# COUNTY OF SAN MATEO DEPARTMENT OF PUBLIC WORKS

James C. Porter Director

County Government Center 555 County Center, 5<sup>th</sup> Floor Redwood City, CA 94063 650-363-4100 T 650-361-8220 F www.smcgov.org

August 5, 2015

To: Interested Water and Wastewater System Operators

Dear Sir/Madam:

Re: Request For Proposals for the Operation and Maintenance of County Maintained Small Water and Wastewater Treatment Systems

You are invited to submit a proposal to provide operation and maintenance services of the small water and wastewater treatment systems for the County of San Mateo Department of Public Works (County).

The proposals from all firms will be reviewed by our staff for completeness based on the requirements outlined in the Request for Proposals attached hereto. Based on the review, multiple firms may be invited to participate in an oral interview process. The County may select the best-qualified contractor(s) based on the written proposals alone without further interview.

Should you decide to respond, please submit three (3) copies of your proposal by 5:00 p.m., September 3, 2015, to:

# JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS COUNTY OF SAN MATEO 555 COUNTY CENTER, 5<sup>TH</sup> FLOOR REDWOOD CITY, CA 94063-1665

### ATTENTION: MARK CHOW, PRINCIPAL CIVIL ENGINEER

Firms responding to this Request for Proposals will be notified of receipt of their materials, and of a prospective date when the review is to be complete. The County reserves the right to reject any firms without any explanations.

Questions regarding this Request for Proposals should be directed to Edelzar Garcia or Mark Chow at (650) 363-4100 or through e-mail to any of the following addresses:

egarcia@smcgov.org mchow@smcgov.org

Very truly yours,

James C. Porter Director of Public Works

JCP:AMS:mc

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Attachment: Request for Proposals





## County of San Mateo

## Department of Public Works

## REQUEST FOR PROPOSALS

for

The Operation and Maintenance of County Maintained Small Water and Wastewater Treatment Systems

Issued August 5, 2015

**Deadline for Proposals** 

September 3, 2015 at 5:00 PM

### PROPOSALS WILL NOT BE ACCEPTED AFTER THIS DATE AND TIME

James C. Porter, Director Department of Public Works 555 County Center, 5<sup>th</sup> Floor Redwood City, California 94063-1665

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### 1. <u>Introduction</u>

The County of San Mateo Department of Public Works (Department) is seeking sealed proposals from fully licensed and insured Water and Wastewater Treatment Service Providers (Contractor) for operation and maintenance services for the County Service Area No. 7 (CSA-7), County Service Area No. 11 (CSA-11) and Memorial Park drinking water systems, the Memorial Park wastewater treatment and collection system, and other County owned systems that may require similar services in the future. The County is also considering re-establishing operation of the closed Honor Camp minimum security correctional facility in La Honda, which requires a new drinking water facility and a new wastewater treatment plant that would potentially be operated by the firm(s) selected through this Request for Proposals (RFP) process.

The CSA-7 water system is located in the La Honda area of San Mateo County and is comprised of an intake and pump system in Alpine Creek, a water treatment plant, a 500,000 gallon storage tank and a distribution system. The treatment plant was constructed in the early 1990's. Portions of the distribution system date back to the 1920's, when the area was primarily a place for summer homes for affluent San Franciscans. CSA-7 provides potable water to approximately 70 customers in the La Honda community, as well as the Camp Glenwood Boys Ranch and Sam McDonald Park.

The CSA-11 water system is located in the Pescadero area of San Mateo County and consists of two wells, one 135,000 gallon distribution tank and a distribution system that was built in 1992. The water from the production well (Well #1) currently does not require treatment. Water flows from the distribution tank through the distribution system mains by gravity. No distribution pumps are required. CSA-11 has approximately 91 residential and 9 commercial/institutional customers in the community of Pescadero. CSA-11 has received State Proposition 84 grant to construct a new 140,000 gallon storage tank and drill a deeper well. This project is currently in the final design phase and it is anticipated to be completed by 2017.

The Memorial Park water system is located in the La Honda area of San Mateo County and consists of a water supply and treatment system that drafts out of Pescadero Creek and a well. A project currently in construction with the following improvements is anticipated to be completed by December 2015:

- 1. Upgrading the existing raw water pumps;
- 2. Installing a new 5,000 gallon raw water tank;
- 3. Installing a BWS packaged multi-barrier filtration system with coagulation;
- 4. Installing a new liquid feed chlorination system;
- 5. Installing two 5,000 gallon chlorine contact tanks;
- 6. Installing remote telemetry units for the pump house; the B1 showers and the treated water storage tanks; and
- 7. Replacing a section of distribution main between the water treatment plant and the treated water storage tanks.

The Memorial Park water system provides treated water to park facilities and camp sites and the Redwood Glen Baptist Camp.

The Memorial Park wastewater treatment and collection system are located in the La Honda area and consist of a sewage treatment plant, pumping stations for a spray field, a spray field, lift pumps, 2.26 miles of 4" and 6" sewer pipes, lateral connections throughout the park, and numerous leach fields in youth camp areas, horse camp, and Sam McDonald Park. The treatment plant has a design capacity of 15,000 gallons per day with flow equalization and 30,000 gallons per day without flow equalization.

The Department issues this request for proposals from qualified firms to provide operation and maintenance services for the above facilities. Maps showing the locations of the above facilities are included in Attachment F.

The Department's Utilities-Flood Control-Watershed Protection Section (Utilities) is responsible for managing 10 sewer districts, 11 street lighting districts, 3 county service areas (2 for the delivery of drinking water & 1 for street lighting), 3 flood control zones, 8 drainage maintenance districts, cable television, and watershed protection activities.

The Parks Department (Parks) operates 17 separate parks, three regional trails and numerous other county and local trails encompassing 15,680 acres. They are located throughout the County and represent a wide variety of natural settings including a coastside marine reserve, a bayside recreational area, coastal mountain woodland areas, and urban sites.

More information regarding the services provided by the Utilities Section can be obtained by visiting the Department's web site at <a href="http://publicworks.smcgov.org/utilities">http://publicworks.smcgov.org/utilities</a>.

A pre-proposal meeting has been scheduled for Wednesday, August 19, 2015, for interested Contractors to visit all County water and wastewater systems currently in operation. The specific meeting time and place will be determined and posted to the Department's website by 5:00 PM on Friday, August 14, 2015. The estimated duration of the meeting is approximately 4 to 6 hours.

The Contractor shall assure the County that it will comply with the requirements of the County's Equal Benefits Compliance Ordinance No. 04026 – Chapter 2.93 and Contractor Employee Jury Service Ordinance No. 04269 – Chapter 2.94 (Attachments B and C, respectively).

### 2. Background

The County is seeking certified personnel for operating and maintaining its small community water and wastewater treatment systems. For years, the County has relied on its own limited numbers of certified operators to maintain the systems described in Section 1 above. These operators have either left County employment or planned to retire in the near future and the County cannot provide adequate staffing with redundancy. In 2012 ,the County entered into a three-year services contract for the operation and maintenance of the above mentioned systems. The contract is set to expire, and the County is once again interested in soliciting for proposals

for a new services contract. The State Water Resources Control Board Division of Drinking Water is the primary agency overseeing the systems. The County may use the selected Contractor(s) for a period of up to three (3) years.

The Contractor(s) selected to provide services shall use the County of San Mateo's Agreement. A copy of this agreement is attached as Attachment E. By submitting a proposal for the work, the Contractor agrees to utilize the County standard agreement form for the contract. Modifications may not be made except when provision(s) is or are determined by County Counsel to be in violation or inconsistent with State Public Contract Code or County policies. Section 9 of the agreement indicates the insurance requirements that the Contractor must meet and the documentation necessary to support the requirements.

### 3. <u>Scope of Services</u>

### 3.1 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.

### 3.2 Specifications

Operation and maintenance of domestic water treatment plants, storage tanks and distribution systems at CSA-7 and Memorial Park, domestic wells, supply lines, storage tanks, pump house, and distribution system at CSA-11, and the wastewater treatment plant and related facilities of Memorial Park, and other County owned systems.

Operation and maintenance of these facilities will include all necessary materials, chemicals, supplies, licensed/certified personnel, emergency response to protect public health, sampling, testing and the generation and submission of all reports required for the operation and maintenance of domestic water and wastewater 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 Memorial Park wastewater and potable water systems are being operated by Parks staff. Services being requested for this period would be on an on-call time and materials basis.

### 3.3. Standards

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

This contract provides operations to enhance and support those already in place by the County of San Mateo at each of the locations. Contractor shall guarantee and provide the required certified operators necessary in performing the regulated operations within each facility in accordance with special operations permits (see permits in Attachments G & H).

Contractor shall ensure the water and wastewater services fulfill the following duties in the operation of the systems. Contractor's representatives shall interact with the County Parks Managers, or designees, to receive additional guidance or coordination necessary to ensure these tasks are performed in a manner consistent with County needs.

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

- 1. Prepare, review and update Operations & Maintenance (O&M) Plans.
- 2. Perform all standard and emergency laboratory tests in accordance with schedules and requirements of current permits, analyze results, take or recommend necessary action. Maintain laboratory records, equipment and order supplies as required.
- 3. Inspect and maintain outlying pumps at creek diversion points and well heads to ensure standards of operation. Recommend to Utilities and Parks Managers any necessary pump repairs, including electrical systems, not outlined within contract.
- 4. Perform preventative maintenance on machinery and recommend to Utilities and Parks Managers any necessary plant repairs, including electrical systems, not outlined within contract and all facility related maintenance.
- 5. Perform plant building and storage tank inspection and cleaning activities.
- 6. Develop and implement distribution system mainline flushing programs.
- 7. Perform routine exercising and testing of valves and devices.
- 8. Monitor all plant and storage tank alarms.
- 9. 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)
- 10. Add necessary chemicals to maintain acceptable quality levels necessary for operation of water treatment plants.
- 11. Review laboratory test results and other data to determine if changes are needed for appropriate treatment plant operations.
- 12. Perform maintenance, calibration and operation of equipment.
- 13. Investigate and locate distribution system breaks.
- 14. Interpret data under unique circumstances or reconcile conflicting data from laboratory tests and other sources of information.
- 15. 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.

- 16. Responsible for permit renewals, non-compliance notifications, O&M manual updates, and Quality Assurance manual updates.
- 17. Coordinate and communicate with DDW on issuance of any emergency water quality notifications and cancellations.
- 18. Preparation and distribution of any emergency water quality notifications and cancellations to customers.
- 19. Respond to customer questions and complaints.
- 20. Locate and mark facilities in response to Underground Service Alert (USA) requests
- 21. Attend all audits and inspections as requested by the DDW
- 22. Document each shift by completing necessary paperwork.
- 23. Submit within six months from the date of the Notice to Proceed, a comprehensive assessment of plant equipment condition, projected life expectancy, and estimated replacement cost of key equipment and components for each system. Subsequent comprehensive assessments will be required on an annual basis due at the end of the calendar year.
- 24. Prepare Sanitary Sewer Management Plan if required.
- 25. Notify County Utilities and Parks Managers, or their designees, of noticeable facility repairs or needs. However, building and facility maintenance beyond water and wastewater operations is the County's responsibility.
- 26. Provide the County, at a minimum, the following written reports for each of the systems. Reports shall be submitted through electronic submission to the County:

#### CSA-7

- ➤ Coliform Reporting Form Monthly
- ➤ Summary of Distribution System Coliform monitoring Monthly
- ➤ Monitoring for Surface Water Treatment Regulations Monthly Summary
- ➤ Water System Monitoring Report Monthly
- Disinfectant Residuals Compliance Report for Systems using Chlorine Quarterly
- > Storage Tank Inspection Annually
- ➤ Consumer Confidence Report (CCR) Annually
- ➤ Hazardous Material Report Annually
- ➤ Small Water System Annual Report to the Drinking Water Program Annually
- ➤ Water Quality Emergency Notification Plan Annually

### CSA-11

- ➤ Coliform Reporting Form Monthly
- ➤ Summary of Distribution System Coliform monitoring Monthly
- ➤ Water System Monitoring Report Monthly
- Water Surface Elevation Monitoring (static and dynamic sounding of all wells) Monthly
- > Storage Tank Inspection Annually
- ➤ Consumer Confidence Report (CCR) Annually
- ➤ Hazardous Material Report Annually
- > Small Water System Annual Report to the Drinking Water Program Annually
- ➤ Water Quality Emergency Notification Plan Annually
- ➤ Storage Tank Level Monitoring Report Weekly

➤ Alarm System Testing Report – Quarterly

### Memorial Park Water System

- ➤ Coliform Reporting Form Monthly
- ➤ Summary of Distribution System Coliform monitoring Monthly
- ➤ Monitoring for Surface Water Treatment Regulations Monthly Summary
- ➤ Water System Monitoring Report Monthly
- Disinfectant Residuals Compliance Report for Systems using Chlorine Quarterly
- ➤ Storage Tank Inspection Annually
- ➤ Consumer Confidence Report (CCR) Annually
- ➤ Hazardous Material Report Annually
- > Small Water System Annual Report to the Drinking Water Program Annually
- ➤ Water Quality Emergency Notification Plan Annually

### Memorial Park Wastewater Treatment and Collection System

- ➤ Sewage Treatment Plan Report Monthly
- ➤ BOD, Dissolved Oxygen, Dissolved Sulfides, Oil/Grease, Coliform Bacteria, Settleable Solids, and Residual Chlorine Monitoring Monthly
- Flow Log Daily
- 27. Track and document separately expenses for each system.
- 28. 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
- 29. The Contractor must provide an operator on-site at Memorial Park for each day, including weekends and holidays, that the water and wastewater treatment plants are operational, as required by the various permits and State regulations.

All services shall be performed in accordance with State, Federal, and Local regulations and in accordance with site permits.

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 in Section H - Fees.

### 3.4 <u>Labor, Materials and Supplies</u>

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.

### 4. Proposal Submittals

Proposals submitted for consideration shall not exceed twenty-five (25) pages for all material (including a cover letter, personnel resumes, illustrations, etc.). Proposals should be limited to specific discussion of the elements outlined in this RFP. The intent of this RFP is to encourage responses, which allow the County to understand your firm's experience and qualifications. Contractor submittals shall be brief and concise, containing no more than the number of pages of material specified below. Submittals in excess of the specified number of pages may be considered to be non-responsive.

### Mandatory Submittal Layout

The organization of the proposal shall follow the general outline below:

### Section A – Transmittal Letter

The transmittal letter should include the name, title, address, phone number, and original signature of an individual with authority to negotiate on behalf of and to contractually bind the firm, and who may be contacted during the period of proposal evaluation.

### Section B – Introduction

The proposer should demonstrate an overview of their firm's experience with the tasks that may be performed and an understanding of the role and relationships of firm's staff in relations to the services being requested.

### Section C – Understanding of Services

This section should include a brief statement to show your firm's experience in the categories described within the Scope of Services, including identifying key issues and experience in dealing with those issues that you feel sets your firm apart.

In this section, the proposer shall describe, for each system (i.e. CSA-7, CSA-11, and Memorial Park) all services to be provided and timelines for meeting specific due dates.

### Section D – Contractor and Subcontractor Staff

This section should describe the qualifications and experience of each staff member who will participate in the operation and maintenance of County systems. An overall project manager must be designated, but the County understands that key staff will vary depending upon the services provided. Separate project managers are acceptable.

Additionally, provide an organizational chart(s) showing the project manager and staff. If separate teams/staff are utilized for the different County systems, please include an organizational chart for each. If a subcontractor will be used, the organizational chart should indicate their role.

In this section, Contractors also may choose to include a list of the names of probable subcontractors they would use. However, the County recognizes that possible changes in circumstances may prevent a Contractor from ultimately using a particular subcontractor or subcontractors indicated on this list. Accordingly, the County will allow substitutions to be made if and when a contractor is engaged for future work.

### Section E – Contractor Qualifications, Relevant Work Experience, and References

This section should describe the nature and outcome of services currently or previously provided by the Contractor related to the work described within the RFP. Descriptions should include client contact names, addresses, phone numbers, descriptions of the type of work performed, approximate dates for which the work was completed, and proposed team members who performed the work.

The Contractor for this work shall have qualifications that, in the County's judgment, establish them to be the best qualified to accomplish the work described herein. The Contractor shall provide the following as part of their proposal.

### a. Elements of Qualifying Experience

i. Work performed within last five (5) years involving operation and maintenance of water and wastewater systems, particularly any work performed for government agencies of similar nature.

### b. Format of the Qualifications Submittal

- i. Submit a list of the qualifying work your firm has performed within the last five (5) years. Include:
  - 1) The names, addresses and telephone numbers of key client personnel that could be contacted.
  - 2) A description of the scope of services, location, and approximate annual operating cost.
  - 3) Names of the principal individuals responsible for the work.
  - 4) Other information that, in your opinion, could be of interest in the County's review.
- ii. Submit a list of names of the firm's present personnel who could be involved with the work along with their education, background, certification and qualifying project experience.
- iii. If your firm requires the services of other subcontractors for some of the qualifying elements, please indicate and ask the subcontractors to submit the same information in support of their qualifying experience for that particular element. Include that information with the proposal.

### <u>Section F – Special Concerns</u>

Discuss any special concerns or issues that you foresee and describe how you propose to address them.

### Section G – Team Resumes

Include a 1-page (maximum) resume for each of the key project team members.

Each proposal should contain the resumes of personnel critical to providing the desired services. Changes in Project Manager and/or subcontractors will be subject to review and approval by County.

### Section H – 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.

Twelve (12) 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 10 Call-Outs occurred during the 1<sup>st</sup> 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 12 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).

An itemized fee schedule for each County system shall be submitted in a sealed envelope with each proposal. The envelope will be opened after the competing firm(s) have been ranked according to the proposal evaluation rating criteria and selection interviews, if needed.

### Submittal

The County reserves the right to eliminate the Memorial Park system from the operation and maintenance contract.

Three (3) copies of the proposal must be submitted. Sealed proposals, with the title of "Water and Wastewater Treatment System Services Proposal" clearly marked on the outside of the envelope, will be received at the office of the Director of Public Works, County of San Mateo Department of Public Works. Address proposals to:

James C. Porter, Director of Public Works County of San Mateo 555 County Center, 5<sup>th</sup> Floor Redwood City, CA 94063-1665

Attention: Mark Chow, Principal Civil Engineer

# Deadline for submitting Proposals is 5:00 p.m. on September 3, 2015. Electronic, faxed or late proposals will not be considered.

The County reserves the right to reject all proposals, to request additional information concerning any statement for purposes of clarification, to accept or negotiate any modification to any statement following the deadline for receipt of all statements, and to waive any irregularities if such would serve the best interest of the County.

All inquiries regarding the Request for Proposals should be directed to America Sanchez or Edelzar Garcia, at 555 County Center, 5<sup>th</sup> Floor, Redwood City, California 94063, or by telephone at (650) 363-4100, or preferably by email at <a href="mailto:acsanchez@smcgov.org">acsanchez@smcgov.org</a> or <a href="mailto:egarcia@smcgov.org">egarcia@smcgov.org</a>.

The County assumes no responsibility for delays caused by delivery service. Postmarking by the due date will not substitute for actual receipt.

All submitted proposals and information included therein or attached thereto shall become public records upon their delivery to the County. California Government Code Sections 6250 *et seq*. (the "California Public Record Act" or the "Act") defines a public record as any writing containing information relating to the conduct of the public business. The Act provides that public records shall be disclosed upon written request and that any citizen has a right to inspect any public record unless the document is exempted from disclosure. The Department, which is part of the County of San Mateo, is subject to the California Public Records Act.

Be advised that any contract that eventually arises from this RFP is a public record in its entirety. Also, all information submitted in response to this RFP is itself a public record without exception. Submission of any materials in response to this RFP constitutes a waiver by the submitting party of any claim that the information is protected from disclosure. By submitting materials, (1) you are consenting to release of such materials by the County if requested under the Public Records Act without further notice to you and (2) you agree to indemnify and hold harmless the County for release of such information.

If the County/Department receives a request for any portion of a document submitted in response to this RFP, the County will not assert any privileges that may exist on behalf of the person or entity submitting the proposal, and the County reserves the right to disclose the requested materials without notice to the party who originally submitted the requested material. To the extent consistent with the Public Records Act and applicable case law interpreting those provisions, the County/Department and/or its officers, agents, and employees retain discretion to release or withhold any information submitted in response to this RFP.

Submission of a proposal constitutes a complete waiver of any claims whatsoever 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 to be inspected.

All costs incurred during proposal preparation or in any way associated with the consultant's preparations, submission, presentation, or oral interview shall be the sole responsibility of the Contractor.

If awarded a contract, the Contractor shall maintain insurance coverage, including errors and omissions and worker's compensation, reflecting the minimum amounts and conditions specified by the County.

Contractors are liable for all errors or omissions contained in their proposals.

### 5. <u>Supplementary Information</u>

Submitted proposals shall be reviewed by County staff to select a list of the contractors that are determined, by the County, to be best qualified to provide these services. Once the list of potential contractors is prepared, the County may interview the prospective contractors before a final decision is made. If an interview is made, a time and location for an interview shall be established. The interview shall be conducted by a panel designated by County staff. The County may select the best qualified contractor based on the written proposal alone without further interview.

Once the form of Agreement has been approved by all parties, it shall be signed by the Contractor and transmitted to the County Board of Supervisors for execution. The Agreement is not valid until executed by the Board of Supervisors.

Available documents (drawings, maps, O&M plans, reports, studies, etc.) related to the County water and wastewater systems have been posted on-line at

http://publicworks.smcgov.org/utilities. If you believe additional information is required in order that the proposal may be completed, contact the County of San Mateo Department of Public Works in order to determine if the information is available.

A copy of the County's Administrative Policy for Selection of Independent Contractors is included herewith as Attachment A.

This notice is being sent to firms that has expressed interest in performing the requested services for the County, has been posted to the Department's website, and is being advertised in a newspaper of major circulation in the area.

The County retains sole discretion to evaluate proposals and may make an award to the Contractor the County deems to have the most responsive proposal. Receipt of proposals in response to its RFP does not obligate the County in any way to engage any Contractor and the County reserves the right to reject any or all proposals, wholly or in part, at any time, without penalty. The County shall retain the right to abandon the proposal process at any time prior to the actual execution of a contract with a Contractor, and the County shall bear no financial or other responsibility in the event of such abandonment. The County reserves the right to negotiate all final terms and conditions of any agreements entered into.

### 6. <u>Tentative Schedule for Proposal Process</u>

<u>Date:</u>	Action:
August 5, 2015	County issues RFP
August 19, 2015	Pre-proposal meeting
September 3, 2015	Deadline for proposal submittal
September 7, 2015	County completes proposal reviews, schedules interviews, if necessary
September 18, 2015	Interviews with top-ranked firm(s)/individual(s), if necessary
September 21, 2015	Notification of selected firm(s)/individual(s), commence agreement negotiations
October 6, 2015	Board of Supervisors approval of agreement
October 16, 2015	Execute Agreement

### 7. <u>Protest Process</u>

If a proposer desires to protest the selection decision, the proposer must submit by facsimile or email a written protest within five (5) business days after the posting of the notice about the decision on the Department's website. The written protest should be submitted to the Director of Public Works as outlined below. Protests received after the deadline will not be accepted. Protests must be in writing, must include the name and address of the Proposer and the Request for Proposals numbers, and must state all the specific ground(s) for the protest. A protest that merely addresses a single aspect of the selected proposal (for example, comparing the cost of the selected proposal in relation to the non-selected proposal) is not sufficient to support a protest. A successful protest will include sufficient evidence and analysis to support a conclusion that the selected proposal, taken as a whole, is an inferior proposal.

The Director of Public Works will respond to a protest within ten (10) business days of receiving it, and the Department may, at its election, set up a meeting with the proposer to discuss the concerns raised by the protest. The decision of the Director of Public Works will be final. The protest letter must be sent by facsimile and email to:

James C. Porter
Director of Public Works
<a href="mailto:jporter@smcgov.org">jporter@smcgov.org</a>
Fax: (650) 361-8220

## ATTACHMENT A

Administrative Memorandum – Selection of Independent Contractors



# ADMINISTRATIVE MEMORANDUM COUNTY OF SAN MATEO

**NUMBER: B-1** 

**SUBJECT: Selection of Independent Contractors** 

RESPONSIBLE DEPARTMENT: Human Resources Department

APPROVED: \_\_\_\_\_\_ DATE: 04/27/2015

John L. Maltbie, County Manager

### **PURPOSE**

This Administrative Memorandum rescinds and replaces Administrative Memorandum B-1 dated September 24, 2012. This revision adds a new <u>Section IV. Waiving a Contract Process for Small Dollar Service Transactions</u>. This new section allows department heads and designees to waive a contract process for some types of small dollar service transactions. There is no change to service provider selection processes even when a contract is waived. This revision also removes references to "long form" and "short form" contract templates as there is now a <u>Single Contract Template</u>, which is used for agreements with independent contractors for any dollar amount.

The purpose of this memo is to establish policies and procedures for the selection of independent contractors to perform services for the County, and for the preparation and processing of agreements for their services. This memo covers the acquisition of services (including services with goods), and does not apply to contracts solely to acquire items, whether by purchase, lease, or lease-purchase, which are covered separately in Chapter 2.84 of the Ordinance Code. For step-by-step instructions for the selection of independent contractors and for the preparation of contracts, see the "County Contract Handbook" on the County's intranet.

Contracts for physicians and Behavioral Health and Recovery Services contracts involving "any qualified provider" are exempt from the RFP process as described in Section IV. Physician contracts also have different insurance requirements.

For additional requirements regarding construction contracts, see Administrative Memorandum B-21, "Selection of Construction Contractors."

# I. GENERAL PROVISIONS FOR ALL CONTRACTS WITH INDEPENDENT CONTRACTORS

- A. <u>Local Preference in the Selection of Independent Contractors</u>: When the combination of price, quality and terms and conditions are substantially equal, the County shall give preference in purchasing to San Mateo County-based goods, services and suppliers.
- B. <u>Solicitation of Independent Contractors</u>: Departments must establish procedures that will ensure their consideration of the broadest possible range of service providers in the independent contractor selection process. Departments should exercise their best efforts to obtain quotes or request proposals from all qualified independent contractors. The selection process should be extensive and encourage the largest number of independent contractors possible to submit proposals. Where possible, specific efforts should be made to solicit proposals from small businesses, women and minority owned businesses.

### C. Term of Contract:

- If the contract is for a specified project, the completion of which determines the end of the work, the contract is a "lump sum contract." The term of the contract and the schedule of payments should be related to the completion of the project. The contract should specify the time within which the independent contractor should finish the project required by the contract.
- 2. If the contract is for work that will continue for a specified period of time, the term of the contract should be the period of time for which the services are needed, but no longer than three years.
- The Contract Compliance Committee must approve all contracts that are longer than three years, whatever the total amount.
- D. <u>Insurance Requirements</u>: All independent contractors must have a minimum of \$1 million general liability insurance, \$1 million auto insurance if travel is part of providing services and statutory limits (including \$1 million in Employer's Liability) for workers' compensation insurance if the provider has two or more employees. In addition, special circumstances may require higher limits. If there is any variance or questions, consult with Risk Management. Independent contractors must provide original Certificates of Insurance evidencing their insurance coverage for the term of the contract. Any waiver or modification of these insurance requirements must be approved by Risk Management. A copy of the insurance certification checklist must be included with all contracts. In most instances, the County must be named as an additional insured on the independent contractor's general liability policy with an endorsement from the insurance carrier.
- E. <u>Equal Benefits Requirements</u> (Ordinance Code Chapter 2.84): All independent contractors entering into an agreement with the County for consulting or other services in excess of \$5,000 must offer equal benefits to their employees (meaning they must not discriminate in the provision of benefits between an employee with a registered domestic partner and an employee with a spouse). If the independent contractor does not provide equal benefits, the contract administrator must submit a waiver request to the Department Head or designee after County Counsel review and prior to the execution of the contract. Waiver or modification of these requirements may be granted by the Department Head or designee for contracts less than \$100,000 and only by the

Board of Supervisors for contracts above \$100,000. Waiver or modification will be granted only when doing so is in the best interest of the County.

- F. <u>Non-Discrimination</u>: All independent contractors entering into an agreement with the County must comply with federal, state and local laws, directives and executive orders regarding non-discrimination for all employees and subcontractors under the agreement. All contracts must include the enforcement of non-discrimination language that is reflected in Board of Supervisors Resolution No. 64225 (the required language is already included in County contract templates). Any modifications or exceptions must be approved by the Department Head or designee after County Counsel review, prior to the execution of the contract, whatever the total amount. Waivers or modifications will be granted by the Department Head or designee only when it is in the best interest of the County.
- G. Jury Service Pay Requirement (Ordinance Code Chapter 2.85): All independent contractors entering into an agreement with the County for consulting or other services in excess of \$100,000 shall have and adhere to a written policy that provides that its fulltime employees shall receive from the contractor, on an annual basis, no fewer than five days of regular pay for actual jury service (actual time served on a trial) in San Mateo County. (If the employee serves four days on a jury, she should be paid for four days; if the employee serves six days, she should be paid for at least five days of jury service.) The policy may provide that employees deposit any fees received for such jury service with the contractor or that the contractor deduct from the employee's regular pay the fees received for jury service. Note: this Ordinance only applies to a contractor with an employee(s) residing in San Mateo County (i.e., a contractor would not need to comply unless one or more of its employees are residents of San Mateo County, and it only need provide jury pay for jury service in San Mateo County). Any request for waiver or modification of these requirements must be reviewed by the Department Head or designee after County Counsel review, and only the Board of Supervisors may waive or alter the jury service pay requirement. (Note that this requirement applies only to contracts valued at \$100,000 or above.)
- H. <u>Contract Administration</u>: The Department Head is ultimately responsible for contract administration and for monitoring contract performance and payment schedule, in order to ensure full compliance with the terms and conditions of the contract.
- I. <u>County as Independent Contractor (Reverse Agreements) (Ordinance Code Section 2.83.150)</u>: When the County receives financial compensation or other consideration from a third party for the County's provision of services, Department Heads or designees are authorized to approve and execute agreements \$100,000 and below. All contracts in which the County receives more than \$100,000 must be approved and executed by the Board of Supervisors.
- J. Overview of Reviewing/Approving Authorities:
  - 1. Board of Supervisors
    - Approves contracts over \$100,000
    - Approves waiver of RFP process

 Approves waiver or modification of equal benefits and/or jury service pay requirements for contracts over \$100,000

### 2. Department Head or Designee

- Approves contracts up to \$100,000
- Approves waivers or modification of non-discrimination requirement regardless of contract amount after County Counsel review
- Approves waiver or modification of equal benefits requirement for contracts up to \$100,000
- Reviews waiver or modification requests regarding equal benefits and/or jury service pay requirements for contracts over \$100,000 prior to submission to Board of Supervisors

### 3. Contract Compliance Committee

- Conducts periodic compliance reviews of all contracts
- Approves contract extensions over three years regardless of contract amount

### 4. Risk Management

Approves waiver or modification of insurance requirements

### 5. Real Property Services

 Reviews contracts involving the acquisition or disposition of real property, a loan or grant of funds controlled by the County for the acquisition, disposition or improvement of real property, use by County staff of real property owned or leased by others, use by others of County-owned real property, or use by others of facilities leased by the County

### 6. Information Services Department

- Reviews contracts that involve information technology related items to ensure compliance with County IT standards
- Reviews contracts affecting phone and data network infrastructure in County owned facilities

### 7. County Counsel

- Reviews contracts up to \$100,000 that are modified from standard templates
- Reviews all contracts above \$100,000
- Reviews all contracts that do not use the County template
- Reviews amendments to contracts that bring the contract amount above \$100,000 or that modify any standard contract template language
- Reviews all RFPs for work anticipated to be above \$500,000, and may review any other RFPs at the department's request

### 8. Public Works

- Reviews contracts involving work on County-owned facilities
- Reviews and administers certain public construction contracts per
- Administrative Memorandum B-21, "Selection of Construction Contractors."

### K. Contract Form:

1. Departments shall use the standard County of San Mateo Single Contract Template for all agreements with independent contractors regardless of dollar amount. The Single Contract Template can be found in the County's on-line "Contract

Handbook." Other agreement templates, maintained by the Health System, are used for physician contracts.

- 2. Exhibits A and B must, at a minimum, include a detailed scope of work and a description of the deliverables, due dates, payment amount, payment rates, payment process and schedule. These items should contain sufficient detail to allow someone not affiliated with the department to understand the full scope of work and financial obligations.
- 3. The contract must contain the (1) payee name, (2) contract term, and (3) payment/contract amount, and (4) agreement number to allow the Controller to validate such information that will subsequently be recorded in the County's accounting system (IFAS).
- L. Amendments: If an existing contract needs to be amended, the requirements of the contracting process described in this memo apply to the amendment. If an amendment raises the contract's total amount above \$100,000, all requirements for contracts above \$100,000 (including jury service pay) must be met. And County Counsel must review and approve all amendments that bring the contract amount above \$100,000, that modify any standard contract template language, or that modify any contract that is not on the County's contract template. County Counsel may but does not need to review an amendment to the County's contract template that only (1) increases an agreement's term (duration) up to three years total, (2) increases the contract's amount up to a total of \$100,000, or (3) modifies Exhibit A without increasing the term beyond three years or the amount above \$100,000.

### II. CONTRACTS \$100,000 and BELOW

A. <u>Selection Process</u>: Departments are not required to complete a formal Request for Proposal (RFP) process to select an independent contractor if the total amount of the contract is \$100,000 or below. Departments must establish internal procedures that are consistent with County policies and ensure that the selection process is fair, that the independent contractor is qualified and that the cost is competitive. The results of another public agency's competitive process may be used. Departments must document how and why each independent contractor was selected on the Recommendation for Execution of an Agreement with Independent Contractor form.

B. Approval Process: Contracts of \$100,000 and below must be approved and signed by the Department Head or designee. Department Heads or designees are responsible for ensuring a selection process has been followed, obtaining Certificates of Insurance or a written waiver of insurance requirements from Risk Management and that services that are more than \$100,000 are not being split into smaller contracts to circumvent the approval requirements. The completed Contractor's Declaration Form must be included. If a waiver or modification of the equal benefits or non-discrimination requirements has been granted by the Department Head or designee, the waiver form must be included. If a department chooses not to use the standard agreement form or changes any language on the form, County Counsel must review and approve the language. Contract documents will be reviewed periodically by the Contract Compliance Committee and the Controller's Office Internal Audit Division to ensure compliance. The jury duty pay requirement does not apply to agreements up to \$100,000.

C. Agreement Numbering, Distribution, and Archiving: Departments are responsible for assigning an agreement number in the format XXXXX-XX-DXXX that begins with the five-digit IFAS organization number of the department, division or budget unit, followed by a two-digit number for the fiscal year in which the agreement begins (using the second portion of the fiscal year, such as "12" for the 2011-12 fiscal year), and the letter "D" followed by a three-digit sequential number beginning with "001" that resets at the start of a new fiscal year. For example, the Sheriff's Office could track agreements at the department level (30000-12-D001) or division level (30100-12-D001, 30500-12-D001). Other examples of contract numbering:

Contract Start Date	Contract End Date	Contract begins in this fiscal year	Contract ends in this fiscal year	Contract Numbering
January 1, 2011	June 30, 2011	FY 2010-11	FY 2010-11	30000-11-D000
March 1, 2011	June 30, 2013	FY 2010-11	FY 2012-13	30000-11-D000
July 1, 2011	June 30, 2012	FY 2011-12	FY 2011-12	30000-12-D000
September 1, 2011	September 1, 2012	FY 2011-12	FY 2012-13	30000-12-D000
June 15, 2012	December 31, 2012	FY 2011-12	FY 2012-13	30000-12-D000
July 1, 2012	March 31, 2013	FY 2012-13	FY 2012-13	30000-13-D000
July 1, 2012	December 31, 2014	FY 2012-13	FY 2014-15	30000-13-D000
	Fiscal Years begin July 1	of each year and end	d June 30 the following ye	ar

When a contract is submitted to the Department Head or designee for approval, contract administrators must include the Recommendation for Execution of an Agreement with Independent Contractor form, copies of Certificates of Insurance with the completed Insurance Certification Checklist, and the Contractor's Declaration Form. If a waiver of the equal benefits or non-discrimination requirements has been granted, the waiver form must be included. Review by the Information Services Department is also required for all information technology related items.

Departments will assign agreement numbers for all contracts under \$100,000 according to the standard naming convention. Once an agreement is executed, the Department will file the original contract in a central location and forward copies (via scanned PDF) to the Controller's Office at <a href="mailto:pocontracts@smcgov.org">pocontracts@smcgov.org</a>. It is the responsibility of the department to provide the independent contractor with a copy of the fully executed agreement. A signed W-9 form must be provided to the Controller's Office for all new independent contractors.

### III. CONTRACTS \$100,001 and ABOVE

Contracts of \$100,001 and above must be approved and signed by the Board of Supervisors.

A. <u>Selection Process (Requests For Proposals)</u>: Departments must conduct a formal RFP process to select any independent contractor when the contract amount is expected to exceed \$100,000. The RFP is a solicitation for proposals from potential

independent contractors. The results of another public agency's competitive process may be used.

The primary purpose of using an RFP is to ensure that that the County receives the best value in obtaining services. The determination of "best value" is not based solely on the lowest price or the highest quality. It involves a subjective weighing of efficiency, quality, and economy, and a recommendation as to how the services might best be provided. The RFP is not a bid, in which the contract is awarded to the lowest bidder and the bid dictates the terms of the contract. Rather, it is a mechanism for exploring the expense and potential methodologies that could be used for dealing with the project for which the proposal is solicited. The outcome of the evaluation of proposals should be regarded as the recommendation of the independent contractor with whom negotiations will be initiated regarding the work and the terms of the contract.

Another purpose of an RFP is to encourage competition for public contracts and to ensure that all qualified independent contractors are given an opportunity to be considered for providing services to the County. Each RFP should be publicly advertised and distributed to the qualified firms and/or individuals identified by the department.

To ensure that the proposals are responsive to the County's needs, the RFP should describe the known requirements for the work. The RFP should include all information necessary to enable a potential independent contractor to describe how the independent contractor would perform the job and propose a price. The RFP should explain how to prepare and submit a proposal.

The RFP should include at a minimum the following:

- Complete description of the scope of the work, including the department's objectives
- Methodology to be used to accomplish the scope of work or an inquiry as to what methodology the submitting independent contractor would use
- Process to be used in reviewing the proposals, identification of selection criteria and time frames
- Any relevant information known to the department that would affect the performance or cost of the work
- Required contract terms
- A statement regarding the County's right to reject all proposals, and not to enter into any contract for the services described in the RFP
- A statement that the submitted proposals are public records, and a description of the process that will be followed in the event of a request for copies of the proposals
- A statement of the process and authority for approval of the contract
- The method, if any, by which potential independent contractors may protest the recommendation of the RFP review committee

The criteria for choosing the independent contractor should include whatever particular criteria are important and appropriate to the project, as well as the following:

• Experience of firm and specific staff assigned to complete the work, including description of experience with similar projects

- References from similar projects
- Independent contractor's proposed methodology, work plan and time line to complete the scope of work
- Proposed cost to complete the work

Departments must complete the RFP Matrix form describing the selection process used and include this form in the Board packet.

The RFP process for contracts above \$100,000 may be waived only by the Board of Supervisors by resolution when it is determined to be in the best interest of the County. If an RFP waiver is requested, the resolution authorizing execution of the contract should also include a waiver of the RFP process. The reasons why the waiver is in the best interest of the County should be stated in one of the "Whereas Clauses" of the resolution, and the actual approval of the waiver of the RFP process should be stated in the "Now Therefore It Is Hereby Determined And Ordered" section of the resolution. Situations in which an RFP may be waived include, but are not limited to, emergency situations or those in which an independent contractor is the "sole source" of a particular service.

Contracts for physicians and Behavioral Health and Recovery Services contracts with "any qualified provider" are exempt from the RFP process. Services included in the "any qualified provider" category include:

- Long-term locked facilities without specialized treatment programs;
- Individual private psychiatrists, psychologists, therapists and group practices;
- Psychiatric inpatient hospital services;
- Housing services and related supports;
- Services required for specific clients placed in out-of-county facilities by other agencies;
- School-linked services in which mental health services are a component of services in a school placement made by the school district and parents through the Individualized Education Program process.

RFPs for contracts that are expected to exceed \$500,000 must be reviewed by County Counsel prior to distribution, and RFPs for contracts below that amount may be sent for County Counsel review at the department's discretion.

B. <u>Approval Process</u>: All contracts above \$100,000 should be prepared using the standard County of San Mateo Single Contract Template with Independent Contractor and must be reviewed and approved by the County Counsel's Office prior to submission to the Clerk of the Board for Board of Supervisors approval. Review by the Information Services Department is also required for all information technology related items to ensure compliance with County IT standards prior to distribution. The Clerk of the Board will assign a resolution number to contracts above \$100,000.

Contracts at this amount must include one or two quality or outcome performance measures in the cover memorandum submitted to the Board of Supervisors. If the independent contractor does not comply with the County's non-discrimination requirement, the Department Head or designee may approve a waiver. The contract

administrator must submit a request waiving the language to the Department Head or designee prior to the execution of the contract. The department must include mention of the waiver in the Board memo.

If the independent contractor does not comply with or requests modification to the County's equal benefits and jury service pay requirements, the contract administrator must submit a request waiving or modifying the language to the Department Head or designee for review, the Board memo must mention the request for waiver or modification, the reasons why the waiver or modification is in the best interest of the County should be stated in one of the "Whereas Clauses" of the resolution, and the actual approval of the waiver or modification of the requirement should be stated in the "Now Therefore It Is Hereby Determined And Ordered" section of the resolution. Situations in which these requirements may be waived or modified include, but are not limited to, emergency situations, those in which an independent contractor is the "sole source" of a particular service, or those in which no compliant contractors are capable of providing services that respond to the County's requirements.

Departments may request from the Board authorization for the Department Head or designee to execute contract amendments that modify the County's maximum fiscal obligation by no more than \$25,000 (in aggregate), and to modify the contract term and/or services so long as the modified term or services is/are within the current or revised fiscal provisions. A copy of the amendment (using the "Contract Amendment Above \$100,001 Template" in the Contract Handbook) must be completed and filed in the department in a central location when the department makes any change to the contract. Additional information for preparing contracts requiring Board approval can be found in Administrative Memorandum B-4: Board Agenda Procedures.

C. Agreement Numbering, Distribution and Archiving: The Clerk of the Board will assign a resolution number to contracts above \$100,000. When recording the agreement number in the County's accounting system (IFAS), refer to Section II-C of this memo for the agreement number format; however, for contracts over \$100,000 the resolution number will be used in the numbering sequence and the letter "R" will precede the resolution number. For example, the contract number in IFAS for a one-year FY 2011-12 Sheriff's Office contract with a Board resolution number of 012345 would be 30000-12-**R**012345.

## IV. WAIVING A CONTRACT PROCESS FOR SMALL DOLLAR SERVICE TRANSACTIONS

Departments must first review the <u>County Contract Handbook</u> to determine if a purchase transaction is a service or a good and if the purchase should be made by contract or by purchase order. This section applies to purchases for service. Departments must follow County policies and procedures for selection processes for small dollar services prior to the purchase of services, including but not limited to obtaining three firm quotes even when following the process outlined in this section. Departments must follow review procedures when the service transaction involves work on County-owned facilities, acquisition, disposition or use of real property, or information technology either with a contract or when a contract is waived.

### Payment of Invoices for Services without Executing an Independent Contract:

If the purchase is for a service, where a contract would normally be required, there are some situations in which the department may pay a service invoice without executing a formal service contract. This includes instances when:

- The cost of a one-time service, within a specific Program ("P" level budget unit), is for less than \$5,000; or
- The cost of multiple instances for a service with the same service provider, within the same fiscal year, and within the same Program level is less than \$5,000.

Note: Departments may track the \$5,000 limit at a higher accounting organization level than the "P" budget unit level but not lower than the "P" budget unit level.

### **AND** at least one of the following is true:

- The service is for an emergency (emergency is defined as a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services);
- The service is urgent, is for the well-being of a child, and is provided within department protocols;
- The service is considered low-risk (an example of a low-risk service would be the repair of a fax machine);
- The service provider is known to the department and/or has previously rendered services to the Program/Department/Agency without problem; and/or
- Services from this vendor could not be anticipated in advance.

All instances where the department wishes to forgo a service agreement for services under \$5,000 must still follow all internal department purchasing protocols, and departments have leeway to add to the conditions listed above.

Departments may **not** waive the contract process when **any** of the following is present:

- There are other County Administrative Memos or policies that supersede Administrative Memo B-1 in this regard, such as Administrative Memo B-21 and San Mateo County Ordinance Code Title 2, Chapter 2.55;
- The service involves children (unless it is urgent for the well-being of a child and is within department protocols);
- The service requires any type of clearance or authorization of the vendor such as fingerprinting or a background check;
- A contract is required by state or federal law;
- A contract is required as a condition of revenue or grant funding; or
- Except for automotive services, the services are professional services provided by anyone who is required to maintain a license by a state licensing agency (such as architectural, accounting, legal, or physician services)

If the above rules permit the service to be provided without a formal service contract, the Contract Administrator must complete an <u>Authorization to Waive a Contract</u> form and submit it to the department Purchasing Agent or designee <u>before</u> the purchase is made. Departments must file all <u>Authorization to Waive a Contract</u> forms electronically in a central location within the department. The Department Head may designate what positions within the department are authorized to sign the form. Designated signers on behalf of the Department Head must first be listed in the <u>Designated Signer</u> form which can be found in the <u>County Contract Handbook</u>.

Departments are responsible for monitoring and controlling payment of service invoices without a contract. The Controller's Office will include review of service invoice payments in its audit procedures. The Contract Compliance Committee will conduct periodic reviews to ensure that contract policy is followed.

## ATTACHMENT B

Equal Benefits Compliance Ordinance No. 04026, Chapter 2.93

### EQUAL BENEFITS COMPLIANCE ORDINANCE NO. 04026 CHAPTER 2.93

ORDINANCE NO 04026
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An Ordinance adding Chapter 2.93 to the San Mateo Ordinance Code to Provide for Non-Discrimination by County Contractors in the Provision of Employee Benefits

WHEREAS, employee benefits routinely comprise a significant proportion of total employee compensation; and

WHEREAS, discrimination in the provision of employee benefits between employees with domestic partners and employees with spouses results in unequal pay for equal work; and

WHEREAS, County of San Mateo law prohibits discrimination based on marital status and/or sexual orientation; and

WHEREAS, it is the County's intent, through the contracting practices outlined herein, to equalize the total compensation between similarly situated employees with spouses and employees with domestic partners;

NOW THEREFORE, BE IT ORDAINED BY THE COUNTY OF SAN MATEO AS FOLLOWS:

Section 1. There is hereby added to the Ordinance Code of the County of San Mateo a new Chapter 2. 93 to read as follows:

### **Chapter 2. 93 County Contracts - Non-Discrimination in Benefits**

### **2.93.010 Definitions.**

For the purposes of this chapter,

- A. "Contract" means a legal agreement between the County and a Contractor for public works, consulting, or other services, or for purchase of supplies, material or equipment for which the consideration is in excess of \$5,000.
- B. "Contractor" means a party who enters into a Contract with the County.
- C. "Contract Awarding Authority" means the Board of Supervisors or the individual authorized by the Board of Supervisors to enter into Contracts on behalf of the County.
- D. "Domestic Partner" means any person who is registered as a domestic partner with the Secretary of State, State of California registry or the registry of the state in which the employee is a resident.

E. "Employee Benefits" means the provision of any benefit other than pension and retirement benefits provided to spouses of employees or provided to an employee on account of the employee's having a spouse, including but not limited to bereavement leave; disability, life, and other types of insurance; family medical leave; health benefits; membership or membership discounts; moving expenses; vacation; travel benefits; and any other benefits given to employees, provided that it does not include benefits to the extent that the application of the requirements of this chapter to such benefits may be preempted by federal or state law.

### 2.93.020 Discrimination in the provision of benefits prohibited.

- (a) No Contractor on a County Contract shall discriminate in the provision of Employee Benefits between an employee with a domestic partner and an employee with a spouse, subject to the following conditions:
  - 1. In the event that the Contractor's actual cost of providing a particular benefit for the domestic partner of an employee exceeds that of providing it for the spouse of an employee, or the Contractor's actual cost of providing a particular benefit to the spouse of an employee exceeds that of providing it for the domestic partner of an employee, the Contractor shall not be deemed to discriminate in the provision of Employee Benefits if the Contractor conditions providing such benefit upon the employee's agreement to pay the excess costs.
  - 2. The Contractor shall not be deemed to discriminate in the provision of Employee Benefits if, despite taking reasonable measures to do so, the Contractor is unable to extend a particular employee benefit to domestic partners, so long as the Contractor provides the employee with a cash payment equal to the Contractor's cost of providing the benefit to an employee's spouse.
- (b) The Board of Supervisors may waive the requirements of this Chapter when it determines that it is in the best interests of the County. The County Manager may waive the requirements of this chapter for Contracts not needing the approval of the Board of Supervisors where waiver would be 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;

- (c) Contractors should submit requests for waivers of the terms of this Chapter to the Contract Awarding Authority for that Contract, or in the case of Contracts approved by the Board, the County Manager.
- (d) The Contract Awarding Authority, or in the case of Contracts approved by the Board, the County Manager, may reject an entity's bid or proposals, or terminate a Contract, if the Contract Awarding Authority determines that the entity was set up, or is being used, for the purpose of evading the intent of this Chapter.
- (e) No Contract Awarding Authority shall execute a Contract with a Contractor unless such Contractor has agreed that the Contractor will not discriminate in the provision of Employee Benefits as provided for in this Chapter.

### 2.93.030 Application of Chapter.

The requirements of this Chapter shall only apply to those portions of a Contractor's operations that occur (i) within the County; (ii) on real property outside of the County if the property is owned by the County or if the County has a right to occupy the property, and if the Contractor's presence at that location is connected to a Contract with the County; and (iii) elsewhere in the United States where work related to a County Contract is being performed. The requirements of this Chapter shall not apply to subcontracts or subcontractors of any contract or Contractor.

### 2.93.040 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.
  - 3. Liquidated damages in the amount of \$2,500.
- (d) Examine Contractors' benefit programs covered by this chapter;
- (e) Impose other appropriate contractual and civil remedies and sanctions for violations of this chapter;
- (f) Allow for remedial action after a finding of non-compliance, as specified by rule;

(g) Perform such other duties as may be required or which are necessary to implement the purposes of this Chapter.

### 2.93.050 Date of Application.

The provisions of this Chapter shall apply to any Contract awarded or amended on or after July 01, 2001, 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.

Section 2. Severability. The provisions of this ordinance are declared to be separate and severable. If a court of competent jurisdiction, all appeals having been exhausted or all appeal periods having run, finds any provision of this ordinance to be invalid or unenforceable as to any person or circumstance, such offending provision shall, if feasible, be deemed to be modified to be within the limits of enforceability or validity. However, if the offending provision cannot be so modified, it shall be null and void with respect to the particular person or circumstance, and all other provisions of this ordinance in all other respects, and the offending provision with respect to all other persons and all other circumstances, shall remain valid and enforceable.

Section 3. This ordinance shall take effect and be in force 30 days after its enactment.

### COUNTY OF SAN MATEO

# **Equal Benefits Compliance Declaration Form** (To Be Submitted with Proposal)

I	Vendor Identification	
	Name of Contractor:	
	Contact Person:	
	Address:	
	Phone Number:	Fax Number:
II	Employees	
	Does the Contractor ha	e any employees? Yes No
	Does the Contractor pr	ride benefits to spouses of employees? Yes No
	*If the answer	one or both of the above is no, please skip to Section IV. *
III	<b>Equal Benefits Comp</b>	ance (Check One)
		plies by offering equal benefits, as defined by Chapter 2.93, to its and its employees with domestic partners.
	Yes, the Contractor co- employees in lieu of ed	plies by offering a cash equivalent payment to eligible al benefits.
	No, the Contractor doe	not comply.
		a collective bargaining agreement which began on or before <b>July</b> (date). (Section 2.93.050)
IV	Declaration	
	1 0 1 0	y under the laws of the State of California that the foregoing is athorized to bind this entity contractually.
Execu	ated this day of	, 20 at, (City) (State)
		(City) (State)
	Signature	Name (Please Print)
	Title	Contractor Tax Identification Number

## ATTACHMENT C

Contractor Employee Jury Service Ordinance No. 04269, Chapter 2.94

### CONTRACTOR EMPLOYEE JURY SERVICE ORDINANCE NO. 04269 CHAPTER 2.94

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## AN ORDINANCE REQUIRING SPECIFIED COUNTY CONTRACTORS TO PROVIDE PAID JURY SERVICE TO FULL-TIME EMPLOYEES

The Board of Supervisors of the County of San Mateo, State of California, **ORDAINS** as follows:

**SECTION 1.** Chapter 2.94 shall be added to the San Mateo County Ordinance Code to read as follows: CONTRACTOR EMPLOYEE JURY SERVICE

### 2.94.010 Definitions

For the purposes of this Chapter,

- (a) "Contract" means a legal agreement between the County and a contractor for public works, consulting, or other services, or for purchase of supplies, material or equipment.
- (b) "Contractor" means a party who enters into a Contract with the County for which the Contractor receives consideration of \$100,000 or more.
- (c) "Contract Authority" means the Board of Supervisors or the head of the department or agency presenting the proposed contract to the Board of Supervisors.
- (d) "Employee" means any California resident who is a full-time employee of a contractor under the laws of California.
- (e) "Full time " means 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.

### 2.94.020 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 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 Board of Supervisors 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.

### 2.94.030 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 non-compliance;
- (f) Perform such other duties as may be required or which are necessary to implement the purposes of this Chapter.

#### 2.93.030 Date of Application

The provisions of this Chapter shall apply to any contract awarded or amended on or after September 01, 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.

**Section 2.** This Ordinance shall be effective thirty (30) days from the passage date thereof.

# COUNTY OF SAN MATEO

# **Employee Jury Service Compliance Declaration Form** (To Be Submitted with Proposal)

I	Vendor Identification	
	Name of Contractor:	
	Contact Person:	
	Address:	
	Phone Number: Fax Number:	
II	Employees	
	Does the Contractor have any employees? Yes No	
	*If the answer to the above is no, please skip to Section IV. *	
III	Contractor Employee Jury Service Compliance (Check One)	
	Yes, the Contractor complies by offering paid employee jury service, as defined by Chapter 2.94, to its employees.	
	The Contractor will have and adhere to, prior to award of the Contract, a policy that complies by offering paid employee jury service, as defined by Chapter 2.94, to its employees.	
	No, the Contractor does not comply.	
	The Contractor is under a collective bargaining agreement which began on or before <b>September 1, 2005</b> and expires on (date). (Section 2.93.050)	
IV	Declaration	
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.		
Execu	ted this, day of, 20 at, (City) (State)	
	(City) (State)	
	Signature Name (Please Print)	
	Title Contractor Tax Identification Number	

# ATTACHMENT D

Contractor Evaluation Rating Criteria

Department of Public Works	
Water and Wastewater Treatment System Services	Contractor Evaluation Rating Form
	RATER INITIALS:
EVALUATION FORM FOR:	DATE:
(Contractor Name)	
INSTRUCTIONS: Provide comments and scores in the spaces provided. Use the	numbers 1-10 to rate the compliance with the criteria.
1-2 = poor or missing information 3-4 = unsatisfactory 5-6 = adequate 7-8 = goo	·

EVALUATION CRITERIA	COMMENTS	POINTS:
Comparable Firm Experience Does the firm have a significant amount of experience in: 1) Completing projects of similar scope and size? 2) Contracting with local government agencies? 3) Working with regulatory agencies?		
Quality of Firm  Does the firm employ creative strategies for meeting clients' goals and objectives?  Does the proposal thoroughly address the requirements stated in the RFP?  Does the proposal include methodologies for completing the tasks listed in the RFP?		
Quality of Experience of Key Staff Do the Key Staff possess qualifications and experience in the areas of:  1) Project management? 2) Operation and maintenance of small drinking water and wastewater treatment facilities? Water treatment plants? Water supply and distribution systems? Wastewater treatment plants? Sanitary sewer collection systems? 3) Regulation compliance? 4) Customer service? 5) Certifications, licenses?		

Department of Public Works	
Water and Wastewater Treatment System Services	Contractor Evaluation Rating Form
	RATER INITIALS:
EVALUATION FORM FOR:	DATE:
(Contractor Name)	
INSTRUCTIONS: Provide comments and scores in the spaces provided. Use	the numbers 1-10 to rate the compliance with the criteria.
1-2 = poor or missing information, 3-4 = unsatisfactory, 5-6 = adequate, 7-8 =	good, 9-10 = exceptional.

EVALUATION CRITERIA	COMMENTS	POINTS:
Quality of Experience of Lead Personnel  Does the Project Manager have a significant amount of experience:  1) Managing projects of similar scope and size?  2) Working with community groups with diverse interests?		
Understanding of Project Requirements Does the proposal reveal that the contractor thoroughly understands and employs: 1) Requirements of regulatory agencies? 2) Cost containment principles? 3) Adherence to project schedules/time lines? 4) Appropriate documentation practices?		
Project Management  Does the contractor demonstrate a well-organized project management and work team with clear descriptions of assignments? (Includes sub-contractors.)		
Budget/Financial Controls  Does the proposal demonstrate consideration of appropriate cost controls?		

County of San Mateo Department of Public Works Water and Wastewater Treatment System Services **Contractor Evaluation Rating Form** RATER INITIALS: \_\_\_\_\_
DATE: \_\_\_\_ EVALUATION FORM FOR: \_\_\_\_\_\_ DATE: (Contractor Name)

INSTRUCTIONS: Provide comments and scores in the spaces provided. Use the numbers 1-10 to rate the compliance with the criteria.

1-2 = poor or missing information, 3-4 = unsatisfactory, 5-6 = adequate, 7-8 = good, 9-10 = exceptional.

EVALUATION CRITERIA	COMMENTS	POINTS:
Schedules/Timing Does the proposal indicate flexibility in meeting client's scheduling needs? Are key staff dedicated to County, or substituted by firm? Will firm location influence schedules?		
Overall Quality of Proposal		
	Total:	
Location of Firm Is the prime contractor located in San Mateo County? Are the subcontractors located in San Mateo County?		

## **CONTRACTOR EVALUATION**

#### **RATING CRITERIA**

- 1. <u>Comparable Firm Experience</u> Firm's experience which is similar or relevant to the requirements of this project.
- 2. **Quality of Firm** Demonstration of firm's capability of providing services required, performing on schedule and in controlling costs.
- 3. **Quality of Experience of Key Staff** Qualifications and previous experience of key staff in the extent applicable to this project.
- 4. **Quality of Experience of Lead Personnel** Qualifications and previous experience of project manager in the extent applicable to this project.
- 5. <u>Understanding of Scope of Services Requirements</u> Demonstration of an understanding of Scope of Services, parameters and applicable guidelines or regulations.
- 6. **Project Management** Demonstration of a well organized project management and work team with clear and concise descriptions of individual work assignments; also includes subcontractors.
- 7. <u>Budget/Financial Controls</u> Firm's experience and methods used for budgeting and financial controls.
- 8. <u>Schedules/Timing</u> Discussion of tasks necessary to complete all phases of work and staff resources allocated to key tasks.

# ATTACHMENT E

Sample Agreement

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

\*\*\*\*\*\*\*REMOVE ALL INSTRUCTIONAL NOTES IN RED BEFORE SENDING CONTRACT TO SERVICE PROVIDER)

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 (Complete HIPAA checklist if unsure about Business Associate or Non Business Associate; delete this if not needed; contact County Counsel with questions)

Attachment I—§ 504 Compliance (Delete this if not needed)

Attachment IP - Intellectual Property (Complete IP Questionnaire if unsure/delete this if not needed)

#### 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.

#### 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. <u>Termination; Availability of Funds</u>

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.

#### 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.** <u>Intellectual Property Indemnification</u> (You may delete entire IP Indemnification section if not relevant – County Counsel review is not required if section is deleted)

Contractor hereby certifies that it owns, controls, or licenses and retains all right, title, and interest in and to any intellectual property it uses in relation to this Agreement, including the design, look, feel, features, source code, content, and 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 noninfringing 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. Payment of Permits/Licenses (If the contractor is not required to obtain a license, permit or approval from any other entity in order to perform the work/services under this agreement then you may delete this section without County Counsel review)

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.

#### 11. 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:

$\boxtimes$	Comprehensive General Liability	\$1,000,000
	(Applies to all agreements)	
	Motor Vehicle Liability Insurance	\$1,000,000
	(To be checked if motor vehicle used in	performing services)

Professional Liability	\$1,000,000
(To be checked if Contractor is a licer	nsed professional)

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.

#### 12. 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, and regulations, 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. 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 or regulation, the requirements of the applicable law or regulation 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 4.106 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. (This paragraph may be deleted without County Counsel Review if not relevant to this agreement)

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

#### 13. 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

With respect to the provision of benefits to its employees, Contractor shall comply with Chapter 2.84 of the County Ordinance Code, which prohibits contractors from discriminating in the provision of employee benefits between an employee with a domestic partner and an employee with a spouse. In order to meet the requirements of Chapter 2.84, Contractor must certify which of the following statements is/are accurate:

Contractor complies with Chapter 2.84 by offering the same benefits to its employees with spouses and its employees with domestic partners.
Contractor complies with Chapter 2.84 by offering, in the case where the same benefits are not offered to its employees with spouses and its employees with domestic partners, a cash payment to an employee with a domestic partner that is equal to Contractor's cost of providing the benefit to an employee with a spouse.
Contractor is exempt from having to comply with Chapter 2.84 because it has no employees or does not provide benefits to employees' spouses.
Contractor does not comply with Chapter 2.84, and a waiver must be sought.

#### e. <u>Discrimination Against Individuals with Disabilities</u>

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 must check one of the two following options, and by executing this Agreement, Contractor certifies that the option selected is accurate:

No finding of discrimination has been issued in the past 365 days against Contractor by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or any other investigative entity.
Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or other investigative entity. If this box is checked, Contractor shall provide County with a written explanation
of the outcome(s) or remedy for the discrimination.

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

Contractor shall report to the County Manager the filing in any court or with any administrative agency of any complaint or allegation of discrimination on any of the bases prohibited by this Section of the Agreement or Section 12, above. Such duty shall include reporting of the filing 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 or adjudication of allegations covered by this subsection within 30 days of such filing, provided that within such 30 days such entity has not notified Contractor that such charges are dismissed or otherwise unfounded. Such notification shall include a general description of the circumstances involved and a general description of the kind of discrimination alleged (for example, gender-, sexual orientation-, religion-, or race-based discrimination).

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 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 Manager.

To effectuate the provisions of this Section, the County Manager 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.

#### 14. 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 if this Agreement's total value listed Section 3, above, is less than one-hundred thousand dollars (\$100,000), but Contractor acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value meets or exceeds that threshold amount.

#### 15. 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.

#### 16. 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.

#### 17. 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.

#### 18. 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]

## 19. <u>Electronic Signature</u>

If 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, both boxes below must be checked. Any party that agrees to allow digital signature of this Agreement may revoke such agreement at any time in relation to all future documents by providing notice pursuant to this Agreement.

For County:  $\Box$  If this box is checked by County, County consents to the use of electronic signatures in relation to this Agreement.

For Contractor: 

If this box is checked by Contractor, Contractor consents to the use of electronic signatures in relation to this Agreement.

\* \* \*

In witness of and in agreement with this Agreement's terms, the parties, by their duly authorized representatives, affix their respective signatures:		
COUNTY OF SAN MATEO		
Ву:		
President, Board of Supervisors, San Mateo County		
Date:		
ATTEST:		
Ву:		
Clerk of Said Board		
[Contractor Name Here]		
Contractor's Signature		

Date:	April 1, 2015 CCC issued contract template version)
(*	aprii 1, 2015 CCC issued contract template version)
Exhibit A	
In consideration of the payments set forth in Exhibit B, Contractor shall	I 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 F

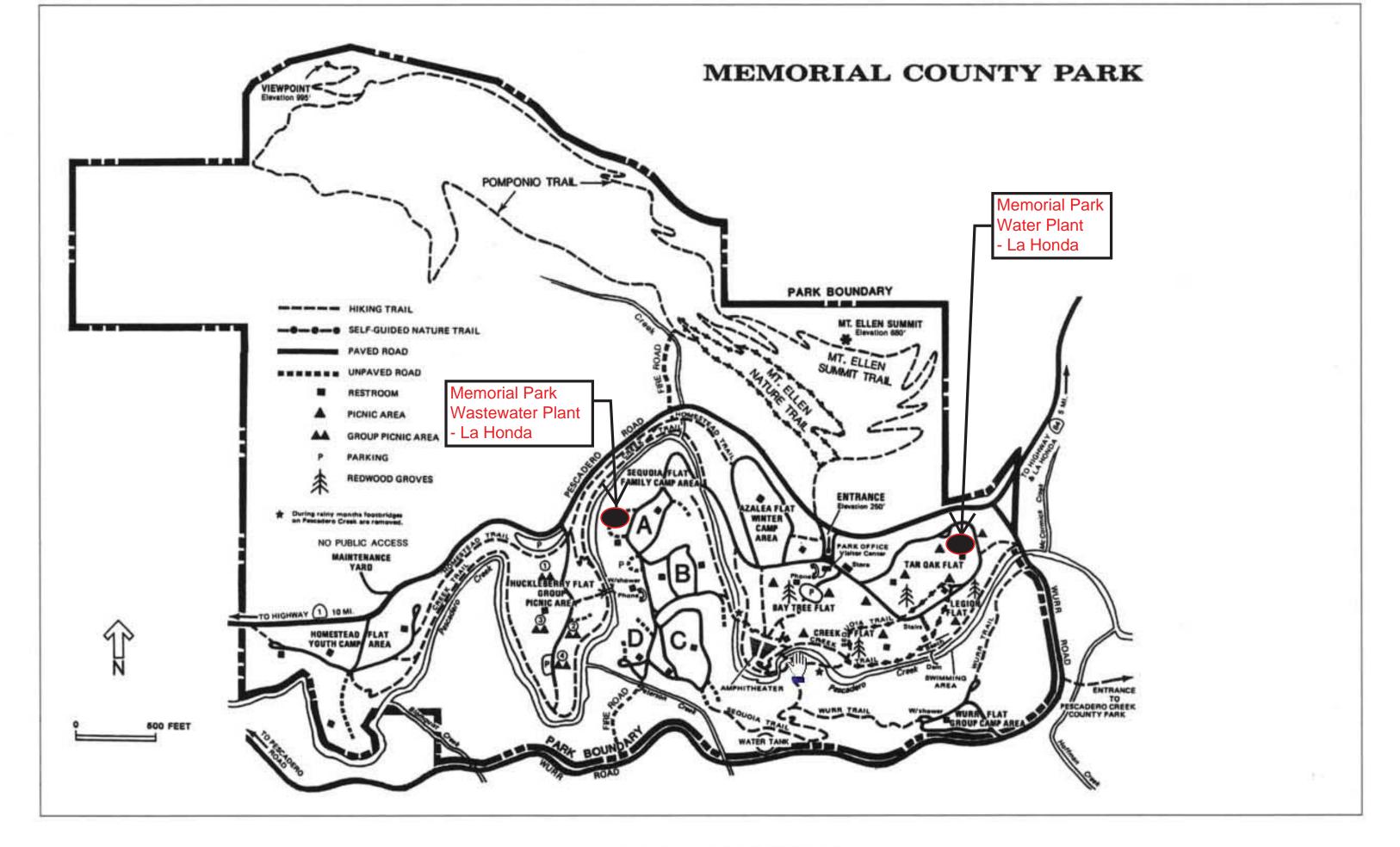
Systems Location Map











# ATTACHMENT G

Water System Permits



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



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

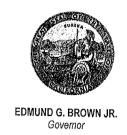
Department of Public Health

Enclosure

cc: San Mateo County Environmental Health Department



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



## **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

Program Internet Address: <a href="http://www.cdph.ca.gov/programs/Pages/DDWEM.aspx">http://www.cdph.ca.gov/programs/Pages/DDWEM.aspx</a>

# 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

DATE: September 20, 2013

## WHEREAS:

PERMIT NUMBER: 02-17-13P-4100509

- 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, Tile 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
  - I. 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

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Eric Lacy, P.E.

District Engineer

Santa Clara District

Drinking Water Field Operations Branch California Department of Public Health

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



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 ½-inch diameter PVC perforated under drain laterals that drain to a 4-inch under drain header. A 2.5 % solution of sodium hyprochlorite (NaOCI) 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 NaOCI 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/ft² 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 1-1/4 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 multifunctional 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 <u>Watershed Sanitary Survey and Drinking Water Source Assessment</u>

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

<sup>\*</sup>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 <u>Cross Connection Control Program</u>

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

# 2.9 <u>Technical, Managerial and Financial Capacity</u>

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 ,	P-1			
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	<b>H</b>			
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	N-
1 <sup>st</sup> Q 2008	3/13/2008	69	p=
2 <sup>nd</sup> Q 2008	6/13/2008	83	, m
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
VD = nondetect	· · · · · · · · · · · · · · · · · · ·		

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 Enginering 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 NaOCI 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/ft² 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, Tile 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
  - i. Procedures used to determine chemical dose rates
  - k. Records
  - I. 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:

Van Tsang, P.E. Associate Sanitary Engineer

Report Reviewed by:

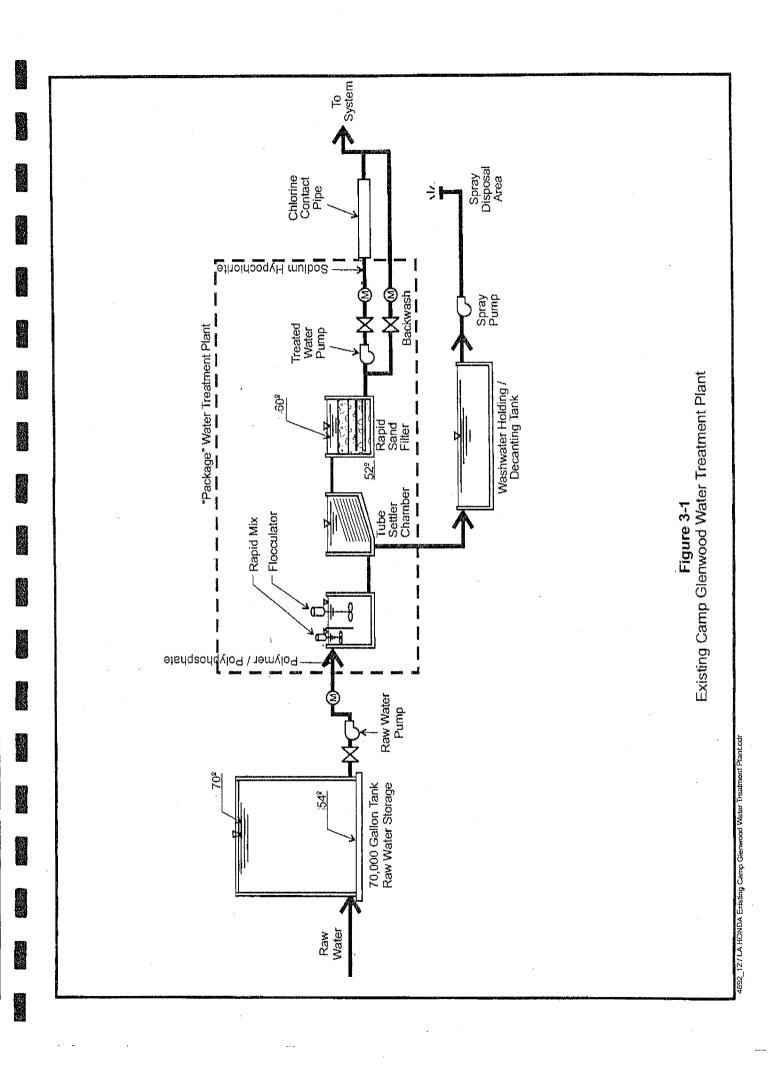
Eric Lacy, P.E.
District Engineer
Santa Clara District

# **APPENDIX**

Appendix A. Camp Glenwood Water Treatment Plant Schematic

Appendix B. Alpine Creek Water Quality Monitoring Schedule

# Camp Glenwood Water Treatment Plant Schematic



# Alpine Creek Water Quality Monitoring Schedule

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DRINKING WATER PROGRAM

LAST SAMPLE DATE AND MONITORING SCHEDULE

SYSTEM NO: 4100509 NAME: COUNTY SERVICE AREA 7 SOURCE NO: 001 NAME: ALPINE CREEK - RAW		COUNTY:		SAN MATEO 4100509-001	CIASS: CSSS	STATUS: AR
GROUP IDENTIFICATION CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE	NEXT SAMPLE DUE	
SECONDARY/GP			 	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
00440 BICARBONATE ALKALINITY	2012/07/11	m	12		2013/07	DUE NOW
00916 CALCIUM	2012/07/11	m	12		2013/07	
00445 CARBONATE ALKALINITY	2012/07/11	m	12		2013/07	
	2012/07/11	М	12		2013/07	
00081 COLOR	2012/07/11	Ŋ	12		2013/07	DUE NOW
01042 COPPER	2012/07/11	m	12		2013/07	
38260 FOAMING AGENTS (MBAS)	2012/07/11	m	12		2013/07	
00900 HARDNESS (TOTAL) AS CACO3	2012/07/11	71	12		2013/07	
71830 HYDROXIDE ALKALINITY	2012/07/11	m	12		2013/07	
01045 IRON	2013/08/14	11	m	*	2013/11	
	2012/07/11	m	12		2013/07	DUE NOW
	2012/07/11	m	12		2013/07	DUE NOW
	2012/07/11	S	12		2013/07	DUE NOW
	2012/07/11	7	12		2013/07	
	2012/07/11	ო	12		2013/07	DUE NOW
	2012/07/11	ю	12		2013/07	DUE NOW
	2013/07/24	9	12		2014/07	
	2012/07/11	m	12		2013/07	DUE NOW
70300 TOTAL DISSOLVED SOLIDS	2012/07/11	9	12		2013/07	
82079 TURBIDITY, LABORATORY	2012/07/11	m	12		2013/07	DUE NOW
01092 ZINC	2012/07/11	m	12		2013/07	
INORGANIC						
01105 ALUMINUM	2013/08/14	11	m		2013/11	
01097 ANTIMONY	2012/07/11	М	12			DUE NOW
01002 ARSENIC	2012/07/11	m	12		2013/07	DUE NOW
81855 ASBESTOS	2012/05/02	Н	108		2021/05	

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.

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DRINKING WATER PROGRAM

LAST SAMPLE DATE AND MONITORING SCHEDULE

SYSTEM NO: 4100509 SOURCE NO: 001	NAME: COUNTY SERVICE AREA 7 NAME: ALPINE CREEK - RAW		COUNTY	COUNTY: SAN MATEO PSCODE: 4100509-001	ATEO 09-001	CLASS: CSSS	STATUS: AR
GROUP IDENTIFICATION  CONSTITUENT II	DENTIFICATION CONSTITUENT IDENTIFICATION	LAST SAMPLE	COUNT	FREQ	MODIFIED SCHEDULE SI	NEXT SAMPLE DUE	
01007 BARIUM		2012/07/11	! ! (1) ! !	12		2013/07	NOW
01012 BERYLLIUM	MU	2012/07/11	ന	17		2013/07	DUE NOW
01027 CADMIUM		2012/07/11	m	77		70/5103	
01034 CHROMIUM (TOTAL)	M (TOTAL)	.2012/07/11	rð	12	, ()	013/07	
01291 CYANIDE		2012/07/26	М	12		013/07	
00951 FLUORID	00951 FLUORIDE (F) (NATURAL-SOURCE)	2012/07/11	m	12		013/07	
71900 MERCURY		2012/07/11	m	. 12	()	70/810	
TEMPLE COLU					ı	10/040	

DUE NOW

2013/07

12 12 12 12 12

9 9 9

 $^{\circ}$ 

2012/07/11 2012/07/11 2013/07/24 2012/07/11 2013/10

e 98

υ 4. ·

2013/07/17

71850 NITRATE (AS NO3) 00620 NITRITE (AS N)

NITRATE/NITRITE

01501 GROSS ALPHA

RADIOLOGICAL

A-031 PERCHLORATE

71900 MERCURY 01067 NICKEL 01147 SELENIUM 01059 THALLIUM 2012/07/11

2012/07/11

2015/07

DUE NOW

2013/07 2013/07 2014/07 2013/07

,	7010/	Ţ		300 St. 2013 ST. 300 S	Z013/03 DUE	2 2013/03 DUE NOW	••	2013/03 DITE	2013/02	ETT. 60/6100	2012/03 DUE	•
108	H		i -	-i i	77	12	12	12	12	1 1	1 5	1
0	1	0	1 0	۷ (	7	CI	2	2	0.	1 0	1 0	1 (
2007/11/15		2012/03/29	20/20/01/02/08	00/00/0100	20/27/02/23	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	00/00/0000
01501 GROSS ALPHA	REGULATED VOC	34030 BENZENE	32102 CARBON TETRACHLORIDE	77093 CIS-1,2-DICHLOROETHYT,ENE	34423 THOTH CHARACTER STATES		34371 ETHYLBENZENE	46491 METHYL-TERT-BUTYL-ETHER (MTBE)	34301 MONOCHLOROBENZENE	77128 STYRENE	34475 TETRACHLOROETHYLENE	34010 TOLITENE

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

REPORT: R0117/1 DATE: 09/18/13

STATE OF CALIFORNIA

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LAST SAMPLE DATE AND MONITORING SCHEDULE

DRINKING WATER PROGRAM

STATUS: AR		DUE NOW			DUE NOW	DUE NOW	DUE NOW	DUE NOW	DUE NOW	DUE NOW	DUE NOW			JE NOW	JE NOW													-
SSSS			Ā	Ā	Ä	ם	Д	ቯ	Д	ŭ	Ħ	ď	DUE	DUE	DOE	DUE	DOE	DOE										
CLASS: CSSS	NEXT SAMPLE DUE	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	2013/03	٠.	2014/12	2014/12	2014/12	2014/12	2014/12	2015/01	2014/12	2014/12	2014/12
SAN MATEO 4100509-001	MODIFIED		•																									
	FREQ	12	12	12	12	12	12	12	12	12	12	. 12	12	12	12	12	12	12		36	36	36	36	36	36	36	36	36
COUNTY:	COUNT	2 7	7	7	7	7	7	7	7	7	7	2	2	∾.	7	7	7	7		Н	⊣	Н	Н	П	Н	r <b>-1</b>	H	Н
	LAST SAMPLE	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29	2012/03/29		2011/12/27	2011/12/27	2011/12/27	2011/12/27	2011/12/27	2012/01/30	2011/12/27	2011/12/27	2011/12/27
SYSTEM NO: 4100509 NAME: COUNTY SERVICE AREA 7 SOURCE NO: 001 NAME: ALPINE CREEK - RAW	GROUP IDENTIFICATION  CONSTITUENT IDENTIFICATION	34546 TRANS-1,2-DICHLOROETHYLENE			39175 VINYL CHLORIDE												34561 1,3-DICHLOROPROPENE (TOTAL)	34571 1,4-DICHIOROBENZENE	REGULATED SOC	77825 ALACHLOR							A-026 DI(2-ETHYLHEXYL)ADIPATE	39100 DI(2-ETHYLHEXYL)PHTHALATE

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.

DATE: 09/18/13 REPORT: R0117/1

# STATE OF CALIFORNIA

# DRINKING WATER PROGRAM

PAGE: 4 TIME: 16:09

LAST SAMPLE DATE AND MONITORING SCHEDULE

STATUS: AR CLASS: CSSS SCHEDULE SAMPLE DUE 2014/12 2014/12 2014/12 2014/12 2014/12 2015/01 2014/12 2015/01 2015/01 2015/01 2015/01 2015/01 2015/01 2014/12 2014/12 2014/12 2014/12 2015/01 2014/12 2014/12 2015/01 3014/12 2014/12 NEXT MODIFIED PSCODE: 4100509-001 COUNTY: SAN MATEO FREO 36 36 36 36 36 36 36 36 36 36 COUNT LAST SAMPLE 2012/01/30 2011/12/27 2012/01/30 2012/01/30 2011/12/27 2011/12/27 2011/12/27 2011/12/27 2011/12/27 2012/01/30 2012/01/30 2012/01/30 2012/01/30 2011/12/27 2011/12/27 2011/12/27 2011/12/27 2012/01/30 2011/12/27 2012/01/30 2011/12/27 2011/12/27 2011/12/27 39516 POLYCHLORINATED BIPHENYLS, TOTAL, AS DC NAME: COUNTY SERVICE AREA 7 NAME: ALPINE CREEK - RAW 38761 DIBROMOCHLOROPROPANE (DBCP) 34386 HEXACHLOROCYCLOPENTADIENE 77651 ETHYLENE DIBROMIDE (EDB) CONSTITUENT IDENTIFICATION 39420 HEPTACHLOR EPOXIDE 39700 HEXACHLOROBENZENE 39032 PENTACHLOROPHENOL 39045 2,4,5-TP (SILVEX) 39480 METHOXYCHLOR A-001 THIOBENCARB 39410 HEPTACHLOR 79743 GLYPHOSATE 38926 ENDOTHALL 39400 TOXAPHENE 82199 MOLINATE 39720 PICLORAM 39055 SIMAZINE 81287 DINOSEB GROUP IDENTIFICATION 39340 LINDANE 78885 DIQUAT 39390 ENDRIN 38865 OXAMYL SYSTEM NO: 4100509 39730 2,4-D SOURCE NO: 001

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

# STATE OF CALIFORNIA

# DOMESTIC WATER SUPPLY PERMIT

### Issued To

San Mateo County – County Service Area #11 Public Water System No. 4100582

By The

County of San Mateo LPA, Division of Environmental Health Services



PERMIT NUMBER 2002-09

DATE: November 20, 2002

# WHEREAS:

- 1. The County Service Area #11 public water system was issued a valid permit in 1992 by the County of San Mateo Environmental Health Services Division to operate a public water system.
- 2. It is the intention of San Mateo County Environmental Health Services to renew any domestic water supply permit that is over ten years old in accordance with California Health and Safety Code, Section 116525.
- 3. This public water system is known as County Service Area #11 whose headquarters is located at 555 County Center, Redwood City, CA 94063.
- 4. The legal owner of County Service Area #11 water system is the County of San Mateo. The County of San Mateo, therefore, is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.
- 5. The public water system for which the permit renewal has been selected is as described briefly below (a more detailed description of the permitted system is described in Section II of the attached Permit Report):

Two vertical drilled water wells, approximately two hundred and fifty (250') feet deep each, are the only source of water supply serving the residents of the town of Pescadero. One of the water wells, the Warheit well, is reserved for emergency/standby use only. Water is pumped from the well(s) to a treatment

building where the raw water is chlorinated (if needed) as it enters a 140,000 gallon steel storage tank. The distribution main is fed by gravity flow.

6. The service area of the County Service Area #11 water system shall be shown on the service area map in Appendix A of the Permit Report.

## **And WHEREAS:**

- The San Mateo County Public Works Department has submitted all of the required information relating to the proposed operation of the County Service Area #11 water system.
- 2. The San Mateo County Environmental Health Services has evaluated all of the information submitted by the San Mateo County Public Works Department and has conducted a physical investigation of the County Service Area #11 water system.
- 3. The San Mateo County Division of Environmental Health Services has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540 and the LPA Delegation Agreement of 1993.

**THEREFORE:** The San Mateo County Environmental Health Services Division has determined the following:

- 1. The County Service Area #11 water system meets the criteria for and is hereby classified as a community water system
- 2. Provided the following conditions are complied with, the County Service Area #11 water system should be capable of providing water to consumers that is wholesome, and potable, in adequate quantity, and in compliance with statutory regulatory drinking water requirements at all times.

THE COUNTY OF SAN MATEO IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT TO OPERATE THE COUNTY SERVICE AREA #11 WATER SYSTEM.

The County Service Area #11 water system shall comply with the following permit conditions:

- 1. The County Service Area #11 water system 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. The only source(s) approved for potable water supply are as follows:

Well 01, PSCode 4100582-001, Active Untreated, Capacity 45 GPM. Well 02 (Warheit) – Standby, PSCode 4100582-002, Standby Untreated, Capacity 150 GPM.

- 3. The approved treatment includes the following processes: Continuous-feed automatic chlorinator device.
- 4. No changes, additions, or modifications shall be made to the source(s) or treatment mentioned in Conditions 2 and 3 unless an amended water permit has first been obtained from Environmental Health or the State Department of Health Services.
- 5. All water supplied by the County Service Area #11 water system shall meet all Maximum Contaminant Levels (MCLs) and Action Levels (Als) established by the State Department of Health Services. If the water does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards.
- 6. All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765, California Code of Regulations. The water system shall be operated by T1 operators or higher and have 24 hour per day supervision by a T1 operator or higher.
- 7. All personnel who operate the distribution system facilities shall be certified in accordance with Title 22, Section 63770 or 63810, California Code of Regulations. The water distribution system shall be operated by D1 operators or higher and have 24 hours per day supervision by a D1 operator or higher
- 8. The County Service Area #11 water system shall comply with Title 17 of the California Code of Regulations (CCR), to prevent the water system and treatment facilities from being contaminated from possible cross-connections. The County Service Area #11 water system shall maintain a program for the protection of the domestic water system against backflow from premises having dual or unsafe water systems in accordance with Title 17. All backflow prevention devices shall be tested annually.
- 9. The County Service Area #11 water system shall submit an acceptable revised bacteriological sampling site plan to Environmental Health by December 30, 2002.

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 San Mateo County Environmental Health Services or the California Department of Health Services. This permit is non-transferable. Should the County Service Area #11 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 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 San Mateo County Environmental Health Services.

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

FOR THE SAN MATEO COUNTY LPA, DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Christopher Day

Registered Environmental Health Specialist

Dated: November 20, 2002

# SANITARY INVESTIGATION REPORT IN THE MATTER OF THE PERMIT RENEWAL FOR THE COUNTY SERVICE AREA #11 WATER SYSTEM LOCATED IN AN UNINCORPORATED PORTION OF SAN MATEO COUNTY KNOWN AS THE TOWN OF PESCADERO, CALIFORNIA

REPORT PREPARED BY CHRISTOPHER DAY, REHS SMALL WATER SYSTEMS PROGRAM

ENVIRONMENTAL HEALTH SERVICES DIVISION NOVEMBER 20, 2002

### I. Introduction

## A. Purpose of Report

The domestic water supply permit issued to the County Service Area #11 public water system was issued in July 1992. This permit is over ten years old. San Mateo County LPA Environmental Health Services is required by Title 22, Section 64254(b) to review and update as necessary all existing water permits at least every ten years. In response to this statutory requirement and in order to ensure that the water served is in compliance with Title 22, Title 17 and the California Health and Safety Code a sanitary investigation of the water system was performed.

The purpose of this report is to document the sanitary investigation of the system and to establish conditions under which a domestic water supply permit shall be issued.

## B. Background

Records indicate that the water system was developed in the late 1980's to serve the residents and businesses of the town of Pescadero. The water system was created in response to elevated nitrate and fecal coliform levels that were documented in the shallow aquifer that served individual residences' domestic water wells.

# C. Brief Description of the System

The water system consists of two vertical drilled water wells sited in a confined aquifer on a hill above the town of Pescadero. One of the water wells is reserved for emergency/standby use only. Water is pumped from the well(s) to a treatment building where chlorine can be injected into the water if needed and then to a 140,000 gallon steel storage tank. Water flows from the storage tank to the distribution system by gravity flow in one (1) pressure zone. Appendix A shows a schematic layout of the water system and a map of the service area.

# II. Investigation and Analysis

# A. Sources of Information

Information was obtained from on-site visual inspection of the water system, interview of the water system manager(s) and operator(s), and the water system files at the Office of Environmental Health.

# B. Area Served - Consumption

There are approximately 85 service connections serving a population of 280. There are 140,000 gallons of water storage capacity. Using the criteria and charts outlined in Section 64564, Title 22 and assuming 85 service connections the water system should require 150 gpm flow and 90,000 gallons storage capacity. Although the water system

appears to have adequate storage capacity, it is not clear that the well(s) provides adequate source capacity. Source capacity limitations may be particularly important during a drought since the water wells are sited in a confined aquifer. The San Mateo County Public Works Department has initiated a hydrological study of the area to determine if the source capacity can be increased.

# C. SOURCES

The only source of water supply is two vertical drilled water wells located on the top of a hill outside of town. The wells are properly constructed each with a fifty (50') foot annular seal and a concrete pad that slopes away from the well head. The wells are further protected by locked concrete and steel enclosures. The nearest septic system appears to be greater than 1000 ft. from the spring. The maximum pumping rate of the active well (Well 01) is 45 GPM. The emergency/standby well (Well 02 – Warheit) has a maximum pumping rate of 150 GPM. The two wells are located one hundred and fifty (150') feet away from each other. The source water assessment for the system indicates that the wells have high physical barrier effectiveness.

## D. TREATMENT

The water system is equipped to provide continuous chlorination of the water supply if this should become necessary. Due to the relatively low mineral levels in the well water no other treatment of the water supply is needed. The chlorination treatment equipment is located in a cinder block shed located near the water storage tank.

# E. STORAGE AND DISTRIBUTION

The system utilizes one primary water storage tank. A one hundred-forty thousand (140,000) gallon steel cylindrical tank is located near the wells and serves as clear well water storage. A three (3") inch pipe carries water from the well(s) to the storage tank. The distribution system is fed by gravity flow. Distribution pipes are located below grade along Pescadero and Stage roads and along North and Goulson streets. There are five dead-end water main lines within the distribution system. Each of the dead-end lines is equipped with a blow-off valve or hydrant to facilitate main line flushing. The mains are constructed of C900 CL 150 – PVC/DIP. The main's joints are constructed of PVC/DI.

# F. MAINTENANCE AND OPERATION

The water system operation is the responsibility of Bob Alaimo of the San Mateo County Department of Public Works. Bob Alaimo holds a valid Water Treatment Operator certificate and a valid interim D1 Distribution System operator certification. The operation of the system has been acceptable.

## G. WATER QUALITY MONITORING

The water system is required to monitor monthly for total coliform bacteria in the distribution system and to monitor at the source annually for nitrate in addition to other

water quality monitoring requirements. Records show that the County Service Area #11 water system has generally kept up with the required monitoring, although monitoring for most of the Title 22 contaminants is due again in 2003. An updated bacteriological site sampling plan is also needed from the water system.

# H. EMERGENCY NOTIFICATION PLAN

A copy of the current emergency notification plan on file is attached in Appendix B.

# III. Appraisal of Sanitary Hazards and Public Health Safeguards

The County of San Mateo owns and operates the water system. The day to day operation of the system is under the direct control of Bob Alaimo. A source water assessment of the water wells was completed by Environmental Health in November 2002.

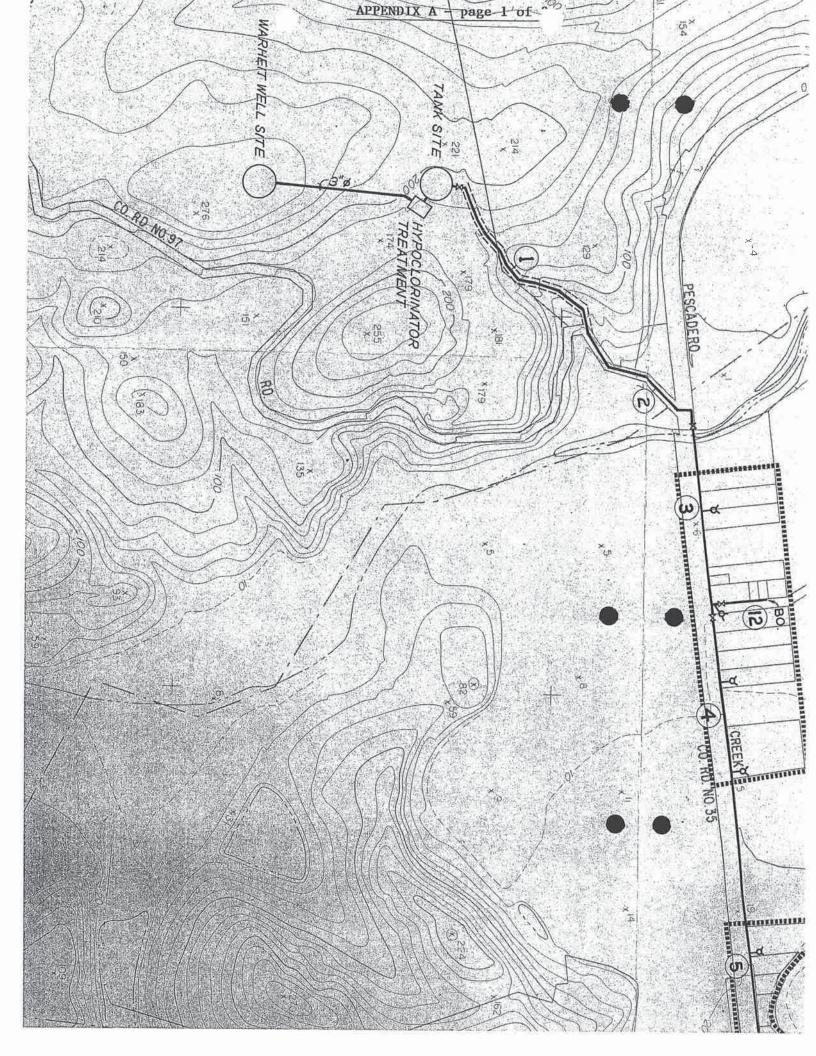
### IV. Conclusions and Recommendations

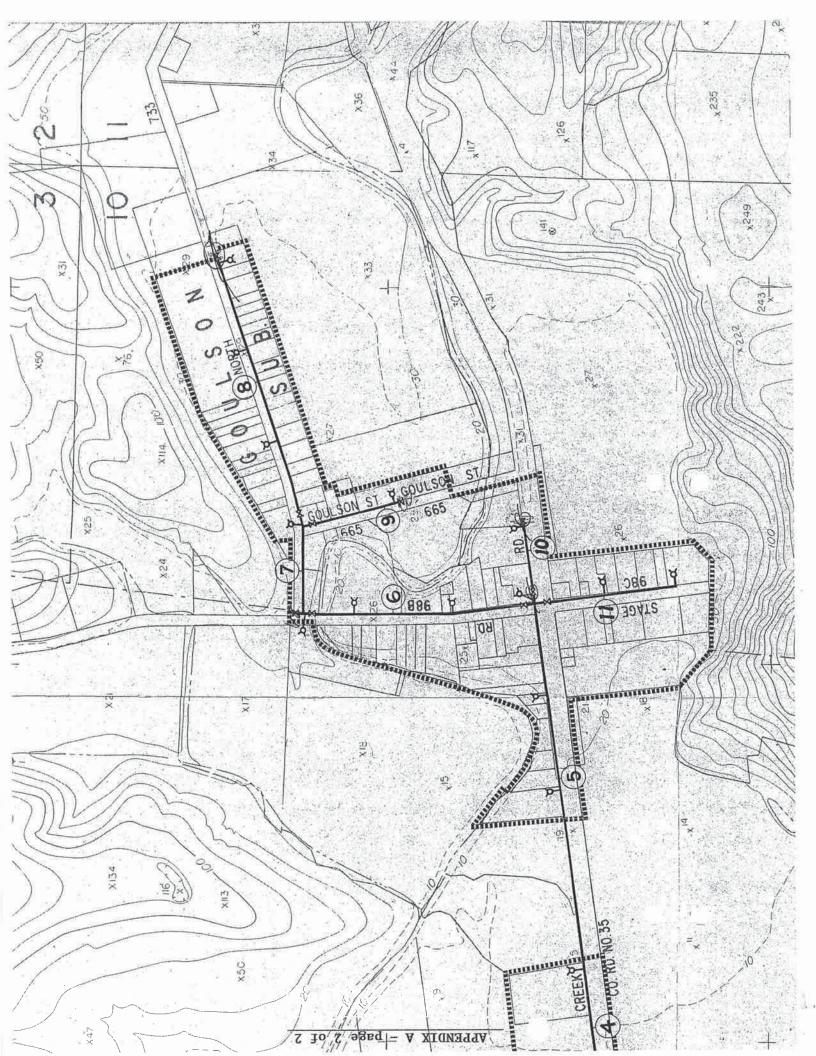
It is the finding of the San Mateo County Environmental Health Services Division, that Sections 116270 through 116750, inclusive, of the California Health and Safety Code can be met by County Service Area #11 water system by compliance with all the above provisions and conditions. The domestic water supply permit is hereby approved and shall not expire on any specific date. An amended permit shall be required at any time significant changes occur to the system. Any upgrade to the system shall be preceded with an amended permit prior to the change.

If you have questions pertaining to the contents of this sanitary investigation, or attached documents, please call me at 650-363-4727.

Signed,

Christopher Day, REHS







WATER QUALITY EMERGENCY NOTIFICATION PLAN

		CER GOALITT LIVER			
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Syst	em Location:				San Mateo
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				<u>Te</u>	<u>lephone</u>
	<u>Name</u>	<u>Title</u>		<u>Day</u>	Evening
1.	NEIL CULLEN	DIRECTOR	D.P.W. (650)	599-1421	(650) 591-9345
2.	BRIAN LEE				
3.	WALT CALLAHAN				( <del>650</del> /510) 471-73
The i	mplementation of the pla				
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	<u>Name</u>	Title	Tues-Fri	Day	Evening Pag
1. (	bris Day Envi	ir. Health Spec.	Non-The	3-4727	650-377-956
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3. <b>S</b>	heriffs Office	24 hr.	6	50-362	5-4000
4.	If the above cannot be re (916) 262-1621.	eached, contact the Of			
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# STATE OF CALIFORNIA

# DOMESTIC WATER SUPPLY PERMIT

### Issued To

Memorial County Park / San Mateo County
Public Water System No. 4100536

By The

County of San Mateo LPA,

Division of Environmental Health Services



PERMIT NUMBER 2003-06

DATE: June 6, 2003

# WHEREAS:

- 1. San Mateo County Memorial Park water system was issued a valid permit in March 1983 by the County of San Mateo Environmental Health Services Division to operate a public water system.
- 2. It is the policy of San Mateo County Environmental Health Services to renew any domestic water supply permit that is over ten years old in accordance with California Health and Safety Code, Section 116525.
- 3. This public water system is known as San Mateo County Memorial Park whose headquarters is located at 9500 Pescadero Creek Road, Loma Mar, CA 94021.
- 4. The legal owner of San Mateo County Memorial Park water system is San Mateo County. San Mateo County, therefore, is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.
- 5. The public water system for which the permit renewal has been selected is as described briefly below (a more detailed description of the permitted system is described in Section II of the attached Permit Report):

An intake of raw water from Pescadero Creek is the only source of water supply serving the visitors and employees of the Memorial County Park outdoor recreational facilities. The water system also sells water to the adjacent Redwood Glen Baptist camp. Water is pumped from the creek to the treatment plant where coagulant is injected before the water enters a rapid mix chamber followed by a slow-mix flocculation chamber. Water then flows through a sedimentation chamber where inclined tube settlers collect the settled material. Water is then pumped through a dual media type sand filter and injected with chlorine before entering a 80 ft. long, 16 inch diameter chlorine contact chamber. An ultraviolet light disinfection system is planned for installation prior to the point of chlorine injection. The treated water is pumped directly into distribution and to a 547,000 gallon concrete and wood water storage tank where chlorine is again injected before water enters three 10,000 gallon fiberglass storage tanks that in turn feed the distribution system by gravity flow.

6. The service area of the San Mateo County Memorial Park water system shall be shown on the service area map in Appendix A of the Permit Report.

## And WHEREAS:

- The County of San Mateo has submitted all of the required information relating to the proposed operation of the San Mateo County Memorial Park water system.
- 2. The San Mateo County Environmental Health Services has evaluated all of the information submitted by the County of San Mateo and has conducted a physical investigation of the San Mateo County Memorial Park water system.
- 3. The San Mateo County Division of Environmental Health Services has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540 and the LPA Delegation Agreement of 1993.

**THEREFORE:** The San Mateo County Environmental Health Services Division has determined the following:

- The San Mateo County Memorial Park water system meets the criteria for and is hereby classified as a transient non-community water system
- Provided the following conditions are complied with, the San Mateo County Memorial Park water system should be capable of providing water to consumers that is wholesome, and potable, in adequate quantity, and in compliance with statutory regulatory drinking water requirements at all times.

THE COUNTY OF SAN MATEO IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT TO OPERATE THE SAN MATEO COUNTY MEMORIAL PARK WATER SYSTEM.

The San Mateo County Memorial Park (hereinafter Memorial County Park) water system shall comply with the following permit conditions:

- 1. The Memorial County Park water system 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. The only source(s) approved for potable water supply are as follows:

  Pescadero Creek, PSCode 4100536-001, Active Raw, Capacity 150 gpm.
- 3. The approved treatment includes the following processes:

pH adjustment soda ash injection (currently out of service).

Continuous automatic coagulant injection.

Rapid mix.

Flocculation.

Sedimentation.

Pressure sand filtration.

Ultraviolet light disinfection (not yet installed)

Continuous automatic chlorination.

- 4. No changes, additions, or modifications shall be made to the source(s) or treatment mentioned in Conditions 2 and 3 unless an amended water permit has first been obtained from Environmental Health or the State Department of Health Services.
- 5. The Memorial County Park water system shall not install the ultraviolet light disinfection system (UV unit) until it has first submitted additional plans as required and obtained final approval for the installation from Environmental Health. The additional plans for the UV unit that are required include a schematic diagram of the proposed equipment and its location, an explanation of reliability features including alarms, a description of unit process monitoring and maintenance procedures, and consideration of the effects of events such as earthquakes, fires and floods.
- 6. All water supplied by the Memorial County Park water system shall meet all Maximum Contaminant Levels (MCLs) and Action Levels (Als) established by the State Department of Health Services. If the water does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards.
- 7. All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765, California Code of Regulations.

  The water system shall be operated by T2 operators or higher and have 24 hour per day supervision by a T2 operator or higher.

- 8. The Memorial County Park water system shall operate the treatment plant to meet the requirements of the Surface Water Treatment Rule (SWTR). The water system utilizes conventional filtration with a credit of 2.5 log removal for Giardia and 2.0 log removal for viruses, provided that operating and performance criteria are met. The disinfection process must therefore provide at least 0.5 log inactivation of Giardia and 2.0 log inactivation of virus, provided that operating and performance criteria are met.
- 9. The Memorial County Park treatment plant shall not be operated above the design capacity of 30 (thirty) gpm during normal operation. There shall be no bypassing of any treatment process at any time. These processes include coagulation, flocculation, sedimentation, rapid sand filtration and disinfection.
- 10. The Memorial County Park water system filtered water shall meet the turbidity level performance standards of 0.5 NTU or less in 95% of the measurements taken each month and shall not exceed 5.0 NTU at any time. The turbidity of the filtered water shall not exceed 1.0 NTU for more than eight consecutive hours while the plant is in operation.
- 11. The Memorial County Park water system shall submit a monthly operation report to Environmental Health by the 10<sup>th</sup> day of the following month. The report shall include the daily turbidity measurements of the raw water and treated water, chlorine residual measurements of the treated water, CT calculations, a log of turbidity calculations, a list of water quality complaints and reports of water-borne illness received from water users. Treatment plant records shall be maintained for at least two (2) years. The Memorial County Park water system shall contact Environmental Health Services by phone concerning any acute violation or occurrence of a hazardous situation.
- 12. The Memorial County Park water system shall comply with Title 17 of the California Code of Regulations (CCR), to prevent the water system and treatment facilities from being contaminated from possible cross-connections. The Memorial County Park water system shall maintain a program for the protection of the domestic water system against backflow from premises and facilities having dual or unsafe water systems in accordance with Title 17. All backflow prevention devices shall be tested annually.
- 13. The Memorial County Park water system shall annually collect a sample from the source water before treatment and have the sample analyzed by an approved laboratory for nitrate. The water system shall triennially (every three years) collect a sample from the source water before treatment and have the sample analyzed by an approved laboratory for nitrite.
- 14. The Memorial County Park water system shall submit an acceptable bacteriological sampling site plan to Environmental Health by July 30, 2003.

- 15. The Memorial County Park water system shall submit an acceptable operations plan that complies with the requirements of Title 22, Section 64661 to Environmental Health Services by July 30, 2004.
- 16. By December 30, 2005, the Memorial County Park water system shall complete a watershed sanitary survey that meets the requirements of Title 22, Section 64665(c) and submit the survey to Environmental Health Services.

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 San Mateo County Environmental Health Services or the California Department of Health Services. This permit is non-transferable. Should the Memorial County Park 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 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 San Mateo County Environmental Health Services.

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

FOR THE SAN MATEO COUNTY LPA, DIVISION	OF
ENVIRONMENTAL HEALTH SERVICES	

Christopher Day

Registered Environmental Health Specialist

Dated:\_\_\_\_ June 6, 2003

# ATTACHMENT H

Wastewater Treatment System Permits

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

TENTATIVE ORDER

UPDATING WASTE DISCHARGE REQUIREMENTS FOR:

SAN MATEO COUNTY DEPARTMENT OF GENERAL SERVICES GLENWOOD BOYS RANCH
LA HONDA, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

- San Mateo County Department of General Services and Glerwood Boys Ranch, hereinafter discharger, submitted a Report of Waste Discharge dated April 15, 1988 for renewal of Waste Discharge Requirements. Additional information was submitted by a letter dated June 16, 1988 at the request of Board staff.
- 2. Currently, approximately 1500 gallons per day (gpd) of sewage from about 15 to 25 staff and 35 to 40 students is being treated by a packaged extended aeration treatment plant which was built in 1961. The treatment plant has a design capacity of 11,000 gpd.
- 3. Treatment consist of comminuter, aeration tank, settling tank, chlorination facilities, effluent storage pond, and spray disposal fields.
- 4. Treated sewage is held in a rectangular storage pond which was installed in 1980. The pond is ten feet deep and has a capacity of about one million gallons. The storage pond is equipped with about eight spray heads. Water is pumped from the center of the pond through the spray heads back into the pond to enhance evaporation. Prior to the onset of rain in the fall, the pond is pumped down to a depth of five feet. Pumping to the sprayfield typically takes place intermittently over a two week period in September of each year. If the winter is exceedingly wet, one additional pumping period may be necessary during a dry period in the wintertime.

The spray field is located at the top of an adjacent hill. It is inaccessable being located in the center of a dense stand of poison cak. The spray disposal fields covers about 60,000 square feet. There are warning signs at the treatment plant, the storage pond, and the spray disposal fields. Attachment 1 shows the location of the spray disposal fields and is a part of this Order.

- 5. A small amount of sludge from the settling tank is placed in a pit near the plant twice a year. No removal has been necessary to date.
- 6. The discharger is within the watershed of Mindego Creek which drains into Alpine Creek and then San Gregorio Creek. The Redwood Terrace Mutual Water Company which serves 28 homes takes drinking water from San Gregorio Creek downstream of the discharger.
- 7. The discharge is presently governed by Order No. 80-31 (Waste Discharge Requirements), which allows spray disposal.

- 8. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Gregorio Creek and contiguous waters.
- 9. The beneficial uses of San Gregorio Creek and contiguous water bodies are:

Water contact and non-contact recreation Wildlife habitat Warm and cold fresh water habitat Fish migration and spawning Preservation of rare and endangered species Agricultural water supply

- 10. This project involves the operation of existing publicly-owned sewage treatment and disposal facilities with negligible or no expansion of use beyond that previously existing and as such is exempt from the provisions of the California Environmenta Quality Act (CEQA) in accordance with Title 14, California Administrative Code, Chapter 3, Section 15301.
- 11. The discharger and interested agencies and persons have been notified of the Board's intent to issue revised requirements for the existing discharge and have been provided with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
- 12. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

#### A. Discharge Prohibitions

- 1. There shall be no bypass or overflow of sewage from the collection, treatment, or disposal system to waters of the State.
- 2. The average dry weather flow shall not exceed 11,000 gpd. Average flow shall be determined over three consecutive dry weather months each year.
- 3. No wastewater effluent shall be applied to the effluent spray disposal area during periods of rainfall, when rainfall is anticipated, or for 48 hours after rainfall.
- 4. The waste shall not be allowed to escape from the effluent disposal area into waters of the State via surface flow, resurfacing after percolation, or airborne spray.
- 5. No wastewater shall be applied to the effluent spray disposal area when soils are saturated to a point where effluent runoff is likely.
- 6. Wastewater ponding which could provide a breeding area for mosquitoes is prohibited.

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

# SELF-MONITORING PROGRAM FOR

San Mateo County Memorial Park
San Mateo County
WDR NO
ORDER NO. 86-46
CONSISTS OF
PART A
AND
PART B

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. 86-46

REVISING WASTE DISCHARGE REQUIREMENTS FOR:

SAN MATEO COUNTY MEMORIAL PARK SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, hereinafter Board, finds that:

- 1. San Mateo County Memorial Park, hereinafter discharger, by application dated May 2, 1985, has applied for renewal of waste discharge requirements.
- 2. The discharger's extended aeration plant has a design flow of 0.03 million gallors per day (mgd) and serves two single-family residences and up to a maximum of 1250 park visitors and campers per day. Average dry weather flow is estimated at 0.024 mgd.

The treatment plant includes a comminutor and two units, each consisting of an aeration chamber and settling basin, which are operational alternately, or in parallel; followed by a chlorinator. The roofed treatment plant is completely fenced and posted with signs. It esthetically blends with, and is obscured by, trees and bushes when viewed from the road.

After disinfection, the treated wastewater is pumped to a "5,000 gallon holding pond and then to a designated hillside area about 1/5 mile from and above Pescadero Road and Pescadero Creek. Effluent is disposed of by spraying on the hillside area. The remote 3000 square feet spray area is relatively inaccessible to the public by reason of its topography and heavy natural growths of dense brush. Neither the pond nor the spray disposal area is fenced but they have some signs posted to warn hikers of the sewage.

3. Loma Mar Mutual Water Company withdraws water from Pescadero Creek about 500 feet downstream of San Mateo County Memorial Park.

- 4. The discharge is presently governed by Waste Discharge Requirements, Resolution No. 67-23, which allow discharge into the pond and spray field.
- 5. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Pescadero Creek and contiguous waters.
- 6. The beneficial uses of Pescadero Creek and contiguous water bodies are:
  - . Water contact and non-contact recreation
  - . Wildlife habitat
  - . Warm fresh water habitat
  - . Fish migration and spawning
  - . Municipal and domestic water supply
  - . Preservation of rare and endangered species
- 7. This Order serves as Waste Discharge Requirements, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
- 8. The discharger and interested agencies and persons have been notified of the Board's intent to issue revised requirements for the existing discharge and have been provide with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
- 9. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act, as amended and regulations and guidelines adopted thereunder, shall comply with the following:

## A. <u>Discharge Prohibitions</u>

1. There shall be no bypass or overflow of sewage from the collection, treatment, or disposal system to waters of the State.

- 2. The average dry weather flow shall not exceed 0.30 mgd. Average shall be determined over three consecutive dry weather months each year.
- No wastewater effluent shall be applied to the effluent 3. spray disposal area during periods of rainfall, when rainfall is anticipated, or for 48 hours after a rainfall.
- 4. The waste shall not be allowed to escape from the discharger's effluent disposal area into waters of the State via surface flow, resurfacing after percolation, or airborne spray.
- No wastewater shall be applied to the effluent spray 5. disposal area when soils are saturated to a point where effluent runoff is likely.
- Wastewater ponding which could provide a breeding area 6. for mosquitos is prohibited.
- 7. The collection, treatment and disposal of wastewater shall not impair ground water quality.

#### B. Specifications

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Waste at any place within one foot of the holding pond surface shall not exceed the following limits:

In any grab sample:

Dissolved Oxygen 2.0 mg/l minimum Dissolved Sulfides

0.1 mg/l maximum

6.0 minimum

9.0 maximum

Waste effluent, as discharged to the effluent spray 2. disposal area, shall meet the following quality limit at all times:

In any grab sample:

45-day BOD
40 mg/l maximum

- 3. A chlorine residual of at least 0.5 mg/l shall be maintained in the effluent throughout a contact period of at least 30 minutes.
- A minimum freeboard of two feet shall be maintained in the holding pond at all times.
- 5. Wastewater disposal shall be limited to the area specified in Finding 2 of this Order unless written authorizaiton is obtained from the Board's Executive Officer for the use of additional area.
- 6. Wastewater effluent shall not be applied to the effluent disposal area whenever Specifications B.1. and/or B.2. are not being met.
- 7. The public shall be effectively excluded from the treatment plant, holding pond, and effluent disposal area. These areas shall be clearly identified with posted notices to the public. The method and form of notification and exclusion shall be subject to the review and approval of the Executive Officer.
- 8. All equipment including pumps, piping, valves, etc. which may at any time contain wastes shall be adequately and clearly identified with warning signs and the discharger shall make all necessary provisions, in addition, to inform the public that the liquid contained therein is wastewater and is unfit for human consumption.
- 9. The treatment plant and holding pond shall be protected from erosion, washout, and flooding from the maximum flood having a predicted frequency of once in 100 years.
- 10. The holding pond shall have sufficient capacity to contain all wastewater generated from the facility during the period from November 1 through March 31 during the wettest rainfall period expected once in ten years. An allowance for spray field disposal may be permitted if the discharger demonstrates it to be appropriate.
- 11. The disposal area shall have sufficient capacity to dispose, during the period from April 1 through October 30, of all the waste received during the wettest year in ten years.

#### C. Provisions

- 1. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provisions C.2. and C.3. below.
- 2. The discharger shall comply with Specifications B.10. and B.11. in accordance with the following schedule:

#### Task

#### Completion Date

- (1) Submit a water balance for the July 1, 1986 holding pond and spray disposal area for operating conditions during the 1985-1986 wet weather season (Nov. 1 thru Mar. 31) including: influent flows, pond elevations, dates and amounts of waste pumped to the spray disposal area.
- (2) Submit a water balance for the holding pond and spray disposal area for the wettest year expected once in ten years and a schedule for constructing any facilities necessary to achieve full compliance.

July 1, 1986

(3) Full compliance.

October 1, 1987

3. The discharger shall comply with Specifications B.7. and B.8. in accordance with the following schedule:

#### Task

#### Completion Date

(A) Submit a report and schedule for providing necessary fencing, signs and/or other methods of providing the required public notification and exclusion.

July 1, 1986

(2) Full compliance

September 1, 1986

- 4. In reviewing compliance with Prohibitions A.3., A.4. and A.5., the Board will take special note of the difficulties encountered in achieving compliance during entire wet seasons having more rainfall than the maximum expected once in ten years.
- The discharger shall review and update his Operations and Maintenance Manual Jannually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year. A time schedule for completion of the initial revision shall be submitted by August 1, 1986.

  Documentation of operator input and review shall accompany each annual update.
  - 6. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
  - 7. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977, except items A.9, A.10, A.16, B.2, and B.3.
  - 8. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 67-23. Order No. 67-23 is hereby rescinded.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 18, 1986.

RØGER B. JAMES Executive Officer

Attachments:

Standard Provision & Reporting Requirements, April 1977 Self-Monitoring Program

#### A. GENERAL.

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater qualilty inventories.

#### B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board. (See APPENDIX E.)

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

#### DEFINITION OF TERMS

- 1. A composite sample is defined as a sample composed of individual grab samples mixed in proportions varying not more than plus or minus five percent from the instantaneous rate of waste flow corresponding to each grab sample collected at regular intervals not greater than one hour, or collected by the use of continuous automatic sampling devices capable of attaining the proportional accuracy stipulated above throughout the period of discharge of 24 consecutive hours, whichever is shorter.
- 2. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

A depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled and shall be collected in such a manner that the collected sample will be representative of the waste or water body at that sampling point. 4. Bottom Sediment Samples and Sampling and Reporting Guidelines a. Bottom sediment sample means: (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, and (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while anchored and analyzed separately for macroinvertebrates. (1) Physical-chemical sample analyses to include: (a) pH (b) TOC (c) Grease analysis: (1) Mg grease per kg sediment

(2) Percent fraction of hydrocarbon in grease

Metals (depending on industrial input) mg/kg dry wt.

(g) Water salinity and temperature in the water column within

Number of invertebrates per square meter and per liter

Identification of polychaetes, amphipods, and molluscs

(c) Record total oligochaetes per square meter and per liter

(d) Record sediment characteristics for each grab sample, i.e., rock, % sand, % silt-clay, presence of organic

to species and enumeration of each species.

(e) Particle size distribution, i.e., 7 sand, 7 silt-clay

(f) Depth of water at sampling station in meters

30 centimeters of the bottom

of sediment.

. of sediment.

detritus. etc.

(b)

(2) Macroinvertebrate sample and analyses to include:

b. Bottom sediment sampling and reporting guidelines means those guidelines developed by the Regional Board staff to provide for standard bottom sampling, laboratory, and reporting procedures.

## 5. Standard Observations

#### a. Receiving Water

- (1) Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.
- (2) Discoloration and turbidity: description of color, source, and size of affected area.
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.
- (5) Hydrographic condition:
  - (a) Time and height of high and low tides corrected to nearest location for the sampling date and time of sample and collection.
  - (b) Water and sampling depths.
- (6) Weather condition:
  - (a) Air temperatures.
  - (b) Wind direction and estimated velocity.
  - (c) Precipitation total precipitation during the previous five days and on the day of observation.

# b. Waste Effluent

- (1) Floating and suspended material of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence.
- (2) Odor: presence or absence, characterization, source, distance of travel.

## c. Beach and Shoreline

- (1) Material of waste origin: presence or absence, description of material, estimated size of affected area, and source.
- (2) Beneficial use: estimated number of people sunbathing, swimming, waterskiing, surfing, etc.

# d. Land Retention or Disposal Area

This applies both to liquid and solid wastes confined or unconfined.

- (1) Determine height of the freeboard at lowest point of dikes confining liquid wastes.
- (2) Evidence of leaching liquid from area of confinement and estimated size of affected area. (Show affected area on a sketch.)
- (3) Odor: presence or absence, characterization, source, and distance of travel.
- (4) Estimated number of waterfowl and other water-associated birds in the disposal area and vicinity.

# e. Periphery of Waste Treatment and/or Disposal Facilities

- (1) Odor: presence or absence, characterization, source, and distance of travel.
- (2) Weather condition: wind direction and estimated velocity.

# D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Part B with the following conditions:

# 1. Influent

a. Composite samples of influent shall be collected on varying days selected at random.

## Effluent

- a. Composite samples of effluent shall be collected on days coincident with influent composite sampling, or on varying days selected at random.
- b. Grab samples of effluent shall be collected during periods of maximum peak flows, unless otherwise stipulated.

## Receiving Waters

- Receiving water sampling shall be done on days coincident with composite sampling of effluent.
- b. Receiving water samples shall be collected at each station on each sampling day during the period of lower slack water. Where sampling at lower slack water period is not practical, sampling shall be performed during higher slack water period.
- c. All samples shall be collected within one foot below the surface of the receiving water body, unless otherwise stipulated.

## 4. Observations

- a. Land disposal sites shall be inspected for evidence of leaching or surfacing waste, and all other applicable <u>Standard Observations</u>.
- b. Ponds shall be inspected, and available freeboard of each shall be measured and recorded; odors detected shall be noted.

# E. RECORDS TO BE MAINTAINED

- 1. Written reports, strip charts, calibration and maintenance records, and other records shall be maintained at the waste treatment plant and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board or Regional Administrator of the U. S. Environmental Protection Agency, Region IX. Such records shall show the following for each sample:
  - a. Identity of sampling and observation stations by number.
  - b. Date and time of sampling and/or observations.
  - c. Date and time that analyses are started and completed, and name of personnel performing the analyses.
  - d. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to spedific section of Standard Methods is satisfactory.
  - e. Calculations of results.
  - f. Results of analyses and/or observations.

- 2. A tabulation shall be maintained showing the following flow data for influent and effluent stations and disposal areas:
  - a. Total waste flow or volume for each day.
  - b. Maximum and minimum flow rates for each day and the times of their occurrences.
  - c. The average, maximum, and minimum daily flows for each month.
- 3. A tabulation relative to bypassing and accidental waste spills shall be maintained showing information items listed in Sections F-1 and F-2 for each occurrence.
- 4. A chronological log for each month shall be maintained of the effluent addisinfection and bacterial analyses, showing the following:
  - a. Date and time each sample is collected and waste flow rate at time of collection.
  - b. Chlorine residual, contact time, and dosage (in kilograms per day and parts per million).
  - c. Coliform count for each sample.
  - d. Moving median coliform of the number of samples specified by waste discharge requirements.

## F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

#### 1. Spill Reports

A report shall be made of any spill of oil or other hazardous material. Spills shall be reported to this Regional Board and the U. S. Coast Guard by telephone immediately after occurrence. A written report shall be filed with the Regional Board within five (5) days and shall contain information relative to:

- a. nature of waste or pollutant,
- b. quantity involved,
- c. cause of spilling,
- d. estimated size of affected area,
- e. nature of effects (i.e., fishkill, discoloration of receiving water, etc.),
- f. corrective measures that have been taken, or planned, and a schedule of these activities, and
- g. persons notified.

## 2. Bypass Reports

Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass.

The discharger shall file a written technical report at least 15 days prior to advertising for bid on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, costs, and scheduling of all action necessary to preclude such discharge. In no case should any discharge of sewage—bearing wastes be permitted without at least primary treatment and chlorination.

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

- (a) maintenance work, power failures, or breakdown of waste treatment equipment, or
- (b) accidents caused by human error or negligence, or
- (c) other causes such as acts of nature,

the discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

In addition, if the noncompliance caused by items (a), (b), or (c) above is with respect to any of the effluent limits, the waste discharger shall promptly accelerate his monitoring program to analyze the discharge at least once every day for those constituents which have been violated. Such daily analyses shall continue until such time as the effluent limits have been attained, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

# 3. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar month (unless specified otherwise) by the fifteenth day of the following month. The reports shall be comprised of the following:

#### a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications and/or plant facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed:

- (1) In the case of corporations, by a principal executive officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates,
- (2) In the case of a partnership, by a general partner, or
- (3) In the case of a sole proprietorship, by the proprietor, or
- (4) In the case of a municipal, State, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

# b. Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared using the example shown in APPENDIX A. The discharger will prepare the format using those parameters and requirement limits for receiving water and effluent constituents specified in his permit.

# c. Map or Aerial Photograph

A map or aerial photograph shall accompany the report showing sampling and observation station locations.

# d. Results of Analyses and Observations

Tabulations of the results from each required analysis specified in Part B by date, time, type of sample, and station, signed by the laboratory director. The report format will be prepared using the examples shown in APPENDIX B.

#### e. Effluent Data Summary

Summary tabulations of the data to include for each constituent total number of analyses, maximum, minimum, and average values for each period. The report format will be the NPDES Discharge Monitoring Report, EPA Form 3320-1, (or the California State Water Resources Control Board "Discharger Self Monitoring Report", Form Q-2). The discharger shall fill out this form according to instructions thereon (APPENDIX C). Flow data shall be included. This form is available at the Regional Board office.

The <u>original</u> of EPA form 3320-1 or State Board Form Q-2 shall be mailed with the complete Self-Monitoring Report to:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
Attention: Surveillance Division
Illl Jackson Street
Oakland, CA 94607

A copy of EPA Form 3320-1 or State Board Form Q-2 shall be mailed to:

Regional Administrator
U. S. Environmental Protection Agency
Attention: Enforcement Division
215 Fremont Street
San Francisco, CA 94105

#### f. List of Approved Analyses

- (1) Listing of analyses for which the discharger is approved by the State Department of Health.
- (2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

#### g. Flow Data

- (1) The tabulation pursuant to Section E-2.
- (2) Listing of the dates and the magnitudes of the flows which exceed 75% of the design capacity of the treatment and/or disposal facilities.

#### 4. Annual Reporting

By January 30 of each year, the discharger shall submit an annual report to the Regional Board covering the previous calendar year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX D and should be maintained and submitted with each regular self-monitoring report.

#### PART B

# I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

#### A. EFFLUENT

Station	Description
E	At a point between the sewage treatment plant and the holding pond after the plant effluent has been disinfected.
н	At a point in the holding pond within 1 foot of the surface at least 25 feet from the discharge from the treatment plant.
S	At a point in the pipe from the holding pond to the spray field or just before discharge on the spray field.
Ll thru Ln	Every 200 feet along the down slope side of the spray area.
Pl thru P4	At each corner of the sewage treatment plant.

#### II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given as Table I.
- B. Written reports shall be filed for each calendar quarter.

#### III. NOTIFICATION

The discharger shall promptly notify the Regional Board, San Mateo County Health Department, and Loma Mar Mutual Water Company if wastewater is found flowing off the spray disposal area in violation of the Regional Board's Waste Discharge Requirments.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- Has been developed in accordance with the procedure set 1. forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 86-46.
- Is effective on the date indicated below. 2.
- May be reviewed at any time subsequent to the effective date 3. upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

Executive Officer

Attachment: Table I TABLE 1

SCHED	JLE FOR	R SAMPI	ING, I	ÆASU	REMEN	TS, AN	ID ANA	LYSIS			-	
Sampling Station		3	н	s	Lil	Pl thru P4						
Sampring Burezon												
TYPE OF SAMPLE	C-6	G	G	G	0_	0						
Flow Rate (mgd)	Cont											
BOD, 5-day, 20°C or COD (mg/l & kg/day)	2W/M			2W/M								
(mg/l & kg/day) Chlorine Residual & Dos- age (mg/l & kg/day)		D										
Settleable Matter (ml/l-hr. & cu. ft./day)	2W/M											
Total Suspended Matter	ON THE											
(mg/l & kg/day) Oil and Grease	2W/M	-										
(mg/l & kg/day) Coliform (Total or Fecal)						-					-	
(MPN/100 ml) per reg't		2W/M				-					4	
Fish Tox'y 96-hr. TL & Surv'l in undiluted waste												
Ammonia Nitrogen (mg/l & kg/day)												
Nitrate Nitrogen (mg/l & kg/day)				-								
Nitrite Nitrogen (mg/l & kg/day)												
Total Organic Nitrogen						1						
(mg/l & kg/day) Total Phosphate												
(mg/1 & kg/day) Turbidity												
(Jackson Turbidity Unit)			6.	<b> </b>								
(units) Dissolved Oxygen	2W/M		2W/M	-	-	-		-	-	+	+	+
(mg/l and % Saturation) Temperature		2W/M	2W/M		-	ļ		+		-	1	-
(°C)						-				-	-	-
Apparent Color (color units)										<u> </u>		_
Secchi Disc (inches)												
Sulfides(if DO <5.0 mg/l Total & Dissolved (mg/l)	j.	2W/M	2W/M							1		
Arsenic (mg/l & kg/day)								1				
Cadmium					1							
(mg/l & kg/day) Chromium, Total						1						
(mg/l & kg/day) Copper				1								
(mg/l & kg/day) Cyanide		1	1		1			3				
(mg/l & kg/day) Silver			1					1				
(mg/l & kg/day) Lead	-	-					+	-				-
(mg/l & kg/day)												

				TABLE	1 (0	ontinu	ed)					
SCHEDU	LE FOR	SAMP:	LING,	MEASU	REMEN	TS, AN	ID ANA	LYSIS	1			
Sampling Station	E		Н	S	لملا	Pl thru P4	363	2				
TYPE OF SAMPLE		0	0	0	0	0		-				
Mercury (mg/l & kg/day)												
Nickel (mg/l & kg/day)										-	-	-
Zinc mg/l & kg/day)										-	-	-
Phenolic Compounds (mg/l & kg/day)									-	-	-	_
All Applicable Standard Observations			D		D	D					-	+
Bottom Sediment Analyses and Observations								-				-
Tot. Ident. Chlori. Hydro- carbons (mg/l & kg/day)			<u> </u>	-		-						-
				-				-		-		+
						-		-			-	+
												1_

#### LEGEND FOR TABLE

#### TYPES OF SAMPLES

C = grab sample

C-24 = composite sample - 24-hour

C-X = composite sample - X hours (used when discharge does not

continue for 24-hour period)

Cont = continuous sampling

DI = depth-intergrated sample

BS = bottom sediment sample

0 = observation

#### TYPES OF STATIONS

I = intake and/or water supply stations

A = treatment facility influent stations

E = waste effluent stations

C = receiving water stations

P = treatment facilities perimeter stations

2H = every 2 hours

2W = every 2 weeks

3M = every 3 months

2D = every 2 days

Cont = continuous

L = basin and/or pond levee stations

B = bottom sediment stations

G = groundwater stations

#### FREQUENCY OF SAMPLING

E = each occurence

H = once each hour

D = once each day

W = once each week

M = once each month

Y = once each year

2/H = twice per hour

2/W = 2 days per week

5/W = 5 days per week

2/M = 2 days per month

2/Y =once in March and

once in September

Q = quarterly, once in March, June, Sept.

and December

2W/M - Every 2 weeks during the months of June, July, August, September and October; monthly in November through May.

111 On each day when spray application occurs.