnify and hold harmless the County for release of such information under the Public Records Act; and
  - (d) Acknowledgement that the County will not assert any privileges that may exist on behalf of the person or entity submitting the materials.

B. Confidential Information

- (1) The County is not seeking proprietary information and will not assert any privileges that may exist on behalf of the proposer. Proposers are responsible for asserting any applicable privileges or reasons why a document should not be produced in response to a public record request.
- (2) If submitting information protected from disclosure as a trade secret or any other basis, identify each page of such material subject to protection as "CONFIDENTIAL". If requested material has been designated as confidential, the County will attempt to inform the proposer of the public records request in a timely manner to permit assertion of any applicable privileges.
- (3) Failure to seek a court order protecting information from disclosure within ten days of the County's notice of a request to the proposer will be deemed agreement to disclosure of the information and the proposer agrees to indemnify and hold the County harmless for release of such information.
- (4) Requests to treat an entire proposal as confidential will be rejected and deemed agreement to County disclosure of the entire proposal and the proposer agrees to indemnify and hold the County harmless for release of any information requested.
- (5) Trade secrets will only be considered confidential if claimed to be a trade secret when submitted to the County, marked as confidential, and compliant with Government Code Section 6254.7.

## **SECTION III - QUALIFICATIONS, EXPERIENCE, AND EVALUATION CRITERIA**

### **3.1 MINIMUM QUALIFICATIONS**

Proposals will be accepted only from organizations that meet the following required qualifications at the time of proposal submission:

- The proposer has been actively and normally engaged for the past five years in the services described in this solicitation.
- The proposer has staff that is fully licensed and insured domestic water distribution and treatment system operators (provide copy of license or certification)
- The proposer has experience with operating and managing small community based water systems in the State of California.
- The proposer is legally authorized to do business in the State of California.
- The proposer has operators that have been with the company for a minimum of 2 years.

### **3.2 ORGANIZATIONAL CAPACITY AND EXPERIENCE**

Provide all of the following regarding the prime proposer and if applicable, all joint proposers.

#### **A. Organizational Capacity:**

- (1) Titles and names of staff members who will be on the team responsible for the project, as well as the expected availability of the various individuals. If requested, include the resume of a dedicated, full-time project manager.
- (2) All applicable licenses and license numbers relevant to the project, the names of the holders of those licenses, and the names of the agencies issuing the licenses.
- (3) If portions of work will be performed by subcontractors, names of proposed subcontractors other than suppliers and descriptions of their respective responsibilities.

#### **B. Experience**

- (1) The number of years providing services similar to those contemplated
- (2) The number of years providing services to government entities

### **3.3 REFERENCES**

Provide at least three references from successfully completed projects of similar nature to that described in this solicitation, including the name of the organization for which work was performed, and the name, phone number, and e-mail address of an individual at the organization who was responsible for managing and accepting the work. Ensure that contact information is current. If the County cannot contact the reference because of incorrect or out-of-date information, the reference will be deemed not to have been provided.

### **3.4 EVALUATION CRITERIA**

Proposals will be evaluated in accordance with the following evaluation criteria:

- 45% - Method and approach
  - Apparent understanding of the scope of services to be provided
  - Appropriateness of the proposed solution/services
- 30% - Experience and organizational capacity
  - Qualifications and experience of both the proposer and key personnel
  - Experience with other public agencies

- Organizational resources and staff, apparent ability to meet any required timelines or other requirements
- 25% - Price

## **SECTION IV - INSURANCE**

Provide evidence of insurance for each of the checked categories

<input checked="" type="checkbox"/>	<b>General Liability</b> (Including operations, products and completed operations, as applicable.)	<b>\$1,000,000</b> - per occurrence (\$2,000,000 aggregate) for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, the general aggregate limit either must apply separately to this project or must be twice the required occurrence limit.
<input checked="" type="checkbox"/>	<b>Automobile Liability</b>	<b>\$1,000,000</b> - per accident for bodily injury and property damage.
<input checked="" type="checkbox"/>	<b>Workers' Compensation</b>	<b>As required by the State of California</b>
<input checked="" type="checkbox"/>	<b>Employers' Liability</b>	<b>\$1,000,000</b> - each accident, <b>\$1,000,000</b> policy limit bodily injury by disease, <b>\$1,000,000</b> each employee bodily injury by disease.
<input checked="" type="checkbox"/>	<b>Professional Liability</b> (Errors and Omissions)	<b>\$1,000,000</b> - per occurrence.
<input type="checkbox"/>	<b>Cyber Liability</b>	<b>\$5,000,000</b> per occurrence for Privacy and Network Security, <b>\$1,000,000</b> per occurrence for Technology Errors and Omissions To be carried at all times during the term of the Contract and for three years thereafter.
<input type="checkbox"/>	<b>Pollution Liability</b>	\$ - Per Occurrence
<input type="checkbox"/>	<b>Pollution Liability (Aggregate)</b>	\$

## ***SECTION V - STANDARD TERMS AND CONDITIONS***

**PLEASE NOTE:** The sample standard contract attached to this RFP (Attachment B) is a template and does not constitute the final agreement to be prepared for the consultant that is selected. Do not attempt to insert missing information and complete the attached sample. Once a consultant is selected, the Department will work with the selected consultant to draft a consultant specific contract using the template. However, each proposal should address the general terms of the standard contract as outlined in this section.

## **SECTION VI - SCOPE OF WORK AND SPECIAL PROVISIONS**

### **6.1 SUMMARY**

The scope of work will include but not be limited to the operation and maintenance of domestic water treatment plant, storage tanks and distribution systems at CSA-7 and domestic wells, supply lines, storage tanks, pump house, emergency generator and water disinfection equipment (including chemical feed pumps, storage bins, and all accessories) and distribution system at CSA-11. Operation and maintenance of these facilities will include all necessary materials, chemicals, supplies, licensed/certified personnel, emergency response to protect public health, public notifications and communications, sampling, testing and the generation and submission of all reports required for the operation and maintenance of domestic water facilities according to all applicable State, Federal, and Local regulations. All reports will be prepared at least three weeks before they are due to allow for adequate review time by the Department. Repairs to treatment plant equipment and distribution systems shall also comply with current industry standards and regulatory agency requirements. The work will also consist of assisting with State inspections and improvement projects, availability is expected for field or virtual meetings with short notice.

### **6.2 PREVAILING RATES**

The services contemplated under this procurement include “public works”. For all such work funded by this Agreement, the Contractor is required to comply with state prevailing wage law, Chapter 1 of Part 7 of Division 2 of the Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000, for any “public works” as that term is defined in the statutes, including all applicable flowdown provisions. For purposes of complying with prevailing wage laws, the Contractor must comply with the provisions applicable to an awarding body.

The Contractor’s attention is further directed to the following requirements of State Senate Bill SB 854 (Stat. 2014, chapter 28), effective January 1, 2015:

- (1) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015), unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].
- (2) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015), unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- (3) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

### **6.3 SCOPE OF SERVICES**

#### **A. General Description**

The Scope of Services described below set forth the minimum requirements for the quantity and quality of work to be provided hereunder. Any material or equipment necessary for the proper operation and maintenance of the systems to be purchased by the Contractor shall meet or exceed the specifications described below or attached hereto. As used herein, the term “work” refers to the articles, equipment, materials, supplies and labor as specified, designated or otherwise required by the RFP. Additional terms, conditions and requirements pertaining to the methods and manner of performing the work are described elsewhere in the RFP.

Except where specified to the contrary herein, all services shall be supplied with the equipment and accessories indicated in the standards for said work. No advantage shall be taken by the Contractor in omitting any unspecified minor article that goes into making the maintenance and services complete.

B. Specifications

Operation and maintenance of domestic water treatment plant, storage tanks and distribution systems for CSA-7. CSA-7 will also include the maintenance and operation of new 3" raw water and 4" treated water mains to be constructed in Pescadero Creek Road and La Honda Road, and a secondary raw water intake which could be installed and commissioned during the initial or optional terms of this contract.

Operation and maintenance of domestic wells, supply lines, storage tanks, pump house, disinfection equipment and distribution system at CSA-11. CSA-11 will also include the maintenance and operation of a 1.27 mile long new 6" water main extension to the Pescadero High School to be constructed by summer of 2025.

Operation and maintenance of these facilities will include all necessary materials, chemicals, supplies, licensed/certified personnel, emergency response to protect public health, public notifications and communications, sampling, testing and the generation and submission of all reports required for the operation and maintenance of domestic water treatment facilities according to all applicable State, Federal, and Local regulations. Repairs to treatment plant equipment and distribution systems shall also comply with current industry standards and regulatory agency requirements. The work will also consist of assisting with State inspections and improvement projects, availability is expected for field or virtual meetings with short notice.

C. Standards

Services to be performed shall be in accordance with State, Federal, and Local regulations and per site permits governing the operation and maintenance of domestic water treatment and distribution in San Mateo County.

Standard work hours will be 8:00 am to 5:00 pm Monday through Friday. Different work hours may be accepted upon request. Any work outside of the determined work hours shall be considered as extra work and paid at time and half rates.

Typical needs for water systems may consist of, but not be limited to:

- Prepare, review and update Operations & Maintenance (O&M) Plans. Updates to the O&M Plan shall be done once a year.
- Order and stock all necessary equipment, chemicals, spare parts and tools for the routine operation and upkeep of the systems. All items shall be included in the base bid pricing submitted under this RFP. Items for additional work or work outside the scope of work may be reimbursed per Section VI of this RFP.
- Calibrate all flow meters and recorders at least once a year.
- Maintain all mechanical equipment including but not limited to: monitoring well pumps and motors for efficiency drop-off, submersible pumps and service pumps, chemical feed systems including tubing replacements, cleaning and maintaining injection tap, cleaning moving parts on pumps and calibrating pumps.
- Clean and maintain chemical tanks once build-up/sludge starts to occur on the bottom of tank.
- Maintain all electrical equipment, including but not limited to, alarm system and controls, power sources and controls to all mechanical equipment.
- Perform and submit all standard and emergency laboratory tests in accordance with schedules and requirements of current permits, analyze results, take or recommend necessary actions. Maintain laboratory records, equipment and order supplies as required.
- Inspect and maintain outlying pumps at creek diversion points and well heads to ensure standards of operation. Recommend to County any necessary pump repairs, including electrical systems, not outlined within contract.

- Perform preventative maintenance on machinery and recommend to County any necessary plant repairs, including electrical systems, not outlined within contract and all facility related maintenance.
- Perform plant building and storage tank inspection and cleaning activities.
- Perform and update distribution system mainline flushing programs.
- Perform routine exercising and testing of valves and devices.
- Monitor all plant and storage tank alarms.
- Prepare and file daily, weekly, monthly and annual laboratory result reports as required by the State Water Resources Control Board Division of Drinking Water (DDW).
- Add necessary chemicals to water treatment systems to maintain acceptable water quality levels.
- Review laboratory test results and other data to determine if changes are needed for appropriate treatment plant operations.
- Interpret data under unique circumstances or reconcile conflicting data from laboratory tests and other sources of information.
- Provide direct supervision of County maintenance staff, contract employees and/or subcontractors, and coordinate with County authorized personnel for scheduling work activities and other operation related items.
- Coordinate and communicate with DDW on issuance of any emergency water quality notifications and cancellations. All written communications with DDW will include a carbon copy to County staff, or a written follow up summary of the communication that occurred on the same business day. If a written summary is not feasible in a timely manner, a call to County staff shall be made informing staff of the communication.
- Preparation and distribution of any emergency water quality notifications and cancellations to customers. These notifications shall be approved by the County prior to distribution.
- Investigate and locate distribution system breaks. Once the repair is completed, a summary will be provided to the County with the following information: photographs of repair, location of the repair to be marked on system maps, summary e-mail or report with cause of break, materials used for repair and any further recommendations.
- Communication and response time expectations for responding to breaks include responding within 2 hours of notification of a potential break. Once the break is located, an update will be provided to the County with the approximate location, severity of break, and estimated time to repair the break. Updates on the status of the break will be provided to the County as status change but not longer than 2 hours.
- Responsible for permit renewals, non-compliance notifications, O&M manual updates, and Quality Assurance manual updates.
- Respond to customer questions and complaints. All written communications with customers will include a carbon copy to County staff, or a follow up summary of the communication that occurred as soon as feasible. Summary will be provided no later than 2 days after each incident.
- Locate and mark facilities in response to Underground Service Alert (USA) requests
- Attend all audits and inspections as requested by the DDW.
- Document each shift by completing necessary paperwork.

- Notify County, or its designees, of noticeable facility repairs or needs. However, building and facility maintenance beyond water is the County's responsibility.
- Develop, implement and update required Lead and Copper Sampling/Monitoring Plans when appropriate.
- Provide a list of potential State approved laboratories to be used.
- Perform meter reading for CSA-7 (approximately 70 residential accounts, 6 camp sites in Sam McDonald Park, one at Camp Glenwood Boys Ranch) quarterly and CSA-11 (approximately 100 accounts) bi-monthly. Meter reads will use a cloud-based reporting system. Contractor will occasionally be required to perform re-read or confirmation of submitted reads within an agreed upon timeframe. Checking for possible service line based on water consumption data and area surrounding meter. Testing water meter functionality and water meter replacement when necessary. Maintenance of water meter components and water meter boxes. County staff will review reads in a timely manner and provide a summary of re-reads and confirmations to Contractor.
- Perform water shutoff services for account closure and/or non-payment.
- Perform resumption of water service and water service turn on.
- Printing of door hanger labels and distribution of door hanger notices as directed by County staff. Door hangers template will be provided to Contractor with property address and amount due.
- When directed by County staff locate and mark customer service lines, reroute service lines and reinstall water meters, and inspect/approve service line installation or replacement work performed by customers' contractors.
- Contractor will be responsible for costs associated with all water sampling as required by the current DDW permits. This includes but is not limited to: laboratory fees, sample bottles, materials and/or chemicals necessary to take samples, costs incurred with collecting and delivering samples.
- Track and document separately expenses for each system and for each system separate expenses for individual incidents such as leaks (provide location and dates), unexpected work, and cost associated with additional testing requirements that may arise.
- Provide the County written reports necessary for compliance for each of the systems. For annual reports, submit them three weeks before the due date. Reports shall be submitted through electronic submission to the County.
- Detail System Specific Requirements, including but not limited to the following:

**CSA-7 Water System**

**Weekly Tasks**

- Conduct visual inspection of the distribution system for leaks or standing water
- Conduct visual inspection of the storage tanks' exterior
- Inspect filter media level to maintain water quality
- Inspect creek pump for noise, vibration, overheating and plugging of the intake screen
- Verify function of the treatment plant system to ensure operational efficiency
- Check all chemical levels and verify chemical feed pump function properly
- Check filter function and manual backwash the filter to ensure proper function
- Verify emergency generator functionality
- Check operation of water supply pump(s)

- Monitor storage tank water levels and submit Storage Tank Level Monitoring Report
- Verify chlorine residuals using handheld meters and compare with inline analyzer

#### **Monthly Tasks**

- Grease water pumps as needed to ensure smooth operation
- Provide Surface Water Treatment Regulation summary
- Water System Monitoring Report
- Complete the monthly maintenance checklist documenting all activities
- Conduct bacteriological sampling per the sample siting plan
- Coliform Reporting Form
- Long Term 2 (LT2) Source Coliform Monitoring
- Summary of Distribution System Coliform monitoring
- Monthly monitoring reports shall be submitted to DDW by the 10<sup>th</sup> of each month

#### **Quarterly Tasks**

- Perform calibration checks on all analytical equipment, including chlorine analyzers, turbidity analyzers, and pH probes.
- Monitor iron and aluminum concentrations in both raw and treated water.
- Collect water samples for disinfection byproducts using (TTHM and HAA5)
- Test the alarm system for critical set points
- Prepare and submit Alarm System Testing Report
- Prepare and submit Disinfectant Residuals Compliance Report for Systems using Chlorine

#### **Annual Tasks**

- Measure filter media level and add new media as needed
- Perform lead and copper testing (every three years in September unless action levels are exceeded)
- Update lead and copper service line inventory data per DDW requirement, if needed
- Flush dead-end mains to remove sediment and maintain water quality
- Test and report on backflow prevention devices (including backflow tags and tester fee)
- Prepare and submit Electronic Annual Report (EAR)
- Prepare and submit Consumer Confidence Report (CCR)
- Prepare and submit Small Water System Annual Report to the Drinking Water Program
- Hazardous Material Report
- Water Quality Emergency Notification Plan
- Sanitary Survey scheduled with DDW
- Conduct sampling and testing per DDW requirement
- Schedule tank cleaning and recoating, if necessary

#### **Customer Service and Emergency Response**

- Perform meter reading, service line inspection and installation as required
- Provide water shutoff and resumption services for delinquent account as directed by County staff

- Respond to customer complaints and inquiries related to water quality, pressure issues or service interruption, documenting all communications
- Investigate, locate and repair system breaks and provide a report detailing location, cause, materials used, and recommendations
- Respond within **two hours** to reported system issues, updating the County every two hours until repair is completed

### **CSA-11 Water System**

#### **Weekly Tasks**

- Conduct visual inspection of well sites for leaks, hazards, and proper pump operation
- Conduct visual inspection of the distribution system for leaks or standing water
- Conduct visual inspection of the storage tanks' exterior
- Monitor storage tank water levels and submit Storage Tank Level Monitoring Report
- Inspect Chlorine feed pumps, adjust dosage, and refill sodium hypochlorite as needed.
- Measure free chlorine residual in storage tank discharge
- Collect free chlorine residual samples from the distribution system

#### **Monthly Tasks**

- Download well depth data logs and submit the data to the County
- Conduct bacteriological sampling per the sample siting plan
- Coliform Reporting Form
- Summary of Distribution System Coliform monitoring
- Water System Monitoring Report
- Monthly monitoring reports shall be submitted to DDW by the 10<sup>th</sup> of each month

#### **Quarterly Tasks**

- Inspect the interior of storage tanks for structural integrity and contamination risks
- Test the alarm system for critical set points
- Prepare and submit Alarm System Testing Report
- Test the corrosion control system for voltage compliance
- Perform raw water sampling from wells
- Prepare and submit Disinfectant Residuals Compliance Report for Systems using Chlorine

#### **Annual Tasks**

- Rebuild the chlorine feed pump using a rebuilt kit
- Hydrant Flushing and Isolation Valve Exercising
- Flush dead-end mains to remove sediment and maintain water quality
- Test and report on backflow prevention devices (including backflow tags and tester fee)
- Prepare and submit Electronic Annual Report (EAR)
- Prepare and submit Consumer Confidence Report (CCR)
- Prepare and submit Small Water System Annual Report to the Drinking Water Program
- Hazardous Material Report

- Water Quality Emergency Notification Plan
- Sanitary Survey scheduled with DDW
- Conduct sampling and testing per DDW requirement
- Update lead and copper service line inventory data per DDW requirement, if needed
- Schedule tank cleaning and recoating, if necessary

**Customer Service and Emergency Response**

- Perform meter reading, service line inspection and installation as required
- Provide water shutoff and resumption services for delinquent account as directed by County staff
- Respond to customer complaints and inquires related to water quality, pressure issues or service interruption, documenting all communications
- Investigate, locate and repair system breaks and provide a report detailing location, cause, materials used, and recommendations
- Respond within **two hours** to reported system issues, updating the County every two hours until repair is completed

For all labor-intensive work that isn't part of the every day to day operation of the facilities, the operator shall submit a proposal to the County to complete the work, per the pricing submitted under this RFP. Proposal shall include all materials necessary to fix the specific problem.

Repair of distribution system breaks shall be performed by the Contractor as specified below:

Repairs on the system for issues that come up during Contractor regular operating hours and on regular operating days are included in the contract.

For CSA-7 Contractor regular operating days are currently Monday, Wednesday, and Friday.

For CSA-11 Contractor regular operating days vary but are required to include being at the plant minimum 1 time per week.

Contractor agrees that regular operating days and hours may be adjusted for certain days or periods of time due to specific needs of each system.

If any repair work needs to be done outside of the regular operating hours and days or if a repair that is started during regular operating hours goes past the normal operating hours an emergency call-out credit will be applied. The call-out credit of \$500 will be applied; however, any work required for any repair after the call-out credit is used up will be invoiced on a time and materials basis. There will be a total of 6 call-out per system per year.

After the allotted 6 call-outs per system per year are used up any repair will be billed on a time and materials basis.

Proposed fee schedule for each County system shall be considered to include all compensation to adequately provide all operation and maintenance services meeting the needs described above except where specifically indicated or excluded.

D. Labor, Materials and Supplies

Labor, materials, and supplies shall be provided by the Contractor. Contractor shall make efforts to retain labor and purchase parts and materials in local jurisdiction when possible or feasible.

E. Fees

Costs relative to operations and maintenance will not be subject to overtime or travel costs.

Purchases for materials and supplies shall be reimbursed by the County at cost to the Contractor.

Repair of distribution system breaks shall be performed by the Contractor based on agreed upon prices or then current billing rates, except when the repair work is part of the identified Call-Outs as specified below.

Additional laboratory tests required as a result of new State, Federal or Local regulations after contract execution will be performed based on agreed upon prices or then current billing rates. Six (6) Call-Outs (work at a time outside normal working hours, usually during an emergency) per system will be required and identified within each system's annual cost. County recognizes that efforts required (i.e. labor, equipment, response time, etc.) to each Call-Out may vary depending on the nature of emergency and distance travelled by contractor, each Call-Out shall equal to a credit of up to \$500. However, the credit is deducted from the monthly invoice only when costs for the Call-Outs were incurred by the contractor. No credits are due for Call-Outs less than the twelve events in a 12-month period (i.e. if only 4 Call-Outs occurred during the 1st 12-month period after the Notice to Proceed is issued, it is not necessary for Contractor to deduct credit for the 2 remaining Call-Outs). In the event there are more than the 6 Call-Outs in a 12-month period in a system, all costs incurred by the Contractor shall be reimbursed by the County based on agreed upon prices or then current billing rates. Responses in addition to identified contract Call-Outs are not subject to overtime/travel costs as they are considered part of maintenance and operations.

For informational purposes, fee proposals shall also include hourly rates for normal business hours (Monday through Friday, 8:00 a.m. through 5:00 p.m.), and hourly rates for after hours (Monday through Friday, 5:00 p.m. through 8:00 a.m., Saturdays and Sundays).

- F. Attachments
  - A) Contractors Declaration Form
  - B) Standard County Agreement with Independent Contractor
  - C) Chapter 2.84 of the Ordinance Code of San Mateo County
  - D) Chapter 2.85 of the Ordinance Code of San Mateo County
  - E) CSA 7 Operators Plans
  - F) CSA 11 Operations Plan
  - G) CSA 7 Water Quality Sampling Frequency
  - H) CSA 11 Water Quality Sampling Frequency
  - I) CSA 7 Domestic Water Supply Permit
  - J) CSA 11 Domestic Water Supply Permit
  - K) CSA 11 Amendment to Domestic Water Supply Permit
  - L) CSA 7 2023 Consumer Confidence Report
  - M) CSA 11 2023 Consumer Confidence Report
  - N) System Location Maps

## **Attachment A - Contractor's Declaration Form**

# Enclosure 1. Contractor's Declaration Form

## County of San Mateo Contractor's Declaration Form

### I. CONTRACTOR INFORMATION

Contractor Name:		Phone:	
Contact Person:		Fax:	
Address:			

### II. EQUAL BENEFITS (check one or more boxes)

*Contractors with contracts in excess of \$5,000 must treat spouses and domestic partners equally as to employee benefits.*

- Contractor complies with the County's Equal Benefits Ordinance by:
  - offering equal benefits to employees with spouses and employees with domestic partners.
  - offering a cash equivalent payment to eligible employees in lieu of equal benefits.
- Contractor does not comply with the County's Equal Benefits Ordinance.
- Contractor is exempt from this requirement because:
  - Contractor has no employees, does not provide benefits to employees' spouses, or the contract is for \$5,000 or less.
  - Contractor is a party to a collective bargaining agreement that began on \_\_\_\_\_ (date) and expires on \_\_\_\_\_ (date), and intends to offer equal benefits when said agreement expires.

### III. NON-DISCRIMINATION (check appropriate box)

- Finding(s) of discrimination have been issued against Contractor within the past year by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or other investigative entity. Please see attached sheet of paper explaining the outcome(s) or remedy for the discrimination.
- No finding of discrimination has been issued in the past year against the Contractor by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or any other entity.

### IV. EMPLOYEE JURY SERVICE (check one or more boxes)

*Contractors with original or amended contracts in excess of \$100,000 must have and adhere to a written policy that provides its employees living in San Mateo County up to five days regular pay for actual jury service in the County.*

- Contractor complies with the County's Employee Jury Service Ordinance.
- Contractor does not comply with the County's Employee Jury Service Ordinance.
- Contractor is exempt from this requirement because:
  - the contract is for \$100,000 or less.
  - Contractor is a party to a collective bargaining agreement that began on \_\_\_\_\_ (date) and expires on \_\_\_\_\_ (date), and intends to comply when the collective bargaining agreement expires.

**I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind this entity contractually.**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title

**Attachment B - Standard County Agreement with  
Independent Contractor**

**AGREEMENT BETWEEN THE COUNTY OF SAN MATEO AND [Contractor name]**

This Agreement is entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the County of San Mateo, a political subdivision of the state of California, hereinafter called "County," and [Insert contractor legal name here], hereinafter called "Contractor."

\* \* \*

Whereas, pursuant to Section 31000 of the California Government Code, County may contract with independent contractors for the furnishing of such services to or for County or any Department thereof; and

Whereas, it is necessary and desirable that Contractor be retained for the purpose of [Enter information here].

**Now, therefore, it is agreed by the parties to this Agreement as follows:**

**1. Exhibits and Attachments**

The following exhibits and attachments are attached to this Agreement and incorporated into this Agreement by this reference:

- Exhibit A—Services
- Exhibit B—Payments and Rates
- Attachment H—HIPAA Business Associate Requirements
- Attachment I—§ 504 Compliance
- Attachment IP – Intellectual Property

**2. Services to be performed by Contractor**

In consideration of the payments set forth in this Agreement and in Exhibit B, Contractor shall perform services for County in accordance with the terms, conditions, and specifications set forth in this Agreement and in Exhibit A.

**3. Payments**

In consideration of the services provided by Contractor in accordance with all terms, conditions, and specifications set forth in this Agreement and in Exhibit A, County shall make payment to Contractor based on the rates and in the manner specified in Exhibit B. County reserves the right to withhold payment if County determines that the quantity or quality of the work performed is unacceptable. In no event shall County's total fiscal obligation under this Agreement exceed [write out amount] (\$Amount). In the event that the County makes any advance payments, Contractor agrees to refund any amounts in excess of the amount owed by the County at the time of contract termination or expiration. Contractor is not entitled to payment for work not performed as required by this agreement.

#### **4. Term**

Subject to compliance with all terms and conditions, the term of this Agreement shall be from [Month and day] , 20[last 2 digits of start year], through [Month and day] , 20[last 2 digits of end year].

#### **5. Termination**

This Agreement may be terminated by Contractor or by the [Title of County Department Head] or his/her designee at any time without a requirement of good cause upon thirty (30) days' advance written notice to the other party. Subject to availability of funding, Contractor shall be entitled to receive payment for work/services provided prior to termination of the Agreement. Such payment shall be that prorated portion of the full payment determined by comparing the work/services actually completed to the work/services required by the Agreement.

County may terminate this Agreement or a portion of the services referenced in the Attachments and Exhibits based upon the unavailability of Federal, State, or County funds by providing written notice to Contractor as soon as is reasonably possible after County learns of said unavailability of outside funding.

County may terminate this Agreement for cause. In order to terminate for cause, County must first give Contractor notice of the alleged breach. Contractor shall have five business days after receipt of such notice to respond and a total of ten calendar days after receipt of such notice to cure the alleged breach. If Contractor fails to cure the breach within this period, County may immediately terminate this Agreement without further action. The option available in this paragraph is separate from the ability to terminate without cause with appropriate notice described above. In the event that County provides notice of an alleged breach pursuant to this section, County may, in extreme circumstances, immediately suspend performance of services and payment under this Agreement pending the resolution of the process described in this paragraph. County has sole discretion to determine what constitutes an extreme circumstance for purposes of this paragraph, and County shall use reasonable judgment in making that determination.

#### **6. Contract Materials**

At the end of this Agreement, or in the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and other written materials (collectively referred to as "contract materials") prepared by Contractor under this Agreement shall become the property of County and shall be promptly delivered to County. Upon termination, Contractor may make and retain a copy of such contract materials if permitted by law.

#### **7. Relationship of Parties**

Contractor agrees and understands that the work/services performed under this Agreement are performed as an independent contractor and not as an employee of County and that neither

Contractor nor its employees acquire any of the rights, privileges, powers, or advantages of County employees.

8. **Hold Harmless**

a. **General Hold Harmless**

Contractor shall indemnify and save harmless County and its officers, agents, employees, and servants from all claims, suits, or actions of every name, kind, and description resulting from this Agreement, the performance of any work or services required of Contractor under this Agreement, or payments made pursuant to this Agreement brought for, or on account of, any of the following:

(A) injuries to or death of any person, including Contractor or its employees/officers/agents;

(B) damage to any property of any kind whatsoever and to whomsoever belonging;

(C) any sanctions, penalties, or claims of damages resulting from Contractor's failure to comply, if applicable, with the requirements set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and all Federal regulations promulgated thereunder, as amended; or

(D) any other loss or cost, including but not limited to that caused by the concurrent active or passive negligence of County and/or its officers, agents, employees, or servants. However, Contractor's duty to indemnify and save harmless under this Section shall not apply to injuries or damage for which County has been found in a court of competent jurisdiction to be solely liable by reason of its own negligence or willful misconduct.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

b. **Intellectual Property Indemnification**

Contractor hereby certifies that it owns, controls, and/or licenses and retains all right, title, and/or interest in and to any intellectual property it uses in relation to this Agreement, including the design, look, feel, features, source code, content, and/or other technology relating to any part of the services it provides under this Agreement and including all related patents, inventions, trademarks, and copyrights, all applications therefor, and all trade names, service marks, know how, and trade secrets (collectively referred to as "IP Rights") except as otherwise noted by this Agreement.

Contractor warrants that the services it provides under this Agreement do not infringe, violate, trespass, or constitute the unauthorized use or misappropriation of any IP Rights of any third party. Contractor shall defend, indemnify, and hold harmless County from and against all liabilities, costs, damages, losses, and expenses (including reasonable attorney fees) arising

out of or related to any claim by a third party that the services provided under this Agreement infringe or violate any third-party's IP Rights provided any such right is enforceable in the United States. Contractor's duty to defend, indemnify, and hold harmless under this Section applies only provided that: (a) County notifies Contractor promptly in writing of any notice of any such third-party claim; (b) County cooperates with Contractor, at Contractor's expense, in all reasonable respects in connection with the investigation and defense of any such third-party claim; (c) Contractor retains sole control of the defense of any action on any such claim and all negotiations for its settlement or compromise (provided Contractor shall not have the right to settle any criminal action, suit, or proceeding without County's prior written consent, not to be unreasonably withheld, and provided further that any settlement permitted under this Section shall not impose any financial or other obligation on County, impair any right of County, or contain any stipulation, admission, or acknowledgement of wrongdoing on the part of County without County's prior written consent, not to be unreasonably withheld); and (d) should services under this Agreement become, or in Contractor's opinion be likely to become, the subject of such a claim, or in the event such a third party claim or threatened claim causes County's reasonable use of the services under this Agreement to be seriously endangered or disrupted, Contractor shall, at Contractor's option and expense, either: (i) procure for County the right to continue using the services without infringement or (ii) replace or modify the services so that they become non-infringing but remain functionally equivalent.

Notwithstanding anything in this Section to the contrary, Contractor will have no obligation or liability to County under this Section to the extent any otherwise covered claim is based upon: (a) any aspects of the services under this Agreement which have been modified by or for County (other than modification performed by, or at the direction of, Contractor) in such a way as to cause the alleged infringement at issue; and/or (b) any aspects of the services under this Agreement which have been used by County in a manner prohibited by this Agreement.

The duty of Contractor to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

## **9. Assignability and Subcontracting**

Contractor shall not assign this Agreement or any portion of it to a third party or subcontract with a third party to provide services required by Contractor under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement without penalty or advance notice.

## **10. Insurance**

### **a. General Requirements**

Contractor shall not commence work or be required to commence work under this Agreement unless and until all insurance required under this Section has been obtained and such insurance has been approved by County's Risk Management, and Contractor shall use diligence to obtain such insurance and to obtain such approval. Contractor shall furnish County with certificates of

insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending Contractor's coverage to include the contractual liability assumed by Contractor pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to County of any pending change in the limits of liability or of any cancellation or modification of the policy.

**b. Workers' Compensation and Employer's Liability Insurance**

Contractor shall have in effect during the entire term of this Agreement workers' compensation and employer's liability insurance providing full statutory coverage. In signing this Agreement, Contractor certifies, as required by Section 1861 of the California Labor Code, that (a) it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) it will comply with such provisions before commencing the performance of work under this Agreement.

**c. Liability Insurance**

Contractor shall take out and maintain during the term of this Agreement such bodily injury liability and property damage liability insurance as shall protect Contractor and all of its employees/officers/agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage which may arise from Contractor's operations under this Agreement, whether such operations be by Contractor, any subcontractor, anyone directly or indirectly employed by either of them, or an agent of either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amounts specified below:

- (a) Comprehensive General Liability.....\$1,000,000
- (b) Motor Vehicle Liability Insurance..... \$1,000,000
- (c) Professional Liability.....\$1,000,000

County and its officers, agents, employees, and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that (a) the insurance afforded thereby to County and its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy and (b) if the County or its officers, agents, employees, and servants have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, County, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

## **11. Compliance With Laws**

All services to be performed by Contractor pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, regulations, and executive orders, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability in programs and activities receiving any Federal or County financial assistance, as well as any required economic or other sanctions imposed by the United States government or under state law in effect during the term of the Agreement. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law, regulation, or executive order, the requirements of the applicable law, regulation, or executive order will take precedence over the requirements set forth in this Agreement.

Further, Contractor certifies that it and all of its subcontractors will adhere to all applicable provisions of Chapter 4.107 of the San Mateo County Ordinance Code, which regulates the use of disposable food service ware. Accordingly, Contractor shall not use any non-recyclable plastic disposable food service ware when providing prepared food on property owned or leased by the County and instead shall use biodegradable, compostable, reusable, or recyclable plastic food service ware on property owned or leased by the County.

Contractor will timely and accurately complete, sign, and submit all necessary documentation of compliance.

## **12. Non-Discrimination and Other Requirements**

### **a. General Non-discrimination**

No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.

### **b. Equal Employment Opportunity**

Contractor shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. Contractor's equal employment policies shall be made available to County upon request.

**c. Section 504 of the Rehabilitation Act of 1973**

Contractor shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified individual with a disability shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of any services this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.

**d. Compliance with County's Equal Benefits Ordinance**

Contractor shall comply with all laws relating to the provision of benefits to its employees and their spouses or domestic partners, including, but not limited to, such laws prohibiting discrimination in the provision of such benefits on the basis that the spouse or domestic partner of the Contractor's employee is of the same or opposite sex as the employee.

**e. Discrimination Against Individuals with Disabilities**

The nondiscrimination requirements of 41 C.F.R. 60-741.5(a) are incorporated into this Agreement as if fully set forth here, and Contractor and any subcontractor shall abide by the requirements of 41 C.F.R. 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

**f. History of Discrimination**

Contractor certifies that no finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or any other investigative entity. If any finding(s) of discrimination have been issued against Contractor within the past 365 days by the Equal Employment Opportunity Commission, the California Department of Fair Employment and Housing, or other investigative entity, Contractor shall provide County with a written explanation of the outcome(s) or remedy for the discrimination prior to execution of this Agreement. Failure to comply with this Section shall constitute a material breach of this Agreement and subjects the Agreement to immediate termination at the sole option of the County.

**g. Reporting; Violation of Non-discrimination Provisions**

Contractor shall also report to the County the filing by any person in any court any complaint of discrimination or the filing by any person of any and all charges with the Equal Employment Opportunity Commission, the Fair Employment and Housing Commission, or any other entity charged with the investigation of allegations of discrimination within seventy-five (75) days of such filing, provided that within such seventy-five (75) days such entity has not notified contractor that such charges are dismissed or otherwise unfounded. Such notification to County shall include a general description of the allegations and the nature of specific claims being asserted. Contractor shall provide County with a statement regarding how it responded to the

allegations within sixty (60) days of its response and shall update County regarding the nature of the final resolution of such allegations.

Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the Contractor to penalties, to be determined by the County Executive Officer, including but not limited to the following:

- i. termination of this Agreement;
- ii. disqualification of the Contractor from being considered for or being awarded a County contract for a period of up to 3 years;
- iii. liquidated damages of \$2,500 per violation; and/or
- iv. imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Executive Officer.

To effectuate the provisions of this Section, the County Executive Officer shall have the authority to offset all or any portion of the amount described in this Section against amounts due to Contractor under this Agreement or any other agreement between Contractor and County.

#### **h. Compliance with Living Wage Ordinance**

As required by Chapter 2.88 of the San Mateo County Ordinance Code, Contractor certifies all contractor(s) and subcontractor(s) obligated under this contract shall fully comply with the provisions of the County of San Mateo Living Wage Ordinance, including, but not limited to, paying all Covered Employees the current Living Wage and providing notice to all Covered Employees and Subcontractors as required under the Ordinance.

#### **13. Compliance with County Employee Jury Service Ordinance**

Contractor shall comply with Chapter 2.85 of the County's Ordinance Code, which states that Contractor shall have and adhere to a written policy providing that its employees, to the extent they are full-time employees and live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with Contractor or that the Contractor may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, Contractor certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if Contractor has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of San Mateo County's jury service ordinance, Contractor certifies that it has no full-time employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, Contractor shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code." The requirements of Chapter 2.85 do not apply unless this Agreement's total value listed in the Section titled "Payments", exceeds two-hundred thousand dollars (\$200,000); Contractor acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value exceeds that threshold amount.

**14. Retention of Records; Right to Monitor and Audit**

(a) Contractor shall maintain all required records relating to services provided under this Agreement for three (3) years after County makes final payment and all other pending matters are closed, and Contractor shall be subject to the examination and/or audit by County, a Federal grantor agency, and the State of California.

(b) Contractor shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by County.

(c) Contractor agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.

**15. Merger Clause; Amendments**

This Agreement, including the Exhibits and Attachments attached to this Agreement and incorporated by reference, constitutes the sole Agreement of the parties to this Agreement and correctly states the rights, duties, and obligations of each party as of this document's date. In the event that any term, condition, provision, requirement, or specification set forth in the body of this Agreement conflicts with or is inconsistent with any term, condition, provision, requirement, or specification in any Exhibit and/or Attachment to this Agreement, the provisions of the body of the Agreement shall prevail. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications or amendments shall be in writing and signed by the parties.

**16. Controlling Law; Venue**

The validity of this Agreement and of its terms, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law or conflict of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California.

**17. Notices**

Any notice, request, demand, or other communication required or permitted under this Agreement shall be deemed to be properly given when both: (1) transmitted via facsimile to the telephone number listed below or transmitted via email to the email address listed below; and (2) sent to the physical address listed below by either being deposited in the United States mail, postage prepaid, or deposited for overnight delivery, charges prepaid, with an established overnight courier that provides a tracking number showing confirmation of receipt.

In the case of County, to:

Name/Title: [insert]  
Address: [insert]  
Telephone: [insert]  
Facsimile: [insert]  
Email: [insert]

In the case of Contractor, to:

Name/Title: [insert]  
Address: [insert]  
Telephone: [insert]  
Facsimile: [insert]  
Email: [insert]

#### **18. Electronic Signature**

Both County and Contractor wish to permit this Agreement and future documents relating to this Agreement to be digitally signed in accordance with California law and County's Electronic Signature Administrative Memo. Any party to this Agreement may revoke such agreement to permit electronic signatures at any time in relation to all future documents by providing notice pursuant to this Agreement.

#### **19. Payment of Permits/Licenses**

Contractor bears responsibility to obtain any license, permit, or approval required from any agency for work/services to be performed under this Agreement at Contractor's own expense prior to commencement of said work/services. Failure to do so will result in forfeit of any right to compensation under this Agreement.

#### **20. Prevailing Wage**

When applicable, Contractor hereby agrees to pay not less than prevailing rates of wages and be responsible for compliance with all the provisions of the California Labor Code, Article 2- Wages, Chapter 1, Part 7, Division 2, Section 1770 et seq. A copy of the prevailing wage scale established by the Department of Industrial Relations is on file in the office of the Director of Public Works, and available at [www.dir.ca.gov/DLSR](http://www.dir.ca.gov/DLSR) or by phone at 415-703-4774. California Labor Code Section 1776(a) requires each contractor and subcontractor keep accurate payroll records of trades workers on all public works projects and to submit copies of certified payroll records upon request.

Additionally,

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted after March 1, 2015) unless registered with the Department of Industrial Relations

pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

- No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations

\* \* \*

In witness of and in agreement with this Agreement's terms, the parties, by their duly authorized representatives, affix their respective signatures:

For Contractor: **[SERVICE PROVIDER COMPANY NAME]**

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor Name (please print)

\_\_\_\_\_

COUNTY OF SAN MATEO

By:

President, Board of Supervisors, San Mateo County

Date:

ATTEST:

By:

Clerk of Said Board

**Exhibit A**

In consideration of the payments set forth in Exhibit B, Contractor shall provide the following services:

**Exhibit B**

In consideration of the services provided by Contractor described in Exhibit A and subject to the terms of the Agreement, County shall pay Contractor based on the following fee schedule and terms:

**Attachment C - Chapters 2.84 of the Ordinance  
Code of San Mateo County**

The following lists the text of Chapters 2.84 of the Ordinance Code of San Mateo County (as of March 2025), available on-line at <http://library.municode.com/index.aspx?clientId=16029> . Anyone responding to the Request for Proposals is provided is advised to check on-line for updates to the Ordinance Code. It is a contractor or responding party's obligation to obtain the current version of these ordinances.

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## ***Chapter 2.84 CONTRACTS: EQUAL BENEFITS AND NON-DISCRIMINATION ENFORCEMENT<sup>1</sup>***

### **2.84.010 Applicability.**

This chapter shall apply to all agreements for services, or services with goods, entered into by the County.  
(Ord. No. 04757, § 2, 5-24-2016)

### **2.84.020 Discrimination in the provision of benefits prohibited.**

It is the policy of the County of San Mateo that no party providing services to the County, with or without the provision of goods, via contract shall discriminate in offering benefits to its employees between an employee with a same-sex married spouse and an employee with an opposite-sex married spouse. To that effect, all service contracts with the County shall contain the following statement or one to similar effect: "Contractor shall comply with all laws relating to the provision of benefits to its employees and their spouses or domestic partners, including, but not limited to, such laws prohibiting discrimination in the provision of such benefits on the basis that the spouse or domestic partner of the Contractor's employee is of the same or opposite sex as the employee." This statement in any given contract may be modified or omitted pursuant to County policies.

(Ord. No. 04757, § 2, 5-24-2016)

### **2.84.030 Non-discrimination enforcement.**

- (a) All contracts for services entered into with the County, with or without the provision of goods, shall contain the following language or language to similar effect:

Violation of the non-discrimination provisions of this agreement shall be considered a breach of this agreement and subject the contractor to penalties, to be determined by the County Manager, including but not limited to the following:

- (i) Termination of this agreement;
- (ii) Disqualification of the Contractor from proposing for or being awarded a County contract for a period of up to three (3) years;
- (iii) Liquidated damages of two thousand five hundred dollars (\$2,500.00) per violation; and
- (iv) Imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Manager.

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<sup>1</sup>Editor's note(s)—Ord. No. 04757, § 2, adopted May 24, 2016, in effect repealed the former chapter 2.84, §§ 2.84.010—2.84.050, and enacted a new chapter 2.84 as set out herein. The former chapter 2.84 pertained to contracts—equal benefits and derived from Ord. No. 4324, adopted August 15, 2006.

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To effectuate the provisions of this paragraph, the County shall have the authority to set off all or any portion of the amount described in this paragraph against amounts due to contractor under this agreement or any other contract between contractor and County.

Contractor shall also report to the County the filing by any person in any court any complaint of discrimination or the filing by any person of any and all charges with the Equal Employment Opportunity Commission, the Fair Employment and Housing Commission, or any other entity charged with the investigation of allegations of discrimination within seventy-five (75) days of such filing, provided that within such seventy-five (75) days such entity has not notified contractor that such charges are dismissed or otherwise unfounded. Such notification to County shall include a general description of the allegations and the nature of specific claims being asserted. Contractor shall provide County with a statement regarding how it responded to the allegations within sixty (60) days of its response and shall update County regarding the nature of the final resolution of such allegations.

- (b) This language in any given contract may be modified or omitted pursuant to County policies. The Board of Supervisors may authorize such waiver or modification for contracts exceeding the threshold set forth in California Government Code Section 25502.5 when it is in the best interests of the County. The County Manager, or the County Manager's designee, may authorize such waiver or modification for contracts that do not exceed the threshold set forth in California Government Code Section 25502.5 when it is in the best interests of the County, or as otherwise authorized by the Board of Supervisors.

(Ord. No. 04757, § 2, 5-24-2016; Ord. No. 04837, § 1, 11-17-2020)

#### **2.84.040 Reserved.**

#### **2.84.050 Date of application.**

The provisions of this chapter shall apply to any service contract executed or amended by the County on or after July 1, 2016.

(Ord. No. 04757, § 2, 5-24-2016)

**Attachment D - Chapters 2.85 of the Ordinance  
Code of San Mateo County**

The following lists the text of Chapters 2.85 of the Ordinance Code of San Mateo County (as of March 2012), available on-line at <http://library.municode.com/index.aspx?clientId=16029> . Anyone responding to the Request for Proposals is provided is advised to check on-line for updates to the Ordinance Code. It is a contractor or responding party's obligation to obtain the current version of these ordinances.

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## ***Chapter 2.85 CONTRACTOR EMPLOYEE JURY SERVICE***

### **2.85.010 Definitions.**

For the purposes of this chapter:

- (a) "Contract" means a legal agreement between the County and a contractor for services that receives consideration in excess of the amount established by Government Code Section 25502.5 as the limit of the Purchasing Agent's authority to engage independent contractors.
- (b) "Contract Authority" means: the Board of Supervisors for contracts exceeding the threshold set forth in California Government Code Section 25502.5; or the County Manager or the County Manager's designee for contracts that do not exceed the threshold set forth in California Government Code Section 25502.5, or as otherwise authorized by the Board of Supervisors.
- (c) "Employee" means any California resident who is a full-time employee of a contractor under the laws of California.
- (d) "Full time" means forty (40) hours or more worked per week, or a lesser number of hours if: (1) the lesser number is a recognized industry standard as determined by the County Manager, or (2) the contractor has a long standing practice that defines the lesser number of hours as full time.

(Ord. 4324, 08/15/06)

(Ord. No. 04837, § 2, 11-17-2020)

### **2.85.020 Contractor jury service policy.**

- (a) A contractor shall have and adhere to a written policy that provides that its employees shall receive from the contractor, on an annual basis, no less than five (5) days of regular pay for actual jury service in San Mateo County. The policy may provide that employees deposit any fees received for such jury service with the contractor or that the contractor deduct from the employees' regular pay the fees received for jury service.
- (b) At the time of seeking a contract, a contractor shall certify to the County that it has and adheres to a policy consistent with this chapter or will have and adhere to such a policy prior to award of the contract.
- (c) The Contract Authority may waive the requirements of this chapter when it determines that it is in the best interests of the County for such reasons as follows:
  - 1. Award of a contract or amendment is necessary to respond to an emergency;
  - 2. The contractor is a sole source;
  - 3. No compliant contractors are capable of providing goods or services that respond to the County's requirements;
  - 4. The requirements are inconsistent with a grant, subvention or agreement with a public agency;

- 
5. The County is purchasing through a cooperative or joint purchasing agreement.
- (d) Contractors should submit requests for waivers of the terms of this chapter to the Contract Authority or the County Manager.
- (e) The County Manager may reject a contractor's bid or proposal, or terminate a contract, if he determines that the contractor is in violation of the requirements of this chapter or was established, or is being used, for the purpose of evading the intent of this chapter.
- (f) No contract shall be executed with a contractor unless such contractor is in compliance with this chapter.
- (Ord. 4324, 08/15/06)
- (Ord. No. 04837, § 3, 11-17-2020)

### **2.85.030 Powers and duties of the County Manager.**

The County Manager's office shall have the authority to:

- (a) Adopt rules and regulations, in accordance with this chapter and the Ordinance Code of the County of San Mateo, establishing standards and procedures for effectively carrying out this chapter;
- (b) Receive notification from employees of contractors regarding violations of this chapter;
- (c) Determine and recommend to the Board of Supervisors for final decision the imposition of appropriate sanctions for violation of this chapter by contractors including, but not limited to:
1. Disqualification of the contractor from bidding on or being awarded a County contract for a period of up to 5 years, and
  2. Contractual remedies, including, but not limited to termination of contract.
- (d) Impose other appropriate contractual sanctions for violations of this chapter;
- (e) Allow for remedial action after a finding of noncompliance;
- (f) Perform such other duties as may be required or which are necessary to implement the purposes of this chapter.

(Ord. 4324, 08/15/06)

### **2.85.040 Date of application.**

The provisions of this chapter shall apply to any contract awarded or amended on or after September 1, 2005, provided that if the contractor is then signatory to a collective bargaining agreement, this chapter shall only apply to any contract with that contractor which is awarded or amended after the effective date of the next collective bargaining agreement.

(Ord. 4324, 08/15/06)

**Attachment E - CSA 7 Operation and Maintenance Plan**

**County Service Area 7 Water System (Camp Glenwood)  
Operation and Maintenance Plan  
April 2022**

**Introduction**

The County Service Area No. 7 (CSA 7) water system is a small public water system with a treatment plant, two storage water tanks, and distribution system serving approximately 71 customers. The County of San Mateo Department of Public Works (County) is responsible for the operation and maintenance of the water system. State certified operators from Bracewell Engineering, Inc. (Bracewell) have been retained by the County to serve as chief operators of the CSA 7 water system. Operators from Bracewell Engineering, Inc., a contract operations firm, are contracted by the County to operate the water system and make decisions regarding system supply and quality, as well as taking water samples every month. The County's Facility Maintenance and Operation Division staff provides help in maintaining the water system under the supervision of Bracewell Engineering, Inc.

Alpine Creek is the main water source for CSA 7. CSA 7 has rights to water from Alpine Creek and La Honda Creek through the San Gregorio Stream System adjudication. Alpine Creek is the main water source for CSA 7. The CSA 7 water system consists of the following:

**A Treatment Plant**

A 500,000 gallon welded steel treated water storage tank

A 70,000 gallon raw water storage tank

Approximately 13,000 linear feet of 1 1/2" to 4" diameter polyvinyl (PVC) and galvanized pipes.

Source water is pumped to a 70,000 gallon storage tank from Alpine Creek. Raw water from the storage tank is treated at the Camp Glenwood Water Treatment plant. Treated water is stored in a 500,000 gallon steel tank. The distribution system consists of approximately 13,000 linear feet of 1 to 4 inch in diameter, and approximately 200 feet of 1-inch laterals connecting each residence/business. The welded steel storage tank maintains the water pressure. The system has five pressure zones.

**Purpose**

The purpose of this operations plan is to provide a comprehensive plan so that a new operator will be able to operate the CSA 7 WTP, using the plan, with minimal training. The operator may also refer to the original O&M Plan provided with the plant by Rescue Engineers when the plant was originally put into service.

**Operations Personnel and Responsibilities**

Operation and maintenance of the CSA 7 WTP and distribution system is being performed under contract with an outside entity. Currently, it is contracted with Bracewell Engineering, Inc. and Mr. Keefe Brennan serves as the designated Chief Plant Operator. Mr. Brennan is a certified

Grade T2 Water Treatment Operator (30786) and Grade D2 Water Distribution Operator (36795). Additional Operational Staff Includes two shift operators:

1. Robert Campos who is a certified Grade T2 Water Treatment Operator (31723) and a Grade D2 Water Distribution Operator (41317).
2. Sam Campos who is a certified Grade T2 Water Treatment Operator (44525) and a Grade D1 Water Distribution Operator (53150)

Bracewell Engineering's operational staff is responsible for the day to day operations and maintenance of both the SWTP and the distribution system. The following minimum duties are performed by each individual.

1. Chief Plant Operator – provides oversight of all SWTP and distribution system operations including operational adjustments, coordination of shift operator schedules, general operational guidance and oversight of all maintenance and repairs of both the SWTP and distribution system.
2. Shift Operator – involved the daily operation of the SWTP. Operations staff will perform a visual inspection of the distribution system a minimum of weekly even if the SWTP is not operating. During the time of operation, the Shift or Chief Operator will visit the SWTP a minimum of 3 times per week and perform the following tasks:
  - a. Review water sample chain of custodies (COCs) computer generated in compliance with DDW's monitoring program and collect all necessary performance monitoring samples (see water quality section of this plan for more detail)
  - b. Verify the function of all critical systems of the SWTP
  - c. Verify the level of all chemicals
  - d. Verify the functioning of all chemical feed pumps
  - e. Check Filter function, manual backwash weekly to check filter performance
  - f. Review weekly / monthly maintenance checklist and perform tasks as necessary (see Unit Process Equipment Maintenance Plan)
  - g. Perform calibration checks on all analytical equipment, chlorine analyzers, turbidity analyzers, pH probes, etc. (weekly)

### **Unit Process Operation (Treatment Plant)**

The treatment plant is operated automatically by a programmable logic controller (PLC). The PLC provides the logic to control operation of the unit and of the entire treatment plant. The PLC has been preprogrammed with the necessary steps to control the package plant components (pumps, valves, mixer and flocculation). In order for the treatment plant to function correctly the following systems must be operational:

1. Creek Pump - The creek pump is operated automatically when the Raw Water Storage Tank reaches a pre-set high or low level. The creek pump will come on when the Raw Water Storage tank reaches a low level and fill until it reaches a high level. The creek pump and suction line must be checked weekly for:
  - a. Noise

- b. Vibration
- c. Overheating
- d. Plugging (pump intake screen located just below the pump)
- e. Loss of suction

During rainy months the water in the creek can be very turbid and the bottom of the creek can shift. Unless the water level in the treated water storage tank is critically low, the creek pump should not be run during or after a rain event until the water in the creek is clear enough to see the rocks at the bottom of the creek from the top of the bridge above the pump suction line. The creek pump suction line also needs to be checked before starting the creek pump again. For personal safety reasons, care must be taken by the operator to make sure the creek is not running too swiftly while checking the suction line.

2. Raw Water Intake from the Raw Water Storage Tank. The raw water pump pulls water from the 70,000 gallon storage tank over to the treatment plant. Care must be taken when doing any work in the Raw Water tank. Redwood shavings can be sucked into the line and they will plug the strainer below the pump. This is the most common cause of this pump losing prime. If the pump loses prime:
  - a. Make sure the Raw Water Storage Tank level is above 13 feet.
  - b. Open the ball valve located on top of the Raw Water Feed Line just above the Raw Water Pump and bleed out the air.
  - c. Turn on the plant to start the raw water pump.
  - d. Make sure the pressure in the Raw Water Line increases to over 20 psi as seen on the pressure gauge just above the pump and the water is flowing into the plant.
  - e. If the pump loses suction again repeat the steps above.
  - f. By the section prime the pump should run fine, if it does not:
    - i. Make sure the Raw Water Tank is full
    - ii. Turn off the pump
    - iii. Open the ball valve on top of the Y strainer just below the Raw Water Pump
    - iv. Flush the water until it runs clear.
    - v. Repeat the steps above.
    - vi. DO NOT OPEN THIS VALVE WHILE THE PUMP IS RUNNING OR AIR WILL GET SUCKED INTO THE LINE AND THE PUMP WILL LOSE PRIME.
  
3. Package Treatment Plant - The 50 gpm package plant furnished for San Mateo County's County Service Area 7 (Camp Glenwood) Surface Water Treatment Plant (SWTP) is 8'-6" wide, 9'-4" long and 8'-0" high.
 

The unit is compartmentalized into four sections.

  - a. The rapid mix section is 4'-2" long, 12" wide and 1'-6" deep. This section yields a net volume of 31 gallons to provide an approximate detention of 37 seconds at the design flow rate of 50 gpm.
  - b. The flocculation chamber measures 5'-2" long, 4'-2" wide and 8'-0" deep. This section yields a net volume of 1165 gallons to provide a detention period of 23 minutes at 50 gpm. The clarifier (or tube settler section) measures 4'-4" wide, 9'-4"

long and 8'- 0" deep. Its cross sectional area of 40 square feet yields an upflow rate of 1.24 gpm per square foot. This up-flow rate translates into a rise rate of 2 inches per minute at 50 gpm.

- c. The clarifier net volume produces 2,240 gallons of storage for a detention period of about 45 minutes at 50 gpm.
  - d. The filter compartment area of 16.6 square feet produces a hydraulic loading rate of 3.0 gpm per square foot of filter bed area (16.6 square feet times 3.0 gpm per square foot equals a flow rate of 50 gpm).
4. Filtration - is the final barrier preventing particulate matter from entering the system. Filtration is the removal of floc and fine suspended particles from the water after it has passed through the clarifier units. The filtration process is the passing of the water through a bed of fine material. The filter process sometimes is described as straining, but the light floc carried on to the filter material from the sedimentation basin adheres to the grains of the filter media and this coating penetrates into the filter bed. This coating on the filter media attracts the suspended particulate matter which enhances the filtered water quality. This coating continues to build on the filter media and attracts more of the floc and suspended particulate matter.
- a. As this coating builds and penetrates into the filter bed, the head loss across the filter becomes greater until the flow rate is greatly reduced. At this time the filter must be backwashed to cleanse the media of the floc and particulate matter.
  - b. A backwash is initiated one of three ways:
    - i. Automatically based on a pressure gauge located at the discharge pipe to the filter. If the pressure drops below zero the filter is backwashed automatically.
    - ii. Automatically based on time. There is a timer located on the top left corner of the main control panel. This can be set to have the plant backwash at an hourly interval from 1 to 24 hours. This must be set manually based on the overall performance of the plant and filter.
    - iii. Manually by the operator. In order to initiate a manual backwash the operator must put the backwash control switch on the control panel to the manual setting and press the backwash run button on the front of the control panel. At this point a backwash cycle will start and the backwash will occur automatically. Once the backwash is complete the operator must turn the backwash control switch back to automatic mode, in the manual mode a backwash is only initiated by pressing the backwash run button on the control panel.
  - c. If the filter is not backwashed regularly enough, the filter can capture more and more particulate material and short circuiting by channeling can occur. This occurs when the filter has not been backwashed sufficiently or completely. If the plant shuts down for high turbidity after a backwash the operator needs to perform an additional backwash and evaluate the possibility of reducing the amount of time between backwashes. A manual backwash must be performed weekly so the operator can observe the backwash making sure the water runs clear toward the end of the backwash cycle. Adjustments should be made to

backwash frequency timer as needed. Typical run times vary between 8 and 12 hours.

- d. There is a large pole stored on top of the filter cell at the treatment plant. The operator can evaluate the effectiveness of the backwashes and the need for additional backwashing by stirring the media at the beginning and end of the backwash cycle to evaluate the effectiveness of each backwash. Additional backwashes are to be performed as necessary.
  - e. Filter media level is inspected weekly and measured annually. Filter media is to be added as needed.
  - f. The flow rates through the filter shall not exceed  $3.0 \text{ gpm/ft}^2$  at any time. This limits the flow through the plant to a maximum of 50 gpm.
5. Treated Water Discharge - The treated water pump speed fluctuates to maintain a set level in the filter. This pump must be monitored for:
- a. Heat
  - b. Vibration
  - c. Noise
  - d. Greased at least monthly

Any of these conditions must be resolved right away. See the pump instruction and maintenance manual in the plant binders for instructions.

## **Plant Start Up**

If it has been a while since the plant has run, the first thing the operator will need to do is backwash the filters. When the water sits in the filters for a period of time bacteria may build up in the filters and will need to be cleaned out. Perform a manual backwash immediately upon start-up of the plant if it has been a few days since the plant has run.

1. Turn the plant run, backwash control, and creek pump run switches all to the automatic positions.
2. Turn on the shut off valves which control the feed lines for the chlorine analyzer, and the raw water turbidity and treated water turbidity analyzers. Adjust the flow through the analyzers by using the rotometers for each located just above or to the side of each analyzer. During the rest of the start-up procedure continue to monitor the flows through the analyzers and adjust as needed.
3. Check to make sure the flow coming into the plant is around 45 – 48 gpm and does not exceed 50 gpm. Flow can be checked on the raw water flow meter located to the right of the turbidity and chlorine analyzer controllers. The flow can be adjusted by opening or closing the ball valve located just past the polymer injection point on the raw water feed line.
4. If needed, backwash the filter unit by turning the backwash control to hand and pressing the backwash run button on the control panel. Make sure the switch is turned back to automatic after the backwash is initiated or the plant will continue to run without a backwash, eventually shutting down for a high turbidity. Monitor the treated water turbidities and perform additional backwashes as needed.

5. Once the plant starts up the filter will fill to a certain set point (30.5 inches as seen on the filter level control on the front of the plant control panel) and the treated water pump will come on and maintain the level in the filter. The treated water pump should pump at the same rate that the water is coming into the plant and this needs to be verified on the treated water flow meter to the right of the treated water booster pump.
6. The turbidity meters are sensitive to changes in flows and will take a few minutes to stabilize once the treatment plant starts. Treated water turbidities should be monitored and should drop to the normal operating range in less than 15 minutes. Normal operating range treated water turbidities are between 0.03 and 0.08 NTU.
7. A chlorine residual from the pipeline just after the chlorine injection line can be collected at the sink in the plant. This line follows the outside wall and it will take at least a couple of minutes for the water from the contact line to reach the sink.
  - a. Flush the line for 5 minutes and then put the small water jug located on the counter under the tap.
  - b. Fill the jug, shut off the water, and then stir the water in the jug. This makes sure that you are getting a consistent, representative sample of the chlorinated water before the contact pipe. Take a chlorine residual sample from the jug.
  - c. The chlorine residual should generally be between 2.0 and 2.2 mg/L.  
**Samples from this location must be collected several times during the start-up process and anytime the plant shuts down for a low chlorine residual to verify the function of the chlorine feed pump. Any time there is a failure of the chlorine feed pump the water in the contact pipe must be flushed out through the hydrant at the end of the contact pipe until water with an appropriate chlorine residual runs for at least 30 minutes. If there is any chance this chlorinated water can reach the Creek, the flushed water must be dechlorinated at the point it leaves the contact pipe. See Emergency Response Plan (Appendix J) for further information.**
8. If the plant has not run for a time, but there is an appropriate chlorine residual coming from the treated water line at the plant it will take some time for the chlorine residual at the end of the contact pipe to reach a level where the plant will stay running. The plant will alarm out for a low chlorine residual every 10 minutes. This means the chlorine residual alarm will need to be reset by pressing the reset button on the control panel approximately 3-4 times to get the plant to start up and continue to run. **THE OPERATOR SHOULD NOT LEAVE THE PLANT UNTIL THEY HAVE HAD ADEQUATE TIME TO VERIFY THE FUNCTIONING OF THE CHLORINE FEED PUMP** and can see an adequate residual at the chlorine analyzer sample point. This usually takes 1 ½ hours.
9. Once the plant is running and there is no longer a treated water chlorine residual alarm condition the plant should continue to run. The operator should continue to observe the function of the plant for about another 30 minutes to make sure the plant is going to stay running. During this time he should verify:
  - a. Raw Water Flow
  - b. Treated Water Flow
  - c. Turbidity and Chlorine Analyzer Feed Line Flows
  - d. Turbidity Levels
  - e. Chlorine Residual

## Treatment Plant Performance Monitoring Program

The performance of the CSA 7 SWTP is monitored in 3 ways:

1. Operator recorded data and observations (see appendix B – Performance Monitoring Log Sheets). These sheets are filled out each time the operator is at the plant. Frequency for each data point or observation is indicated on the log sheets.
2. There are two Hach controllers at the plant, one for the turbidity analyzers and one for the chlorine, pH and temperature analyzer. Data is logged in each of these controllers every 5 min. These data points are to be monitored each time the operator is at the plant and CT calculations verified.
3. A Sensaphone Sentinel data logger/dialer has been installed at the plant and is logging operational data every 15 minutes. This data, along with the operator log sheets is used to complete the monthly DDW reports. Additionally the plant can be shut down or turned on remotely by logging into the Sensaphone Sentinel App or on the website. If the operator calls in and does nothing, the data logger will automatically begin reading out the current condition of the following operational data points:
  - a. Station 1 – Raw Water Tank Level
  - b. Station 2 – Treated Water Tank Level
  - c. Station 3 – Raw Water Turbidity
  - d. Station 4 – Treated Water Turbidity
  - e. Station 5 – Treated Water Chlorine Residual
  - f. Station 6 – Finish Water Chlorine Residual
  - g. Station 7 – Finish Water pH
  - h. Station 8 – Plant Run
  - i. Station 9 – Backwash Run
  - j. Station 10 – Treated Water Flow Total

The performance of CSA 7 shall meet the following standards:

1. Turbidity - County Service Area 7 shall operate the Camp Glenwood WTP so that the effluent water turbidity level, prior to the contact chamber, does not exceed in samples which are to be collected at a minimum frequency of every 4 hours:
  - a. 0.3 NTU in 95% of the measurements taken each month;
  - b. 1 NTU for more than one continuous hour;
  - c. 1 NTU at four-hour intervals; and
  - d. 1.0 NTU for more than eight consecutive hours.
2. Disinfection - Disinfection treatment shall comply with the following performance standards:
  - a. Water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four hours in any 24 hour period.
  - b. The residual disinfectant concentrations of samples collected from the distribution system shall be detectable in at least 95 percent of the samples taken each month that the system serves water to the public.

- i. County Service Area 7 shall comply with the disinfection requirements at all times. Compliance with the disinfection inactivation requirements will be determined using the CT concept.
- ii. County Service Area 7 shall measure and record the disinfectant residual concentration of the water being delivered to the contact chamber continuously. If there is a failure of continuous disinfection residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.
- iii. In order to maintain an adequate CT value while attempting to reduce the level of disinfection byproducts residuals (DBPRs) in the system, the chlorine residual must be kept at the lowest practicable level yet meet the CT requirement. This means that the alarm set point must be changed through-out the year so the plant does not shut down unnecessarily for a low chlorine residual. See appendix E – CT calculations guidance and the Reliability Features section of this plan for further instructions.

Both the turbidity meters and chlorine analyzers are calibrated on an as needed basis, but are also calibrated at a minimum on a quarterly basis by Bracewell Engineering, Inc. Laboratory Personnel.

SEE EMERGENCY RESPONSE PLAN FOR ADDITIONAL GUIDANCE IN THE EVENT THE DISINFECTION OR TURBIDITY REQUIREMENTS ARE NOT MET (Appendix J)

### **Water Quality Monitoring**

1. The water flow through the chlorine analyzer and turbidity analyzers is regulated by shut off valves on the side of the treatment unit, but the operator must check to make sure there is water flowing through the analyzer. The operator should check the drain line to make sure there is water running through the chlorine and turbidity analyzers each time the operator is at the plant.
2. A minimum of every 2 weeks check the water flow through both the raw and treated water turbidity and chlorine analyzers to verify the functioning of the in line valves. Take the drain hose for each out of the plant drain and put it into a 1000 ml beaker. Time the flow for one minute. The water should flow at 400 ml per min.
3. A minimum of one time per week the operator needs to verify that the analyzers are functioning correctly by checking them against the hand held meters located at the plant. Analyzer results need to be logged on the plant log sheets each time the operator is at the plant and also needs to check the following with the handheld analyzers a minimum of one time per week (record in line analyzer measurements and handheld meter measurements on log sheet). Calibrate the analyzers as needed:
  - a. Raw Water Turbidity.
  - b. Raw Water pH
  - c. Raw Water Temperature
  - d. Treated Water Turbidity
  - e. Treated Water pH
  - f. Treated Water Temperature

4. Also record the following additional operational analysis once the plant is fully functional:
  - a. Treated Water pH
  - b. Treated Water Temperature
  - c. Treated Water Chlorine Residual
  - d. Turbidity from the top of the filter cell (weekly)
5. All monitoring data will be logged and reported to DDW with the Monthly SMR by the 10<sup>th</sup> of each month.

The following additional source water and distribution system monitoring will also be completed and is sent out to either the Bracewell Engineering, Inc. Laboratory or will be sent to another outside lab for analysis:

1. Alpine Creek - Source Monitoring - As a community water system, CSA 7 is required to monitor the Alpine Creek for General Mineral (GM), General Physical (GP), inorganic Chemicals (IOC), Radioactivity (Gross Alpha), Volatile Organic Chemicals (VOC) and Synthetic Organic Chemicals (SOC). The monitoring frequency and status for Alpine Creek is attached in Appendix F – Water System Monitoring Plan.
2. Iron and Aluminum - Alpine Creek – Due to historical Raw Water SMCL exceedances CSA 7 must continue to monitor the iron and aluminum concentration in the Alpine Creek and the treated water supply quarterly to demonstrate compliance with the drinking water standards in the water delivered to its customers.
3. Bacteriological Quality— Distribution System - Based on the classification of the water system, population served and total number of service connections, CSA 7 must collect a minimum of one bacteriological sample from the distribution system each month. This routine bacteriological sample is collected from one of 4 sites which are rotated through on a quarterly basis. See attached Appendix H – BSSP and Maps for exact location and frequencies.
4. Stage 2 Disinfectants/Disinfection Byproducts Rule (DBPR) - The Stage 2 DBPR requires community water systems that treat their water with a chemical disinfectant other than ultraviolet light in any part of the treatment process or which provide water that contains a chemical disinfectant to monitor for and comply with the total trihalomethanes (TTHM) and haloacetic acids (HAA5) annual running average MCLs of 80 ug/L and 60 ug/L, respectively. CSA 7 is required to collect a minimum of one sample per quarter for TTHM and HAA5 analysis.
5. Lead and Copper Rule - The Lead and Copper Rule (LCR) requires community water systems to monitor lead and copper levels at the consumers' tap. CSA 7 completed the first triennial monitoring round in September 2012. As long as the 90<sup>th</sup> percentile results do not exceed the lead and copper action level of 0.015 mg/L and 1.3 mg/L, respectively the monitoring will be required every 3 years in September.

All monitoring results shall be reported to the Department by the 10<sup>th</sup> of the following month.

### **Equipment & System Maintenance Program**

Simple weekly and monthly checklists are used to keep an equipment maintenance schedule at the plant. The operator is to review the checklists and sign off each appropriate task every time he is at the plant. Completed checklists are kept to make sure the various tasks have been performed in a timely manner. Samples of the weekly and monthly checklists are attached in Appendix L.

1. PUBLIC NOTIFICATION - Issue public notifications of violations as required.
  - a. Notification shall be given in accordance with "Emergency Public Notification" method on record with the DDW (included in Emergency Response Plan), or in a manner directed by the DDW.
  - b. State problem and what has been done to correct it.
  - c. Send a copy of the notification to the DDW.
2. CONSUMER COMPLAINT procedures.
  - a. Record details of complaint (name, address and nature of the problem) in Customer Complaint Form.
  - b. Investigate the complaint.
  - c. Verify or dismiss the complaint.
  - d. Record the steps taken to address or correct the problem.
  - e. Notify complainant of action taken.
  - f. Keep complaint records with corrective action for five years.
3. EMERGENCY OPERATIONAL procedures. (See Emergency/Disaster Response Plan for complete description).
  - a. List of equipment on hand for emergency repairs.
  - b. Miscellaneous wrenches
  - c. Leak clamps
  - d. Pipes and fittings (various sizes)
  - e. Digging equipment
  - f. Electrical repair
  - g. Portable Generator
4. List of distributors or suppliers of replacement parts for the system.

<b>Equipment/Sources</b>	<b>Name of Supplier</b>	<b>Address</b>	<b>Phone #</b>	<b>Under Contract</b>
Pipes, valves, fittings, pumps, gauges, pump replacement and pump repairs	Capitola Pump Company, Inc.	300 Kennedy Drive, Capitola, CA 95010	(831) 475-5364	NA
	Pump Repair Service Co.	P.O. Box 34327 San Francisco, CA 94134	(415) 467-2150	NA

<b>Equipment/Sources</b>	<b>Name of Supplier</b>	<b>Address</b>	<b>Phone #</b>	<b>Under Contract</b>
	Bruce Barton Pump Service, Inc	940 S. First Street, San Jose, CA 95110	(408) 292-6426	NA
	Simm's Plumbing & Water Equipment	1805 Pescadero Creek Road, Pescadero, CA 94060	(650) 879-0739	NA
Backhoe and digging equipment, PVC pipe, valves, and fittings, steel tank welding	West Valley Construction Company	580 E McGlincy Lane, Campbell, CA 95008	(408) 371-5510	NA
Valves and fittings	Hopkins Technical Products	P.O. Box 31, Brentwood, CA 94513	(925) 240-2160	NA
Disinfection Chemicals	Esbro Chemical	775 Seaport Blv., Suite C, Redwood City, CA 94063	(650) 365-0441	NA

**A. List of emergency contact numbers:**

	<b>Name</b>	<b>Phone #</b>
1.	California Department of Public Health (DDW) – Santa Clara District	(510) 620-3474
2.	San Mateo County Environmental Health Division	(650) 372-6200
3.	Local Law Enforcement (Sheriff)	(650) 780-7122
4.	Facilities Maintenance/Electrician (Dept. of Public Works)	(650) 312-5257

5.	Bracewell Engineering, Inc.	(831) 673-5508
6.	Laboratory (County Medical Center)	(650) 573-2500
7.	Pump Repair Service	(415) 467-2150
8.	Chemical Disinfectant Supplier	(650) 365-0441
9.	Equipment Supplier	(408) 371-5510
10.	Owner (Dept. of Public Works)	(650) 363-4100

## **Records**

County Service Area 7 will maintain accurate and complete operation records for the CSA 7 (Camp Glenwood) SWTP. The records include but are not be limited to the following:

1. The results of all monitoring conducted in accordance with this permit and the Surface Water Treatment Rule.
2. Dates on which filter maintenance and inspections were performed and the results of any inspections.
3. Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates.
4. Dates and description of major equipment and process failures and corrective actions taken.
5. See the Water Quality Monitoring section above for a more detailed description of the exact monitoring required.

Treatment plant records shall be retained for not less than three years, except where the Department has determined that longer retention times are necessary to complete legal actions taken under the provisions of the Health and Safety Code.

## **Laboratory Procedures**

### **Procedures used to determine chemical dose rates**

Chemical dose rates are calculated automatically based on plant water production and the amount of water used and are to be reported to DDW along with the monthly report by the 10<sup>th</sup> of each month.

## **Reliability Features**

The CSA 7 SWTP is equipped with the following relays and alarms:

1. Raw Water Storage Tank High and Low Alarm. Flashing red light when raw water storage tank level exceeds the high alarm setting of raw water storage tank level indicator. Condition sends out alarm text.
2. Raw Water Storage Tank High and Low Alarm. Flashing red light when raw water storage tank level exceeds the low alarm setting of the raw water storage tank indicator. Condition sends out alarm text.
3. Treated Water Storage Tank High and Low Alarm. Flashing red light when treated water storage tank level exceeds the high alarm setting of the treated water storage tank level indicator.

Condition sends out alarm text, red flashing light.

4. Raw Water, No Flow. Red flashing light. Raw water from the raw water storage tank is delivered to the package plant by a pump mounted on the side of the unit. This pump is called whenever the unit is in operation. There is a flow switch mounted on the discharge of the raw water pump.

If this flow switch is not activated within 30 seconds of pump call, the PLC will cause plant shutdown.

5. Treated Water, No Flow. Red flashing light. Treated water from the package plant is pumped to storage by a treated water pump mounted on the side of the unit. This pump is called to run whenever the unit is in operation. There is a flow switch mounted on the discharge of the pump.

If this flow switch is not activated within 30 seconds of pump call, the PLC will cause plant shutdown.

6. High Treated Water Turbidity. Red light flashes when the treated water turbidity exceeds the alarm setting of the Hach turbidimeter mounted on the front of the unit.

Condition causes plant shutdown. There is an adjustable time delay of 0-30 minutes before an alarm is activated.

7. Plant Shutdown. Red light illuminated when the treatment plant is shut down. Conditions that cause plant shut down are:
  - a. No raw water flow
  - b. No treated water flow
  - c. High treated water turbidity
  - d. Low solution in alum or chlorine tanks
  - e. Low chlorine residual
  - f. High treated water storage tank
  - g. Low raw water storage tank

If plant shutdown light is on, an alarm light will also be flashing indicating the condition that caused the plant to shut down. Shutdown activates the plant autodialer. The alarm reset pushbutton clears the condition.

Condition in autodialer will automatically reset once the level reaches a non-alarm condition.

8. Low chlorine residual alarm. Red light flashes when the chlorine residual reaches a low level. This level is preset in the Hach sc200 controller for the Hach 9184sc temperature, pH, and chlorine residual probe. The pH, temperature, and chlorine residual values must be monitored through-out the year and the chlorine residual alarm set point adjusted based on the residual required to meet the CT requirements. See Appendix D – CT Calculations Guidance for further instructions.

## **Appendices**

- A - BEI Staff Organizational Chart
- B - Performance Monitoring Log Sheets
- C - Calibration Instructions for Turb Meters and CL2 Meter
- D - CT calculation guidance charts & alarm set point change instructions
- E - Filter Media Measurement & Maintenance Plan
- F - DDW Monitoring Plan
- G - BSSP
- H - Water Quality Emergency Notification Plan
- I – Emergency Response Plan
- J - Flushing Plan
- K – Weekly & Monthly Maintenance Checklists

**Attachment F - CSA 11 Operation and Maintenance Plan**

**COUNTY SERVICE AREA NO. 11 WATER SYSTEM  
CA4100582**

**OPERATION and MAINTENANCE PLAN 2024**

<b>Revision History</b>
<ol style="list-style-type: none"><li>1. Revision Date: 5/3/2024<ol style="list-style-type: none"><li>a. Revised number of operator visits from 3 visits in two weeks to one day per week.</li><li>b. Well 3 depth data log downloaded monthly and emailed to County staff.</li><li>c. Add information on MaintainX for tracking maintenance activities.</li></ol></li></ol>



The County Service Area No. 11 (CSA 11) water system is a small public water system with two production wells, standby well, storage tanks, pump house and distribution system serving approximately 100 customers. The County of San Mateo Department of Public Works (County) operates and maintains the water system. State certified operators from Bracewell Engineering, Inc. (Bracewell) have been retained by the County to serve as chief operators of the CSA 11 water system. Bracewell operators are to make decisions regarding system supply and quality, as well as taking water samples every month. The County's Facility Maintenance and Operation Division staff provide help in maintaining and operating the water system under the supervision of Bracewell Engineering.

Maintenance tasks are now scheduled and recorded in Bracewell's maintenance software, MaintainX.

The CSA 11's water source is an underground aquifer located in the Pigeon Point Formation, about one mile west of the Town of Pescadero on the top of a northwest trending ridge, and adjacent to the Pacific Ocean. The CSA 11 water system consists of the following:

1. Two production wells, Well 1 and Well 3
2. One standby well, Well 2.
3. One 140,000-gallon welded steel storage tank and one 160,000-gallon bolted steel storage tank.
4. Approximately 11,660 lineal feet of 4" to 8" diameter polyvinyl (PVC) and ductile iron (DIP) pipes.
5. A control/chlorination house.
6. Seventeen fire hydrants.

- Groundwater Production

- Groundwater is pumped to the storage tanks from the aquifer through the production wells.
- The main production well, Well 3, is 370 feet deep with a 10" diameter casing and a 100' cement grout sanitary seal. Well 3 was constructed in 2019.
- Well 1 is 260 feet deep with a 10" diameter casing and a 50-foot cement grout sanitary seal. Well 1 was constructed in 1992.
- Standby Well 2 is 247 feet deep with a 6" diameter casing.

- Distribution System
  - The distribution system consists of approximately 7,960 feet of 8-inch pipes, 2,570 feet of 6-inch pipes, 1,130 feet of 4-inch pipes, and approximately 200 feet of 1-inch laterals connecting each residence/business.
  - The welded steel and bolted steel storage tanks maintain the water pressure.
  - The system has one pressure zone.
  - There is a flow meter located in the control building to record the amount and rate of water pumped to the storage tank.
  
- Routine Operational Procedures for Each Component of the System.
  - A. Visual inspection of **WELLS**
    1. Weekly: Check for the following; leaks, openings, lubricants, electrical hazards, chemical hazards, etc. Record observations on the Water System Monitoring Report log sheet.
    2. Monthly: Download well depth data logs and submit to County.
    3. Correct any problems.
    4. Check the pump for proper operation.
  
  - B. Inspection of **Chlorine Feed Pump** and Dose
    1. Weekly: Inspection of the chlorine feed pump and chemical drum level located in the Control Building. Fill sodium hypochlorite and make pump adjustments as needed.
    2. Weekly: measure free chlorine residual in storage tank discharge line.
    3. Quarterly: clean sodium hypochlorite pump and injector.
    4. Annually: purchase rebuild kit and rebuild chlorine feed pump.
  
  - C. Visual inspection of the **STORAGE TANKS**
    1. Weekly: Inspect the water level and exterior of the **STORAGE TANKS** for any leaks or damage. Record observations on the Water System Monitoring Report log sheet and make repairs as needed.
    2. Quarterly: Inspect the interior of the **STORAGE TANKS**. Record date and observations in MaintainX.
  
  - D. Testing of **ALARM SYSTEM**.
    1. Quarterly: Test the alarm system.
    2. Critical alarm set points are 10 feet (low water level warning) and 16.7 feet (high water level warning).
    3. Notifications are to be sent to Facilities Maintenance & Operation Division and On-call Stationary Engineer (650-312-5257) and Bracewell Engineering On Call Phone.
  
  - E. Testing of **CORROSION CONTROL SYSTEMS**
    1. Check voltage for both systems.
    2. System for Tank 1 (Welded Tank) should read 9 (0.90 on panel)
      - a. Light on column 1 should be on Auto-1
      - b. Light on column 2 should have A-1 cell potential lit
      - c. Light on column 3 should have ref. voltage lit
      - d. Light on column 4 should have OK lit
    3. System for Tank 2 (Bolted Tank) should read 9.00

4. If there are any issues with either system see owner's manuals for potential corrections and troubleshooting.
- F. Maintenance of **GAUGES and METERS**.
1. Inspect all gauges and meters for leaks and proper function periodically. Repair or replace as needed (keep record of replacement date).
- G. Inspection and exercising of the **VALVES**.
1. Periodically: Inspect valves for leaks (record observations, repair or replace if leaking).
  2. Annually (June): Exercise valves (mark as completed in MaintainX).
- H. Operation and maintenance of **DISTRIBUTION** facilities.
1. Weekly: Visually inspect the distribution system for leaks. Look for standing water in low areas. Record date and observations.
  2. Weekly: collection of free chlorine residual in the distribution system to verify dose.
  3. Annually: Flush dead-end mains. (mark as completed in MaintainX).
- I. Testing of **BACKFLOW PREVENTION DEVICES**.
4. Annually: Test Backflow Prevention Devices and complete the Backflow Prevention Assembly Test Report.
  5. Perform minor repairs, if needed, while testing. Major repairs are to be performed by the property owner.
  6. Notify administration staff of device failures immediately.
- Monitoring and Reporting.
    - A. **BACTERIOLOGICAL MONITORING**; Samples for bacteriological monitoring are to be taken per the CSA 11 Bacteriological Sample Siting Plan. Report monthly to the State Department of Public Health (DDW) by the 10<sup>th</sup> of each month, following the sampling.
      1. If routine sample result is positive, take three repeat samples at Repeat Sample Sites as well as a sample from all sources in use during the month of the positive routine sample.
      2. Keep bacteriological results for five years.
      3. Keep any corrective action for sampling for three years.
    - B. **CHEMICAL MONITORING**; Sampling for chemical monitoring shall be conducted as required by the DDW. Report results to the DDW.
      1. Keep chemical results for ten years.
      2. Keep variance and exemptions for five years.
  - Response to Violations.
    - A. **PUBLIC NOTIFICATION**; Issue public notifications of violations as required.
      1. Notification shall be given in accordance with "Emergency Public Notification" method on record with the DDW (included in Emergency Response Plan), or in a manner directed by the DDW.
      2. State problem and what has been done to correct it.
      3. Send a copy of the notification to the DDW.

- Consumer Complaint Response Procedures.
  - A. **CONSUMER COMPLAINT** procedures.
    1. Record details of complaint (name, address and nature of the problem) in Customer Complaint Form.
    2. Investigate the complaint.
    3. Verify or dismiss the complaint.
    4. Record the steps taken to address or correct the problem.
    5. Notify complainant of action taken.
    6. Keep complaint records with corrective action for five years.
  
- Emergency Operational Practices. (*See Emergency/Disaster Response Plan for complete description*).
  - A. List of **equipment on hand** for emergency repairs.
    1. Miscellaneous wrenches
    2. Leak clamps
    3. Pipes and fittings (various sizes)
    4. Digging equipment
    5. Electrical repair
    6. Generator
  
  - B. List of distributors or suppliers of **replacement parts** for the system.

Equipment/Sources	Name of Supplier	Address	Phone #	Under Contract
Pipes, valves, fittings, pumps, gauges, pump replacement and pump repairs	Capitola Pump Company, Inc.	300 Kennedy Drive, Capitola, CA 95010	(831) 475-5364	NA
	Pump Repair Service Co.	P.O. Box 34327 San Francisco, CA 94134	(415) 467-2150	NA
	Bruce Barton Pump Service, Inc	940 S. First Street, San Jose, CA 95110	(408) 292-6426	NA
	Simm's Plumbing & Water Equipment	1805 Pescadero Creek Road, Pescadero, CA 94060	(650) 879-0739	NA
Backhoe and digging equipment, PVC pipe , valves, and fittings, steel tank welding	West Valley Construction Company	580 E McGlincy Lane, Campbell, CA 95008	(408) 371-5510	NA
Valves and fittings	Hopkins Technical Products	P.O. Box 31, Brentwood, CA 94513	(925) 240-2160	NA
Disinfection Chemicals	Esbro Chemical	775 Seaport Blv., Suite C, Redwood City, CA 94063	(650) 365-0441	NA

- C. **List of emergency contact numbers:**

	<b>Name</b>	<b>Phone #</b>
1.	Regional Board Division of Drinking Water (DDW) – Santa Clara District	(510) 620-3474
2.	San Mateo County Environmental Health Division	(650) 372-6200
3.	Local Law Enforcement (Sheriff)	(650) 780-7122
4.	Facilities Maintenance/Electrician (Dept. of Public Works)	(650) 312-5257
5.	Bracewell Engineering, Inc.	(831) 325-8296
6.	Laboratory (County Medical Center)	(650) 573-2500
7.	Pump Repair Service	(415) 467-2150
8.	Chemical Disinfectant Supplier	(650) 365-0441
9.	Equipment Supplier	(408) 371-5510
10.	Owner (Dept. of Public Works)	(650) 363-4100

- Qualification and Training of Operating Personnel.
  - A. CSA 11 treatment facilities shall be operated under the supervision of T1 operators certified in accordance with Title 22, Section 63765, California Code of Regulations.
  - B. CSA 11 distribution system shall be operated under the supervision of D1 operators certified in accordance with Title 22, Section 63770 or 63810, California code of Regulations.
  - C. CSA 11 may provide staff opportunities to attend training, seminars for operators, and certification classes and testing.

## **Procedure 1      Flushing Dead Ends**

1. Pre-plan the flushing sequence using the system map. Select the flush-out locations.  
Flushing should start near the water source.
2. Review drainage (where water will be directed).
3. Notify customers in advance of possible impacts due to flushing.
4. Ensure that the storage tank is full to provide adequate amount of flushing water.
5. Flushing velocity should be 0.75 m/sec (2.5 ft/s) to ensure biofilm removal.
6. Open dead ends and fire hydrants for a period of 2-5 minutes to stir up deposits inside the water main. Flush until the water is clear.
7. Make sure that the pressure in other parts of the distribution system do not drop below 20 psi.
8. Collect a minimum of 2 water samples from a flowing hydrant and test, the first after 2 minutes of flushing and the other before closing and measure turbidity to evaluate the effectiveness of flushing.
9. Document results in the flushing log.

## **Procedure 2      Inspection, Cleaning, and Disinfection of Storage Tank**

### Inspect Tank – Evaluate the Need for Cleaning (every three months)

1. Open the gate valve located at the base of the storage tank (Drain Valve).
2. Discharge the water for at least two minutes or until the water is clear and free of visible particles
3. If flushing takes more than fifteen minutes, the water tank should be cleaned

### Cleaning and Disinfection (when required)

#### Method A – Storage Tank Not to be Drained:

Retain professional services to clean and disinfect the tank.

#### Method B – Storage Tank Drained:

1. Apply a solution of 200mg/L of chlorine solution to the surfaces of all parts of the storage tank that are in contact with water.
2. Fill the storage tank after 30 minutes of applying the chlorine solution (step 1).
3. The disinfected water shall be diluted enough to be introduced to the distribution system.

### **Procedure 3          Inspecting and Exercising Water Main Valves**

1. Verify the location of the valve boxes in the system map and update map where necessary.
2. Remove valve box cover (if possible) and inspect stem and nut for damage or leakage.
3. Close the valve fully and record the number of turns to the fully closed position (close the valve slowly to prevent water hammer).
4. Reverse (open valve).
5. Close the valve fully.
6. To determine if the valve is closed, use an earphone or an ear to the gate key.
7. Once the valve is fully closed, open a couple of turns to flush away debris.
8. Record whether the valve is right or left hand closing.
9. Record condition of the valve and any maintenance that is required.
10. Replace any valve that does not completely open or close.
11. Clean the valve box cover seat.
12. Place the valve in its operating position (open or closed) when inspection is complete.

#### **Procedure 4          Repairing and Replacing Water Mains**

1. In the event of a major water main break, contact the Regional Board Division of Drinking Water (DDW) for assistance in providing mitigating measures to ensure the protection of public health.
2. Keep sections of new pipe sealed at both ends to prevent dirt and foreign matter from entering. Plug existing open water main ends until tie-in or repair is made.
3. Excavate around pipe to prevent soil intrusion into opened pipe section. Maintain a dewatering system where necessary.
4. Ensure that tools, equipment and any other items that come into contact with the water main are properly cleaned and disinfected.
5. Ensure proper disinfection of all piping, fittings and appurtenances.
6. Ensure the repair is tight and not leaking.
7. Investigate possible sources of cross contamination after installation or repair (e.g. leaking valve, backflow through distribution).
8. Implement disinfection and flushing of the water supply and distribution system.
9. Prior to placing the main back in service, verify with bacteriological testing as instructed by the Division of Drinking Water or per AWWA Standard C651.

## **Attachments**

1. Example Water System Monitoring Report Log Sheet
2. CSA11 Emergency Response Plan
3. CSA11 Example Tank Inspection
4. Valve Operation Worksheet
5. CSA11 Water System Bacteriological Sample Siting Plan
6. Customer Complaint Form
7. Water Quality Emergency Notification Plan

## **1. Example Water System Monitoring Report Log Sheet**

Pescadero Water System (CSA No. 11)  
 555 County Center, 5th Floor  
 Redwood City, CA 94063  
 System No. CA4100582

WATER SYSTEM MONITORING REPORT

Water Resources Control Board  
 Division of Drinking Water  
 850 Marina Bay Parkway, Bldg P  
 Richmond, CA 98804

Location			Control Building	Control Building	Control Building	Control Building	Pump	Tank	Tank
Parameter			Meter	Well 1 Run Time	Well 2 Run Time	Well 3 Run Time	Rate	Level	Volume
Frequency			calculation	calculation	calculation	calculation	calculation	weekly	Calculation
Units			gal/d	hr/d	hr/d	hr/d	gpm	ft	gal
Type			calculation	calculation	calculation	calculation	calculation	observation	calculation
High Limit									
Low Limit									
Date	Operator	Time							
2/1/2024	KB	900	7,078	-	-	1.7	69		
2/2/2024			7,078	-	-	1.7	69		
2/3/2024			7,078	-	-	1.7	69		
2/4/2024			7,078	-	-	1.7	69		
2/5/2024			7,078	-	-	1.7	69		
2/6/2024			7,078	-	-	1.7	69		
2/7/2024			7,078	-	-	1.7	69		
2/8/2024	KB	1030	7,078	-	-	1.7	69	9.9	186,120
2/9/2024			25,357	-	0.04	3.7	116		
2/10/2024			25,357	-	0.04	3.7	116		
2/11/2024			25,357	-	0.04	3.7	116		
2/12/2024			25,357	-	0.04	3.7	116		
2/13/2024			25,357	-	0.04	3.7	116		
2/14/2024			25,357	-	0.04	3.7	116		
2/15/2024	JP/KB	900	25,357	-	0.04	3.7	116	13.3	250,040
2/16/2024			15,003	0.83	(0.04)	2.6	97		
2/17/2024			15,003	0.83	(0.04)	2.6	97		
2/18/2024			15,003	0.83	(0.04)	2.6	97		
2/19/2024			15,003	0.83	(0.04)	2.6	97		
2/20/2024			15,003	0.83	(0.04)	2.6	97		
2/21/2024			15,003	0.83	(0.04)	2.6	97		
2/22/2024	KB	1330	15,003	0.83	(0.04)	2.6	97	12.6	236,880
2/23/2024			16,071	0.03	0.04	2.7	99		
2/24/2024			16,071	0.03	0.04	2.7	99		
2/25/2024			16,071	0.03	0.04	2.7	99		
2/26/2024			16,071	0.03	0.04	2.7	99		
2/27/2024	KB	1100	16,071	0.03	0.04	2.7	99		
2/28/2024			16,071	0.03	0.04	2.7	99		
2/29/2024	KB	930	16,071	0.03	0.04	2.7	99	12.4	233,120
Min			7,078	-	(0.04)	1.7	69	9.9	186,120
Max			25,357	0.83	0.04	3.7	116	13.3	250,040
Average			15,574	0.21	0.01	2.6	94	12.1	226,540
Total			451,642	6.00	0.30	76.2			

Pescadero Water System (CSA No. 11)  
 555 County Center, 5th Floor  
 Redwood City, CA 94063  
 System No. CA4100582

WATER SYSTEM MONITORING REPORT

Water Resources Control Board  
 Division of Drinking Water  
 850 Marina Bay Parkway, Bldg P  
 Richmond, CA 98804

Location	Well 1	Well 1	Well 2	Well 2	Well 3	Well 3	Well 3	Well 3	Well 3
Parameter	Static	Dynamic	Static	Dynamic	Meter	Static	Static	Dynamic	Dynamic
Frequency	monthly	monthly	monthly	monthly	calculation	monthly	Calculation	monthly	Calculation
Units	ft	ft	ft	ft	gal/d	ft	ft	ft	ft
Type	measurement	measurement	measurement	measurement	calculation	transducer	measurement	transducer	measurement
High Limit									
Low Limit									
Date									
2/1/2024					16,340				
2/2/2024					7,523				
2/3/2024					7,523				
2/4/2024					7,523				
2/5/2024					7,523				
2/6/2024					7,523				
2/7/2024					7,523				
2/8/2024					7,523				
2/9/2024					19,413				
2/10/2024					19,413				
2/11/2024					19,413				
2/12/2024					19,413				
2/13/2024					19,413				
2/14/2024					19,413				
2/15/2024					19,413				
2/16/2024					14,269				
2/17/2024					14,269				
2/18/2024					14,269				
2/19/2024					14,269				
2/20/2024					14,269				
2/21/2024					14,269				
2/22/2024					14,269				
2/23/2024					15,274				
2/24/2024					15,274				
2/25/2024					15,274				
2/26/2024					15,274				
2/27/2024	200.6	227.7	202.5	212.7	15,274	45.7	204.3	23.5	226.5
2/28/2024					15,274				
2/29/2024					15,274				

Min	200.6	227.7	202.5	212.7	7,523	45.7	204.3	23.5	226.5
Max	200.6	227.7	202.5	212.7	19,413	45.7	204.3	23.5	226.5
Average	200.6	227.7	202.5	212.7	14,196	45.7	204.3	23.5	226.5
Total					411,690				

Pescadero Water System (CSA No. 11)  
 555 County Center, 5th Floor  
 Redwood City, CA 94063  
 System No. CA4100582

WATER SYSTEM MONITORING REPORT

Water Resources Control Board  
 Division of Drinking Water  
 850 Marina Bay Parkway, Bldg P  
 Richmond, CA 98804

Location	1956 Pesc. Rd	Stage Rd	North St.	Reservoir Outlet
Parameter	Chlorine Residual	Chlorine Residual	Chlorine Residual	Chlorine Residual
Frequency	weekly	weekly	weekly	weekly
Units	mg/L	mg/L	mg/L	mg/L
Type				
High Limit				
Low Limit				
Date				
2/1/2024	1.27	1.35		
2/2/2024				
2/3/2024				
2/4/2024				
2/5/2024				
2/6/2024				
2/7/2024				
2/8/2024	1.49	1.61	1.54	1.72
2/9/2024				
2/10/2024				
2/11/2024				
2/12/2024				
2/13/2024				
2/14/2024				
2/15/2024	1.30	1.26	1.19	1.34
2/16/2024				
2/17/2024				
2/18/2024				
2/19/2024				
2/20/2024				
2/21/2024				
2/22/2024	1.22	1.19	1.21	1.24
2/23/2024				
2/24/2024				
2/25/2024				
2/26/2024				
2/27/2024				
2/28/2024				
2/29/2024	1.24	1.28	1.16	1.20
Min	1.22	1.19	1.16	1.20
Max	1.49	1.61	1.54	1.72
Average	1.30	1.34	1.28	1.38
Total				

## **2. CSA11 Emergency Response Plan**

# Emergency/Disaster Response Plan

*Date Revised:*

**Water System Name:** County Service Area No. 11 (CSA11)

**Water System ID No:** 4100582

**Number of Service Connections:** 100

**Population Served:** 450

To continue minimum service levels and mitigate the public health risks from drinking water contamination that may occur during a disaster or other emergency events and in order to provide reliable water service and minimize public health risks from unsafe drinking water during those events, the **CSA11** water system proposes the following plan that defines how it will respond to emergencies and/or disasters that are likely to affect its operation.

Disasters/emergencies that are likely to occur in the water system's service area that are addressed are: earthquake, major fire emergencies, water outages due to loss of power, localized flooding, water contamination, and acts of sabotage.

- 1) **DESIGNATED RESPONSIBLE PERSONNEL:** For designated responsible personnel and chain of command and identified responsibilities, see the attached table "Water System Emergency /Disaster Personnel and Responsibilities".
- 2) **INVENTORY OF RESOURCES:** An inventory of system resources that are used for normal operations and available for emergencies; includes maps and schematic diagrams of the water system, lists of emergency equipment, equipment suppliers, and emergency contract agreements that are kept at the water system office.
- 3) **EMERGENCY OPERATIONS CENTER:** The water system office has been designated as the communication network emergency operations center. Emergency contact information for equipment suppliers is attached. The telephone will be the primary mode of communication in an emergency.

<b>Agency</b>	<b>Address, City</b>	<b>Phone #</b>	<b>FAX #</b>
Water System (Primary Site)	555 County Center 5 <sup>th</sup> Floor Redwood City, CA 94063	(650) 363-4100	(650) 361-8220
Fire Department	Redwood City	(650) 780-7400	
Law Enforcement	San Mateo County Sheriff Office	(650) 363-4000	

- 4) **OTHER AGENCY COORDINATION:** Coordination procedures with governmental agencies for health and safety protection; technical, legal, and financial assistance, and public notification procedures are continually being developed and updated through regulation and experience and will be added as necessary to this plan. (See External Emergency Contact sheet.)
  
- 5) **RESPONSE PROCEDURES:** Personnel will, as quickly as possible, determine the status of other employees, assess damage to water system facilities, provide logistics for emergency repairs, monitor progress of repairs and restoration efforts, communicate with health officials and water users according to the "Emergency Notification Plan" on file with the regulatory agency (i.e., California Department of Public Health (CDPH) or Local Primacy Agency (LPA)), and document damage and repairs. A copy of the approved "Emergency Notification Plan" (ENP) and user notification templates is attached.
  
- 6) **PUBLIC NOTIFICATION PROCEDURES:** Public notice procedures should be developed before a disaster and not during the event. Public notices are a significant part of communicating with customers. Standard public notifications have been developed by CDHS for use during an emergency such as: 1) precautions during a water outage or low pressure problem; 2) Boil Water Notice (BWN); 3) Unsafe Water Alert (UWA), or; 4) Do Not Drink Notices. Each utility will need to modify the standard forms with specific contact information and guidance to customers depending on the nature of the emergency event. In addition, water systems need to have copies of public notices in the appropriate languages for use by non-English language speaking customers in their service areas.

A BWN, UWA or Do Not Drink Notice can be issued by one, or a combination of the following agencies:

- CDHS – Drinking Water Program (Designated personnel-District Engineer, Regional Engineer or Branch Chief).
- Local County Health Department or local Environmental Health Agency (Designated personnel-County Health Officer or Director of Environmental Health Department for small water systems under county jurisdiction).
- Affected Water System (Designated personnel-responsible person in charge of the affected water system, i.e., Manager, Owner, Operator, etc. The water systems ERP should identify the designated personnel in their ERP).

**All public notifications (BWN, UWA or Do Not Drink Notices) should be coordinated with the CDPH District Engineer, County Environmental Health Department and the County Health Officer prior to issuing a public notice. However, any one of the three agencies can act in an emergency to immediately issue a BWN or UWA, if delays would jeopardize public health and safety. The CDPH District Engineer or the water system must notify**

the County Health Department and the County Health Officer prior to or immediately after issuing a public notice. Notice must be given directly to a person, and a message left on voicemail or answering machine is not sufficient to meet this requirement. Details of the person responsible for completing this notification and the method that will be utilized is contained in the ERP, and is attached to this plan.

The following standard public notices are provided in the Appendix of this report.

**Consumer Alert During Water Outages or Periods of Low Pressure –**

If a water system is experiencing power outages, water outages or low pressure problems, a consumer alert may be issued to the public. The notice provides consumers information on conserving water and how to treat the water with household bleach if the water quality is questionable.

**Boil Water Notice (BWN) –** A BWN should be issued when minimum bacteriological water quality standards cannot be reasonably assured. To assure public health protection a BWN should be issued as soon as it is concluded by the designated personnel that the water supply is or may be biologically unsafe. Examples of these situations include:

1. Biological contamination of water supply system, including but not limited to:
  - Positive total or fecal coliform bacteriological samples;
  - Prolonged water outages in areas of ruptured sewer and/or water mains;
  - Failed septic tank systems in close proximity to ruptured water mains;
  - Ruptured water treatment, storage, and/or distribution facilities in areas of known sewage spills
  - Known biological contamination;
  - Cross-connection contamination problems;
  - Illness attributed to water supply.
2. Unusual system characteristics, including but not limited to:
  - Prolonged loss of pressure;
  - Severe discoloration and odor;
  - Inability to implement emergency chlorination.
3. Implemented due to treatment inadequacies.

**A BWN is not appropriate in response to most types of chemical contamination. A BWN may also be inappropriate in cases where boiling the water may tend to concentrate regulated contaminants that are known to be in the water and that are just below an MCL (e.g. Nitrates or Nitrites that are over 50% of the MCL).**

**Unsafe Water Alert (UWA)/“Do Not Drink”** – In the event a water quality emergency due to known or suspected chemical (non-bacteriological) contamination to a water system a UWA or “Do Not Drink” should be issued. Water should not be used for drinking and cooking, but may be used for sanitation purposes (e.g. toilet flushing, clothes washing, etc.). Examples of these situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to:
  - Ruptured water distribution system (storage tanks, mains) in area of known chemical spill coupled with loss of pressure;
  - Severe odor and discoloration;
  - Loss of chlorine residual;
  - Inability of existing water treatment process to neutralize chemical contaminants prior to entering the distribution system.
2. Threatened or suspected acts of sabotage confirmed by analytical results, including but not limited to:
  - Suspected contamination triggered by acts of sabotage or vandalism.
3. Emergency use of an unapproved source to provide a supplemental water supply.

**Unsafe Water Alert (UWA)/“Do Not Use”** – In the event a known or suspected contamination event to a water system, where the contaminate may be chemical, biological or radiological a UWA or “Do Not Use” should be issued. Water should not be used for drinking, cooking, or sanitation purposes. Examples of these situations include:

1. Known or suspected widespread chemical or hazardous contamination in water supply distribution, including but not limited to
  - Terrorist contamination event.

### **Cancellation of Public Notification**

Once a BWN/UWA is issued, the only agency that can rescind the public notice is the drinking water primacy agency. CDPH DWP or the LPA will not lift the BWN for a microbial contaminant until two rounds of samples, collected one day apart, for coliform bacteria samples have been analyzed and the results are negative. The two sets of sample results should be faxed to the CDPH DWP District Office or LPA office for final approval before rescinding the BWN. Special chemical sampling may be required to get approval to rescind an UWA, please contact the CDPH DWP District Office or LPA to determine what sampling will be required.

**7) RESUME NORMAL OPERATIONS:** The steps that will be taken to resume normal operations and to prepare and submit reports to appropriate agencies will include identifying the nature of the emergency (e.g., earthquake-causing water outage/leaks, fire or power outage causing water shortage/outage, sabotage resulting in facility destruction or water contamination).

**a. Leaks (Result of earthquake, etc.)**

- i. Immediately increase system disinfectant residual as a precaution, until normal service is resumed. Determine the locations of leaks and make temporary repairs using clamps and other pipe repair devices that will allow for repairs to be made while system pressure is maintained. If this is not possible, isolate leaks by turning off power or flow, to repair or replace the pipe. Repair or isolate major breaks to allow service to the maximum system population possible.
- ii. Disinfect all repairs as per attached AWWA Standards;
- iii. Reestablish normal service.

**b. Low pressure or service interruption (Result of earthquake, fire, storm, water source outage, power outage, etc.) – See also section on Leaks, above.**

- i. Increase production, if possible, to provide maximum system output.
- ii. Increase disinfectant residual as a precaution against potential contamination.

If any customers have experienced low pressure or a water outage as a result of an earthquake, fire, storm, water source outage, power outage or any other event or failure, immediately contact your CDHS or the LPA to determine if a Boil Water Notice (BWN) must be issued to users. ***Note: Whether issued by the water system or a regulatory agency, the BWN can only be rescinded or lifted by CDPH or the LPA. Normally the regulatory agency will consider rescinding a BWO after total coliform sampling on two consecutive days show an absence of total and fecal coliform organisms.***

**c. Power outage**

- i. Place emergency generator on line to provide minimum water pressure to system.
- ii. Increase disinfectant residual as precaution to potential contamination.
- iii. See also water outages, above.

**d. Contamination**

- i. Immediately, contact CDPH or LPA in accordance with the Emergency Notification Plan. Follow the directions of CDPH or the

LPA regarding steps to be taken, emergency notification of users, and public notification.

- ii. Identify location and source of contamination.
- iii. If contamination is from system source, isolate or treat source.
- iv. If contamination is an act of sabotage, take appropriate action based on nature of contamination. Immediately contact local law enforcement and your regulatory agency (CDHS or LPA). Actions should be taken in consultation with the regulatory agency and could include shutting off water until all contaminants are identified.

**e. Physical destruction of facility or evidence of tampering (sabotage)**

- i. Immediately contact local law enforcement and regulatory agency for consultation.
- ii. Consider the steps necessary to isolate the facilities or portions of the system that may be affected (close valves, turn off pumps, etc.).

All emergencies will be documented along with action taken, and kept in the files of the water system office. Acts of sabotage will be reported to the local law enforcement agency.

## Water System Emergency/Disaster Personnel and Responsibilities

Name	Telephone No. (Work)	Role
Title	Telephone No. (Home)	
Varies	(650) 363-4100	Initial contact at office, in charge for all emergencies (during non-business hours). Transfers the call or notification of the emergency to the people listed below. Contacts the operator, other sections of the department, contract services and outside agencies (if needed).
Secretary	NA	
Mark Chow	(650) 599-1489	In charge of all emergencies (During business and non-business hours). Contacts the operator, other sections of the department, contract services and outside agencies (if needed).
Principal Civil Engineer	(650) 399-6630	
Gary Webb	(650) 333-3443	Notifies his personnel to provide support.
Supervisor, Stationary Engineer		
Gary Behrens	(650) 333-3441	Notifies personnel to provide support, in case the stationary engineer supervisor cannot be reached.
Facilities Manager		
Danny Gonzales	(831) 207-3767	Responds to the emergency and communicates with the above listed people.
Bracewell Engineering (Operator)	(831) 537-5057	
Christopher Hauge	(831) 325-8296	Responds to the emergency and communicates with the above listed people.
Bracewell Engineering (Operator)	(408) 316-7877	

Emergency calls during the non-business hours including weekends, holidays and after hours, will go to the County Dispatch Center at (650) 363-4000. The Dispatch Center will direct the emergency calls to the proper field staff based on the information provided by the Utilities and Flood Control Section. Following is a list of staff that is responsible for responding all emergencies during non-business hours. Dispatch Center has the same list:

## External Emergency Contact List

Agency/Department	Telephone No. (Day) Telephone No. (After Hours)
Fire Department	650-780-7400
Local Law Enforcement (Sheriff)	650-780-7122
County Office of Emergency Services	650-363-4790
California Office of Emergency Services — Warning Center (24-hr. number)— <i>Note: Ask for referral to CDHS Duty Officer-Drinking Water Program</i>	(800) 852-7550 or (916) 845-8911
San Mateo County Environmental Health Division	650 -372-6200

Water system contact information:

Name: Mark Chow  
Address: 555 County Center, 5<sup>th</sup> Floor  
Redwood City, CA 94063  
Phone: 650-599-1489  
FAX: 650-361-8220

## Emergency Supplier Contact Numbers and Supplier List

Equipment/Sources	Name of Supplier	Address	Phone #	Under Contract
Pipes, valves, fittings, pumps, gauges, pump replacement and pump repairs	Capitola Pump Company, Inc.	300 Kennedy Drive, Capitola, CA 95010	(831) 475-5364	NA
	Pump Repair Service Co.	P.O. Box 34327 San Francisco, CA 94134	(415) 467-2150	NA
	Bruce Barton Pump Service, Inc	940 S. First Street, San Jose, CA 95110	(408) 292-6426	NA
	Simm's Plumbing & Water Equipment	1805 Pescadero Creek Road Pescadero, CA 94060	(650) 879-0739	NA
Backhoe and digging equipment, PVC pipe, valves, and fittings, generator, steel tank welding	West Valley Construction Company	580 E McGlincy Lane, Campbell, CA 95008	(408) 371-5510	NA
Valves and fittings	Hopkins Technical Products	P.O. Box 31, Brentwood, CA 94513	(925) 240-2160	NA
Disinfection Chemicals	Esbro Chemicals	775 Seaport Blvd. Suite C Redwood City, CA 94063	(650) 365-0441	NA

## APPENDIX

Emergency Notification Plan (ENP)

System Map of Sources and Distribution Area

Consumer Alert During Water Outages or Periods of Low Pressure

Boil Water Order (Emergency Situation)

Unsafe Water Alert – Do Not Drink

Unsafe Water Alert – Do Not Use



State Water Resources Control Board
Division of Drinking Water

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of System County Service Area No. 11 System No. 4100582
System Location Pescadero County San Mateo

The following persons have been designated to implement the plan upon notification by the State Water Resources Control Board (SWRCB) that an imminent danger to the health of the water users exists:

Table with 4 columns: Name, Title, Day Phone, Evening Phone. Rows include Mark Chow, Krzysztof Lisaj, and Ann Stillman.

The implementation of the plan will be carried out with the following SWRCB and County Health Department personnel:

Table with 4 columns: Name, Title, Day Phone, Evening Phone. Rows include Van Tsang, David Katz, and Greg Smith.

If the above personnel cannot be reached, contact:

The State Office of Emergency Services Warning Center (24 hours) (916) 845-8911 or (800) 852-7550. When reporting a water quality emergency to the Warning Center, please ask for the State Water Resources Control Board – Division of Drinking Water Duty Officer.

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

### NOTIFICATION PLAN

Describe methods or combination of methods to be used (radio, television, door-to-door, sound truck, etc.). For each section of your plan, give an estimate of the time required, necessary personnel, estimated coverage, etc. Consideration must be given to special organizations (such as schools), non-English speaking groups and outlying water users. Ensure that the notification procedures you describe are practical and that you will be able to implement them in the event of an emergency. (Use the other side if necessary or attach additional pages.)

Templates for public notification available on the SWRCB website:

[Templates for Public Notification | California State Water Resources Control Board](#)

Notifications will be hand delivered and placed on front doors or gates if no one is home. CSA 11 has approximately 100 customers and this method of notification is possible. Text alert messages can also be utilized to notify smartphone users registered with SMCAAlert, a system operated by the County Department of Emergency Management when necessary. Operators can typically respond to the site within one hour.

Plan prepared by:



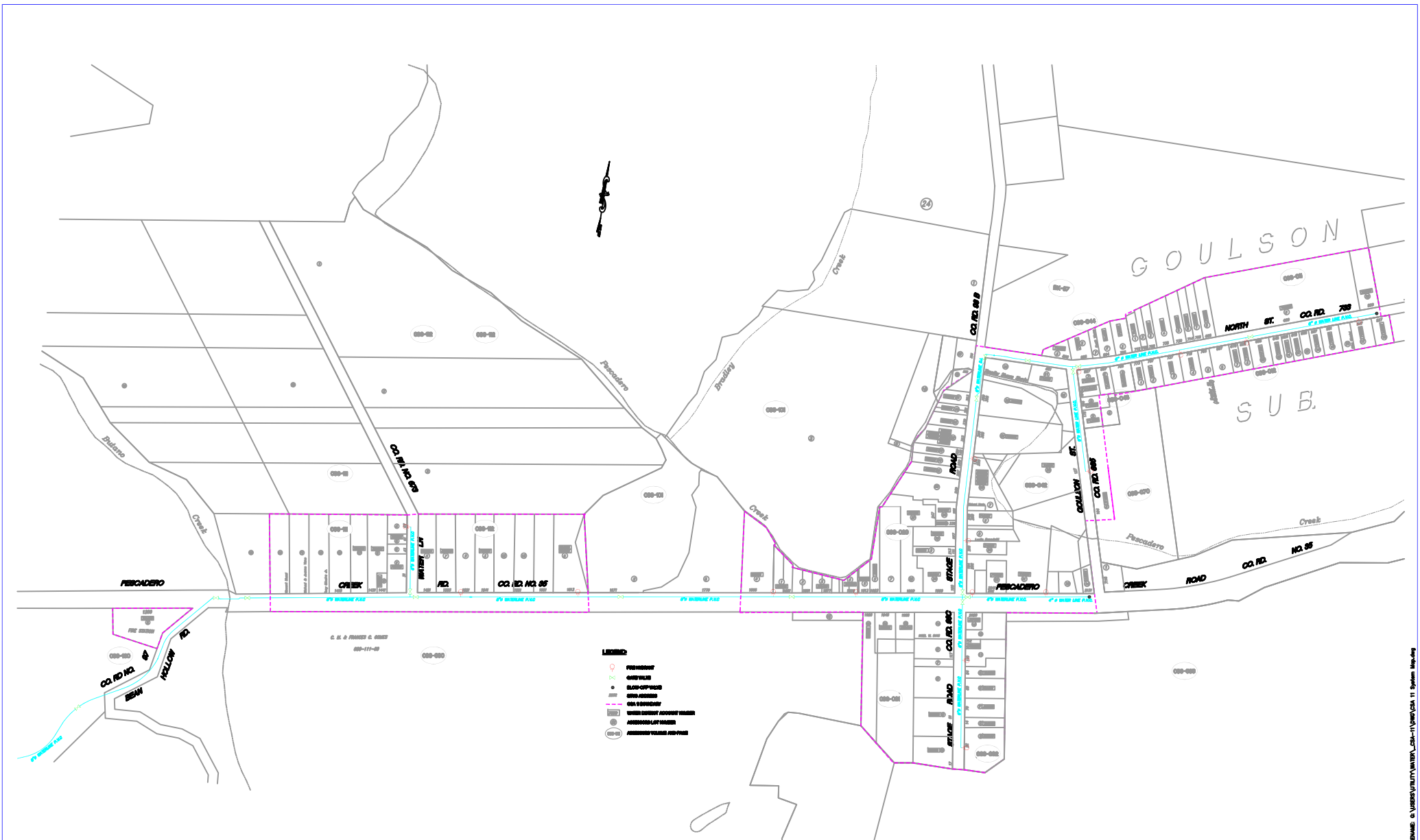
Digitally signed by Mark Chow  
DN: cn=Mark Chow, o, ou, email=mchow@smogov.org,  
c=US  
Date: 2023.11.29 12:43:05 -08'00'

Principal Civil Engineer November 29, 2023

Signature

Title

Date

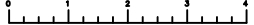


- LEGEND**
- HYDRANT
  - VALVE
  - BUMP OFF/PISTON
  - MANHOLE
  - CLEAN OUT
  - WATER METER
  - WATER METER BOX
  - WATER METER VALVE
  - WATER METER SERVICE



DESIGNED BY:		WATER SYSTEM MAP COUNTY SERVICE AREA 11		SCALE: HTS	
				DATE: 7/2007	
CHECKED BY:		DRAWN BY:		FILE NO.: 1/0408	
				REVISION	
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063		1 SHEET 1 OF 1	

FOR REDUCED PLANS  
ORIGINAL SCALE IS IN INCHES



FILENAME: G:\USERS\JPORTER\DATA\CSA-11\WATER\CSA 11 System Map.dwg

## ***PUBLIC NOTICE***

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

### **CONSUMER ALERT DURING WATER OUTAGES OR PERIODS OF LOW PRESSURE**

1. If you are experiencing water outages or low water pressure, immediately discontinue any non-essential water usage. This includes all outdoor irrigation and car washing. Minimizing usage will reduce the potential for the water system to lose pressure or completely run out of water. Please notify your water system of the outage or low pressure.
2. If the water looks cloudy or dirty, you should not drink it. Upon return of normal water service, you should flush the hot and cold water lines until the water appears clear and the water quality returns to normal.
3. If you are concerned about the water quality or are uncertain of its safety, you may add eight drops of household bleach to one gallon of water and let it sit for 30 minutes or alternatively, if you are able, water can be boiled for one minute at a rolling boil to ensure its safety.
4. Use of home treatment devices does not guarantee the water supply is safe after low pressure situations.
5. Do not be alarmed if you experience higher than normal chlorine concentrations in your water supply since the California Department of Health Services is advising public water utilities to increase chlorine residuals in areas subject to low pressure or outages.
6. The California Department of Health Services has also advised public water systems to increase the bacteriological water quality monitoring of the distribution system in areas subject to low pressure. They may be collecting samples in your area to confirm that the water remains safe. You will be advised if the sampling reveals a water quality problem.
7. Your water system is committed to make certain that an adequate quantity of clean, wholesome, and potable water is delivered to you. We recommend that you discuss the information in this notice with members of your family to ensure that all family members are prepared should water outages or low water pressure occur.

Date:

## BOIL WATER ORDER

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

### **BOIL YOUR WATER BEFORE USING**

#### **Hierva su Agua antes de Usarla**

Failure to follow this advisory could result in stomach or intestinal illness.  
Falta de seguir este aviso podría tener resultados estómago o enfermedad intestinal

Due to the recent event [e.g., water outage, power outage, flood, fire, earthquake or other emergency situation], the California Department of Health Services in conjunction with the San Mateo County Health Department, and County Service Area No. 11 Water System are advising residents of Pescadero to use boiled tap water or bottled water for drinking and cooking purposes as a safety precaution.

***DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.*** Bring all water to a boil, **let it boil for one (1) minute**, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking and food preparation **until further notice**. Boiling kills bacteria and other organisms in the water. [or This is the preferred method to assure that the water is safe to drink.]

Optional alternative to include for prolonged situations where it fits.

- An alternative method of purification for residents that do not have gas or electricity available is to use fresh liquid household bleach (Clorox®, Purex®, etc.). To do so, add 8 drops (or 1/4 teaspoon) of bleach per gallon of clear water or 16 drops (or 1/2 teaspoon) per gallon of cloudy water, mix thoroughly, and allow to stand for 30 minutes before using. A chlorine-like taste and odor will result from this purification procedure and is an indication that adequate disinfection has taken place.
- Water purification tablets may also be used by following the manufacturer's instructions.
- **Optional:** Potable water is available at the following locations: [List locations]  
Please bring a clean water container (5 gallons maximum capacity).

We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

For more information call:

Water Utility contact: America Sanchez, Associate Engineer, 650 599-1473, 555 County Center, Redwood City, CA 94063

California Department of Health Services – Drinking Water Field Operations Branch- District Office at 510-620-2602

Local Environmental Health Jurisdiction: [San Mateo County at 650-372-6200](#)

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

Date:

## UNSAFE WATER ALERT

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien

### County Service Area No. 11 water is possibly contaminated with [an unknown substance]

#### **DO NOT DRINK YOUR WATER**

Failure to follow this advisory could result in illness.

An unknown substance has been added to the drinking water supplied by the County Service Area No. 11 due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The California Department of Health Services, San Mateo County Health Department, and County Service Area No. 11 Water System are advising residents of Pescadero to NOT USE THE TAP WATER FOR DRINKING AND COOKING UNTIL FURTHER NOTICE.

#### **What should I do?**

- ***DO NOT DRINK YOUR TAP WATER---USE ONLY BOTTLED WATER.*** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice and food preparation ***until further notice.***
- ***DO NOT TRY AND TREAT THE WATER YOURSELF.*** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

#### **OPTIONS**

- **Optional:** Potable water is available at the following locations: [List locations]  
Please bring a clean water container (5 gallons maximum capacity).

**We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].**

For more information call:

Water Utility contact: America Sanchez, Associate Engineer, 650 599-1473, 555 County Center, Redwood City, CA 94063

California Department of Health Services – Drinking Water Field Operations Branch- District Office at 510-620-2602

Local Environmental Health Jurisdiction: San Mateo County at 650-372-6200

*This notice is being sent to you by County Service Area No 11. California Public Water System ID # 4100582. Date Distributed: [date].*

Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.

Date:

## UNSAFE WATER ALERT

[Insert one-liner language for non-English speakers here, otherwise delete.]

---

### County Service Area No. 11 water is possibly contaminated with [an unknown substance]

---

#### *DO NOT USE YOUR WATER*

Failure to follow this advisory could result in illness.

An unknown substance has been added to the drinking water supplied by the County Service Area No. 11 due to a recent [intrusion; break-in] at [one of the wells; our treatment plant; storage tank; specific facility]. The California Department of Health Services, San Mateo County Health Department, and County Service Area No.11 Water System are advising residents of Pescadero to NOT USE THE TAP WATER FOR DRINKING, COOKING, HAND WASHING, OR BATHING UNTIL FURTHER NOTICE.

#### *What should I do?*

- ***DO NOT USE YOUR TAP WATER---USE ONLY BOTTLED WATER.*** Bottled water should be used for all drinking (including baby formula and juice), brushing teeth, washing dishes, making ice, food preparation and bathing ***until further notice.***
- ***DO NOT TRY AND TREAT THE WATER YOURSELF.*** Boiling, freezing, filtering, adding chlorine or other disinfectants, or letting water stand will not make the water safe.

#### OPTIONS

- **Optional:** Potable water is available at the following locations: [List locations]  
Please bring a clean water container (5 gallons maximum capacity).

**We will inform you when tests show that the water is safe again. We expect to resolve the problem within [estimated time frame].**

For more information call:

Water Utility contact: [Name, title, phone & address of responsible utility representative].

California Department of Health Services at: [insert local district office, DE and phone number].

Local County Health Department: [insert phone number of local health department].

*This notice is being sent to you by County Service Area No 11. California Public Water System ID # 4100582. Date Distributed: [date].*

Please share this information with all other people who receive this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand.

### **3. CSA11 Example Tank Inspection**



### Bracewell Engineering

STATUS

✓ Done

PRIORITY

Low

DUE DATE

04/30/2024

WORK TYPE

Preventive

DESCRIPTION

Use drone to perform a visual tank inspection. Complete the tank inspection form and send to the CPO

ASSIGNEES

Keefe Brennan

Jesus Perez

Juan Ortiz

CATEGORIES

Inspection

LOCATION

Town of Pescadero Water

ASSET

Tank 2

PROCEDURE

### Tank Inspection Form

27 / 28

Fields completed

#### Visual Exterior

Gates and walkways clear, functional, secure:

✓ Pass

Site free of weeds, trash, etc. :

✓ Pass

Signs of leakage around tank:

✓ Pass

Water able to drain away from tank:

✓ Pass

Flanges in good condition:

✓ Pass

Level gauge in good condition:

✓ Pass

Paint in good condition:

🚩 Flag



**Notes:**

Paint chipping off tank anchors

Valve and control valve leaks:

✓ Pass

Vent and overflow screened:

✓ Pass

Vents obstructed:

✓ Pass

Grounding strap secure and in good condition:

✓ Pass

Locks on ladder and top hatch in working order:

✗ Fail



**Notes:**

Lock holes don't line up

**Visual Interior**

Hatches closed and watertight:

✓ Pass

Interior paint in good condition:

✓ Pass

Roof and beam coating in good condition:

✓ Pass

Holes in roof:

✓ Pass

Shell/head denting, buckling, bulging:

✓ Pass

Floor free of significant debris:

✓ Pass

Does water level match level gauge:

✓ Pass

**Maintenance**

Valves and drains functioning properly:

✓ Pass

Flush control valves:

✓ Pass

Sample taps functioning:

✓ Pass

Does tank need cleaning or recoating:

✓ Pass

### Additional comments

Field:

*No value given.*

### Tank Information

Tank Volume:

245,217

Tank Material:

Steel

Date Tank Installed :

11/17

Tank Name:

Tank 2

### WORK ORDER INFO

Created by: Andrew Bracewell on 01/26/2024, 2:40 PM

Last updated on 04/26/2024, 9:15 AM

Completed on 04/26/2024, 9:15 AM

### COMMENTS

Corrective action for Work Order:

<https://app.getmaintainx.com/workorders/2866647> Commented by Keefe Brennan on 04/26/2024, 9:16 AM  
[1?organizationId=91112](https://app.getmaintainx.com/workorders/2866647?organizationId=91112)

---

Signed off by

---

Date

## 4. Valve Operation Worksheet



## **5. CSA11 Water System Bacteriological Sample Siting Plan**

## BACTERIOLOGICAL SAMPLE SITING PLAN-BSSP (Groundwater Systems)

### Water System Information:

Water System Name: **County Service Area 11** System Number: CA **4100582**

Water System Classification: Community Nontransient-Noncommunity Transient Non-community

Seasonal Water System: Yes\* No \*Refer to your Start-up/Shut-down Procedure Document

Operational Period: Year-round.

Physical Address: 910 Bean Hollow Road, Pescadero, CA 94060

Mailing Address: [Click here to enter text.](#)

Water System Ph. No.: 650-599-1489 Fax: [Click here to enter text.](#) Email Address: [Click here to enter text.](#)

No. of Service Connections: 100 Served: 450

Person responsible to report coliform-positive samples to the DDW District Office / LPA: Christopher Hauge

Day/Evening Phone No: 408-316-7877

### Sample Collection Information:

Name of Trained Sampler(s): Bracewell Engineering, Inc.

Sampler Phone No.: 831-673-5508

Name of Analyzing Laboratory: BEI Analytical Laboratory

Mailing Address: 155 Mast Street, Morgan Hill, CA 95037

State Lab Code: 3019 Phone #: 669-258-5821 Fax #: 408-498-7045

Email Address: lab@bracewellengineering.com

Laboratory was sent a copy of BSSP: Yes No

### Distribution System Sampling Frequency:

The water system is required to collect a minimum of 1 routine bacteriological sample(s) at a frequency of once every  Quarter\*  Month.

*\*Quarterly monitoring is only allowed for transient non-community water systems using only groundwater (not GWUDI) and serving 1,000 or fewer persons a month.*

### Raw Water Sampling:

Does the water system provide continuous disinfection treatment (i.e. chlorine, UV, etc.)?  Yes  No

Water systems that provide continuous disinfection treatment are required to take bacteriological samples prior to disinfection (raw water samples) for all sources on a  **quarterly** or  **monthly** frequency and analyzed. Please list below the source(s) have disinfection treatment and the months when raw water samples will be taken.

1. Well 1 Months sampled:  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

2. Well 2 Months sampled:  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

3. Well 3 Months sampled:  Jan  Feb  Mar  Apr  May  Jun  Jul  Aug  Sep  Oct  Nov  Dec

### Map of System:

A map of the distribution system is required to show all routine sample locations, follow-up (repeat) sample locations, source location (well, spring, etc.), storage tanks, treatment facilities, and distribution piping (pressure zones, booster stations, pressure reducing stations, and dead ends). A distribution map is attached:  Yes  No

### Consecutive Water System (if applicable under the Ground Water Rule):

Does the water system obtain groundwater from another water system?  Yes  No

If yes, contact the wholesaler within 24 hours of notification of a TC+ Distribution Sample.

Wholesaler Name: [Click here to enter text.](#) Contact: [Click here to enter text.](#) Phone No.: [Click here to enter text.](#)

**Wholesaler Water System (if applicable under the Ground Water Rule):**

Does the water system provide groundwater to another water system?  Yes  No

If yes, collect a raw water source sample(s) within 24 hours upon being notified by a retailer who received a TC+ sample. If source sample is *E. coli* positive, contact all consecutive systems within 24 hours\*.

Retailer Name: [Click here to enter text.](#) Contact: [Click here to enter text.](#) Phone No.: [Click here to enter text.](#)

Retailer Name: [Click here to enter text.](#) Contact: [Click here to enter text.](#) Phone No.: [Click here to enter text.](#)

\*A Tier 1 notice is required for all *E.coli* positive source samples.

**Sample Locations:**

The following describes each routine sample location, what months the location will be sampled, and where follow-up (repeat) samples will be taken in the event of a "positive" routine sample. A routine sample site must be designated for each pressure zone or separate area served by the water system. The routine samples sites must be rotated such that they are all sampled on a regular basis. If this water system must designate more than one routine sample site, please do so below:

A system using ground water must collect the triggered source sample(s) for Ground Water Rule compliance (in accordance with the approved Representative Monitoring Plan or sample all sources in use if there is no approved Representative Monitoring Plan). A system using a single groundwater (not GWUDI) well, serving 1,000 or fewer persons may use the triggered source sample as one of the repeat samples, if approved by the State Board.

**Routine No. 1 Sample Location:**

**299 Stage Road**

Water samples will be collected from this location during the months of:

- Jan.  Feb.  Mar.
- Apr.  May  Jun.
- Jul.  Aug.  Sept.
- Oct.  Nov.  Dec.

Sample Site Description: Hose bib  
(hose bib, sink faucet, etc.)

**Follow-up (repeat) Sample Location:**

1. 299 Stage Road  
(routine no.1 sample location name/address)
2. 255 Stage Road  
(up-stream within 5 connections-location name/address)
3. 363 Stage Road  
(down-stream within 5 connections-location name/address)

Triggered Source Sample(s) – Ground Water Rule Well # 1 and Well #3 and Well #2 if it was used in the month preceding the positive result.

**Routine No. 2 Sample Location: (if required)**

[Click here to enter text.](#)

Water samples will be collected from this location during the months of:

- Jan.  Feb.  Mar.
- Apr.  May  Jun.
- Jul.  Aug.  Sept.
- Oct.  Nov.  Dec.

Sample Site Description: [Click here to enter text.](#)  
(hose bib, sink faucet, etc.)

**Follow-up (repeat) Sample Location:**

1. [Click here to enter text.](#)  
(routine no.2 sample location name/address)
2. [Click here to enter text.](#)  
(up-stream within 5 connections-location name/address)
3. [Click here to enter text.](#)  
(down-stream within 5 connections-location name/address)

Triggered Source Sample(s) – Ground Water Rule  
[Click here to enter text.](#)

**Routine No. 3 Sample Location: (if required)**

[Click here to enter text.](#)

Water samples will be collected from this location during the months of:

- Jan.  Feb.  Mar.
- Apr.  May  Jun.
- Jul.  Aug.  Sept.
- Oct.  Nov.  Dec.

Sample Site Description: [Click here to enter text.](#)  
(hose bib, sink faucet, etc.)

**Follow-up (repeat) Sample Location:**

1. [Click here to enter text.](#)  
(routine no. 3 sample location name/address)
2. [Click here to enter text.](#)  
(up-stream within 5 connections-location name/address)
3. [Click here to enter text.](#)  
(down-stream within 5 connections-location name/address)

Triggered Source Sample(s) – Ground Water Rule  
[Click here to enter text.](#)

**Routine Sample Locations for the Month following a Positive Total Coliform Sample (Transient, Non-Community Water Systems on Quarterly Monitoring Only)**

1. [Click here to enter text.](#)
2. [Click here to enter text.](#)
3. [Click here to enter text.](#)

**Prepared By:**

Water System Representative Name: Alan Bracewell

Title: Staff Engineer

Signature: 

Date: 5/9/2024

**BSSP Approval:**

The SWRCB-Division of Drinking Water or Local Primacy Agency has reviewed and approved this Bacteriological Sample Siting Plan (BSSP). Any plans on file dated prior to **Click here to enter a date.** are void. The water system must sample their distribution system and raw water special purpose source samples (quarterly/monthly) for bacteriological quality in accordance with the approved BSSP beginning **Click here to enter a date.** Per the California Code of Regulations-Title 22 §64422, a water system is required to submit an updated plan to the State Board at least once every ten years and at any time the plan no longer ensures representative monitoring of the system.

District Engineer or LPA Representative Name: [Click here to enter text.](#)

Title: [Click here to enter text.](#)

District Name/No or LPA Name: [Click here to enter text.](#)

Signature: \_\_\_\_\_ Date: [Click here to enter a date.](#)

# BACTERIOLOGICAL SAMPLE SITING PLAN

## Legend

### Water Site

- RW Line
- Wells
- Storage Tanks
- ◆ Treatment Building

### Distribution System

- Distribution

### BSSP

- Routine
- Repeat



**6. Customer Complaint Form**



## **7. Water Quality Emergency Notification Plan**



State Water Resources Control Board
Division of Drinking Water

WATER QUALITY EMERGENCY NOTIFICATION PLAN

Name of System County Service Area No. 11 System No. 4100582
System Location Pescadero County San Mateo

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E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

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Plan prepared by:



Digitally signed by Mark Chow  
DN: cn=Mark Chow, o, ou, email=mchow@smogov.org,  
c=US  
Date: 2023.11.29 12:43:05 -08'00'

Principal Civil Engineer November 29, 2023

Signature

Title

Date

## **Attachment G - CSA 7 Water Quality Sampling Frequency**

**County Service Area No. 7**

**Water Quality Sampling Frequency**

<b>PS Codes</b>	<b>Group Name</b>	<b>Analyte Number</b>	<b>Analyte Name</b>	<b>Last Sampled</b>	<b>Frequency</b>	<b>Next Due</b>
CA4100509_001_001	SECONDARY/GP	1928	ALKALINITY, BICARBONATE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1919	CALCIUM	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1929	ALKALINITY, CARBONATE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1017	CHLORIDE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1905	COLOR	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1022	COPPER, FREE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	2905	FOAMING AGENTS (SURFACTANTS)	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1915	HARDNESS, TOTAL (AS CaCO3)	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1021	HYDROXIDE AS CALCIUM CARBONATE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1028	IRON	01-14-2025	3	2025/04
CA4100509_001_001	SECONDARY/GP	1031	MAGNESIUM	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1032	MANGANESE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1920	ODOR	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1925	PH	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1050	SILVER	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1052	SODIUM	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1064	CONDUCTIVITY @ 25 C UMHOS/CM	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1055	SULFATE	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1930	TDS	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	0100	TURBIDITY	04-25-2024	12	2025/04
CA4100509_001_001	SECONDARY/GP	1095	ZINC	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1002	ALUMINUM	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1074	ANTIMONY, TOTAL	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1005	ARSENIC	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1094	ASBESTOS	07-06-2021	108	2030/07
CA4100509_001_001	INORGANIC	1010	BARIUM	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1075	BERYLLIUM, TOTAL	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1015	CADMIUM	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1020	CHROMIUM	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1080	CHROMIUM, HEX	02-12-2025	12	2026/02
CA4100509_001_001	INORGANIC	1024	CYANIDE	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1025	FLUORIDE	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1035	MERCURY	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1036	NICKEL	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1039	PERCHLORATE	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1045	SELENIUM	04-25-2024	12	2025/04
CA4100509_001_001	INORGANIC	1085	THALLIUM, TOTAL	04-25-2024	12	2025/04
CA4100509_001_001	NITRATE/NITRITE	1040	NITRATE	01-14-2025	3	2025/04
CA4100509_001_001	NITRATE/NITRITE	1041	NITRITE	04-29-2024	36	2027/04
CA4100509_001_001	RADIOLOGICAL	4109	GROSS ALPHA PARTICLE ACTIVITY	07-20-2016	108	2025/07
CA4100509_001_001	REGULATED VOC	2981	1,1,1-TRICHLOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2988	1,1,2,2-TETRACHLOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2985	1,1,2-TRICHLOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2978	1,1-DICHLOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2977	1,1-DICHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2378	1,2,4-TRICHLOROBENZENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2968	O-DICHLOROBENZENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2980	1,2-DICHLOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2983	1,2-DICHLOROPROPANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2413	1,3-DICHLOROPROPENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2969	P-DICHLOROBENZENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2990	BENZENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2982	CARBON TETRACHLORIDE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2380	CIS-1,2-DICHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2964	DICHLOROMETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2992	ETHYLBENZENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2251	METHYL TERT-BUTYL ETHER	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2989	CHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2996	STYRENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2987	TETRACHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2991	TOLUENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2979	TRANS-1,2-DICHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2984	TRICHLOROETHYLENE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2218	TRICHLOROFLUOROMETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2904	TRICHLOROTRIFLUOROETHANE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2976	VINYL CHLORIDE	04-25-2024	12	2025/04
CA4100509_001_001	REGULATED VOC	2955	XYLENES, TOTAL	04-25-2024	12	2025/04

**County Service Area No. 7**

**Water Quality Sampling Frequency**

CA4100509_001_001	REGULATED SOC	2414	1,2,3-TRICHLOROPROPANE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2110	2,4,5-TP	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2105	2,4-D	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2051	LASSO (ALACHLOR)	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2050	ATRAZINE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2625	BENTAZON	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2306	BENZO(A)PYRENE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2046	CARBOFURAN	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2959	CHLORDANE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2031	DALAPON	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2035	DI(2-ETHYLHEXYL) ADIPATE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2039	DI(2-ETHYLHEXYL) PHTHALATE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2931	1,2-DIBROMO-3-CHLOROPROPANE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2041	DINOSEB	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2032	DIQUAT	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2033	ENDOTHALL	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2005	ENDRIN	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2946	ETHYLENE DIBROMIDE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2034	GLYPHOSATE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2065	HEPTACHLOR	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2067	HEPTACHLOR EPOXIDE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2274	HEXACHLOROBENZENE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2042	HEXACHLOROCYCLOPENTADIENE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2010	BHC-GAMMA	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2015	METHOXYCHLOR	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2626	MOLINATE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2036	OXAMYL	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2326	PENTACHLOROPHENOL	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2040	PICLORAM	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2037	SIMAZINE	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2727	THIOBENCARB (BOLERO)	04-27-2023	36	2026/04
CA4100509_001_001	REGULATED SOC	2020	TOXAPHENE	04-27-2023	36	2026/04
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2943	BROMODICHLOROMETHANE	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2942	BROMOFORM	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2941	CHLOROFORM	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2454	DIBROMOACETIC ACID	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2944	DIBROMOCHLOROMETHANE	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2451	DICHLOROACETIC ACID	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2456	TOTAL HALOACETIC ACIDS (HAA5)	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2453	MONOBROMOACETIC ACID	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2450	MONOCHLOROACETIC ACID	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2950	TTHM	12-10-2024	3	2025/03
CA4100509_DST_900	DISINFECTION BYPRODUCTS	2452	TRICHLOROACETIC ACID	12-10-2024	3	2025/03

## **Attachment H - CSA 11 Water Quality Sampling Frequency**

**County Service Area No. 11**

**Water Quality Sampling Frequency**

PS Codes	Group Name	Analyte Number	Analyte Name	Last Sampled	Frequency	Next Due
CA4100582_001_001	SECONDARY/GP	1928	ALKALINITY, BICARBONATE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1919	CALCIUM	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1929	ALKALINITY, CARBONATE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1017	CHLORIDE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1905	COLOR	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1022	COPPER, FREE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	2905	FOAMING AGENTS (SURFACTANTS)	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1915	HARDNESS, TOTAL (AS CaCO3)	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1021	HYDROXIDE AS CALCIUM CARBONATE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1028	IRON	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1031	MAGNESIUM	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1032	MANGANESE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1920	ODOR	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1925	PH	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1050	SILVER	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1052	SODIUM	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1064	CONDUCTIVITY @ 25 C UMHOS/CM	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1055	SULFATE	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1930	TDS	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	0100	TURBIDITY	08-15-2024	36	2027/08
CA4100582_001_001	SECONDARY/GP	1095	ZINC	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1002	ALUMINUM	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1074	ANTIMONY, TOTAL	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1005	ARSENIC	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1094	ASBESTOS	12-15-2022	108	2031/12
CA4100582_001_001	INORGANIC	1010	BARIUM	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1075	BERYLLIUM, TOTAL	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1015	CADMIUM	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1020	CHROMIUM	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1080	CHROMIUM, HEX	02-25-2025	36	2028/02
CA4100582_001_001	INORGANIC	1024	CYANIDE	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1025	FLUORIDE	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1035	MERCURY	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1036	NICKEL	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1039	PERCHLORATE	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1045	SELENIUM	08-15-2024	36	2027/08
CA4100582_001_001	INORGANIC	1085	THALLIUM, TOTAL	08-15-2024	36	2027/08
CA4100582_001_001	NITRATE/NITRITE	1040	NITRATE	08-15-2024	12	2025/08
CA4100582_001_001	NITRATE/NITRITE	1041	NITRITE	08-15-2024	36	2027/08
CA4100582_001_001	RADIOLOGICAL	4109	GROSS ALPHA PARTICLE ACTIVITY	03-01-2022	108	2031/03
CA4100582_001_001	REGULATED VOC	2981	1,1,1-TRICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2988	1,1,2,2-TETRACHLOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2985	1,1,2-TRICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2978	1,1-DICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2977	1,1-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2378	1,2,4-TRICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2968	O-DICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2980	1,2-DICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2983	1,2-DICHLOROPROPANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2413	1,3-DICHLOROPROPENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2969	P-DICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2990	BENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2982	CARBON TETRACHLORIDE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2380	CIS-1,2-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2964	DICHLOROMETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2992	ETHYLBENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2251	METHYL TERT-BUTYL ETHER	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2989	CHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2996	STYRENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2987	TETRACHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2991	TOLUENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2979	TRANS-1,2-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2984	TRICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2218	TRICHLOROFLUOROMETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2904	TRICHLOROTRIFLUOROETHANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED VOC	2976	VINYL CHLORIDE	08-15-2024	36	2027/08

**County Service Area No. 11**

**Water Quality Sampling Frequency**

CA4100582_001_001	REGULATED VOC	2955	XYLENES, TOTAL	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED SOC	2414	1,2,3-TRICHLOROPROPANE	08-15-2024	36	2027/08
CA4100582_001_001	REGULATED SOC	2110	2,4,5-TP	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2105	2,4-D	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2051	LASSO (ALACHLOR)	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2050	ATRAZINE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2625	BENTAZON	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2306	BENZO(A)PYRENE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2046	CARBOFURAN	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2959	CHLORDANE	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2031	DALAPON	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2035	DI(2-ETHYLHEXYL) ADIPATE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2039	DI(2-ETHYLHEXYL) PHTHALATE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2931	1,2-DIBROMO-3-CHLOROPROPANE	08-23-2023	36	2026/08
CA4100582_001_001	REGULATED SOC	2041	DINOSEB	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2032	DIQUAT	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2033	ENDOTHALL	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2005	ENDRIN	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2946	ETHYLENE DIBROMIDE	08-23-2023	36	2026/08
CA4100582_001_001	REGULATED SOC	2034	GLYPHOSATE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2065	HEPTACHLOR	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2067	HEPTACHLOR EPOXIDE	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2274	HEXACHLOROBENZENE	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2042	HEXACHLOROCYCLOPENTADIENE	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2010	BHC-GAMMA	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2015	METHOXYCHLOR	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2626	MOLINATE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2036	OXAMYL	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2326	PENTACHLOROPHENOL	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2040	PICLORAM	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	09-22-2022	36	2025/09
CA4100582_001_001	REGULATED SOC	2037	SIMAZINE	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2727	THIOBENCARB (BOLERO)	04-12-2022	36	2025/04
CA4100582_001_001	REGULATED SOC	2020	TOXAPHENE	09-22-2022	36	2025/09
CA4100582_002_002	SECONDARY/GP	0100	TURBIDITY	12-29-2022	108	2031/12
CA4100582_002_002	INORGANIC	1002	ALUMINUM	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1074	ANTIMONY, TOTAL	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1005	ARSENIC	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1094	ASBESTOS	11-25-2020	108	2029/11
CA4100582_002_002	INORGANIC	1010	BARIUM	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1075	BERYLLIUM, TOTAL	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1015	CADMIUM	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1020	CHROMIUM	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1080	CHROMIUM, HEX	07-25-2017	39	2028/01
CA4100582_002_002	INORGANIC	1024	CYANIDE	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1025	FLUORIDE	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1035	MERCURY	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1036	NICKEL	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1039	PERCHLORATE	08-20-2021	108	2030/08
CA4100582_002_002	INORGANIC	1045	SELENIUM	07-08-2021	108	2030/07
CA4100582_002_002	INORGANIC	1085	THALLIUM, TOTAL	07-08-2021	108	2030/07
CA4100582_002_002	NITRATE/NITRITE	1040	NITRATE	08-15-2024	12	2025/08
CA4100582_002_002	NITRATE/NITRITE	1041	NITRITE	08-15-2024	12	2025/08
CA4100582_002_002	RADIOLOGICAL	4109	GROSS ALPHA PARTICLE ACTIVITY	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2981	1,1,1-TRICHLOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2988	1,1,1,2-TETRACHLOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2985	1,1,2-TRICHLOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2978	1,1-DICHLOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2977	1,1-DICHLOROETHYLENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2378	1,2,4-TRICHLOROBENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2968	O-DICHLOROBENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2980	1,2-DICHLOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2983	1,2-DICHLOROPROPANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2413	1,3-DICHLOROPROPENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2969	P-DICHLOROBENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2990	BENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2982	CARBON TETRACHLORIDE	08-26-2021	108	2030/08

**County Service Area No. 11**

**Water Quality Sampling Frequency**

CA4100582_002_002	REGULATED VOC	2380	CIS-1,2-DICHLOROETHYLENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2964	DICHLOROMETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2992	ETHYLBENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2251	METHYL TERT-BUTYL ETHER	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2989	CHLOROENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2996	STYRENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2987	TETRACHLOROETHYLENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2991	TOLUENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2979	TRANS-1,2-DICHLOROETHYLENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2984	TRICHLOROETHYLENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2218	TRICHLOROFLUOROMETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2904	TRICHLOROTRIFLUOROETHANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2976	VINYL CHLORIDE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED VOC	2955	XYLENES, TOTAL	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2414	1,2,3-TRICHLOROPROPANE	07-08-2021	108	2030/07
CA4100582_002_002	REGULATED SOC	2110	2,4,5-TP	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2105	2,4-D	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2051	LASSO (ALACHLOR)	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2050	ATRAZINE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2625	BENTAZON	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2306	BENZO(A)PYRENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2046	CARBOFURAN	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2959	CHLORDANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2031	DALAPON	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2035	DI(2-ETHYLHEXYL) ADIPATE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2039	DI(2-ETHYLHEXYL) PHTHALATE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2931	1,2-DIBROMO-3-CHLOROPROPANE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2041	DINOSEB	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2032	DIQUAT	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2033	ENDOTHALL	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2005	ENDRIN	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2946	ETHYLENE DIBROMIDE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2034	GLYPHOSATE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2065	HEPTACHLOR	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2067	HEPTACHLOR EPOXIDE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2274	HEXACHLOROENZENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2042	HEXACHLOROCYCLOPENTADIENE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2010	BHC-GAMMA	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2015	METHOXYCHLOR	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2626	MOLINATE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2036	OXAMYL	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2326	PENTACHLOROPHENOL	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2040	PICLORAM	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2383	TOTAL POLYCHLORINATED BIPHENYLS (PCB)	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2037	SIMAZINE	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2727	THIOBENCARB (BOLERO)	08-26-2021	108	2030/08
CA4100582_002_002	REGULATED SOC	2020	TOXAPHENE	08-26-2021	108	2030/08
CA4100582_004_004	SECONDARY/GP	1928	ALKALINITY, BICARBONATE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1919	CALCIUM	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1929	ALKALINITY, CARBONATE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1017	CHLORIDE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1905	COLOR	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1022	COPPER, FREE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	2905	FOAMING AGENTS (SURFACTANTS)	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1915	HARDNESS, TOTAL (AS CaCO3)	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1021	HYDROXIDE AS CALCIUM CARBONATE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1028	IRON	01-14-2025	3	2025/04
CA4100582_004_004	SECONDARY/GP	1031	MAGNESIUM	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1032	MANGANESE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1920	ODOR	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1925	PH	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1050	SILVER	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1052	SODIUM	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1064	CONDUCTIVITY @ 25 C UMHOS/CM	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1055	SULFATE	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	1930	TDS	08-15-2024	36	2027/08
CA4100582_004_004	SECONDARY/GP	0100	TURBIDITY	08-15-2024	36	2027/08

County Service Area No. 11						
Water Quality Sampling Frequency						
CA4100582_004_004	SECONDARY/GP	1095	ZINC	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1002	ALUMINUM	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1074	ANTIMONY, TOTAL	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1005	ARSENIC	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1094	ASBESTOS	10-08-2020	108	2029/10
CA4100582_004_004	INORGANIC	1010	BARIUM	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1075	BERYLLIUM, TOTAL	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1015	CADMIUM	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1020	CHROMIUM	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1080	CHROMIUM, HEX	02-25-2025	36	2028/02
CA4100582_004_004	INORGANIC	1024	CYANIDE	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1025	FLUORIDE	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1035	MERCURY	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1036	NICKEL	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1039	PERCHLORATE	10-29-2024	36	2027/10
CA4100582_004_004	INORGANIC	1045	SELENIUM	08-15-2024	36	2027/08
CA4100582_004_004	INORGANIC	1085	THALLIUM, TOTAL	08-15-2024	36	2027/08
CA4100582_004_004	NITRATE/NITRITE	1040	NITRATE	08-15-2024	12	2025/08
CA4100582_004_004	NITRATE/NITRITE	1041	NITRITE	08-15-2024	36	2027/08
CA4100582_004_004	RADIOLOGICAL	4109	GROSS ALPHA PARTICLE ACTIVITY	01-05-2021	108	2030/01
CA4100582_004_004	REGULATED VOC	2981	1,1,1-TRICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2988	1,1,2,2-TETRACHLOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2985	1,1,2-TRICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2978	1,1-DICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2977	1,1-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2378	1,2,4-TRICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2968	O-DICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2980	1,2-DICHLOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2983	1,2-DICHLOROPROPANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2413	1,3-DICHLOROPROPENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2969	P-DICHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2990	BENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2982	CARBON TETRACHLORIDE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2380	CIS-1,2-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2964	DICHLOROMETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2992	ETHYLBENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2251	METHYL TERT-BUTYL ETHER	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2989	CHLOROBENZENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2996	STYRENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2987	TETRACHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2991	TOLUENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2979	TRANS-1,2-DICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2984	TRICHLOROETHYLENE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2218	TRICHLOROFLUOROMETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2904	TRICHLOROTRIFLUOROETHANE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2976	VINYL CHLORIDE	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED VOC	2955	XYLENES, TOTAL	08-15-2024	36	2027/08
CA4100582_004_004	REGULATED SOC	2414	1,2,3-TRICHLOROPROPANE	01-19-2022	36	DUE NOW
CA4100582_004_004	REGULATED SOC	2105	2,4-D	12-07-2021	108	2030/12
CA4100582_004_004	REGULATED SOC	2050	ATRAZINE	12-07-2021	108	2030/12
CA4100582_004_004	REGULATED SOC	2037	SIMAZINE	12-07-2021	108	2030/12
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2943	BROMODICHLOROMETHANE	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2942	BROMOFORM	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2941	CHLOROFORM	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2454	DIBROMOACETIC ACID	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2944	DIBROMOCHLOROMETHANE	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2451	DICHLOROACETIC ACID	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2456	TOTAL HALOACETIC ACIDS (HAA5)	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2453	MONOBROMOACETIC ACID	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2450	MONOCHLOROACETIC ACID	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2950	TTHM	08-13-2024	12	2025/08
CA4100582_DST_900	DISINFECTION BYPRODUCTS	2452	TRICHLOROACETIC ACID	08-13-2024	12	2025/08
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2943	BROMODICHLOROMETHANE	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2942	BROMOFORM	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2941	CHLOROFORM	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2454	DIBROMOACETIC ACID	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2944	DIBROMOCHLOROMETHANE	0		DUE NOW

**County Service Area No. 11****Water Quality Sampling Frequency**

CA4100582_DST_901	DISINFECTION BYPRODUCTS	2451	DICHLOROACETIC ACID	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2456	TOTAL HALOACETIC ACIDS (HAA5)	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2453	MONOBROMOACETIC ACID	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2450	MONOCHLOROACETIC ACID	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2950	TTHM	0		DUE NOW
CA4100582_DST_901	DISINFECTION BYPRODUCTS	2452	TRICHLOROACETIC ACID	0		DUE NOW

# **Attachment I - CSA 7 Domestic Water Supply Permit**



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

ENGINEERING REPORT

In the Matter of the Permit Application

From

County Service Area 7  
Water System No. 4100509

Report Prepared By

Van Tsang, P.E.  
Associate Sanitary Engineer

Approved By  
Eric Lacy, P.E.  
District Engineer  
Santa Clara District

Domestic Water Supply Permit  
September 20, 2013

Drinking Water Field Operations Branch



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

September 20, 2013

Ms. Ann Stillman  
County of San Mateo, Department of Public Works  
555 County Center, 5<sup>th</sup> Floor  
Redwood City, CA 94063

Dear Ms. Stillman:

**DOMESTIC WATER SUPPLY PERMIT 02-17-13P-4100509**  
**County Service Area 7, Water System No. 4100509**

Enclosed is the domestic water supply permit granted to the County of San Mateo, Department of Public Works by the State Department of Public Health to operate the water system known as County Service Area 7, subject to the conditions mentioned in the permit.

If you have any questions regarding this permit, please feel free to contact Ms. Van Tsang at (510) 620-3602.

Sincerely,

Eric Lacy, P.E.  
District Engineer  
Santa Clara District  
Drinking Water Field Operations Branch  
Department of Public Health

Enclosure

cc: San Mateo County Environmental Health Department

STATE OF CALIFORNIA

***DOMESTIC WATER SUPPLY PERMIT***

Issued To

***County Service Area 7***

**4100509**

By The

California Department of Public Health,

Division of Drinking Water & Environmental Management Branch



PERMIT NUMBER: 02-17-13P-4100509

DATE: September 20, 2013

***WHEREAS:***

1. On July 1, 2011, the regulatory authority for the water system known as County Service Area 7 was transferred from the San Mateo County Environmental Health Department to the Drinking Water Field Operations Branch of the California Department of Public Health (hereinafter, Department). In accordance with the requirements of the California Health and Safety Code (CHSC), the Department has made the decision to initiate an investigation and consider issuing a water supply permit.
2. This community water system is located on Highway 84 and Pescadero Creek Road in the La Honda area, San Mateo County.
3. County Service Area 7's actions are governed by the County of San Mateo, Board of Supervisors and managed by the County of San Mateo, Department of Public Works. The County of San Mateo, Department of Public Works therefore is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.
4. The public water system for which the permit application has been submitted is as described briefly below:

The water system consists of one active surface water source (Alpine Creek), a Camp Glenwood packaged water treatment plant, a 500,000 gallon welded steel storage tank, two 70,000 gallon tanks, two 10,000 gallon tanks, and a distribution system. The distribution system consists of asbestos cement pipes, galvanized

pipes, PVC pipes and other materials. The distribution system water mains range from 1 inch to 4 inches in diameter.

A more detailed description of the permitted system is presented in the attached Engineering Report.

***And WHEREAS:***

1. The California Department of Public Health has evaluated all of the information submitted for County Service Area 7 and has conducted a physical investigation of the County Service Area 7 water system.
2. The California Department of Public Health has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

***THEREFORE:*** The California Department of Public Health has determined the following:

1. The County Service Area 7 water system meets the criteria for and is hereby classified as a community water system.
2. The County Service Area 7 water system has sufficient source capacity to serve the anticipated water demand.
3. Provided the following conditions are complied with, the County Service Area 7 should be capable of providing water to consumers that is pure, wholesome, and potable and in compliance with statutory and regulatory drinking water requirements at all times.

***THE COUNTY SERVICE AREA 7 IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT TO OPERATE THE COUNTY SERVICE AREA 7 WATER SYSTEM.***

The County Service Area 7 Water System shall comply with the following permit conditions:

**General**

1. County Service Area 7 shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.
2. County Service Area 7 shall serve water to its customers only from approved sources. No other sources shall be used without prior approval from the Department. The only approved source for CSA7 is the Alpine Creek, Primary Station Code No. 4100515-001.

## Surface Water Treatment

3. County Service Area 7 shall provide reliable treatment to water from its surface water supply that meets a minimum total reduction of 99.9% (3-log) for *Giardia lamblia* cysts and 99.99% (4-log) for virus through the filtration and disinfection process and a total removal of 99% (2-log) for *Cryptosporidium* through the filtration process at all times. When the Camp Glenwood WTP is operated in accordance with a Department approved Operations Plan and the performance monitoring, design, reliability, and operational requirements appropriate to conventional filtration, the filtration process is credited with 99.7% (2.5-log) *Giardia lamblia* cysts, 99% (2-log) virus and 99% (2-log) *Cryptosporidium* removal. Based upon the overall reduction requirements specified above, the inactivation requirements for the Camp Glenwood WTP are 0.5 log *Giardia lamblia* cysts and 2-log for virus through the disinfection process.

### Filtration

4. The rapid mix, flocculation, clarifier/tube settler and filter shall be in use at all times during which the treatment plant is in operation.
5. The flow rates through the filter shall not exceed 3.0 gpm/ft<sup>2</sup> at any time.
6. County Service Area 7 shall operate the Camp Glenwood WTP so that the effluent water turbidity level, prior to the contact chamber, does not exceed:
  - a. 0.3 NTU in 95% of the measurements taken each month;
  - b. 1 NTU for more than one continuous hour;
  - c. 1 NTU at four-hour intervals; and
  - d. 1.0 NTU for more than eight consecutive hours.
7. County Service Area 7 shall determine compliance with the turbidity performance standard of the filter effluent, prior to the contact chamber, at least once every four hours that the system is in operation. Continuous turbidity measurements may be substituted for grab sample monitoring provided CSA7 validates the accuracy of the measurements on a weekly basis.

### Disinfection

8. Disinfection treatment shall comply with the following performance standards:
  - a. Water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four hours in any 24 hour period.
  - b. The residual disinfectant concentrations of samples collected from the distribution system shall be detectable in at least 95 percent of the samples taken each month that the system serves water to the public.

9. County Service Area 7 shall comply with the disinfection requirements at all times. Compliance with the disinfection inactivation requirements will be determined using the CT concept.
10. County Service Area 7 shall measure and record the disinfectant residual concentration of the water being delivered to the contact chamber continuously. If there is a failure of continuous disinfection residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.
11. Disinfection facilities shall be operated in accordance with the following requirements:
  - a. A supply of chemicals necessary to provide continuous operation of disinfection facilities shall be maintained as a reserve or demonstrated to be available.
  - b. An emergency plan shall be developed as part of the operations plan and implemented in the event of disinfection failure to prevent delivery to the distribution system of any undisinfected or inadequately disinfected water. The plan shall be posted in the treatment plant or other place readily accessible to the plant operator.

#### **Water Quality Monitoring and Reporting**

12. County Service Area 7 shall monitor the raw water supply for total coliform and either fecal coliform or *E.coli* bacteria using density analysis no less than once each month.
13. County Service Area 7 shall measure the residual disinfectant concentration at least at the same points in the distribution system and at the same time as total coliforms are sampled in accordance with Section 64421, Title 22, California Code of Regulations.
14. County Service Area 7 shall comply with the water quality monitoring and reporting requirements for the following water quality constituents:
  - a. Bacteriological quality, in accordance with Article 3, Chapter 15, Title 22, CCR.
  - b. Inorganic chemicals, except for Nitrate, Nitrite, Asbestos and Perchlorate, in accordance with Section 64432, Chapter 15, Title 22, CCR.
  - c. Nitrate and Nitrite, in accordance with Section 64432.1, Chapter 15, Title 22, CCR.
  - d. Asbestos, in accordance with Section 64432.2, Chapter 15, Title 22, CCR.
  - e. Perchlorate, in accordance with Section 64432.3, Chapter 15, Title 22, CCR.
  - f. Radiological Chemicals, in accordance with Section 64442, Chapter 15, Title 22, CCR.
  - g. Volatile and Synthetic Organic Chemicals, in accordance with Section 64444, Chapter 15, Title 22, CCR.

15. All water quality monitoring results analyzed by a certified laboratory shall be submitted to the Department via Electronic Data Transfer (EDT) using the assigned Primary Station Code (PS Code) of the monitoring site.

### **Operation and Maintenance**

16. County Service Area 7 shall calibrate the turbidimeters in accordance with the manufacturer recommendations.
17. County Service Area 7 shall provide the following reliability features to the Camp Glenwood WTP:
  - a. Alarm devices to provide warning of coagulation, filtration, and disinfection failures. All devices shall warn a person designated by CSA 7 as responsible for taking corrective action, or have provisions to shut the plant down until corrective action can be taken.
  - b. Standby replacement equipment available to assure continuous operation and control of unit processes for coagulation, filtration and disinfection.
  - c. A continuous turbidity monitoring and recording unit on the filter effluent prior to the chlorine contact pipe.
18. County Service Area 7 shall revise its operations plan and submit for Department approval, no later than **December 31, 2013**. The operations plan shall be comprehensive to the extent that a new operator will be able to operate the Camp Glenwood WTP, using the plan, with minimal training. The operations plan shall include at minimum:
  - d. The treatment plant performance monitoring program
  - e. Unit process equipment maintenance program
  - f. Filter media inspection program
  - g. Operating personnel, including number of staff, certification levels and responsibilities
  - h. How and when each unit process is operated
  - i. Laboratory procedures
  - j. Procedures used to determine chemical dose rates
  - k. Records
  - l. Response to plant and watershed emergencies
  - m. Reliability features

19. County Service Area 7 shall operate the Camp Glenwood WTP in accordance with the approved operations plan. Planned modifications to incorporate new operating procedures shall be submitted to the Department for review and approval prior to implementation.
20. All persons responsible for the operation and maintenance of the water system shall be certified in accordance with Sections 63750.1 through 64413.7, inclusive, Title 22, CCR. A chief operator licensed at, as a minimum, Grade D1 and T1, shall be responsible for the operation of CSA7's distribution and treatment system.

### **Records and Reporting**

21. County Service Area 7 shall maintain accurate and complete operation records for the Camp Glenwood WTP. The records shall include but not be limited to the following:
  - n. The results of all monitoring conducted in accordance with this permit and the Surface Water Treatment Rule.
  - o. Dates on which filter maintenance and inspections were performed and the results of any inspections.
  - p. Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates.
  - q. Dates and description of major equipment and process failures and corrective actions taken.

Treatment plant records shall be retained for not less than three years, except where the Department has determined that longer retention times are necessary to complete legal actions taken under the provisions of the Health and Safety Code.

22. County Service Area 7 shall notify the Department as soon as possible, but no later than by the end of the next business day, or within 24 hours, whichever is less, by telephone or other equally rapid means whenever:
  - r. The turbidity of the filter effluent exceeds 5.0 NTU at any time.
  - s. The turbidity of the filter effluent exceeds 1 NTU for more than one continuous hour.
  - t. The turbidity of the filter effluent exceeds 1 NTU at four-hour intervals.
  - u. The turbidity of the filter effluent exceeds 1.0 NTU for more than eight consecutive hours.
  - v. There is a failure to maintain a minimum disinfectant residual of 0.2 mg/L in the water being delivered to the distribution system. CSA 7 shall report whether or not the disinfectant residual was restored to at least 0.2 mg/L within four hours.

- w. An event occurs which may affect the ability of the treatment plant to produce a safe, potable water including but not limited to spills of hazardous materials in the watershed and unit treatment process failures.
  - x. CSA 7 discovers the occurrence of an acute infectious illness that may be potentially attributed to the water system.
23. County Service Area 7 shall submit a monthly report on the operation of the treatment facility to the Department by the tenth day of the following month. The report shall be signed by the chief water treatment plant operator, plant superintendent or other person directly responsible for the operation of the water treatment plant.

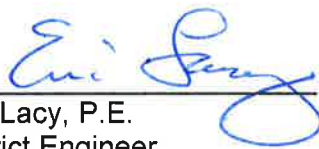
This permit supersedes all previous domestic water supply permits issued for this public water system and shall remain in effect unless and until it is amended, revised, reissued, or declared to be null and void by the California Department of Public Health. This permit is non-transferable.

Any change in the source of water for the water system, any modification of the method of treatment as described in the Permit Report, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the California Department of Public Health.

This permit shall be effective as of the date shown below.

**FOR THE CALIFORNIA DEPARTMENT OF PUBLIC HEALTH**

September 20, 2013  
Date

  
Eric Lacy, P.E.  
District Engineer  
Santa Clara District  
Drinking Water Field Operations Branch  
California Department of Public Health

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RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
**California Department of Public Health**



EDMUND G. BROWN JR.  
Governor

**Engineering Report  
In the Matter of the Permit Application  
From the  
County Service Area 7  
Water System No. 4100509  
San Mateo County  
September 2013**

**State of California Department of Public Health  
Drinking Water Field Operations Branch  
Van Tsang, P.E., Associate Sanitary Engineer  
Eric Lacy, P.E., District Engineer**

**I. Introduction**

1.1 Purpose of Report

The water system has its origins in the 1920s when private developers diverted water from Alpine Creek to serve a small subdivision consisting primarily of vacation homes. The system was subsequently expanded to serve Glenwood Boys Ranch and nearby Sam McDonald Park located near La Honda in San Mateo County. The County of San Mateo Department of Public Works (hereinafter, DPW) began operating the water system in 1958 after the formation of a County Service Area, which is known as County Service Area 7 (hereinafter, CSA7). At that time, the only treatment provided for the raw creek source was chlorination. In 1985, CSA 7 applied for funds from the Safe Drinking Water Bond Law Act of 1984 to construct an infiltration gallery in the Alpine Creek and the Camp Glenwood Water Treatment Plant (WTP). Construction was completed in 1994. The WTP was fabricated by Rescue Engineers and can treat up to 50 gallons per minute (gpm).

A domestic water supply permit was issued to the CSA 7 public water system by the San Mateo County Environmental Health Department (hereinafter, County) in July 1985. The drinking water regulatory authority over CSA 7 was transferred from the County to the Drinking Water Field Operations Branch of the California Department of Public Health (hereinafter, Department) on July 1, 2011. After a thorough investigation of the CSA 7 water system, the Department has determined to issue a permit to CSA 7 to maintain and operate the existing CSA 7 water system, as in accordance with Section 116525 of the California Health and Safety Code.

The purpose of this report is to present a sanitary engineering and public health evaluation of the existing water system regarding the issuance of the permit.

## 1.2 Brief Description of Water System

County Service Area 7, located on Highway 84 and Pescadero Creek Road in the La Honda area, San Mateo County, provides potable water to 67 active service connections with an estimated population of 300. Water pumped from Alpine Creek (Primary Station Code (PS Code) No. 4100515-001) is treated at the Camp Glenwood WTP located on Pescadero Creek Road. The filtered and disinfected water gravity feeds the distribution system or is stored within a 500,000 gallon welded steel tank located up the hill from the treatment facility for gravity distribution. Water from the 500,000 gallon tank also supplies two 70,000 gallon tanks at the Glenwood Boys Ranch and a 10,000 gallon tank at the Hikers Hut in Sam MacDonald Park. From the Hikers Hut, water is lifted to a second 10,000 gallon tank at the horse camp. The distribution system consists of asbestos cement pipes, galvanized pipes, PVC pipes and other materials. The distribution system water mains range from 1 inch to 4 inches in diameter.

## 1.3 Source of Information

The information used in preparing this report was collected from the water system's files, discussions with County staff, and the field inspection conducted on August 2, 2011 by Ms. Van Tsang and Mr. Eric Lacy of the Department.

# II. **Investigations and Findings**

## 2.1 Source of Supply

The County Service Area 7 water system draws its entire supply from the Alpine Creek at the Pescadero Creek Road Bridge (figure 1). According to the Permit for Diversion and Use of Water issued by the California Department of Water Resources Control Board (Board) on July 1, 1993, the permitted maximum diversion rate for CSA 7 is 0.035 cubic feet per second or approximately 7 million gallons of water per year. Water is pumped from an intake located along the east bank of Alpine Creek by means of a centrifugal pump located on a pad approximately 10 feet above the creek. The water is discharged through a 3 inch diameter pipeline to a 70,000 gallon redwood storage tank located adjacent to the treatment facility on Pescadero Creek Road. The reservoir is approximately 27 feet in diameter with a maximum water depth of about 16 feet. The intake pump consists of a 7 ½ horse power (HP) vertical, multistage-type centrifugal pump capable of pumping approximately 50 gallons per minute (gpm) at 275 foot head. The pump is controlled by the Programmable Logic Controller (PLC) based on the water level within the 70,000 gallon tank. From the 70,000 gallon tank, raw water is pumped to the Camp Glenwood WTP by a 1 ½ HP PACO Model 1250-6 centrifugal type pump designed to pump up to 50 gpm.

## 2.2 Treatment

Raw water from the Alpine Creek is treated at the Camp Glenwood WTP located on Pescadero Creek Road. The treatment system was fabricated by Rescue Engineers and installed in 1994. The treatment unit is a steel structure with inside dimensions of 9 feet 4 inches by 8 feet 6 inches wide and is divided into four compartments – rapid mix, flocculation, clarifier/tube settler and filter. Pumped flow from the 70,000 gallon tank is routed through a 2-inch PVC pipe that discharges into the rapid mix chamber. Flow into the treatment unit is throttled manually to 50

gpm by a ball valve. Hyperion 835 polyaluminum hydroxychloride, a polymer, is injected into the rapid mix chamber (figure 2) at a rate of 0.15 gallons per day using an LMI electronic chemical metering pump with a maximum output of 60 gallons per day. The polymer solution is prepared by mixing 500 milliliters (mL) of solution with 10,000 mL of water and stored within a 100 gallon capacity polyethylene chemical tank. The polymer dose is adjusted based on raw water turbidity. The rapid mix provides a 40 second detention time at a 50 gpm flow rate. Mixing energy is provided by a flange-mounted high speed (1,725 revolutions per minute (rpm)) mechanical mixer powered by a 1/3 HP motor.

From the rapid mix chamber, flow is routed to the flocculation chamber through 3 inch holes located at the bottom side of the rapid mix section. Mixing is accomplished by a paddle-type, low speed (6.5 rpm) mixer equipped with a 1/15 HP gear motor. Detention time is approximately 23 minutes at a 50 gpm flow rate.

The flocculated water then exits the flocculation section via five 5-inch diameter holes located at the bottom of the partition between the flocculation and tube settler sections. Water then flows upward through the tube settlers, while particulate matter settles out by gravity to the bottom of the clarifier. The settling tube chamber consists of multiple PVC tubes inclined at 60 degrees to the horizontal. Detention time within the tube settler chamber is approximately 45 minutes at the 50 gpm flow rate. Solids accumulated during operation are flushed from the tubes during each filter backwash.

After the settling tube chamber, the water then flows into a 6-inch wide launder (trough) at the surface of the tube settler section through 1-inch orifices in the launder walls. The launderer extends into the filter compartment to carry the settled water to the filter. The filter bed area is 16.6 square feet. The filter bed is 39 inches deep and is composed of three materials: anthracite coal (15 inches), filter sand (18 inches) and garnet sand (6 inches). The filter bed is supported by 16 inches of gravel. At a designed filter loading rate of 3.0 gallons per minute per square feet, the filter capacity is limited to 50 gpm. Filtered water is collected in ¼-inch diameter PVC perforated under drain laterals that drain to a 4-inch under drain header. A 2.5 % solution of sodium hypochlorite (NaOCl) is injected into the header before the water is pumped to the 500,000 gallon storage tank by a 7 ½ HP vertical multistage centrifugal type pump.

The NaOCl injection system consists of an LMI A741-813SI chemical metering pump capable of pumping up to 12 gpd and a 50 gallon capacity polyethylene solution tank containing 1 gallon of 12.5% HASA Multichlor mixed with 5 gallons of water. Free chlorine residual is continuously analyzed at the end of a ductile iron chlorine contact chamber that is 18 inches in diameter by 100 feet long. The chamber is located below ground outside the WTP. Free chlorine is analyzed by a Wallace and Tiernan Depolox 3 chlorine residual analyzer.

### Backwash Cycle

The filters are backwashed after 24 hours of production and initiated automatically. The initial portion of the backwash is a drain-down cycle which lowers the water level to inches above the media bed. The filters are then backwashed for approximately 10 minutes at a rate of 15 gpm/ft<sup>2</sup> with finished water from the 500,000 gallon steel tank. The washwater from the filter backwash flows to the tube settler section via the launderer. The washwater then flows down through the tube settler tubes, scouring them to remove accumulated sludge, and out the drain to the wastewater tank. The backwash flow rate is controlled by a Griswold flow control valve. While the filters are backwashed, the media bed surface is also washed for eight minutes from a 4 inch backwash line. The surface wash piping system consists of six 1-¼ inch galvanized steel

pipe laterals fed from a 2-inch header pipe. The surface wash flow rate, 20 – 30 gpm, is monitored by a differential pressure sensor. Flow is controlled by an electronically actuated butterfly valve. After the backwash, water is filtered-to-waste until the turbidity is less than 0.3 NTU. The backwash water is pumped to two interconnected precast concrete holding tanks with a total volume of approximately 6,500 gallons. The backwash water is then pumped to a vegetated spray field adjacent to the WTP.

### 2.3 Alarms and Shutdown Features

The Camp Glenwood WTP alarm and shutdown system consists of a Sensaphone 2000 multi-functional and programmable dialer which alerts the operator when chlorine residual and turbidity are outside of their desired parameters. An alarm is triggered, the WTP shuts down and the operator is notified under the following conditions:

Raw water turbidity - alarm	10.0 NTU
Finished water turbidity - alarm	0.1 NTU
Finished water turbidity - shutdown	0.3 NTU
Finished water chlorine residual - alarm	1.1 mg/L (low) / 3.0 mg/L (high)
Finished water chlorine residual - shutdown	0.75 mg/L (low)

Normal operation of the Camp Glenwood WTP can only be reactivated after all alarms are manually reset.

### 2.4 Operation and Maintenance

Operation and maintenance of the Camp Glenwood WTP and the CSA 7 distribution system is being performed under contract with an outside entity. Currently, it is contracted with Bracewell Engineering Inc. and Mr. Christopher Hauge serves as the designated certified operator. Mr. Hauge is a certified Grade T2 Water Treatment Operator (30792) and Grade D2 Water Distribution Operator.

### 2.5 Storage Facilities

Primary storage is provided by a 500,000 gallon steel cylindrical tank located approximately 240 feet higher in elevation than the WTP. Water from the 500,000 gallon tank fills two 70,000 gallon tanks at the Glenwood Boys Ranch and is also pumped uphill to the 10,000 gallon tank at the Hikers Hut in Sam McDonald Park. From the tank at Hikers Hut, water is further lifted to a 10,000 gallon tank at the horse camp.

### 2.6 Watershed Sanitary Survey and Drinking Water Source Assessment

Section 64665, Chapter 17, Title 22 of the California Code of Regulations (CCR) requires suppliers using an approved surface water source to complete a watershed sanitary survey at least every five years. The survey and report must include physical and hydrogeological description of the watershed, a summary of source water quality monitoring data, a description of activities and sources of contamination, a description of any significant changes that have occurred since the last survey which could affect the quality of the source water, a description of watershed control and management practices, an evaluation of the system's ability to meet requirements of the Surface Water Treatment Rule (SWTR) and recommendations for corrective actions. A watershed sanitary survey has not been completed for the Alpine Creek

water source. Therefore, CSA7 must complete a Watershed Sanitary Survey for the Alpine Creek watershed by **July 1, 2014**.

According to the December 2002, Drinking Water Source Assessment for Alpine Creek, the creek is considered vulnerable to the following activities that were identified within the watershed:

- Low density septic systems
- Animal operations (horse camp)
- Agricultural drainage
- Wells – irrigation/agricultural
- Discharge from the WTP
- Irrigated and non-irrigated crops
- Fertilizer, pesticide/herbicide application
- Water supply wells
- Transportation corridors
- Injection wells/dry wells/sumps
- Campgrounds/recreational areas

## 2.7 Water Quality Monitoring

### 2.7.1 *Alpine Creek – Source Monitoring*

As a community water system, CSA 7 is required to monitor the Alpine Creek for General Mineral (GM), General Physical (GP), Inorganic Chemicals (IOC), Radioactivity (Gross Alpha), Volatile Organic Chemicals (VOC) and Synthetic Organic Chemicals (SOC). The monitoring frequency and status for Alpine Creek is attached in Appendix B.

### 2.7.2 Iron and Aluminum – Alpine Creek

As summarized in Table 1 below, the iron and aluminum concentrations range from non-detect to 690 ppb and non-detect to 660 ppb, respectively. The secondary maximum contaminant levels (SMCL) for iron and aluminum are 300 ppb and 200 ppb, respectively. All treated water iron and aluminum concentrations were non-detect. With the wide range of iron and aluminum levels in the raw water supply and the 2012 quarterly average exceeding the SMCLs, CSA 7 must continue to monitor the iron and aluminum concentration in the Alpine Creek and the treated water supply quarterly to demonstrate compliance with the drinking water standards in the water delivered to its customers.

Table 1. Alpine Creek Iron and Aluminum Levels

Sample Date	Iron (ppb) SMCL = 300 ppb	Aluminum (ppb) SMCL = 200 ppb
3/29/2012	690	660
5/16/2012	0	51
7/11/2012	0	0
8/13/2012	380	160
11/21/2012	430	160

4 Quarterly Averages*	328	238
2/14/2013	0	0
5/7/2013	0	0

\*The July and August samples were averaged together and the values were used as the third quarterly results.

### 2.7.2 Bacteriological Quality – Alpine Creek

Section 64655, Chapter 17 Surface Water Treatment Rule, Title 22 of the California Code of Regulations (CCR) requires water suppliers using an approved surface water source to monitor the raw water supply for total coliform and either fecal coliform or *E.coli* bacteria using density analysis at least once each month.

### 2.7.3 Bacteriological Quality – Distribution System

Section 64423, Chapter 15, Title 22 of the CCR (Total Coliform Rule) requires community water systems to collect routine bacteriological water samples from sites that represent the water throughout the distribution system. Based on the classification, population served and total number of service connections, CSA 7 must collect a minimum of one bacteriological sample from the distribution system each month.

### 2.7.4 Stage 2 Disinfectants/Disinfection Byproducts Rule (DBPR)

The Stage 2 DBPR requires community water systems that treat their water with a chemical disinfectant other than ultraviolet light in any part of the treatment process or which provide water that contains a chemical disinfectant to monitor for and comply with the total trihalomethane (TTHM) and haloacetic acids (HAA5) MCLs of 80 ug/L and 60 ug/L, respectively. Community water systems providing disinfected surface water to less than 500 persons shall collect a minimum of one sample per year. Monitoring shall be increased to quarterly if the sample exceeds the MCL. As summarized in Table 2 below, CSA7 has historically and continues to exceed the TTHM MCL. As such, CSA is in violation of the TTHM MCL and is required to collect a minimum of one sample per quarter for TTHM analysis.

### 2.7.5 Lead and Copper Rule

The Lead and Copper Rule (LCR) requires community water systems to monitor lead and copper levels at the consumers' tap. The initial phase of the lead and copper monitoring consists of two consecutive six-month monitoring periods. Monitoring may be reduced to annually if the result of the two consecutive six-month monitoring rounds does not exceed the lead and copper action levels as specified in Section 64685 (c) (2), CCR. CSA7 must complete the three annual monitoring rounds (with the two initial six-month monitoring rounds counted as one year) with no exceedance of the lead and copper action levels before it is eligible for triennial reduced monitoring.

The number of sites that need to be sampled for each round of testing is based on the number of people served. According to Department records, CSA7 currently serves approximately 300 people. According to Table 64684 of the CCR, standard and reduced monitoring requires that 10 and 5 sites be sampled, respectively.

County Service Area 7 completed the first triennial monitoring round in September 2012. The lead and copper 90<sup>th</sup> percentile were nondetect and 0.088 mg/L, respectively. The results comply with the lead and copper action level of 0.015 mg/L and 1.3 mg/L, respectively. Therefore, the second triennial round of monitoring is due by September 30, 2015. All monitoring results shall be reported to the Department by the 10<sup>th</sup> of the following month.

2.8 Cross Connection Control Program

CSA 7 currently does not have a Cross Connection Control Program.

2.9 Technical, Managerial and Financial Capacity

CSA 7 was directed during the August 2, 2011 inspection to complete and submit the required TMF documents to demonstrate through its financial resources, technical resources, organizational structure and personnel that the system can comply with all applicable drinking water standards and regulations. As of the date of this permit, CSA 7 has not submitted the required TMF documents nor demonstrated adequate capacity. Therefore, by **November 15, 2013**, CSA 7 shall submit the required TMF documents to the Department for review.

**III. Appraisal of Sanitary Hazards and Safeguards**

CSA 7's raw water supply is provided by the Alpine Creek at the Pescadero Creek Road Bridge. The intake is located immediately below the bridge, making the creek vulnerable to activities and contamination from the road. According to the Drinking Water Source Assessment completed in December 2002, Alpine Creek is considered most vulnerable to septic systems, agricultural drainage, agricultural/irrigation wells and animal operations.

The TTHM and HAA5 concentrations collected within the distribution system have ranged from non-detect to 140 ug/L and non-detect to 48 ug/L, respectively. The MCL for TTHM and HAA5 is 80 ug/L and 60 ug/L, respectively. TTHM and HAA5 data collected from 2003 to present are provided in Table 2 below:

Table 2. TTHM and HAA5 Concentrations

Sampling Period	Sampling Date	Total Trihalomethanes (TTHM) (ug/L)	Haloacetic Acid (HAA5) (ug/L)
1 <sup>st</sup> Q 2003	3/26/2003	ND	-
3 <sup>rd</sup> Q 2003	9/2/2003	140	29
4 <sup>th</sup> Q 2003	12/18/2003	ND	-
3 <sup>rd</sup> Q 2004	8/30/2004	110	27
4 <sup>th</sup> Q 2004	12/29/2004	120	40
3 <sup>rd</sup> Q 2005	9/22/2005	70	36
3 <sup>rd</sup> Q 2006	9/19/2006	64	-
4 <sup>th</sup> Q 2006	11/21/2006	-	21
4 <sup>th</sup> Q 2006	12/8/2006	ND	-

3 <sup>rd</sup> Q 2007	9/13/2007	110	3.8
4 <sup>th</sup> Q 2007	12/14/2007	110	-
1 <sup>st</sup> Q 2008	3/13/2008	69	-
2 <sup>nd</sup> Q 2008	6/13/2008	83	-
3 <sup>rd</sup> Q 2008	9/30/2008	110	31
4 <sup>th</sup> Q 2008	12/9/2008	51	-
1 <sup>st</sup> Q 2009	3/9/2009	46	-
2 <sup>nd</sup> Q 2009	6/1/2009	39	-
3 <sup>rd</sup> Q 2009	9/16/2009	47	ND
3 <sup>rd</sup> Q 2010	9/7/2010	77.75	ND
1 <sup>st</sup> Q 2012	3/20/2012	120	45
2 <sup>nd</sup> Q 2012	6/12/2012	100	48
3 <sup>rd</sup> Q 2012	9/11/2012	100	43
4 <sup>th</sup> Q 2012	11/1/2012	89	26
1 <sup>st</sup> Q 2013	3/11/2013	94	27
2 <sup>nd</sup> Q 2013	5/6/2013	92	82.8

ND = nondetect

Section 64535.2 (b) of the CCR specifies that TTHM and HAA5 MCL compliance shall be determined based on the running annual arithmetic average (RAA) of four quarterly results. As a result of the TTHM MCL exceedance, Citation 02-17-13C-033 was issued on January 3, 2013 to CSA7. As directed in the citation, CSA7 must cease and desist violating the TTHM MCL standard, conduct quarterly public notification for the TTHM MCL violation and prepare and submit a Corrective Action Plan. As of the date of this permit, the submission of the Corrective Action Plan is pending.

The distribution system consists of asbestos cement pipes, galvanized pipes, PVC pipes and other materials. Part of the distribution system was constructed in the 1920s and the water mains are reaching the end of their useful lives. The distribution system water mains are undersized and range from 1 inch to 4 inches in diameter. For this reason, maintaining adequate water supply and pressure to all parts of the system has been a problem during high water demand periods. Water pressure as low as 10 psi has been observed in small areas served by the water system. Section 64602, Waterworks Standard, Chapter 16, Title 22 of the CCR specifies that the minimum operating pressure in the water main throughout the distribution system must be at least 20 pounds per square inch (psi) at all times. Operating with water pressures less than 20 psi can lead to significant contamination through backflow of unapproved sources. Therefore, CSA 7 needs to thoroughly evaluate the size and conditions of all distribution system pipelines and the pressures supplied to your customers. Actions must be taken to improve the water pressure to a minimum of 20 psi at all times throughout the distribution system. If the water mains must be replaced, please note that Section 64573 of the

CCR specifies that newly installed water mains shall have a nominal diameter of at least four inches.

Section 64655 (b) of the SWTR requires water systems using an approved surface water source to monitor the raw water supply for total coliform and either fecal coliform or *E.coli* bacteria using density analysis no less than once each month. Such monitoring allows for an ongoing assessment of the raw water bacteriological quality and will alert the system to changes in raw water quality that may be associated with changing conditions in the watershed, climatic changes, or unexpected changes due to unknown causes. In addition to the bacteriological monitoring requirements within the SWTR, the Federal Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR), required filtered water systems serving fewer than 10,000 people to sample their source water for *E.coli* at least once every two weeks from October 1, 2008 to September 30, 2009. Results of the *E.coli* analyses under the LT2ESWTR were used to determine if the water system must also sample their source water for Cryptosporidium. The arithmetic mean of the Cryptosporidium concentrations was used to determine if additional treatment is required. CSA7 has monitored the raw water supply at the Alpine Creek for total coliform and *E.coli*, in accordance with the SWTR and LT2ESWTR, since August 2008. The range in the Most Probable Number (MPN) for total coliform and *E.coli* was 63.8 to >2,419.6 MPN per 100 mL (average 672.3 MPN/100 mL) and <1 to >2419.6 MPN per 100 mL (average 114.4 MPN/100 mL from August 2008 to July 2012; average 46.4 MPN/100 mL from October 1, 2008 to September 30, 2009 during the LT2ESWTR monitoring), respectively. Based on the results of the LT2ESWTR, Cryptosporidium monitoring and additional treatment was not required. The second round of source water monitoring under LT2ESWTR begins on April 1, 2015. If significant changes in water quality occur in the future, reevaluation of the treatment requirements will be necessary.

The SWTR requires a water supplier using an approved surface water source to provide multibarrier treatment that reliably ensures at least a total of 3-log reduction of *Giardia lamblia* cysts and a total of 4-log reduction of viruses through filtration and disinfection and a total of 2-log removal of Cryptosporidium through filtration. When operated in conformance with the WTP's operations plan and the performance monitoring, design, reliability, and operational requirements appropriate to conventional filtration, the Camp Glenwood WTP can adequately remove 2.5-log *Giardia lamblia* cysts, 2-log viruses and 2-log Cryptosporidium through filtration. The remaining 0.5-log reduction of *Giardia lamblia* cysts and 2-log reduction of viruses must be satisfied through the disinfection process. The degree of pathogen inactivation provided by disinfection is determined using the CT concept, where C is the disinfectant residual concentration (in mg/L) and T is the contact time (in minutes). Contact time is achieved within a 100 feet section of 18 inch ductile iron pipeline located below ground outside of the WTP. A  $T_{10}/T$  baffling factor of 1.0 was assigned to the contact pipe. Based on the parameters used in determining CT, the CSA 7 is capable of meeting the inactivation requirements when using sodium hypochlorite.

The turbidity level of the filtered water must be equal to or less than 0.3 NTU in at least 95 percent of the measurements taken each month and must not exceed 1 NTU for more than one continuous hour, 1 NTU at four-hour intervals and 1.0 NTU for more than eight consecutive hours. To determine compliance with the filtration performance standards, CSA 7 must measure the turbidity level of the filter effluent, prior to the contact pipeline, at least once every four hours that the system is in operation. Continuous turbidity measurements may be substituted for grab sample monitoring provided CSA 7 validates the accuracy of the measurements on a weekly basis. Validation may be accomplished by comparing the turbidity values obtained from the online turbidimeters with values measured on a turbidity field test kit or bench top turbidimeter.

The measured values between the online and bench top turbidimeter or field test kit should be within ten percent of each other. CSA 7 utilizes a HACH 1720E online turbidimeter to measure the turbidity level of the filter effluent. Weekly validations are conducted using a HACH 2100P turbidity field test kit and the results are recorded onto a field log book. Review of the log books indicates that the online turbidimeter and field test kit are within ten percent of each other. In addition to weekly validations, quarterly calibrations using primary standards must also be conducted to both raw and finished water online turbidimeters.

Section 64659 of the SWTR requires surface water treatment plants be equipped with alarm devices to provide warning of coagulation, filtration, and disinfection failures. All devices must warn the operator to provide corrective actions or have the provisions to shut the plant down until corrective actions can be taken. Currently, the Camp Glenwood WTP is equipped with an alarm system to notify the designated operator when the chlorine residual drops below 1.1 mg/L or exceed 3.0 mg/L. The operator will also be notified if turbidity levels in the filter effluent exceed 0.1 NTU. The WTP will also shut down if the filter effluent turbidity exceeds 0.3 NTU and 10 NTU for raw water. Alarms for coagulation failure are currently not provided. Standby replacement equipment are available to assure continuous operation and control of unit processes for coagulation, filtration and disinfection.

Section 64661 of the SWTR requires water systems to operate treatment plants in accordance with an operations plan that has been approved by the Department. The operations plan should consist of CSA 7's treatment plant performance monitoring program, unit process equipment maintenance program, filter media inspection program, operating personnel, including number of staff, certification levels and responsibilities; how and when each unit process is operated; laboratory procedures; procedures used to determine chemical dose rates; records; response to plant and watershed emergencies; and reliability features. CSA7's current operations plan does not adequately address all the elements required above. Therefore a revised operations plan shall be submitted to the Department by **December 31, 2013**.

Section 64660 (a) of the SWTR requires all surface water treatment plants be operated by operators certified by the Department. Due to the complexity of the water treatment plant and the distribution system, CSA7 meets the criteria of a T1 (treatment) and D1 (distribution) system, and therefore, must designate a water system operator with at least a D1 and T1 state certification. CSA7 complies with the distribution and treatment certification requirements by contracting with Mr. Christopher Hauge of Bracewell Engineering Inc. Mr. Hauge is a Grade T2 WTO and Grade D2 WDO.

Section 7584, Chapter 5, Title 17 of the California Code of Regulations requires water suppliers to protect the public water supply from contamination by implementation of a cross connection control program (CCCP). The CCCP, for the purpose of addressing the requirements of Section 7585 through 7605 shall include, but not be limited, to the following elements:

- a) The adoption of operating rules or ordinances to implement the CCCP,
- b) The conducting of surveys to identify water user premises where cross-connections are likely to occur,
- c) The provisions of backflow protection by the water user at the user's connection,
- d) The provisions of at least one person trained in cross-connection control to carry out the CCCP,
- e) The establishment of a procedure or system for testing backflow preventers, and
- f) The maintenance of records of locations, tests and repairs of backflow preventers.

CSA7 currently does not have a CCCP and therefore must adopt a program by **December 31, 2013**. By **July 1, 2014**, CSA7 shall survey and identify all water user premises where cross-connections are likely to occur. By **December 31, 2014**, CSA7 shall install and test all required backflow prevention assemblies to ensure their proper operations. Also, by **December 31, 2014**, CSA7 shall be full compliance with Section 7584.

NSF Standard 60 addresses the health effects implications of treatment chemicals and related impurities. It ensures that the chemicals used for treatment of drinking water contain impurities below the maximum acceptable levels. CSA7 uses HASA MultiChlor 12.5 NaOCl and Hyperion 835 polyaluminum hydroxychloride, both NSF 60 approved chemicals.

#### **IV. Conclusion and Recommendations**

It is the finding of this report that County Service Area 7 can meet the requirements specified in Section 116270 through 116750, inclusive of the California Health and Safety Code providing the provisions recommended below are met. It is recommended that a water supply permit be granted to County Service Area 7 to operate the water system subject to the following provisions:

##### **General**

1. County Service Area 7 shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.
2. County Service Area 7 shall serve water to its customers only from approved sources. No other sources shall be used without prior approval from the Department. The only approved source for CSA7 is the Alpine Creek, Primary Station Code No. 4100515-001.

##### **Surface Water Treatment**

3. County Service Area 7 shall provide reliable treatment to water from its surface water supply that meets a minimum total reduction of 99.9% (3-log) for *Giardia lamblia* cysts and 99.99% (4-log) for virus through the filtration and disinfection process and a total removal of 99% (2-log) for *Cryptosporidium* through the filtration process at all times. When the Camp Glenwood WTP is operated in accordance with a Department approved Operations Plan and the performance monitoring, design, reliability, and operational requirements appropriate to conventional filtration, the filtration process is credited with 99.7% (2.5-log) *Giardia lamblia* cysts, 99% (2-log) virus and 99% (2-log) *Cryptosporidium* removal. Based upon the overall reduction requirements specified above, the inactivation requirements for the Camp Glenwood WTP are 0.5 log *Giardia lamblia* cysts and 2-log for virus through the disinfection process.

##### *Filtration*

4. The rapid mix, flocculation, clarifier/tube settler and filter shall be in use at all times during which the treatment plant is in operation.
5. The flow rates through the filter shall not exceed 3.0 gpm/ft<sup>2</sup> at any time.

6. County Service Area 7 shall operate the Camp Glenwood WTP so that the effluent water turbidity level, prior to the contact chamber, does not exceed:
  - a. 0.3 NTU in 95% of the measurements taken each month;
  - b. 1 NTU for more than one continuous hour;
  - c. 1 NTU at four-hour intervals; and
  - d. 1.0 NTU for more than eight consecutive hours.
7. County Service Area 7 shall determine compliance with the turbidity performance standard of the filter effluent, prior to the contact chamber, at least once every four hours that the system is in operation. Continuous turbidity measurements may be substituted for grab sample monitoring provided CSA7 validates the accuracy of the measurements on a weekly basis.

#### *Disinfection*

8. Disinfection treatment shall comply with the following performance standards:
  - a. Water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four hours in any 24 hour period.
  - b. The residual disinfectant concentrations of samples collected from the distribution system shall be detectable in at least 95 percent of the samples taken each month that the system serves water to the public.
9. County Service Area 7 shall comply with the disinfection requirements at all times. Compliance with the disinfection inactivation requirements will be determined using the CT concept.
10. County Service Area 7 shall measure and record the disinfectant residual concentration of the water being delivered to the contact chamber continuously. If there is a failure of continuous disinfection residual monitoring equipment, grab sampling every four hours may be conducted in lieu of continuous monitoring, but for no more than five working days following the failure of the equipment.
11. Disinfection facilities shall be operated in accordance with the following requirements:
  - a. A supply of chemicals necessary to provide continuous operation of disinfection facilities shall be maintained as a reserve or demonstrated to be available.
  - b. An emergency plan shall be developed as part of the operations plan and implemented in the event of disinfection failure to prevent delivery to the distribution system of any undisinfected or inadequately disinfected water. The plan shall be posted in the treatment plant or other place readily accessible to the plant operator.

### **Water Quality Monitoring and Reporting**

12. County Service Area 7 shall monitor the raw water supply for total coliform and either fecal coliform or *E. coli* bacteria using density analysis no less than once each month.
13. County Service Area 7 shall measure the residual disinfectant concentration at least at the same points in the distribution system and at the same time as total coliforms are sampled in accordance with Section 64421, Title 22, California Code of Regulations.
14. County Service Area 7 shall comply with the water quality monitoring and reporting requirements for the following water quality constituents:
  - a. Bacteriological quality, in accordance with Article 3, Chapter 15, Title 22, CCR.
  - b. Inorganic chemicals, except for Nitrate, Nitrite, Asbestos and Perchlorate, in accordance with Section 64432, Chapter 15, Title 22, CCR.
  - c. Nitrate and Nitrite, in accordance with Section 64432.1, Chapter 15, Title 22, CCR.
  - d. Asbestos, in accordance with Section 64432.2, Chapter 15, Title 22, CCR.
  - e. Perchlorate, in accordance with Section 64432.3, Chapter 15, Title 22, CCR.
  - f. Radiological Chemicals, in accordance with Section 64442, Chapter 15, Title 22, CCR.
  - g. Volatile and Synthetic Organic Chemicals, in accordance with Section 64444, Chapter 15, Title 22, CCR.
15. All water quality monitoring results analyzed by a certified laboratory shall be submitted to the Department via Electronic Data Transfer (EDT) using the assigned Primary Station Code (PS Code) of the monitoring site.

### **Operation and Maintenance**

16. County Service Area 7 shall calibrate the turbidimeters in accordance with the manufacturer recommendations.
17. County Service Area 7 shall provide the following reliability features to the Camp Glenwood WTP:
  - a. Alarm devices to provide warning of coagulation, filtration, and disinfection failures. All devices shall warn a person designated by CSA 7 as responsible for taking corrective action, or have provisions to shut the plant down until corrective action can be taken.
  - b. Standby replacement equipment available to assure continuous operation and control of unit processes for coagulation, filtration and disinfection.

- c. A continuous turbidity monitoring and recording unit on the filter effluent prior to the chlorine contact pipe.
18. County Service Area 7 shall revise its operations plan and submit for Department approval, no later than **December 31, 2013**. The operations plan shall be comprehensive to the extent that a new operator will be able to operate the Camp Glenwood WTP, using the plan, with minimal training. The operations plan shall include at minimum:
  - d. The treatment plant performance monitoring program
  - e. Unit process equipment maintenance program
  - f. Filter media inspection program
  - g. Operating personnel, including number of staff, certification levels and responsibilities
  - h. How and when each unit process is operated
  - i. Laboratory procedures
  - j. Procedures used to determine chemical dose rates
  - k. Records
  - l. Response to plant and watershed emergencies
  - m. Reliability features
19. County Service Area 7 shall operate the Camp Glenwood WTP in accordance with the approved operations plan. Planned modifications to incorporate new operating procedures shall be submitted to the Department for review and approval prior to implementation.
20. All persons responsible for the operation and maintenance of the water system shall be certified in accordance with Sections 63750.1 through 64413.7, inclusive, Title 22, CCR. A chief operator licensed at, as a minimum, Grade D1 and T1, shall be responsible for the operation of CSA7's distribution and treatment system.

### **Records and Reporting**

21. County Service Area 7 shall maintain accurate and complete operation records for the Camp Glenwood WTP. The records shall include but not be limited to the following:
  - n. The results of all monitoring conducted in accordance with this permit and the Surface Water Treatment Rule.
  - o. Dates on which filter maintenance and inspections were performed and the results of any inspections.

- p. Quantity of water produced, plant flow rates, filtration rates, hours of operation, and backwash rates.
- q. Dates and description of major equipment and process failures and corrective actions taken.

Treatment plant records shall be retained for not less than three years, except where the Department has determined that longer retention times are necessary to complete legal actions taken under the provisions of the Health and Safety Code.

- 22. County Service Area 7 shall notify the Department as soon as possible, but no later than by the end of the next business day, or within 24 hours, whichever is less, by telephone or other equally rapid means whenever:
  - r. The turbidity of the filter effluent exceeds 5.0 NTU at any time.
  - s. The turbidity of the filter effluent exceeds 1 NTU for more than one continuous hour.
  - t. The turbidity of the filter effluent exceeds 1 NTU at four-hour intervals.
  - u. The turbidity of the filter effluent exceeds 1.0 NTU for more than eight consecutive hours.
  - v. There is a failure to maintain a minimum disinfectant residual of 0.2 mg/L in the water being delivered to the distribution system. CSA 7 shall report whether or not the disinfectant residual was restored to at least 0.2 mg/L within four hours.
  - w. An event occurs which may affect the ability of the treatment plant to produce a safe, potable water including but not limited to spills of hazardous materials in the watershed and unit treatment process failures.
  - x. CSA 7 discovers the occurrence of an acute infectious illness that may be potentially attributed to the water system.
- 23. County Service Area 7 shall submit a monthly report on the operation of the treatment facility to the Department by the tenth day of the following month. The report shall be signed by the chief water treatment plant operator, plant superintendent or other person directly responsible for the operation of the water treatment plant.

Report Prepared by:



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Van Tsang, P.E.  
Associate Sanitary Engineer

Report Reviewed by:



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Eric Lacy, P.E.  
District Engineer  
Santa Clara District

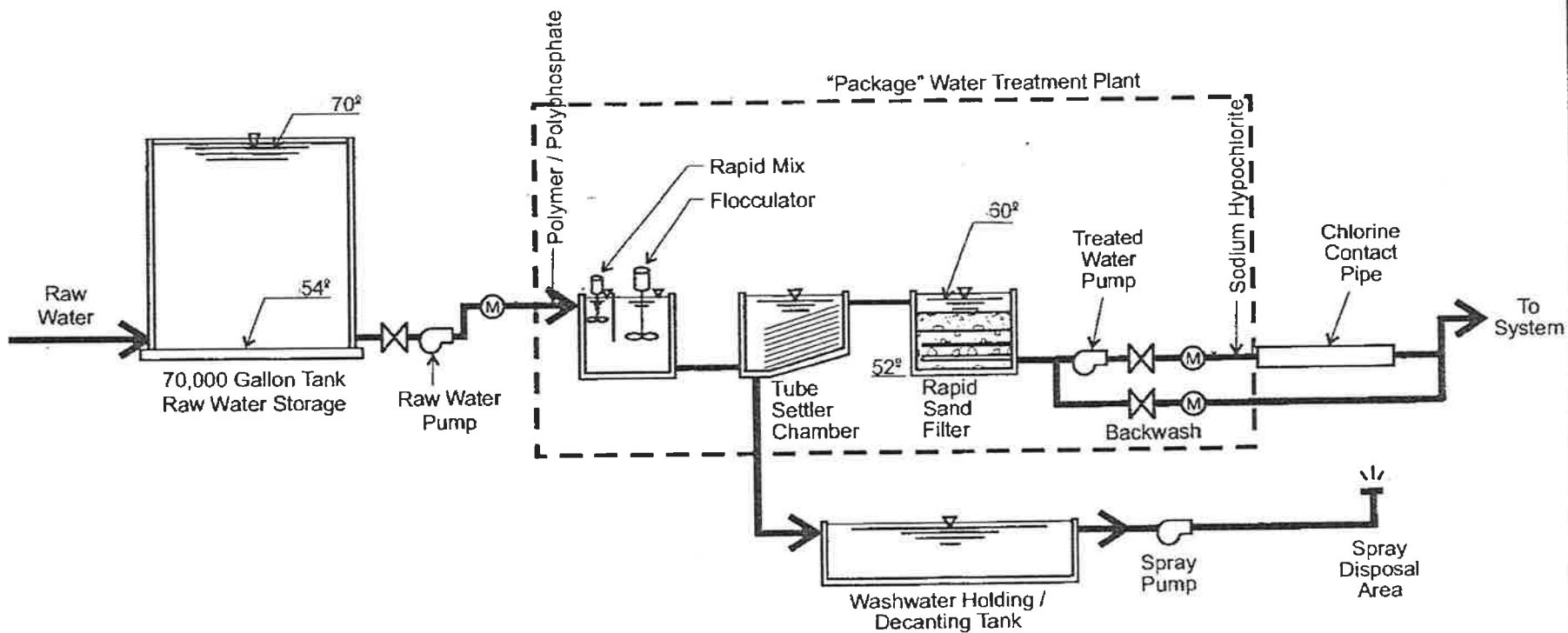
## **APPENDIX**

Appendix A. Camp Glenwood Water Treatment Plant Schematic

Appendix B. Alpine Creek Water Quality Monitoring Schedule



Camp Glenwood Water Treatment Plant Schematic



**Figure 3-1**  
Existing Camp Glenwood Water Treatment Plant

# Alpine Creek Water Quality Monitoring Schedule



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LAST SAMPLE DATE AND MONITORING SCHEDULE

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TIME: 16:09

SYSTEM NO: 4100509      NAME: COUNTY SERVICE AREA 7      COUNTY: SAN MATEO  
SOURCE NO: 001      NAME: ALPINE CREEK - RAW      PSCODE: 4100509-001      CLASS: CSSS      STATUS: AR

GROUP IDENTIFICATION

CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE	NEXT SAMPLE DUE	
-----						
SECONDARY/GP						
00440 BICARBONATE ALKALINITY	2012/07/11	3	12		2013/07 DUE NOW	
00916 CALCIUM	2012/07/11	3	12		2013/07 DUE NOW	
00445 CARBONATE ALKALINITY	2012/07/11	3	12		2013/07 DUE NOW	
00940 CHLORIDE	2012/07/11	3	12		2013/07 DUE NOW	
00081 COLOR	2012/07/11	5	12		2013/07 DUE NOW	
01042 COPPER	2012/07/11	3	12		2013/07 DUE NOW	
38260 FOAMING AGENTS (MBAS)	2012/07/11	3	12		2013/07 DUE NOW	
00900 HARDNESS (TOTAL) AS CaCO3	2012/07/11	2	12		2013/07 DUE NOW	
71830 HYDROXIDE ALKALINITY	2012/07/11	3	12		2013/07 DUE NOW	
01045 IRON	2013/08/14	11	3	*	2013/11	
00927 MAGNESIUM	2012/07/11	3	12		2013/07 DUE NOW	
01055 MANGANESE	2012/07/11	3	12		2013/07 DUE NOW	
00086 ODOR THRESHOLD @ 60 C	2012/07/11	5	12		2013/07 DUE NOW	
00403 PH, LABORATORY	2012/07/11	2	12		2013/07 DUE NOW	
01077 SILVER	2012/07/11	3	12		2013/07 DUE NOW	
00929 SODIUM	2012/07/11	3	12		2013/07 DUE NOW	
00095 SPECIFIC CONDUCTANCE	2013/07/24	6	12		2014/07	
00945 SULFATE	2012/07/11	3	12		2013/07 DUE NOW	
70300 TOTAL DISSOLVED SOLIDS	2012/07/11	6	12		2013/07 DUE NOW	
82079 TURBIDITY, LABORATORY	2012/07/11	3	12		2013/07 DUE NOW	
01092 ZINC	2012/07/11	3	12		2013/07 DUE NOW	
INORGANIC						
01105 ALUMINUM	2013/08/14	11	3		2013/11	
01097 ANTIMONY	2012/07/11	3	12		2013/07 DUE NOW	
01002 ARSENIC	2012/07/11	3	12		2013/07 DUE NOW	
81855 ASBESTOS	2012/05/02	1	108		2021/05	

FREQ IS NUMBER OF MONTHS BETWEEN SAMPLES. WHEN FREQ IS 0, SAMPLE IS DUE NOW.  
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GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE	NEXT SAMPLE DUE
	01007 BARIUM	2012/07/11	3	12	2013/07	DUE NOW
	01012 BERYLLIUM	2012/07/11	3	12	2013/07	DUE NOW
	01027 CADMIUM	2012/07/11	3	12	2013/07	DUE NOW
	01034 CHROMIUM (TOTAL)	2012/07/11	5	12	2013/07	DUE NOW
	01291 CYANIDE	2012/07/26	3	12	2013/07	DUE NOW
	00951 FLUORIDE (F) (NATURAL-SOURCE)	2012/07/11	3	12	2013/07	DUE NOW
	71900 MERCURY	2012/07/11	3	12	2013/07	DUE NOW
	01067 NICKEL	2012/07/11	3	12	2013/07	DUE NOW
	A-031 PERCHLORATE	2013/07/24	6	12	2014/07	
	01147 SELENIUM	2012/07/11	3	12	2013/07	DUE NOW
	01059 THALLIUM	2012/07/11	3	12	2013/07	DUE NOW
NITRATE/NITRITE						
	71850 NITRATE (AS NO3)	2013/07/17	9	3	2013/10	
	00620 NITRITE (AS N)	2012/07/11	4	36	2015/07	
RADIOLOGICAL						
	01501 GROSS ALPHA	2007/11/15	2	108	2016/11	
REGULATED VOC						
	34030 BENZENE	2012/03/29	2	12	2013/03	DUE NOW
	32102 CARBON TETRACHLORIDE	2012/03/29	2	12	2013/03	DUE NOW
	77093 CIS-1,2-DICHLOROETHYLENE	2012/03/29	2	12	2013/03	DUE NOW
	34423 DICHLOROMETHANE	2012/03/29	2	12	2013/03	DUE NOW
	34371 ETHYLBENZENE	2012/03/29	2	12	2013/03	DUE NOW
	46491 METHYL-TERT-BUTYL-ETHER (MTBE)	2012/03/29	2	12	2013/03	DUE NOW
	34301 MONOCHLOROBENZENE	2012/03/29	2	12	2013/03	DUE NOW
	77128 STYRENE	2012/03/29	2	12	2013/03	DUE NOW
	34475 TETRACHLOROETHYLENE	2012/03/29	2	12	2013/03	DUE NOW
	34010 TOLUENE	2012/03/29	2	12	2013/03	DUE NOW

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GROUP IDENTIFICATION

CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE	NEXT SAMPLE DUE
34546 TRANS-1,2-DICHLOROETHYLENE	2012/03/29	2	12	2013/03	DUE NOW
39180 TRICHLOROETHYLENE	2012/03/29	2	12	2013/03	DUE NOW
34488 TRICHLOROFLUOROMETHANE	2012/03/29	2	12	2013/03	DUE NOW
39175 VINYL CHLORIDE	2012/03/29	2	12	2013/03	DUE NOW
81551 XYLENES (TOTAL)	2012/03/29	2	12	2013/03	DUE NOW
34496 1,1-DICHLOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
34501 1,1-DICHLOROETHYLENE	2012/03/29	2	12	2013/03	DUE NOW
34506 1,1,1-TRICHLOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
81611 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
34511 1,1,2-TRICHLOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
34516 1,1,2,2-TETRACHLOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
34536 1,2-DICHLOROBENZENE	2012/03/29	2	12	2013/03	DUE NOW
34531 1,2-DICHLOROETHANE	2012/03/29	2	12	2013/03	DUE NOW
34541 1,2-DICHLOROPROPANE	2012/03/29	2	12	2013/03	DUE NOW
34551 1,2,4-TRICHLOROBENZENE	2012/03/29	2	12	2013/03	DUE NOW
34561 1,3-DICHLOROPROPENE (TOTAL)	2012/03/29	2	12	2013/03	DUE NOW
34571 1,4-DICHLOROBENZENE	2012/03/29	2	12	2013/03	DUE NOW

REGULATED SOC

77825 ALACHLOR	2011/12/27	1	36	2014/12
39033 ATRAZINE	2011/12/27	1	36	2014/12
38710 BENTAZON	2011/12/27	1	36	2014/12
34247 BENZO (A) PYRENE	2011/12/27	1	36	2014/12
81405 CARBOFURAN	2011/12/27	1	36	2014/12
39350 CHLORDANE	2012/01/30	1	36	2015/01
38432 DALAPON	2011/12/27	1	36	2014/12
A-026 DI (2-ETHYLHEXYL) ADIPATE	2011/12/27	1	36	2014/12
39100 DI (2-ETHYLHEXYL) PHTHALATE	2011/12/27	1	36	2014/12

FREQ IS NUMBER OF MONTHS BETWEEN SAMPLES. WHEN FREQ IS 0, SAMPLE IS DUE NOW.  
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SYSTEM NO: 4100509    NAME: COUNTY SERVICE AREA 7    COUNTY: SAN MATEO  
SOURCE NO: 001    NAME: ALPINE CREEK - RAW    PSCODE: 4100509-001    CLASS: CSSS    STATUS: AR

GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE	NEXT SAMPLE DUE
	38761 DIBROMOCHLOROPROPANE (DBCP)	2011/12/27	1	36		2014/12
	81287 DINOSEB	2011/12/27	1	36		2014/12
	78885 DIQUAT	2011/12/27	1	36		2014/12
	38926 ENDOTHALL	2011/12/27	1	36		2014/12
	39390 ENDRIN	2012/01/30	1	36		2015/01
	77651 ETHYLENE DIBROMIDE (EDB)	2011/12/27	1	36		2014/12
	79743 GLYPHOSATE	2011/12/27	1	36		2014/12
	39410 HEPTACHLOR	2012/01/30	1	36		2015/01
	39420 HEPTACHLOR EPOXIDE	2012/01/30	1	36		2015/01
	39700 HEXACHLOROBENZENE	2012/01/30	1	36		2015/01
	34386 HEXACHLOROCYCLOPENTADIENE	2012/01/30	1	36		2015/01
	39340 LINDANE	2012/01/30	1	36		2015/01
	39480 METHOXYCHLOR	2012/01/30	1	36		2015/01
	82199 MOLINATE	2011/12/27	1	36		2014/12
	38865 OXAMYL	2011/12/27	1	36		2014/12
	39032 PENTACHLOROPHENOL	2011/12/27	1	36		2014/12
	39720 PICLORAM	2011/12/27	1	36		2014/12
	39516 POLYCHLORINATED BIPHENYLS, TOTAL, AS DC	2012/01/30	1	36		2015/01
	39055 SIMAZINE	2011/12/27	1	36		2014/12
	A-001 THIOBENCARB	2011/12/27	2	36		2014/12
	39400 TOXAPHENE	2012/01/30	1	36		2015/01
	39730 2,4-D	2011/12/27	1	36		2014/12
	39045 2,4,5-TP (SILVEX)	2011/12/27	1	36		2014/12

FREQ IS NUMBER OF MONTHS BETWEEN SAMPLES. WHEN FREQ IS 0, SAMPLE IS DUE NOW.  
WHEN FREQ IS 999, NO SAMPLES ARE REQUIRED. COUNT IS NUMBER OF SAMPLES IN THE DATABASE.



**Attachment J - CSA 11 Domestic Water Supply Permit**



GAVIN NEWSOM  
GOVERNOR



JARED BLUMENFELD  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

---

**State Water Resources Control Board**  
Division of Drinking Water

**ENGINEERING REPORT**

In the Matter of the Permit Issuance

For

County of San Mateo  
County Service Area 11  
Water System No. 4100582

Report Prepared By

Philip Dutton, P.E.  
Associate Sanitary Engineer

Approved By  
Eric Lacy, P.E.  
District Engineer  
Santa Clara District

Amended Domestic Water Supply Permit  
July 24, 2019

Drinking Water Field Operations Branch  
Division of Drinking Water

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

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850 Marina Bay Parkway, Bldg. P, 2nd Floor, Richmond, CA 94804-6403 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)



GAVIN NEWSOM  
GOVERNOR



JARED BLUMENFELD  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

Division of Drinking Water

July 24, 2019

Ms. Ann Stillman, Deputy Director  
San Mateo County Public Works  
555 County Center, 5<sup>th</sup> Floor  
Redwood City, CA 94063

### PERMIT AMENDMENT FOR OPERATION OF WELL 3, STORAGE TANKS COUNTY SERVICE AREA 11, WATER SYSTEM NO. 4100582

Dear Ms. Stillman:

Enclosed is the Domestic Water Supply Permit Amendment granted to the County of San Mateo by the State Water Resources Control Board, Division of Drinking Water (Division), approving the County Service Area 11 water system to operate a new groundwater supply well and storage tank.

If you have any questions regarding this permit amendment, please contact Philip Dutton at (510) 620-3654 or via email at [Philip.Dutton@waterboards.ca.gov](mailto:Philip.Dutton@waterboards.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Lacy".

Eric Lacy, P.E.  
District Engineer, Santa Clara District  
Division of Drinking Water  
State Water Resources Control Board

Enclosure

cc: San Mateo County Environmental Health Department

E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

850 Marina Bay Parkway, Bldg. P, 2nd Floor, Richmond, CA 94804-6403 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

STATE OF CALIFORNIA

**AMENDMENT TO THE  
DOMESTIC WATER SUPPLY PERMIT**

Issued To

County of San Mateo

For Operation Of  
County Service Area 11  
Public Water System No. 4100582

By The

State Water Resources Control Board  
Division of Drinking Water

ORIGINAL PERMIT ISSUED: 02-17-15P-4100582  
PERMIT AMENDMENT NO.: 1

DATE: August 5, 2015  
EFFECTIVE DATE: July 24, 2019

**WHEREAS:**

1. The County of San Mateo owns and operates the County Service Area 11 water system. It submitted an application to the State Water Resources Control Board Division of Drinking Water dated December 3, 2018, for an amendment to its Domestic Water Supply Permit issued on August 5, 2015.
2. The purpose of the amendment, as described in the application, is to allow the County of San Mateo to make the following modifications to the County Service Area 11 public water system:
  - Add one new groundwater supply well, Well 3, to augment and improve the reliability of the County Service Area 11 water system's water supply.
  - Add one new storage tank to increase storage capacity and redundancy.
3. The County of San Mateo has submitted the supporting information required to evaluate the application.
4. The State Water Resources Control Board Division of Drinking Water has evaluated the application and the supporting material and has determined that the proposed modifications comply with all applicable State drinking water requirements.

**AND WHEREAS:**

1. The State Water Resources Control Board Division of Drinking Water has conducted a physical investigation of the County Service Area 11 water system.
2. The State Water Resources Control Board Division of Drinking Water has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

**THEREFORE:**

The Division of Drinking Water hereby approves the application submitted for the County Service Area 11 (CSA 11) water system for a permit amendment. The Domestic Water Supply Permit issued to the County of San Mateo on August 5, 2015, is hereby amended as follows:

1. One new well, "Well 3," is designated as an approved source of domestic supply. Well 1 and Well 2 are reclassified as standby sources. The approved sources for the County Service Area 11 water system are shown below.

Source	PS-Code	Status
Well 1	4100582-001	Standby
Well 2	4100582-002	Standby
Well 3	4100582-004	Active

**THE COUNTY OF SAN MATEO IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT AMENDMENT FOR OPERATION OF WELL 3 AND TANK 2.**

The provisions of Domestic Water Supply Permit No. 02-17-15P-4100582 remain in force and full effect.

The permit is subject to the following additional provisions:

1. CSA 11 must equip the Well 3 blow-off with a cap or fine mesh screen and submit photographic documentation to the Division.
2. CSA 11 must maintain a totalizing flow meter on each source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.

3. The Tank 2 roof access hatch lacks a gasket seal. CSA 11 must submit photographic documentation to the Division showing that an appropriate gasket seal has been installed.
4. CSA 11 must direct the analyzing laboratory to submit monitoring results submitted with the permit amendment application to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.
5. CSA 11 must collect a monthly coliform sample from Well 3 for 6 consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3. Analytical results must be submitted by the analyzing laboratory by the 10<sup>th</sup> day of each following month. Results must be emailed to the Division at DWPDist17@waterboards.ca.gov.
6. CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

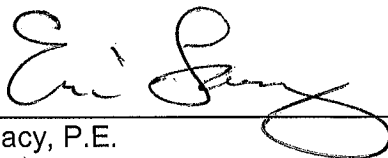
This permit amendment, with the original permit, supersede all previous domestic water supply permits issued for this public water system and shall together remain in effect unless and until they are revised, further amended, reissued, or declared to be null and void by the State Water Resources Control Board Division of Drinking Water. The permit and its permit amendments are non-transferable. Should the Learning Services Corporation water system undergo a change of ownership, the new owner must apply for and receive a new domestic water supply permit.

Any change in the source of water for the water system, any modification of the method of treatment, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the State Water Resources Control Board Division of Drinking Water.

This permit amendment shall be effective as of the date shown below.

**FOR THE STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF DRINKING WATER**

July 24, 2019  
 \_\_\_\_\_  
 Date

  
 \_\_\_\_\_  
 Eric Lacy, P.E.  
 District Engineer, Santa Clara District  
 Division of Drinking Water  
 State Water Resources Control Board



GAVIN NEWSOM  
GOVERNOR

JARED BLUMENFELD  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

**State Water Resources Control Board**  
Division of Drinking Water

**Engineering Report  
In the Matter of the Permit Application  
For  
County Service Area 11  
Water System No. 4100582  
San Mateo County  
July 24, 2019**

**State Water Resource Control Board  
Division of Drinking Water  
Philip Dutton, P.E., Associate Sanitary Engineer  
Eric Lacy, P.E., District Engineer**

**I. Introduction**

The State Water Resources Control Board – Division of Drinking Water (Division) inspected the County Service Area 11 (CSA 11) water system on July 10, 2019. The water system serves the town of Pescadero in coastal San Mateo County. The property and water system are owned by the County of San Mateo (County). The County operates and maintains the water system to serve its CSA 11. The mailing address for the CSA 11 water system is that of the County Public Works Department: 555 County Center, 5<sup>th</sup> Floor, Redwood City, CA 94063.

**1.1 Purpose of Report**

On December 3, 2018, the County submitted an application to the Division for a water supply permit amendment to operate a new groundwater supply well, Well 3, and add a new storage tank. A copy of the application is provided as Appendix A of this report. The application was submitted in accordance with Section 116525 of the California Health and Safety Code.

The purpose of this report is to document the sanitary engineering review of the project and make recommendations regarding issuance of an amended domestic water supply permit.

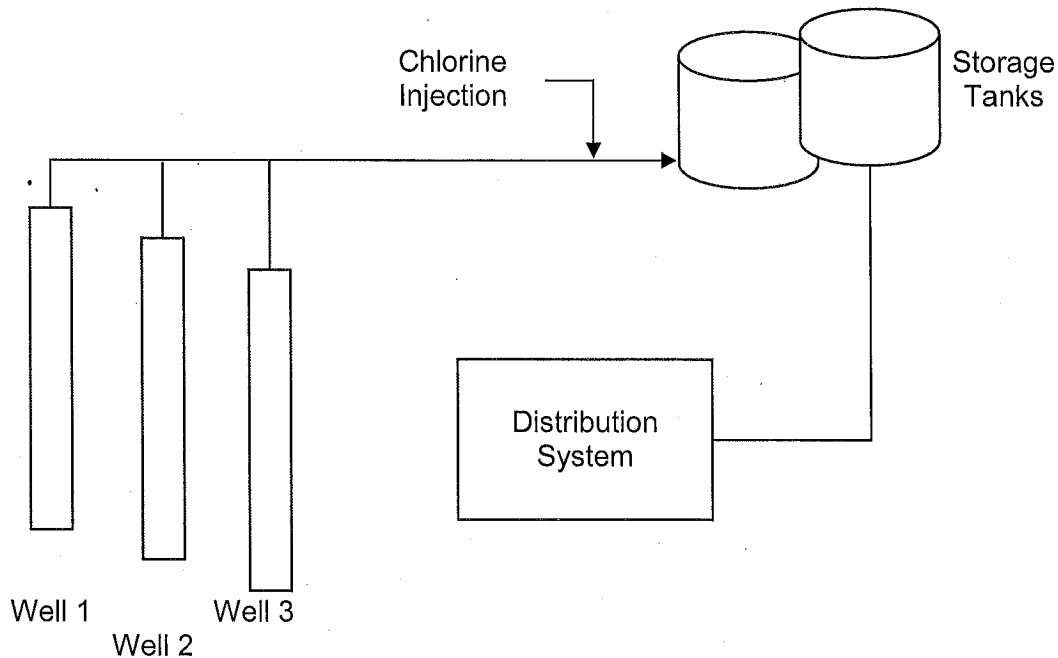
**1.2 Brief Description of Water System**

CSA 11 is a community water system located in coastal San Mateo County serving the town of Pescadero. CSA 11 provides potable water to a reported population of 450 permanent residential customers through 101 service connections. Water supply sources for the system consist of three groundwater supply wells: Well 1, Well 2, and Well 3, which is a new well approved with this permit. Well 1 and Well 2 are now classified as standby sources. The

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distribution system now includes two 140,000 gallon steel storage tanks, plumbed in parallel with level overflow heights. A simple schematic drawing of the water system is provided below. The storage tanks are at an adequate height to provide gravity pressure to the service area.



### 1.3 Permit Status

The CSA 11 operates under Domestic Water Supply Permit No. 02-17-15P-4100582, issued on August 5, 2015. This permit amendment is being issued to approve the operation of the new Well 3 and storage tank and to document the current operations of the water system under the State of California Health and Safety Code. The permit is nontransferable; should the water system ownership not be held by the County of San Mateo, the new owner is required to apply for a Domestic Water Supply Permit.

### 1.4 Sources of Information

The information used in preparing this report was collected from the water system's files, the permit amendment application, and the system inspection conducted by Philip Dutton of the Division.

## II. Investigation and Findings

### 2.1 Sources of Supply

CSA 11 provides potable water to customers from one active groundwater supply well and two standby wells. Well 1 and Well 2 are existing wells and their surface features remain as described in the prior permit technical report; with this permit amendment, both are reclassified as standby sources. Well 3 is a newly constructed well added to the water system and is fully described below.

### **Well 1 (PS-Code 4100582-001) & Well 2 (PS-Code 4100582-002) – STANDBY**

CSA 11 has requested that, with the approval of Well 3 as an active well, that Well 1 and Well 2 be classified as standby sources. CSA 11 recognizes that standby sources are subject to additional use restrictions specified in Section 64414 of the California Code of Regulations. Specifically:

- (a) A source which has been designated “standby” shall be monitored a minimum of once every compliance cycle for all inorganic, organic, and radiological MCLs, unless a waiver has been granted by the State Board pursuant to Section 64432(m) or (n) for inorganics, Section 64432.2(c) for asbestos, or Section 64445(d) for organics.
- (b) A standby source which has previous monitoring results indicating nitrate or nitrite levels equal to or greater than 50 percent of the MCL shall collect and analyze a sample for nitrate and nitrite annually. In addition, upon activation of such a source, a sample shall be collected, analyzed for these chemicals and the analytical results reported to the State Board within 24 hours of activation.
- (c) A standby source shall be used only for short-term emergencies of five consecutive days or less, and for less than a total of fifteen calendar days a year.
- (d) Within 3 days after the short-term emergency use of a standby source, the water supplier shall notify the State Board. The notification shall include information on the reason for and duration of the use.
- (e) The status of a designated standby source shall not be changed to that of a regular source of drinking water supply, unless the source meets all existing drinking water standards and approval is obtained from the State Board in advance.
- (f) A standby source for which perchlorate has been previously detected shall have a sample collected and analyzed for perchlorate annually. Additionally, upon activation of such a source, a sample shall be collected and analyzed for perchlorate, and the analytical result shall be reported to the State Board within 48 hours of activation.

### **Well 3 (PS-Code 4100582-004) – ACTIVE**

Well 3 is CSA 11's newly constructed groundwater source. It is located approximately 50 feet northeast of the existing Well 1. The well is exposed on rural greenspace, although CSA 11 has recently installed a chain-link fence securing Well 1 and Well 3. At the time of the Division's inspection, the wells' enclosure was overgrown with weeds. CSA 11 must clear the weeds and submit photographic documentation to the Division. The Division strongly encourages CSA 11 to consider means to regularly or permanently control the weeds. A copy of the Well Driller's report on file with the Division shows that the well was constructed in the summer of 2018 by Maggiora Bros. Drilling of Watsonville, CA to a completed depth of 370 feet. The Well Completion Report is provided as Appendix B of this report. From a depth of 10 feet to 90 feet, the well passes through a tan sandy clay layer. The well was constructed using the reverse circulation method with a 10-inch diameter steel casing placed to a depth of 360 feet. The casing has 0.04 inch Roscoe Moss stainless steel screening from 250 feet to 350 feet. The screened interval passes through sandstone with gravel and shale. A cement annular seal was placed to a depth of 100 feet. According to the Well Data Sheet submitted with the permit

amendment application, the well's submersible pump is a Grundfos 10 HP pump with a 100 gpm capacity. The well is controlled by the water level in the tank and it has pump saver controls that will shut the pump down in the event of a low water level alarm in the well itself.

The wellhead has no apparent openings and sits on a concrete surface seal that is approximately 4-foot by 4-foot. The well is equipped with a water level sensor, a screened and downturned casing vent on the gravel chute, and an appropriate sample tap is located before a check valve and an air relief valve. The flow has a flow meter and can flush to waste, although at the time of the inspection the blow off was unscreened and only protected with a single gate valve. CSA 11 must equip the well's blowoff with a cap or fine mesh screen.

While there have been no contaminants detected in CSA 11's water supply, Well 3 is still considered vulnerable to historic waste dumps or landfills. Additional potential contaminating activities in the wells' recharge area include waste transfer and recycling stations as well as transportation corridors and possible herbicide use areas.

## **2.2 Water Production**

CSA 11 must maintain a totalizing flow meter on each groundwater source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.

The Division understands that, since the construction of Well 3, the County has worked to update an existing groundwater supply study. The Division requests that the County provide an update on the status of the study and a copy of the completed study once available.

## **2.3 Treatment**

CSA 11 is not approved for any continuous treatment. CSA 11 has the capacity to provide emergency disinfection via sodium hypochlorite injection into the combined well discharge into the storage tanks. CSA 11 maintains a Wallace & Tiernan Chempulse metering pump to inject 12.5% disinfectant into the raw water. The pump has a maximum injection rate of 5 gph at 100 psi.

At the time of the inspection, CSA 11 was providing emergency disinfection following a total coliform maximum contaminant level violation for the month of June 2019 and in accordance with the Directives of Citation No. 02-17-19C-040. The Division required that CSA 11 submit a permit amendment application for permanent disinfection and has provided the County with the requirements for that permit amendment application.

## **2.4 Storage**

CSA 11 has added Tank 2 to augment the existing storage provided by its Tank 1. Tank 2 is a bolted steel storage tank with a storage capacity of approximately 140,000 gallons. The two tanks are plumbed in parallel, with separate inlets and outlets. The overflows are at a common elevation and the discharges use gravity to pressure the distribution system. Tank 2 is equipped with a drain and external overflow that are equipped with an airgapped overflow above a storm drain inlet; the overflow is equipped with a fine mesh screen. The roof is equipped with a single access hatch and a center cone vent. The vent is appropriately screened and the hatch has a shoebox-style lid whose edges extend over the side of the opening. The hatch lid lacks a gasket

seal. CSA 11 must submit photographic documentation to the Division showing that an appropriate gasket seal has been installed.

### III. Water Quality

#### 3.1 Source Water Quality

Source water chemical monitoring is required of CSA 11's active and standby sources. Monitoring is required to be collected from the sources at a location before storage, treatment, or blending with any other source and should be collected in a manner that is representative of the overall source water quality. CSA 11 must sample the individual sources from dedicated sample taps located before the wells' individual check valves. Source chemical monitoring must be submitted by the lab via EDT using the PS-Codes below. Guidance on accessing results and monitoring schedules online is provided in Appendix C.

**Table 1: Approved Sources**

Source	PS-Code	Status
Well 1	4100582-001	Standby
Well 2	4100582-002	Standby
Well 3	4100582-004	Active

#### Well 3 Monitoring

The following sections describe the source monitoring required for Well 3. CSA 11 has completed preliminary monitoring of Well 3 completed after well development and the well was approved based on that monitoring. CSA 11 must direct the analyzing laboratory to submit the previous monitoring results to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.

##### *Secondary Constituents and General Physical Monitoring*

As a community waster system, CSA 11 is required to collect triennial monitoring for secondary constituents and general physical parameters. The Division's online monitoring schedule will reflect the 36-month monitoring frequency upon receipt of the previous monitoring data in the Division's electronic database.

##### *Inorganic Constituents*

The routine monitoring frequency for inorganic constituents is one round of monitoring every three years.

##### *Nitrates*

CSA 11 is required to monitor Well 3 annually for nitrate and triennially for nitrite.

##### *Organic Constituents*

The routine monitoring frequency for volatile organic chemicals and synthetic organic chemicals is once every three years for most chemicals.

Spécial initial monitoring requirements are in place for 1,2,3 trichloropropane (123-TCP). CSA 11 must complete four consecutive quarters of initial 123-TCP monitoring from Well 3. The first quarter of initial 123-TCP monitoring for Well 3 must be collected in the first month that the well is in service.

#### *Radiological Monitoring*

CSA 11 must complete the initial monitoring requirements for radiological monitoring; the ongoing monitoring frequency for Well 3 will be determined following completion of the initial monitoring. The initial monitoring consists of four consecutive quarters of monitoring for gross alpha and radium-228. If any gross alpha sample shows a detection greater than 5 pCi/L, analysis for uranium is required in that same sample. The first quarterly sample is due now.

#### *Source Bacteriological Monitoring*

CSA 11 must collect a monthly coliform sample from Well 3 for 6 consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3.

As part of the Groundwater Rule, CSA 11 must collect a bacteriological sample from all wells that may have contributed to the contamination, as part of follow-up sampling after a positive bacteriological sample from the distribution system. The Division recommends that source and repeat samples should be analyzed using a method that provides enumerated results reported as MPN/100ml.

CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

#### **Monitoring of Standby Wells**

The monitoring frequency for CSA 11's standby wells is generally one round of monitoring every nine years. Guidance for accessing the sources' online monitoring schedules is provided as Appendix C to this report.

#### **3.2 Distribution System Monitoring**

There are no changes to CSA 11's distribution system monitoring requirements associated with this permit amendment. CSA 11 is still required to monitor its distribution system for coliform bacteria, and lead and copper. As emergency disinfection is being provided now and permanent chlorination is being implemented, CSA 11 is required to begin monitoring the chlorine residual and for disinfection byproducts in the distribution system.

As part of its Level 1 Assessment completed following its June 2019 total coliform maximum contaminant level violation, CSA 11 identified that its repeat coliform sample sites are to be collected from homeowner hose bibs not routinely used for monitoring. The Division encourages CSA 11 to evaluate installing dedicated sample stations within its service area.

#### **IV. California Environmental Quality Act**

The County's Planning Commission adopted a Mitigated Negative Declaration for the construction of Well 3 and Tank 2 in a hearing on March 9, 2016. The Mitigated Negative

Declaration found that, based on an Initial Study, that the project would have no substantial effects on the environment if subject to the included mitigation measures.

## **V. Appraisal of Sanitary Hazards and Safeguard**

The CSA 11 water system is in adequate condition, especially considering its additional source capacity with the addition of Well 3 and the new storage tank added as part of this project. The County appears to have improved the reliability and the long-term viability of the CSA 11 water supply. The County has been eager to begin utilizing Well 3 as its primary source of supply, as it has suspected that Well 1 could have contributed to the recent total coliform violation. Given the short bacteriological monitoring history of the new well, CSA 11 is required to monitor Well 3 for total coliform bacteria monthly for at least the first six months of it in service.

The Division notes that the water system's groundwater sources are in an area with limited recharge. In addition to the continuous monitoring of the water level of Well 3, the Division recommends that CSA 11 regularly monitor and record static and pumping depth to water levels in Well 1 and Well 2.

## **VI. Conclusions and Recommendations**

It is the finding of this report that the County of San Mateo can meet the requirements specified in Section 116270 through 116750, inclusive, of the California Health and Safety Code, provided the provisions recommended below are met. The Division finds that the addition of Well 3 and Tank 2 will improve the quality and reliability of the potable water supply to the users of the CSA 11 water system.

### **6.1 Provisions for the Amended Permit**

It is hereby recommended that an Amended Domestic Water Supply Permit be granted to the County of San Mateo to operate the CSA 11 water system, subject to the following provisions:

1. CSA 11 must equip the Well 3 blow-off with a cap or fine mesh screen and submit photographic documentation to the Division.
2. CSA 11 must maintain a totalizing flow meter on each source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.
3. The Tank 2 roof access hatch lacks a gasket seal. CSA 11 must submit photographic documentation to the Division showing that an appropriate gasket seal has been installed.
4. CSA 11 must direct the analyzing laboratory to submit monitoring results submitted with the permit amendment application to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.
5. CSA 11 must collect a monthly coliform sample from Well 3 for 6 consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3. Analytical results must be submitted by the analyzing laboratory by the 10<sup>th</sup> day of each

following month. Results must be emailed to the Division at [DWPDist17@waterboards.ca.gov](mailto:DWPDist17@waterboards.ca.gov).


6. CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

## 6.2 Recommendations

The following recommendations are provided for CSA 11's consideration.

1. The Division encourages CSA 11 to consider and evaluate the installation of dedicated water quality sampling stations in its service area.

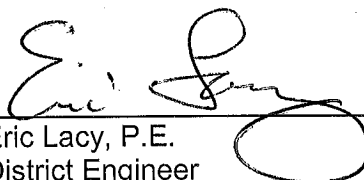
Report prepared by:



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Philip Dutton, P.E.  
Associate Sanitary Engineer

Report reviewed by:



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Eric Lacy, P.E.  
District Engineer  
Santa Clara District

# APPENDIX A

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Domestic Water Supply Permit Application

**STATE OF CALIFORNIA**  
APPLICATION  
FOR  
DOMESTIC WATER SUPPLY PERMIT AMENDMENT  
FROM

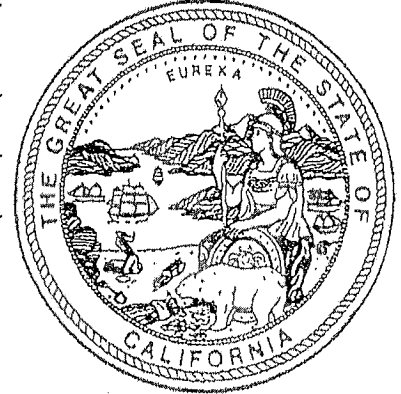
Applicant: County of San Mateo - Department of Public Works  
(Enter the name of legal owner, person(s) or organization)

Address: 0 Bean Hollow, Pescadero APN: 086-180-060

System Name: County Service Area No.11

System Number: 4100582

TO: Eric Lacy, P.E.  
Division of Drinking Water  
Drinking Water Field Operations Branch  
850 Marina Bay Parkway, Building P, 2<sup>nd</sup> Floor  
Richmond, CA 94804



Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to Obtain authorization to use the recently constructed new well, storage tank, and all piping by the CSA 11 Water Supply and Sustainability Project, and designating  
(Applicant must state specifically what is being applied for - whether to construct new works, make alterations or additions in works or sources, or change or modify treatment.)

Well #03 as the primary well and existing Well #01 (Primary Sation Code or PSCode 4100582-001) as the primary standby well and Well #02 (PSCode 4100582-002) as the secondary standby well. All other items and conditions of the permit shall remain in full force and effect.

FOR OFFICIAL USE

Date Received:

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

Signed By: [Signature]  
Title: Director of Public Works  
Address: 555 County Center, 5th Floor  
Redwood City, CA 94063  
Telephone: (650) 599-1421

Dated: 12/3/2018

State of California  
DEPARTMENT OF PUBLIC HEALTH  
Drinking Water Field Operations Branch

**WELL DATA**

System Name: County Service Area No. 11 System No. 4100582  
 Source of Information: County of San Mateo & Hydroscience Engineers, Inc.  
 Collected by: DILLON J. MORRA Date: 12/13/2018  
 Updated by: Amarica Sanchez Date: 12/17/18

Number or Name	Well No. 3
State Well No.	Well No. 3
Date Drilled	JULY 31, 2018 (COMPLETED WELL HEAD 10/9/2018)
Location	0 BEAN HOLLOW ROAD APN: 086-180-060
Neighborhood	A; RU; MU; P
Lot size	118 ACRES
Distance to: Sewer	2,200 FEET (FIRE STATION)
Sewage disposal	NONE
Abandoned well	853 FEET
Property line	518 FEET
Plot plan on file?	YES; PROVIDED AS PART OF PERMIT 18-0719
Housing type	CONCRETE WELL PAD / CHAIN LINK FENCE
Pit depth	N/A
Floor material	CONCRETE
Drainage	FINISH GRADE SLOPES AWAY TO DRAIN
Well depth	370 FEET
Casing: Depth/Diameter	360 FEET / 10 INCH DIA
Type	STEEL (ASTM A-139 GRADE B)
Height above floor	30 INCHES
Distance to perforations	250 FEET
Surface sealed?	YES; 0-100 FEET WITH 10.3 SACK SLURRY
Gravel packed?	YES; 8x16 COLORADO SAND
Conductor casing: Depth	30 FEET
Diameter	30 INCH
Annular seal depth	100 FEET
Imperious Strata	BEDROCK
Thickness/Depth to	350 FEET BGS, THICKNESS UNKNOWN/BEDROCK
Well log on file?	YES; WCR2018-010738
Water levels: Static/Pumping	195 FEET BGS GWL / 221 FEET BGS PWL
Depth to bowls	250 FEET BGS
Pump: Make/Type	GRUNDFOS SUBMERSIBLE PUMP 10 HP
Capacity (gpm)	100 GPM
Efficiency test (date)	8/24/2018
Lubrication	WATER BASED MOTOR LIQUIDS
Power/Auxiliary power	10 HP, 3 PHASE, 230V, 28A AMP, 3450 RPM
Control	CONTROLLED BY LEVEL SENSORS IN WELL + TANK
Frequency of use	ONCE A DAY
Discharge Location	ON SITE
Discharge to	STORAGE TANK
Pump to waste?	YES
Flood Hazard	NO
Remarks and defects	

# RESERVOIR DATA

SYSTEM NAME: County Service Area No. 11  
SOURCE OF INFORMATION: San Mateo County  
COLLECTED BY: San Mateo County

No: 4100582  
DATE: 7/22/19

<b>GENERAL</b>	
NUMBER OR NAME	
DATE CONSTRUCTED	2-22-2018
PURPOSE (storage, sand trap, etc)	Storage
CAPACITY	152,465 GALLONS
DIMENSIONS	DIAMETER: 41'-7 1/2"; OVERFLOW: 15'-9 3/8"; TOTAL HT: 24'
<b>LOCATION</b>	
SPECIFIC LOCATION (cross streets, etc)	0 Bean Hollow, Pescadero CA APN 026-180-060
NEIGHBORHOOD	
SIZE OF LOT	
FENCING	
<b>CONSTRUCTION</b>	
MATERIAL: SIDES	BOLTED STEEL TANK (ROUND)
FLOOR	BOLTED STEEL
COVER OR ROOF	BOLTED STEEL
TYPE OF INTERIOR COATING	FUSION BONDED BAKED-ON POWDER EPOXY (5-MILS) NSF61
HEIGHT TOP OF WALLS ABOVE GROUND	24'-1 1/2"
SURFACE DRAINAGE TO RESERVOIR POSSIBLE?	NO
VENTILATION	YES, STAINLESS STEEL SCREEN VENT ON TOP
SCREENING	STAINLESS STEEL
<b>INLET AND OUTLET ARRANGEMENT</b>	
INLET: LOCATION	SOUTH SIDE
DISTANCE ABOVE BOTTOM	1'-0"
OUTLET: LOCATION	EAST SIDE
DISTANCE FROM INLET	20'
DISTANCE ABOVE BOTTOM	2'-6"
DRAIN TO WHERE	WETLAND
OVERFLOW TO WHERE	WETLAND
SEWER OR OTHER HAZARDOUS CONNECTION (if so, attach sketch)	NONE
<b>RELATION TO SYSTEM</b>	
RECEIVES FROM	
DELIVERS TO	Water System customer's
<b>DEFECTS AND REMARKS</b> (Include statements on cleaning practices, condition of structure - particularly of roof, dimensions and shape of reservoir, leakage, kind and location of access openings, protection against insects, birds, and rodents.)	

# APPENDIX B

---

Well 3: Well Completion Report

State of California  
**Well Completion Report**  
 Form DWR 188 Submitted 11/28/2018  
 WCR2018-010738

Owner's Well Number Well 3 ALT Date Work Began 05/25/2018 Date Work Ended 10/09/2018  
 Local Permit Agency San Mateo County Division of Environmental Health  
 Secondary Permit Agency \_\_\_\_\_ Permit Number 18-0719 Permit Date 05/10/2018

Well Owner (must remain confidential pursuant to Water Code 13752)	Planned Use and Activity
Name <u>SAN MATEO COUNTY DEPT OF PUBLIC WORKS</u>	Activity <u>New Well</u>
Mailing Address <u>555 County Center</u> <u>5th Floor</u>	Planned Use <u>Water Supply Public</u>
City <u>Redwood City</u> State <u>CA</u> Zip <u>94063</u>	

Well Location	
Address <u>0 Bean Hollow RD</u>	APN <u>086180060</u>
City <u>Pescadero</u> Zip <u>94060</u> County <u>San Mateo</u>	Township <u>08 S</u>
Latitude <u>37 14 37.95 N</u> Longitude <u>-122 24 0.33 W</u>	Range <u>05 W</u>
Dec. Lat. <u>37.243875</u> Dec. Long. <u>-122.4000917</u>	Section <u>16</u>
Vertical Datum _____ Horizontal Datum <u>WGS84</u>	Baseline Meridian <u>Mount Diablo</u>
Location Accuracy <u>Unknown</u> Location Determination Method <u>Unknown</u>	Ground Surface Elevation _____
	Elevation Accuracy _____
	Elevation Determination Method _____

Borehole Information	Water Level and Yield of Completed Well
Orientation <u>Vertical</u> Specify _____	Depth to first water <u>110</u> (Feet below surface)
Drilling Method <u>Reverse Circulation</u> Drilling Fluid <u>Polymer</u>	Depth to Static _____
Total Depth of Boring <u>370</u> Feet	Water Level <u>179</u> (Feet) Date Measured <u>08/27/2018</u>
Total Depth of Completed Well <u>360</u> Feet	Estimated Yield* <u>100</u> (GPM) Test Type <u>Pump</u>
	Test Length <u>24</u> (Hours) Total Drawdown <u>45</u> (feet)
	*May not be representative of a well's long term yield.

Geologic Log - Free Form		
Depth from Surface	Feet to Feet	Description
0	10	Soil-Control
10	90	Tan sandy clay
90	110	Grey sand
110	230	Brw. sandstone
230	250	Grey sandstone
250	270	sandstone with minor gravel
270	290	Dk. grey shale with stringers of sandstone and minor gravel
290	350	Grey shale and alt. beds of sandstone with minor gravel
350	370	Hard standstone

Casings										
Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size If any (inches)	Description
1	0	250	Blank	Mild Steel	Nominal Size: 10 in.   Thickness: 1/4 in.   OD: 10-3/4 in.	0.25	10.75			ASTM A-139 Grade B Roscoe Moss
1	250	350	Screen	Stainless Steel	Grade: 304 Stainless Steel	0.5	10.75	Wire Wrap	0.04	Roscoe Moss
1	350	360	Blank	Mild Steel	Nominal Size: 10 in.   Thickness: 1/4 in.   OD: 10-3/4 in.	0.25	10.75			ASTM A-139 Grade B Roscoe Moss

Annular Material					
Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	100	Cement	10.3 Sack Mix		
100	105	Bentonite	High Solids		Baroid 3/8-inch chip Hole Plug
105	370	Filter Pack	8 x 16	8x16	SRI

Other Observations:

Borehole Specifications		
Depth from Surface Feet to Feet	Borehole Diameter (Inches)	
0	370	18

Certification Statement			
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief			
Name	MAGGIORA BROS DRILLING INC		
	Person, Firm or Corporation		
	595 AIRPORT BLVD	WATSONVILLE	CA 95076
	Address	City	State Zip
Signed	<i>electronic signature received</i>	11/28/2018	249957
	C-57 Licensed Water Well Contractor	Date Signed	C-57 License Number

DWR Use Only			
CSG #	State Well Number	Site Code	Local Well Number
		N	W
Latitude Deg/Min/Sec		Longitude Deg/Min/Sec	
TRS:			
APN:			

# APPENDIX C

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## Guidance for Accessing Online Monitoring Schedules and Water Quality Results

# How to Access Online Water Quality Monitoring Schedules

State Water Resources Control Board  
Division of Drinking Water

This document is intended to be a quick reference to assist public water systems, their staff, contractors, and other stakeholders in accessing water quality data and schedules posted by the Division of Drinking Water online. The water quality data posted online includes source water chemical monitoring data, disinfection byproduct monitoring data, lead and copper monitoring data, and may include certain treatment process monitoring data when the results are submitted via Electronic Data Transfer by the analyzing laboratory. For bacteriological monitoring requirements and complete treatment monitoring requirements, please refer to the water system's Domestic Water Supply Permit or other Division correspondences.

## Access the Drinking Water Watch web page.

The Drinking Water Watch website is located at: <https://sdwis.waterboards.ca.gov/PDWW/>. Enter the URL into a web browser's address bar.

## Search for Public Water Systems (PWS)

To search for a PWS, enter any combination of the fields circled below, then click *Search for Water Systems*. If you know the Water System's 7-digit Water System Number that you are interested in, searching by the number may be most straight forward.

### California Public Water Supply Systems Search Parameters

Water System No.	<input type="text"/>
Water System Name	<input type="text"/>
Principal County Served	<input type="text"/>
Water System Type	All ▾
Water System Status	Active ▾
Primary Source Water Type	All ▾

## Select the Desired PWS from the Search Results

Additional search boxes at the bottom of each column can be used to further filter the search results, especially with the initial search generates a large number of public water systems. In the example shown below, we have searched for public water systems with "Elementary School" in their name.

Water System No.	Water System Name	Type	Status	Principal County Served	Primary Source Water Type
<a href="#">CA0400060</a>	HONCUT ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400062</a>	RICHVALE ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400063</a>	MANZANITA ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400064</a>	CONCOW ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0706028</a>	KNIGHTSEN ELEMENTARY SCHOOL	NTNC	A	CONTRA COSTA	GW
<a href="#">CA0900410</a>	LATROBE ELEMENTARY SCHOOL	NTNC	A	EL DORADO	GW
<a href="#">CA1000105</a>	MADISON ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000180</a>	ALTA ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000182</a>	BURREL UNION ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000185</a>	GREAT WESTERN ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
Search	<input type="text" value="Elementary School"/>	Search	<input type="text" value=""/>	<input type="text" value=""/>	Search

Showing 1 to 10 of 101 entries (filtered from 8,482 total entries)

Previous [1](#) [2](#) [3](#) [4](#) [5](#) ... [11](#) Next

From the search results, click on a "Water System Number" in the search results to see basic information on the water system.

## Select "Monitoring Schedules" for Source Water Chemical Monitoring and Disinfection Byproduct Monitoring

Once you click on the Water System No. as shown above, you will see the home page for that PWS. A sample home page is shown below. Navigate to the Monitoring Schedules by selecting the link on the left, *Monitoring Schedules*, circled below.

**Links**

[Water System Details](#)

[Water System Facilities](#)

[Monitoring Schedules](#)

[Monitoring Results](#)

[Monitoring Results By Analyte](#)

[Lead And Copper Sampling](#)

- [Summaries](#)
- [Next Sampling Due Dates](#)
- [All Lead Sampling Results](#)
- [All Copper Sampling Results](#)

[Violations/Enforcement Actions](#)

[Site Visits](#)

[Consumer Confidence Reports](#)

**Return Links**

[Water System Search](#)

[County Map](#)

[Glossary](#)

[Contact Info](#)

### CA Drinking Water Watch

#### Water System Details

Water System No.:		Federal Type:	
Water System Name:		State Type:	
Principal County Served:		Primary Source:	
Status:		Activity Date:	

Water System Contacts			
Type	Address	Phone	Email - Web Address
Administrative Contact			
Physical Location Contact			

Division of Drinking Water District / County Health Dept. Info

Name	Phone	Email	Address
DISTRICT 17 - SANTA CLARA	510-626-3474		820 MARINA BAY PARKWAY RICHMOND CA 94804-6403

Annual Operating Periods & Population Served

Start Month	Start Day	End Month	End Day	Population Type	Population Served

Service Connections

Type	Count	Meter Type	Meter Size Measure

Sources of Water

Name	Type Code	Status

Service Areas

Code	Name

Water Purchases

Seller Water System No.	Water System Name	Seller Facility Type	Seller State Asgn ID No.	Buyer Facility Type	Buyer State Asgn ID No.

Under *Monitoring Schedules*, you will access information populated by laboratory's Electronic Data Transfer, or electronic submittal of results. This information, generally source water chemical monitoring, disinfection byproduct monitoring, and some treatment plant monitoring, requires a 10-digit PS-Code assigned to the sample location. Note that where monitoring is required and no PS-Code has or can be assigned, the requirements and results will not appear in this section.

### Select a Monitoring Schedule Report

You can select a monitoring schedule for all of the system's sample points via the link in the center of the page, circled below. Alternatively, you may generate a report for individual sample points using the link for that sample point. Please review the notes at the top of the page before selecting a report.

# CA Drinking Water Watch

## Monitoring Schedules

### Links

- [Water System Details](#)
- [Water System Facilities](#)
- [Monitoring Schedules](#)
- [Monitoring Results](#)
- [Monitoring Results By Analyte](#)
- [Lead And Copper Sampling](#)
- [Violations/Enforcement Actions](#)
- [Site Visits](#)
- [Consumer Confidence Reports](#)

### Return Links

- [Water System Search](#)
- [County Map](#)

### Glossary

### Contact Info

Water System No. :	<input type="text"/>	Federal Type :	<input type="text"/>
Water System Name :	<input type="text"/>	State Type :	<input type="text"/>
Principal County Served :	<input type="text"/>	Primary Source :	<input type="text"/>
Status :	<input type="text"/>	Activity Date :	<input type="text"/>

The Division of Drinking Water's (DDW's) drinking water quality monitoring schedules identify upcoming required testing of drinking water for water systems in California. These documents should not be used for determining whether water systems are in compliance with monitoring requirements. The purpose for providing these monitoring schedules is to allow water systems to verify that their sampling and analyses have been incorporated into the DDW database and to identify upcoming required monitoring sampling events.

#### Notes for Water Systems:

1. The monitoring notification documents should be considered "draft," in that they will change with subsequent updates, and as monitoring data are submitted, or as monitoring schedules are revised.
2. The monitoring notification documents are derived from the DDW Water Quality database and from schedules maintained by DDW districts.
3. If your upcoming monitoring or your data identified as "DUE" are not in agreement with this document, or if you have been advised of any increased monitoring that is not reflected in the report for a particular source, please contact your District Engineer or LPA representative. For a map of the districts, please [click here](#).
4. If your notification report for a source is blank, this does not necessarily indicate compliance with all monitoring requirements.
5. These notification reports may not reflect compliance with initial monitoring for newly regulated constituents, or constituents that require special monitoring frequencies. For example, the DDW database is unable to accurately forecast the vulnerable non-volatile synthetic organic chemical (SOC) frequency for large water systems serving over 3,300 people of 2 quarters every 3 years.
6. Some Nitrate (as N) results under storet code 00618, will have a result of 'N/A' which stands for 'Not Applicable.' This stems from the change in regulation requiring that all nitrate sampling be reported as Nitrate (as N) starting January 1, 2016. Prior nitrate sampling was reported as Nitrate (as NO3). With this change in nitrate reporting requirements, the monitoring scheduler have capped the last date of Nitrate (as NO3) sampling and applied it to Nitrate (as N) in determining the next due date (unless there have been Nitrate (as N) samples collected). The Nitrate (as NO3) result, however, does not carry over to Nitrate (as N) which is why there may be a notation in the "Constituent Identification" column to reference storet code 71850 for the last nitrate result. In these instances, the "Constituent Identification" column will say, "NITRATE (as N) - (see 71850)". Any questions should be referred to your District Engineer.

#### Monitoring Schedules for All Sampling Points

[Click to view report.](#) Once the report is shown, click on the Report button on the report header to download.

#### Monitoring Schedule for Individual Sampling Points

[Click on a sampling point number to view the monitoring schedule for the sampling point.](#)  
[Click here to View List of all sampling points.](#)

Sampling Point	Location	Type
002		
003		

## Lead and Copper Sampling

You can select **Lead and Copper Sampling**, circled below, from the blue list of links on the left-hand side of the page. A number of options will appear under **Lead and Copper Sampling**, including:

- **Summaries** generates a table showing the 90<sup>th</sup> percentile concentrations for historical lead and copper monitoring rounds.
- **Next Sample Due Dates** shows a table that includes the dates of the last round of lead and copper monitoring, that monitoring round's 90<sup>th</sup> percentile concentrations, and the next sampling due date. Note the seasonal collection period identified. Samples collected outside the assigned collection period cannot be accepted for compliance.
- **All Lead Sampling Results** and **All Copper Sampling Results** shows individual sample results, rather than the 90<sup>th</sup> percentile concentrations, where the Division's database has available data. Individual sample results may not be available for historical sampling rounds.

### Links

- [Water System Details](#)
- [Water System Facilities](#)
- [Monitoring Schedules](#)
- [Monitoring Results](#)
- [Monitoring Results By Analyte](#)
- [Lead And Copper Sampling](#)
  - [Summaries](#)
  - [Next Sampling Due Dates](#)
  - [All Lead Sampling Results](#)
  - [All Copper Sampling Results](#)
- [Violations/Enforcement Actions](#)
- [Site Visits](#)
- [Consumer Confidence Reports](#)

### Return Links

- [Water System Search](#)
- [County Map](#)

### Glossary

### Contact Info

**Attachment K - CSA 11 Amendment to  
Domestic Water Supply Permit**

STATE OF CALIFORNIA

**AMENDMENT TO THE  
DOMESTIC WATER SUPPLY PERMIT**

Issued To

County of San Mateo

For Operation Of  
County Service Area 11  
Public Water System No. 4100582

By The

State Water Resources Control Board  
Division of Drinking Water

ORIGINAL PERMIT ISSUED: 02-17-15P-4100582  
PERMIT AMENDMENT NO.: 1

DATE: August 5, 2015  
EFFECTIVE DATE: August 8, 2019

**WHEREAS:**

1. The County of San Mateo owns and operates the County Service Area 11 water system. It submitted a revised application to the State Water Resources Control Board Division of Drinking Water dated July 31, 2019, for an amendment to its Domestic Water Supply Permit issued on August 5, 2015.
2. The purpose of the amendment, as described in the application, is to allow the County of San Mateo to make the following modifications to the County Service Area 11 public water system:
  - Add one new groundwater supply well, Well 3, to augment and improve the reliability of the County Service Area 11 water system's water supply.
  - Add one new storage tank to increase storage capacity and redundancy.
3. The County of San Mateo has submitted the supporting information required to evaluate the application.
4. The State Water Resources Control Board Division of Drinking Water has evaluated the application and the supporting material and has determined that the proposed modifications comply with all applicable State drinking water requirements.

**AND WHEREAS:**

1. The State Water Resources Control Board Division of Drinking Water has conducted a physical investigation of the County Service Area 11 water system.
2. The State Water Resources Control Board Division of Drinking Water has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

**THEREFORE:**

The Division of Drinking Water hereby approves the application submitted for the County Service Area 11 (CSA 11) water system for a permit amendment. The Domestic Water Supply Permit issued to the County of San Mateo on August 5, 2015, is hereby amended as follows:

1. One new well, "Well 3," is designated as an approved source of domestic supply. Well 1 and Well 2 are reclassified as standby sources. The approved sources for the County Service Area 11 water system are shown below.

Source	PS-Code	Status
Well 1	4100582-001	Active
Well 2	4100582-002	Standby
Well 3	4100582-004	Active

2. One new storage tank, "Tank 2" is approved.

**THE COUNTY OF SAN MATEO IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT AMENDMENT FOR OPERATION OF WELL 3 AND TANK 2.**

The provisions of Domestic Water Supply Permit No. 02-17-15P-4100582 remain in force and full effect.

The permit is subject to the following additional provisions:

1. CSA 11 must maintain a totalizing flow meter on each source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.
2. CSA 11 must direct the analyzing laboratory to submit monitoring results submitted with the permit amendment application to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.
3. CSA 11 must collect a monthly coliform sample from Well 3 for six consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3.

Analytical results must be submitted by the analyzing laboratory by the 10<sup>th</sup> day of each following month. Results must be emailed to the Division at DWPDist17@waterboards.ca.gov.

4. CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

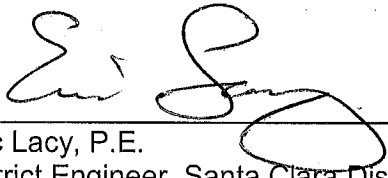
This permit amendment, with the original permit, supersede all previous domestic water supply permits issued for this public water system and shall together remain in effect unless and until they are revised, further amended, reissued, or declared to be null and void by the State Water Resources Control Board Division of Drinking Water. The permit and its permit amendments are non-transferable. Should the Learning Services Corporation water system undergo a change of ownership, the new owner must apply for and receive a new domestic water supply permit.

Any change in the source of water for the water system, any modification of the method of treatment, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the State Water Resources Control Board Division of Drinking Water.

This permit amendment shall be effective as of the date shown below.

**FOR THE STATE WATER RESOURCES CONTROL BOARD  
DIVISION OF DRINKING WATER**

August 8, 2019  
Date

  
Eric Lacy, P.E.  
District Engineer, Santa Clara District  
Division of Drinking Water  
State Water Resources Control Board

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**State Water Resources Control Board**  
Division of Drinking Water

**Engineering Report  
In the Matter of the Permit Application  
For  
County Service Area 11  
Water System No. 4100582  
San Mateo County  
August 8, 2019**

**State Water Resource Control Board  
Division of Drinking Water  
Philip Dutton, P.E., Associate Sanitary Engineer  
Eric Lacy, P.E., District Engineer**

**I. Introduction**

The State Water Resources Control Board – Division of Drinking Water (Division) inspected the County Service Area 11 (CSA 11) water system on July 10, 2019. The water system serves the town of Pescadero in coastal San Mateo County. The property and water system are owned by the County of San Mateo (County). The County operates and maintains the water system to serve its CSA 11. The mailing address for the CSA 11 water system is that of the County Public Works Department: 555 County Center, 5<sup>th</sup> Floor, Redwood City, CA 94063.

**1.1 Purpose of Report**

On December 3, 2018, the County submitted an application to the Division for a water supply permit amendment to operate a new groundwater supply well, Well 3, and add a new storage tank. The County submitted a revision to the application dated July 31, 2019. A copy of the revised application is provided as Appendix A of this report. The application was submitted in accordance with Section 116525 of the California Health and Safety Code.

The purpose of this report is to document the sanitary engineering review of the project and make recommendations regarding issuance of an amended domestic water supply permit.

**1.2 Brief Description of Water System**

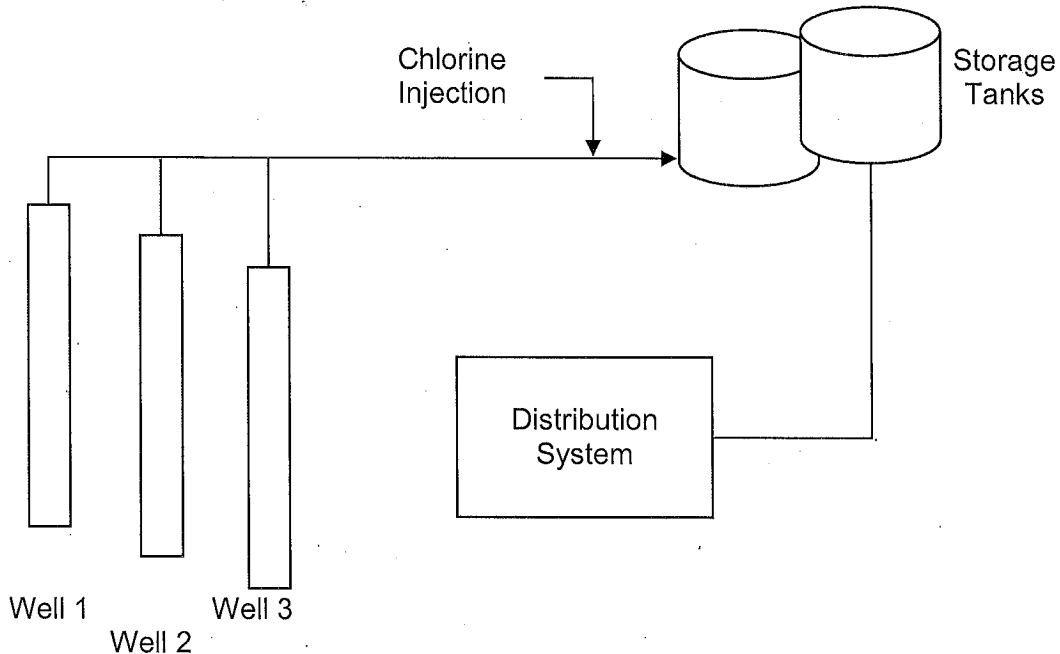
CSA 11 is a community water system located in coastal San Mateo County serving the town of Pescadero. CSA 11 provides potable water to a reported population of 450 permanent residential customers through 101 service connections. Water supply sources for the system consist of three groundwater supply wells: Well 1, Well 2, and Well 3, which is a new well

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E. JOAQUIN ESQUIVEL, CHAIR | EILEEN SOBECK, EXECUTIVE DIRECTOR

850 Marina Bay Parkway, Bldg. P, 2nd Floor, Richmond, CA 94804-6403 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

approved with this permit. Well 2 has been classified as a standby source. The distribution system now includes two 140,000 gallon steel storage tanks, plumbed in parallel with level overflow heights. A simple schematic drawing of the water system is provided below. The storage tanks are at an adequate height to provide gravity pressure to the service area.



### 1.3 Permit Status

The CSA 11 operates under Domestic Water Supply Permit No. 02-17-15P-4100582, issued on August 5, 2015. This permit amendment is being issued to approve the operation of the new Well 3 and storage tank and to document the current operations of the water system under the State of California Health and Safety Code. The permit is nontransferable; should the water system ownership not be held by the County of San Mateo, the new owner is required to apply for a Domestic Water Supply Permit.

### 1.4 Sources of Information

The information used in preparing this report was collected from the water system's files, the permit amendment application, and the system inspection conducted by Philip Dutton of the Division.

## II. Investigation and Findings

### 2.1 Sources of Supply

CSA 11 provides potable water to customers from two active groundwater supply well and one standby well. Well 1 and Well 2 are existing wells and their surface features remain as described in the prior permit technical report; Well 2 has been classified as a standby source. Well 3 is a newly constructed well added to the water system and is fully described below.

## **Well 2 (PS-Code 4100582-002) – STANDBY**

Well 2 has been classified as a standby source. CSA 11 recognizes that standby sources are subject to additional use restrictions specified in Section 64414 of the California Code of Regulations. Specifically:

- (a) A source which has been designated “standby” shall be monitored a minimum of once every compliance cycle for all inorganic, organic, and radiological MCLs, unless a waiver has been granted by the State Board pursuant to Section 64432(m) or (n) for inorganics, Section 64432.2(c) for asbestos, or Section 64445(d) for organics.
- (b) A standby source which has previous monitoring results indicating nitrate or nitrite levels equal to or greater than 50 percent of the MCL shall collect and analyze a sample for nitrate and nitrite annually. In addition, upon activation of such a source, a sample shall be collected, analyzed for these chemicals and the analytical results reported to the State Board within 24 hours of activation.
- (c) A standby source shall be used only for short-term emergencies of five consecutive days or less, and for less than a total of fifteen calendar days a year.
- (d) Within 3 days after the short-term emergency use of a standby source, the water supplier shall notify the State Board. The notification shall include information on the reason for and duration of the use.
- (e) The status of a designated standby source shall not be changed to that of a regular source of drinking water supply, unless the source meets all existing drinking water standards and approval is obtained from the State Board in advance.
- (f) A standby source for which perchlorate has been previously detected shall have a sample collected and analyzed for perchlorate annually. Additionally, upon activation of such a source, a sample shall be collected and analyzed for perchlorate, and the analytical result shall be reported to the State Board within 48 hours of activation.

## **Well 3 (PS-Code 4100582-004) – ACTIVE**

Well 3 is CSA 11's newly constructed groundwater source. It is located approximately 50 feet northeast of the existing Well 1. The well is exposed on rural greenspace, although CSA 11 has recently installed a chain-link fence securing Well 1 and Well 3. At the time of the Division's inspection, the wells' enclosure was overgrown with weeds. CSA 11 must clear the weeds and submit photographic documentation to the Division. The Division strongly encourages CSA 11 to consider means to regularly or permanently control the weeds. A copy of the Well Driller's report on file with the Division shows that the well was constructed in the summer of 2018 by Maggiora Bros. Drilling of Watsonville, CA to a completed depth of 370 feet. The Well Completion Report is provided as Appendix B of this report. From a depth of 10 feet to 90 feet, the well passes through a tan sandy clay layer. The well was constructed using the reverse circulation method with a 10-inch diameter steel casing placed to a depth of 360 feet. The casing has 0.04 inch Roscoe Moss stainless steel screening from 250 feet to 350 feet. The screened interval passes through sandstone with gravel and shale. A cement annular seal was placed to a depth of 100 feet. According to the Well Data Sheet submitted with the permit amendment application, the well's submersible pump is a Grundfos 10 HP pump with a 100

gpm capacity. The well is controlled by the water level in the tank and it has pump saver controls that will shut the pump down in the event of a low water level alarm in the well itself.

The wellhead has no apparent openings and sits on a concrete surface seal that is approximately 4-foot by 4-foot. The well is equipped with a water level sensor, a screened and downturned casing vent on the gravel chute, and an appropriate sample tap is located before a check valve and an air relief valve. The flow has a flow meter and can flush to waste, although at the time of the inspection the blow off was unscreened and only protected with a single gate valve. CSA 11 must equip the well's blowoff with a cap or fine mesh screen.

While there have been no contaminants detected in CSA 11's water supply, Well 3 is still considered vulnerable to historic waste dumps or landfills. Additional potential contaminating activities in the wells' recharge area include waste transfer and recycling stations as well as transportation corridors and possible herbicide use areas.

## **2.2 Water Production**

CSA 11 must maintain a totalizing flow meter on each groundwater source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.

## **2.3 Treatment**

CSA 11 is not approved for any continuous treatment. CSA 11 has the capacity to provide emergency disinfection via sodium hypochlorite injection into the combined well discharge into the storage tanks. CSA 11 maintains a Wallace & Tiernan Chempulse metering pump to inject 12.5% disinfectant into the raw water. The pump has a maximum injection rate of 5 gph at 100 psi.

At the time of the inspection, CSA 11 was providing emergency disinfection following a total coliform maximum contaminant level violation for the month of June 2019 and in accordance with the Directives of Citation No. 02-17-19C-040. The Division required that CSA 11 submit a permit amendment application for permanent disinfection and has provided the County with the requirements for that permit amendment application.

## **2.4 Storage**

CSA 11 has added Tank 2 to augment the existing storage provided by its Tank 1. Tank 2 is a bolted steel storage tank with a storage capacity of approximately 140,000 gallons. The two tanks are plumbed in parallel, with separate inlets and outlets. The overflows are at a common elevation and the discharges use gravity to pressure the distribution system. Tank 2 is equipped with a drain and external overflow that are equipped with an airgapped overflow above a storm drain inlet; the overflow is equipped with a fine mesh screen. The roof is equipped with a single access hatch and a center cone vent. The vent is appropriately screened and the hatch has a shoebox-style lid whose edges extend over the side of the opening. The hatch lid lacks a gasket seal. CSA 11 must submit photographic documentation to the Division showing that an appropriate gasket seal has been installed.

### III. Water Quality

#### 3.1 Source Water Quality

Source water chemical monitoring is required of CSA 11's active and standby sources. Monitoring is required to be collected from the sources at a location before storage, treatment, or blending with any other source and should be collected in a manner that is representative of the overall source water quality. CSA 11 must sample the individual sources from dedicated sample taps located before the wells' individual check valves. Source chemical monitoring must be submitted by the lab via EDT using the PS-Codes below. Guidance on accessing results and monitoring schedules online is provided in Appendix C.

**Table 1: Approved Sources**

Source	PS-Code	Status
Well 1	4100582-001	Active
Well 2	4100582-002	Standby
Well 3	4100582-004	Active

#### **Well 3 Monitoring**

The following sections describe the source monitoring required for Well 3. CSA 11 has completed preliminary monitoring of Well 3 completed after well development and the well was approved based on that monitoring. CSA 11 must direct the analyzing laboratory to submit the previous monitoring results to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.

#### *Secondary Constituents and General Physical Monitoring*

As a community waster system, CSA 11 is required to collect triennial monitoring for secondary constituents and general physical parameters. The Division's online monitoring schedule will reflect the 36-month monitoring frequency upon receipt of the previous monitoring data in the Division's electronic database.

#### *Inorganic Constituents*

The routine monitoring frequency for inorganic constituents is one round of monitoring every three years.

#### *Nitrates*

CSA 11 is required to monitor Well 3 annually for nitrate and triennially for nitrite.

#### *Organic Constituents*

The routine monitoring frequency for volatile organic chemicals and synthetic organic chemicals is once every three years for most chemicals.

Special initial monitoring requirements are in place for 1,2,3 trichloropropane (123-TCP). CSA 11 must complete four consecutive quarters of initial 123-TCP monitoring from Well 3. The first quarter of initial 123-TCP monitoring for Well 3 must be collected in the first month that the well is in service.

### *Radiological Monitoring*

CSA 11 must complete the initial monitoring requirements for radiological monitoring; the ongoing monitoring frequency for Well 3 will be determined following completion of the initial monitoring. The initial monitoring consists of four consecutive quarters of monitoring for gross alpha and radium-228. If any gross alpha sample shows a detection greater than 5 pCi/L, analysis for uranium is required in that same sample. The first quarterly sample is due now.

### *Source Bacteriological Monitoring*

CSA 11 must collect a monthly coliform sample from Well 3 for 6 consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3.

As part of the Groundwater Rule, CSA 11 must collect a bacteriological sample from all wells that may have contributed to the contamination, as part of follow-up sampling after a positive bacteriological sample from the distribution system. The Division recommends that source and repeat samples should be analyzed using a method that provides enumerated results reported as MPN/100ml.

CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

### **Monitoring of Standby Wells**

The monitoring frequency for CSA 11's standby well is generally one round of monitoring every nine years. The source water chemical monitoring requirements for Well 2 are available online. Guidance for accessing the sources' online monitoring schedules is provided as Appendix C to this report.

### **3.2 Distribution System Monitoring**

There are no changes to CSA 11's distribution system monitoring requirements associated with this permit amendment. CSA 11 is still required to monitor its distribution system for coliform bacteria, and lead and copper. As emergency disinfection is being provided now and permanent chlorination is being implemented, CSA 11 is required to begin monitoring the chlorine residual and for disinfection byproducts in the distribution system.

As part of its Level 1 Assessment completed following its June 2019 total coliform maximum contaminant level violation, CSA 11 identified that its repeat coliform sample sites are to be collected from homeowner hose bibs not routinely used for monitoring. The Division encourages CSA 11 to evaluate installing dedicated sample stations within its service area.

## **IV. California Environmental Quality Act**

The County's Planning Commission adopted a Mitigated Negative Declaration for the construction of Well 3 and Tank 2 in a hearing on March 9, 2016. The Mitigated Negative Declaration found that, based on an Initial Study, that the project would have no substantial effects on the environment if subject to the included mitigation measures.

## **V. Appraisal of Sanitary Hazards and Safeguard**

The CSA 11 water system is in adequate condition, especially considering its additional source capacity with the addition of Well 3 and the new storage tank added as part of this project. The County appears to have improved the reliability and the long-term viability of the CSA 11 water supply. The County has been eager to begin utilizing Well 3 as its primary source of supply, as it has suspected that Well 1 could have contributed to the recent total coliform violation. Given the short bacteriological monitoring history of the new well, CSA 11 is required to monitor Well 3 for total coliform bacteria monthly for at least the first six months of it in service.

The Division notes that the water system's groundwater sources are in an area with limited recharge. In addition to the continuous monitoring of the water level of Well 3, the Division recommends that CSA 11 regularly monitor and record static and pumping depth to water levels in Well 1 and Well 2.

## **VI. Conclusions and Recommendations**

It is the finding of this report that the County of San Mateo can meet the requirements specified in Section 116270 through 116750, inclusive, of the California Health and Safety Code, provided the provisions recommended below are met. The Division finds that the addition of Well 3 and Tank 2 will improve the quality and reliability of the potable water supply to the users of the CSA 11 water system.

### **6.1 Provisions for the Amended Permit**

It is hereby recommended that an Amended Domestic Water Supply Permit be granted to the County of San Mateo to operate the CSA 11 water system, subject to the following provisions:

1. CSA 11 must maintain a totalizing flow meter on each source and record and maintain monthly production data from each well. Production data must be reported to the Division annually on the Electronic Annual Report; individual well production data must be available to the Division.
2. CSA 11 must direct the analyzing laboratory to submit monitoring results submitted with the permit amendment application to the Division's electronic database using Electronic Data Transfer and the PS-Code specific to the well.
3. CSA 11 must collect a monthly coliform sample from Well 3 for 6 consecutive months. After the six months of monitoring is completed, CSA 11 may request in writing for a waiving of the routine source water bacteriological monitoring requirements for Well 3. Analytical results must be submitted by the analyzing laboratory by the 10<sup>th</sup> day of each following month. Results must be emailed to the Division at [DWPDist17@waterboards.ca.gov](mailto:DWPDist17@waterboards.ca.gov).
4. CSA 11 must submit an updated bacteriological sample siting plan to the Division for review and approval. The revised plan must show the triggered source monitoring of the active well.

## 6.2 Recommendations

The following recommendations are provided for CSA 11's consideration.

1. The Division encourages CSA 11 to consider and evaluate the installation of dedicated water quality sampling stations in its service area.

Report prepared by:



Philip Dutton, P.E.  
Associate Sanitary Engineer

Report reviewed by:



Eric Lacy, P.E.  
District Engineer  
Santa Clara District

# APPENDIX A

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Domestic Water Supply Permit Application

**STATE OF CALIFORNIA**  
**APPLICATION**  
**FOR**  
**DOMESTIC WATER SUPPLY PERMIT AMENDMENT**  
**FROM**

Applicant: County of San Mateo - Department of Public Works  
(Enter the name of legal owner, person(s) or organization)

Address: 0 Bean Hollow, Pescadero APN: 086-180-060

System Name: County Service Area No.11

System Number: 4100582

TO: Eric Lacy, P.E.  
Division of Drinking Water  
Drinking Water Field Operations Branch  
850 Marina Bay Parkway, Building P, 2<sup>nd</sup> Floor  
Richmond, CA 94804



Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to Obtain authorization to use the recently constructed new well,  
(Applicant must state specifically what is being applied for - whether to construct storage tank, and all piping by the CSA 11 Water Supply and Sustainability Project, and designating new works, make alterations or additions in works or sources, or change or modify treatment.)

Well #03 (PSCode 4100582-004) and existing Well #01 (PSCode 4100582-001) as the primary active wells and Well #02 (PSCode 4100582-002) as a standby well. All other items and conditions of the permit shall remain in full force and effect.

FOR OFFICIAL USE

Date Received:

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

Signed By: *Eric Lacy*

Title: Director of Public Works

Address: 555 County Center, 5th Floor  
Redwood City, CA 94063

Telephone: (650) 599-1421

Dated: 7/31/19

# APPENDIX B

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Well 3: Well Completion Report

State of California  
**Well Completion Report**  
 Form DWR 188 Submitted 11/28/2018  
 WCR2018-010738

Owner's Well Number Well 3 ALT Date Work Began 05/25/2018 Date Work Ended 10/09/2018  
 Local Permit Agency San Mateo County Division of Environmental Health  
 Secondary Permit Agency \_\_\_\_\_ Permit Number 18-0719 Permit Date 05/10/2018

Well Owner (must remain confidential pursuant to Water Code 13752)	Planned Use and Activity
Name <u>SAN MATEO COUNTY DEPT OF PUBLIC WORKS</u>	Activity <u>New Well</u>
Mailing Address <u>555 County Center</u>	Planned Use <u>Water Supply Public</u>
<u>5th Floor</u>	
City <u>Redwood City</u> State <u>CA</u> Zip <u>94063</u>	

Well Location	
Address <u>0 Bean Hollow RD</u>	APN <u>086180060</u>
City <u>Pescadero</u> Zip <u>94060</u> County <u>San Mateo</u>	Township <u>08 S</u>
Latitude <u>37 14 37.95 N</u> Longitude <u>-122 24 0.33 W</u>	Range <u>05 W</u>
Deg. Min. Sec.                      Deg. Min. Sec.	Section <u>16</u>
Dec. Lat. <u>37.243875</u> Dec. Long. <u>-122.4000917</u>	Baseline Meridian <u>Mount Diablo</u>
Vertical Datum _____ Horizontal Datum <u>WGS84</u>	Ground Surface Elevation _____
Location Accuracy <u>Unknown</u> Location Determination Method <u>Unknown</u>	Elevation Accuracy _____
	Elevation Determination Method _____

Borehole Information	Water Level and Yield of Completed Well
Orientation <u>Vertical</u> Specify _____	Depth to first water <u>110</u> (Feet below surface)
Drilling Method <u>Reverse Circulation</u> Drilling Fluid <u>Polymer</u>	Depth to Static _____
Total Depth of Boring <u>370</u> Feet	Water Level <u>179</u> (Feet) Date Measured <u>08/27/2018</u>
Total Depth of Completed Well <u>360</u> Feet	Estimated Yield* <u>100</u> (GPM) Test Type <u>Pump</u>
	Test Length <u>24</u> (Hours) Total Drawdown <u>45</u> (feet)
	*May not be representative of a well's long term yield.

Geologic Log - Free Form		
Depth from Surface	Feet to Feet	Description
0	10	Soil-Control
10	90	Tan sandy clay
90	110	Grey sand
110	230	Brw. sandstone
230	250	Grey sandstone
250	270	sandstone with minor gravel
270	290	Dk. grey shale with stringers of sandstone and minor gravel
290	350	Grey shale and alt. beds of sandstone with minor gravel
350	370	Hard standstone

Casings										
Casing #	Depth from Surface Feet to Feet		Casing Type	Material	Casings Specifications	Wall Thickness (inches)	Outside Diameter (inches)	Screen Type	Slot Size If any (inches)	Description
1	0	250	Blank	Mild Steel	Nominal Size: 10 in.   Thickness: 1/4 in.   OD: 10-3/4 in.	0.25	10.75			ASTM A-139 Grade B Roscoe Moss
1	250	350	Screen	Stainless Steel	Grade: 304 Stainless Steel	0.5	10.75	Wire Wrap	0.04	Roscoe Moss
1	350	360	Blank	Mild Steel	Nominal Size: 10 in.   Thickness: 1/4 in.   OD: 10-3/4 in.	0.25	10.75			ASTM A-139 Grade B Roscoe Moss

Annular Material					
Depth from Surface Feet to Feet		Fill	Fill Type Details	Filter Pack Size	Description
0	100	Cement	10.3 Sack Mix		
100	105	Bentonite	High Solids		Baroid 3/8-inch chip Hole Plug
105	370	Filter Pack	8 x 16	8x16	SRI

Other Observations:

Borehole Specifications		
Depth from Surface Feet to Feet		Borehole Diameter (Inches)
0	370	18

Certification Statement			
I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief			
Name	MAGGIORA BROS DRILLING INC		
	Person, Firm or Corporation		
595 AIRPORT BLVD	WATSONVILLE	CA	95076
Address	City	State	Zip
Signed	<i>electronic signature received</i>	11/28/2018	249957
	C-57 Licensed Water Well Contractor	Date Signed	C-57 License Number

DWR Use Only			
CSG #	State Well Number	Site Code	Local Well Number
		N	W
Latitude Deg/Min/Sec		Longitude Deg/Min/Sec	
TRS:			
APN:			

# APPENDIX C

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## Guidance for Accessing Online Monitoring Schedules and Water Quality Results

# How to Access Online Water Quality Monitoring Schedules

State Water Resources Control Board  
Division of Drinking Water

This document is intended to be a quick reference to assist public water systems, their staff, contractors, and other stakeholders in accessing water quality data and schedules posted by the Division of Drinking Water online. The water quality data posted online includes source water chemical monitoring data, disinfection byproduct monitoring data, lead and copper monitoring data, and may include certain treatment process monitoring data when the results are submitted via Electronic Data Transfer by the analyzing laboratory. For bacteriological monitoring requirements and complete treatment monitoring requirements, please refer to the water system's Domestic Water Supply Permit or other Division correspondences.

## Access the Drinking Water Watch web page.

The Drinking Water Watch website is located at: <https://sdwis.waterboards.ca.gov/PDWW/>. Enter the URL into a web browser's address bar.

## Search for Public Water Systems (PWS)

To search for a PWS, enter any combination of the fields circled below, then click *Search for Water Systems*. If you know the Water System's 7-digit Water System Number that you are interested in, searching by the number may be most straight forward.

### California Public Water Supply Systems Search Parameters

Water System No.	<input type="text"/>
Water System Name	<input type="text"/>
Principal County Served	<input type="text"/>
Water System Type	All ▾
Water System Status	Active ▾
Primary Source Water Type	All ▾

## Select the Desired PWS from the Search Results

Additional search boxes at the bottom of each column can be used to further filter the search results, especially with the initial search generates a large number of public water systems. In the example shown below, we have searched for public water systems with “Elementary School” in their name.

Water System No.	Water System Name	Type	Status	Principal County Served	Primary Source Water Type
<a href="#">CA0400060</a>	HONCUT ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400062</a>	RICHVALE ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400063</a>	MANZANITA ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0400064</a>	CONCOW ELEMENTARY SCHOOL	NTNC	A	BUTTE	GW
<a href="#">CA0706028</a>	KNIGHTSEN ELEMENTARY SCHOOL	NTNC	A	CONTRA COSTA	GW
<a href="#">CA0900410</a>	LATROBE ELEMENTARY SCHOOL	NTNC	A	EL DORADO	GW
<a href="#">CA1000105</a>	MADISON ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000180</a>	ALTA ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000182</a>	BURREL UNION ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<a href="#">CA1000185</a>	GREAT WESTERN ELEMENTARY SCHOOL	NTNC	A	FRESNO	GW
<input type="text" value="Search"/>	<input type="text" value="Elementary School"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value=""/>	<input type="text" value="Search"/>

Showing 1 to 10 of 101 entries (filtered from 8,482 total entries)

Previous  2 3 4 5 ... 11 Next

From the search results, click on a “Water System Number” in the search results to see basic information on the water system.

## Select "Monitoring Schedules" for Source Water Chemical Monitoring and Disinfection Byproduct Monitoring

Once you click on the Water System No. as shown above, you will see the home page for that PWS. A sample home page is shown below. Navigate to the Monitoring Schedules by selecting the link on the left, *Monitoring Schedules*, circled below.

**Links**

[Water System Details](#)

[Water System Facilities](#)

[Monitoring Schedules](#)

[Monitoring Results](#)

[Monitoring Results By Analyte](#)

[Lead And Copper Sampling](#)

- [Summaries](#)
- [Next Sampling Due Dates](#)
- [All Lead Sampling Results](#)
- [All Copper Sampling Results](#)

[Violations/Enforcement Actions](#)

[Site Visits](#)

[Consumer Confidence Reports](#)

**Return Links**

[Water System Search](#)

[County Map](#)

[Glossary](#)

[Contact Info](#)

### CA Drinking Water Watch

#### Water System Details

Water System No. : <input type="text"/>	Federal Type : <input type="text"/>
Water System Name : <input type="text"/>	State Type : <input type="text"/>
Principal County Served : <input type="text"/>	Primary Source : <input type="text"/>
Status : <input type="text"/>	Activity Date : <input type="text"/>

Water System Contacts			
Type	Address	Phone	Email - Web Address
Administrative Contact			
Physical Location Contact			

Division of Drinking Water District / County Health Dept. Info

Name	Phone	Email	Address
DISTRICT 17 - SANTA CLARA	510-620-1474		850 MARINA BAY PARKWAY RICHMOND CA 94804-6403

Annual Operating Periods & Population Served

Start Month	Start Day	End Month	End Day	Population Type	Population Served

Service Connections

Type	Count	Meter Type	Meter Size Measure

Sources of Water

Name	Type Code	Status

Service Areas

Code	Name

Water Purchases

Seller Water System No.	Water System Name	Seller Facility Type	Seller State Asgn ID No.	Buyer Facility Type	Buyer State Asgn ID No.

Under *Monitoring Schedules*, you will access information populated by laboratory's Electronic Data Transfer, or electronic submittal of results. This information, generally source water chemical monitoring, disinfection byproduct monitoring, and some treatment plant monitoring, requires a 10-digit PS-Code assigned to the sample location. Note that where monitoring is required and no PS-Code has or can be assigned, the requirements and results will not appear in this section.

## Select a Monitoring Schedule Report

You can select a monitoring schedule for all of the system's sample points via the link in the center of the page, circled below. Alternatively, you may generate a report for individual sample points using the link for that sample point. Please review the notes at the top of the page before selecting a report.

<b>Links</b>
<a href="#">Water System Details</a>
<a href="#">Water System Facilities</a>
<a href="#">Monitoring Schedules</a>
<a href="#">Monitoring Results</a>
<a href="#">Monitoring Results By Analyte</a>
<a href="#">Lead And Copper Sampling</a>
<a href="#">Violations/Enforcement Actions</a>
<a href="#">Site Visits</a>
<a href="#">Consumer Confidence Reports</a>
<b>Return Links</b>
<a href="#">Water System Search</a>
<a href="#">County Map</a>
<b>Glossary</b>
<b>Contact Info</b>

# CA Drinking Water Watch

## Monitoring Schedules

Water System No. :	<input type="text"/>	Federal Type :	<input type="text"/>
Water System Name :	<input type="text"/>	State Type :	<input type="text"/>
Principal County Served :	<input type="text"/>	Primary Source :	<input type="text"/>
Status :	<input type="text"/>	Activity Date :	<input type="text"/>

The Division of Drinking Water's (DDW's) drinking water quality monitoring schedules identify upcoming required testing of drinking water for water systems in California. These documents should not be used for determining whether water systems are in compliance with monitoring requirements. The purpose for providing these monitoring schedules is to allow water systems to verify that their sampling and analyses have been incorporated into the DDW database and to identify upcoming required monitoring/sampling events.

**Notes for Water Systems:**

1. The monitoring notification documents should be considered "draft," in that they will change with subsequent updates, and as monitoring data are submitted, or as monitoring schedules are revised.
2. The monitoring notification documents are derived from the DDW Water Quality database and from schedules maintained by DDW districts.
3. If your upcoming monitoring or your data identified as "DOE" are not in agreement with this document, or if you have been advised of any increased monitoring that is not reflected in the report for a particular source, please contact your District Engineer or LPA representative. For a map of the districts, please [click here](#).
4. If your notification report for a source is blank, this does not necessarily indicate compliance with all monitoring requirements.
5. These notification reports may not reflect compliance with initial monitoring for newly regulated constituents, or constituents that require special monitoring frequencies. For example, the DDW database is unable to accurately forecast the vulnerable non-volatile synthetic organic chemical (SOC) frequency for large water systems serving over 3,300 people of 2 quarters every 3 years.
6. Some Nitrate (as N) results under store code 00618, will have a result of 'N:A' which stands for 'Not Applicable.' This stems from the change in regulation requiring that all nitrate sampling be reported as Nitrate (as N) starting January 1, 2016. Prior nitrate sampling was reported as Nitrate (as NO3). With this change in nitrate reporting requirements, the monitoring schedules have captured the last date of Nitrate (as NO3) sampling and applied it to Nitrate (as N) in determining the next due date (unless there have been Nitrate (as N) samples collected). The Nitrate (as NO3) result, however, does not carry over to Nitrate (as N) which is why there may be a notation in the "Constituent Identification" column to reference store code 71850 for the last nitrate result. In these instances, the "Constituent Identification" column will say, "NITRATE (as N) - [see 71850]." Any questions should be referred to your District Engineer.

**Monitoring Schedules for All Sampling Points**

Click to view report. Once the report is shown, click on the Export icon on the report header to download.

**Monitoring Schedule for Individual Sampling Points**

Click on a sampling point number to view the monitoring schedule for the sampling point.  
[Click here to bring back the list of active points.](#)

Sampling Point	Location	Type
002		
003		

## Lead and Copper Sampling

You can select *Lead and Copper Sampling*, circled below, from the blue list of links on the left-hand side of the page. A number of options will appear under *Lead and Copper Sampling*, including:

- *Summaries* generates a table showing the 90<sup>th</sup> percentile concentrations for historical lead and copper monitoring rounds.
- *Next Sample Due Dates* shows a table that includes the dates of the last round of lead and copper monitoring, that monitoring round's 90<sup>th</sup> percentile concentrations, and the next sampling due date. Note the seasonal collection period identified. Samples collected outside the assigned collection period cannot be accepted for compliance.
- *All Lead Sampling Results* and *All Copper Sampling Results* shows individual sample results, rather than the 90<sup>th</sup> percentile concentrations, where the Division's database has available data. Individual sample results may not be available for historical sampling rounds.

<b>Links</b>
<a href="#">Water System Details</a>
<a href="#">Water System Facilities</a>
<a href="#">Monitoring Schedules</a>
<a href="#">Monitoring Results</a>
<a href="#">Monitoring Results By Analyte</a>
<a href="#">Lead And Copper Sampling</a>
<ul style="list-style-type: none"> <li>• <a href="#">Summaries</a></li> <li>• <a href="#">Next Sampling Due Dates</a></li> <li>• <a href="#">All Lead Sampling Results</a></li> <li>• <a href="#">All Copper Sampling Results</a></li> </ul>
<a href="#">Violations/Enforcement Actions</a>
<a href="#">Site Visits</a>
<a href="#">Consumer Confidence Reports</a>
<b>Return Links</b>
<a href="#">Water System Search</a>
<a href="#">County Map</a>
<b>Glossary</b>
<b>Contact Info</b>

# **Attachment L - CSA 7 2023 Consumer Confidence Report**

## 2023 Consumer Confidence Report

### Water System Information

**Water System Name:** County Service Area No. 7

**Report Date:** 6/24/2024

**Type of Water Source(s) in Use:** Surface Water

**Name and General Location of Source(s):** Alpine Creek, La Honda

**Drinking Water Source Assessment Information:** Prepared by Bracewell Engineering, Inc. July 2015.

**Time and Place of Regularly Scheduled Board Meetings for Public Participation:** 9:00 am, Tuesday Mornings, Board of Supervisors Chambers, 400 County Center, Redwood City, CA 94063

**For More Information, Contact:** Mark Chow, Principal Civil Engineer (650) 599-1489

### About This Report

We test the drinking water quality for many constituents as required by State and Federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2023 and may include earlier monitoring data.

### Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

**Language in Spanish:** Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse County Service Area No. 7 a (650) 599-1473 para asistirlo en español.

**Language in Mandarin:** 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 County Service Area No. 7 以获得中文的帮助: 1336 Pescadero Creek Road, Loma Mar, CA 94021 (650) 599-1489.

**Language in Tagalog:** Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa County Service Area No. 7 1336 Pescadero Creek Road, Loma Mar, CA 94021, (650) 363-4100 o tumawag sa (650) 363-4100 para matulungan sa wikang Tagalog.

**Language in Vietnamese:** Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ County Service Area No. 7 tại (650) 363-4100 để được hỗ trợ giúp bằng tiếng Việt.

**Language in Hmong:** Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau County Service Area No. 7 ntawm (650) 363-4100 rau kev pab hauv lus Askiv.

TERMS USED IN THIS REPORT	
<p><b>Level 1 Assessment:</b> A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.</p> <p><b>Level 2 Assessment:</b> A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.</p> <p><b>Maximum Contaminant Level (MCL):</b> The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.</p> <p><b>Maximum Contaminant Level Goal (MCLG):</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).</p> <p><b>Maximum Residual Disinfectant Level (MRDL):</b> The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.</p> <p><b>Maximum Residual Disinfectant Level Goal (MRDLG):</b> The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p>	<p><b>Primary Drinking Water Standards (PDWS):</b> MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.</p> <p><b>Public Health Goal (PHG):</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.</p> <p><b>Regulatory Action Level (AL):</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.</p> <p><b>Secondary Drinking Water Standards (SDWS):</b> MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.</p> <p><b>Treatment Technique (TT):</b> A required process intended to reduce the level of a contaminant in drinking water.</p> <p><b>Variations and Exemptions:</b> Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.</p> <p><b>ND:</b> not detectable at testing limit</p> <p><b>ppm:</b> parts per million or milligrams per liter (mg/L)</p> <p><b>ppb:</b> parts per billion or micrograms per liter (µg/L)</p> <p><b>ppt:</b> parts per trillion or nanograms per liter (ng/L)</p> <p><b>ppq:</b> parts per quadrillion or picogram per liter (pg/L)</p> <p><b>pCi/L:</b> picocuries per liter (a measure of radiation)</p>

## Sources of Drinking Water and Contaminants that May Be Present in Source Water

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

### Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

## Regulation of Drinking Water and Bottled Water Quality

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

## About Your Drinking Water Quality

### Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**Table 1 – Sampling Results Showing the Detection of Coliform Bacteria**

Microbiological Contaminants	Highest No. of Detection s	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(In the year) 0	0	(a)		Human and animal fecal waste
(a) Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .					

**Table 2 – Sampling Results Showing the Detection of Lead and Copper**

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Lead (ppb)	2/2023	11	2	0	15	0.2		Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
	9/2023	10	3	0				
Copper (ppm)	2/2023	11	0.298	0	1.3	0.3		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
	9/2023	10	0.299	0				

**Table 3 – Sampling Results for Sodium and Hardness**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Sodium (ppm)	4/27/2023	36			None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	4/27/2023	377			None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Table 4 – Detection of Contaminants with a Primary Drinking Water Standard**

Chemical or Constituent (units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Arsenic (ug/L)	4/27/2023	1			10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (mg/L)	4/27/2023	0.0512			1	2	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Fluoride (ppm)	4/27/2023	0.3			2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	7/20/2016	1.8			15	0	Erosion of natural deposits
Nickel (ug/L)	4/27/2023	7.6			100	12	Erosion of natural deposits; discharge from metal factories
Nitrate (mg/L)	2023	0.3	0.1	0.4	10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ug/L)	4/27/2023	2.1			50	30	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
Total Haloacetic Acids - HAA5 (ppb)	2023	32	19	42	60		Byproduct of drinking water disinfection
TTHM (ppb)	2023	52	40	68	80	None	Byproduct of drinking water disinfection
Total Organic Carbon (ppm)	2020	2.2	1.7	2.8	TT	None	Various natural and man-made sources

**Table 5 – Detection of Contaminants with a Secondary Drinking Water Standard**

Chemical or Constituent (units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Chloride (ppm)	4/27/2023	22			500	None	Runoff/leaching from natural deposits; seawater influence
Color (Units)	4/27/2023	15			15	None	Naturally-occurring organic materials
Specific Conductance (@ 25 c umhos/cm)	4/27/2023	810			1600	None	Substances that form ions when in water; seawater influence
Odor (TON)	4/27/2023	<1			3		Naturally-occurring organic materials
Sulfate (ppm)	4/27/2023	175			500	None	Runoff/leaching from natural deposits; industrial wastes
TDS (ppm)	4/27/2023	548			1000	None	Runoff/leaching from natural deposits
Turbidity (NTU)	4/27/2023	0.6			5	None	Soil runoff

**Table 6 – Detection of Unregulated Contaminants**

Chemical or Constituent (units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Potassium (ppm)	4/27/2023	3.1			None	None	NA

**Additional General Information on Drinking Water**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about

drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

**Lead-Specific Language:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. County Service Area No. 7 is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2023. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

### **For Systems Providing Surface Water as a Source of Drinking Water**

**Table 7 – Sampling Results Showing Treatment Of Surface Water Sources**

Treatment Technique <sup>(a)</sup> (Type of approved filtration technology used)	Conventional filtration
Turbidity Performance Standards <sup>(b)</sup> (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to <u>0.3</u> NTU in 95% of measurements in a month. 2 – Not exceed <u>1.0</u> NTU for more than eight consecutive hours. 3 – Not exceed <u>5.0</u> NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.27
Number of violations of any surface water treatment requirements	0

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

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(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

### **Summary Information for Operating Under a Variance or Exemption**

CSA 7 did not operate under a variance or exemption in 2023.

**Drinking Water Source Assessment and Protection (DWSAP) Program**

A source water assessment was conducted for the ALPINE CREEK INTAKE of the County Service Area 7 water system in July 2015. The source is considered most vulnerable to the following activities not associated with any detected contaminants:

- Septic Systems – Low Density (<1/acre)
- Other Animal Operations
- Agricultural Drainage
- Wells – Agricultural/Irrigation
- Sedimentation

**Discussion of Vulnerability**

There have been no contaminants detected in the water supply, however the source is still considered vulnerable to activities located in the watershed. The source is most vulnerable to the following activities that were identified within the watershed:

1. Low Density Septic Systems (<1/acre)
2. Animal operations (Horse Camp)
3. Agricultural drainage
4. Wells – Agricultural/Irrigation
5. Drinking Water Treatment Plant (for CSA 7)
6. Irrigated and Non-irrigated crops
7. Fertilizer, pesticide/herbicide application
8. Wells – Water supply
9. Transportation Corridors – Road right-of-ways (herbicide use) and Roads and Streets
10. Injection wells/dry wells/sumps (unknown if these exist in the watershed)
11. Campgrounds/Recreational areas
12. Surface water – streams and lakes
13. Sedimentation

A copy of the complete assessment can be obtained at:

State Water Resources Control Board, Division of Drinking Water  
850 Marina Bay Parkway  
Building P, 2<sup>nd</sup> Floor  
Richmond, CA 94804-6403

**Summary Information for Surface Water Treatment**

County Service Area No. 7 operates in compliance with the Surface Water Treatment Regulations.

# **Attachment M - CSA 11 2023 Consumer Confidence Report**

## 2023 Consumer Confidence Report

### Water System Information

**Water System Name:** County Service Area No. 11

**Report Date:** 6/21/2024

**Type of Water Source(s) in Use:** Groundwater Wells

**Name and General Location of Source(s):** Wells 1, 2 and 3 are located in Pescadero. Well 2 is designated as a standby well and did not supply any drinking water in 2023. Additionally, Well 1 is active, but supplied less than 1% of water in 2023.

**Drinking Water Source Assessment Information:** Prepared by County Environmental Health Services in November 2002. Assessment Summary included at end of the report.

**Time and Place of Regularly Scheduled Board Meetings for Public Participation:** 9:00 am, Tuesday Mornings, Board of Supervisors Chambers, 400 County Center, Redwood City, CA 94063

**For More Information, Contact:** Mark Chow, Principal Civil Engineer (650) 599-1489

### About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2023 and may include earlier monitoring data.

### Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse County Service Area No 11 a (650) 599-1473 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。请用以下地址和电话联系 County Service Area No 11 以获得中文的帮助: 910 Bean Hollow Road, Pescadero, CA 94060, (650) 559-1489.

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa County Service Area No 11 and 910 Bean Hollow Road, Pescadero, CA 94060, (650) 363-4100 o tumawag sa (650) 363-4100 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ County Service Area No 11 tại (650) 363-4100 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau County Service Area No 11 ntawm (650) 363-4100 rau kev pab hauv lus Askiv.

### TERMS USED IN THIS REPORT

**Level 1 Assessment:** A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment:** A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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

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

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

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

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

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

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

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

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

**Variations and Exemptions:** Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

**ND:** not detectable at testing limit

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

**ppb:** parts per billion or micrograms per liter ( $\mu\text{g/L}$ )

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

**ppq:** parts per quadrillion or picogram per liter (pg/L)

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

## Sources of Drinking Water and Contaminants that May Be Present in Source Water

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

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

## Regulation of Drinking Water and Bottled Water Quality

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

## About Your Drinking Water Quality

### Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5 and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

**Table 1 – Sampling Results Showing the Detection of Coliform Bacteria**

Microbiological Contaminants	Highest No. of Detection s	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
<i>E. coli</i>	(In the year) 0	0	(a)		Human and animal fecal waste
(a) Routine and repeat samples are total coliform-positive and either is <i>E. coli</i> -positive or system fails to take repeat samples following <i>E. coli</i> -positive routine sample or system fails to analyze total coliform-positive repeat sample for <i>E. coli</i> .					

**Table 2 – Sampling results showing the detection of lead and copper**

Lead and Copper	Sample Date	No. of Samples Collected	90 <sup>th</sup> Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	No. of Schools Requesting Lead Sampling	Typical Source of Contaminant
Copper (ppm)	2021	7	0.453	0	1.3	0.3	Not Applicable	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

**Table 1 – Sampling Results for Sodium and Hardness**

Chemical or Constituent (units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Sodium (ppm)	2021	62	59	62	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2021	109	108	123	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

**Table 4 – Detection of Contaminants with a Primary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
TTHM (ppb)	2023	7.4			80	None	Byproduct of drinking water disinfection
HAA5 (ppb)	2023	3.1			60		Byproduct of drinking water disinfection
Aluminum (mg/L)	2021	0.015			1	0.6	Erosion of natural deposits; residual from some surface water treatment processes
Antimony (ug/L)	2021	0.5				6	Some people who drink water containing antimony in excess of the MCL over many years may experience increases in blood cholesterol and decreases in blood sugar.
Arsenic (ppb)	2021	1.1	1.0	2.6	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (mg/L)	2021	0.0541			1	2	Some people who drink water containing barium in excess of the MCL over many years may experience an increase in blood pressure.
Cadmium (ug/L)	2021	0.25			5	0.04	Some people who drink water containing cadmium in excess of the MCL over many years may experience kidney damage.
Chromium (ug/L)	2021	5.5			50	0.02	Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.
Nitrate (ppm)	2023	5.1			10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Chemical or Constituent (and reporting units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Nitrate-Nitrite (mg/L)	2021	3.4			10	10	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Fluoride (ppm)	2021	0.2	0.1	0.2	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2021	2.27			15	0	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Nickel (ug/L)	2021	5			100	12	Some people who drink water containing nickel in excess of the MCL over many years may experience liver and heart effects.
Selenium (ug/L)	2021	1.5			50	30	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years may experience hair or fingernail losses, numbness in fingers or toes, or circulation system problems.

**Table 5 – Detection of Contaminants with a Secondary Drinking Water Standard**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Chloride (ppm)	2021	89.8	67.2	90.7	500	None	Runoff/leaching from natural deposits; seawater influence
Color (units)	2021	3			15		Naturally-occurring organic materials
Specific Conductance (umhos/cm)	2021	544	495	546	1600	None	Substances that form ions when in water; seawater influence
Iron (mg/L)	2021	0.03			0.3		Leaching from natural deposits; industrial wastes
Manganese (ug/L)	2021	15			50		Leaching from natural deposits
Sulfate (mg/L)	2021	18	12	18	500		Runoff/leaching from natural deposits; industrial wastes
TDS (ppm)	2021	333	318	334	1000	None	Runoff/leaching from natural deposits
Turbidity (Units)	2021	0.2	0.2	0.3	5	None	Soil runoff
Zinc (ppm)	2021	0.117	0.051	0.117	5	None	Runoff/leaching from natural deposits; industrial wastes

**Table 6 – Detection of Unregulated Contaminants**

Chemical or Constituent (and reporting units)	Sample Date	Level Detected			MCL	PHG (MCLG)	Typical Source of Contaminant
		Average	Min	Max			
Bromide (ppm)	2021	0.4			None	None	NA
Potassium (ppm)	2021	3.2			None	None	NA

### **Additional General Information on Drinking Water**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

**Lead-Specific Language:** If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. County Service Area No 11 is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at <http://www.epa.gov/lead>.

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2023. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and *E. coli* bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

### **Summary Information for Operating Under a Variance or Exemption**

CSA 11 did not operate under a variance or exemption in 2023.

## **Attachment N - System Location Maps**



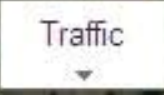
Camp Glenwood  
Wastewater Plant  
- La Honda

CSA 7 Water Plant  
- La Honda

500 ft  
200 m



Map



Traffic

Pescadero State Beach

Mt Hope Cemetery

Pescadero

Harley Farms Goat Dairy

Duarte's Tavern

CSA 11 Water Plant, Pescadero

1000 ft  
200 m

