CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

September 10, 2014
System No.: 5400760

Ms. Debbie Campbell, Operations Manager
CLM – Belknap Campground
P.O. Box 1640
Kernville, CA 93238

RE: **Citation No. 03-12-14C-029**
Violation of Title 22, California Code of Regulations, Section 64426.1 & 64430, For July 2014

Dear Ms. Campbell:

Enclosed is a Citation issued to the CLM – Belknap Campground (Water System) public water system.

The Water System will be billed at the Division's hourly rate (currently estimated at $126.00) for the time spent on issuing this Citation. The California Health and Safety Code Section 116577 provides that a public water system must reimburse the Division for actual costs incurred by the Division for specified enforcement actions, including but not limited to, preparing, issuing and monitoring compliance with a citation. At this time, the Division has spent approximately one and one-half hours on enforcement activities associated with this violation.

The Water System will receive a bill sent from the Division of Drinking Water Fee Billing Unit in August of the next fiscal year. This bill will contain fees for any enforcement time spent on CLM – Belknap Campground for the current fiscal year.

If you have any questions regarding this letter and the enclosed citation, please contact the Visalia District office at (559) 447-3300.

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

TAW/SF
Enclosures
cc: Tulare County Environmental Health Services Division

Citation No. 03-12-14C-029

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

IN RE: **CLM - BELKNAP CAMPGROUND**
Water System No. 5400760

TO: Ms. Debbie Campbell, Operations Manager
CLM - Belknap Campground
P.O. Box 1640
Kernville, CA 93238

CC: Tulare County Environmental Health Services Division

CITATION FOR VIOLATION OF
CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64426.1 & 64430
JULY 2014

Issued on September 10, 2014

Section 116650 of the California Health and Safety Code authorizes the issuance of a citation to a public water system for violation of the California Safe Drinking Water Act (Health and Safety Code, Division 104, Part 12, Chapter 4, commencing with Section 116270) (hereinafter "California SDWA"), or any regulation, standard, permit or order issued or adopted thereunder.

The State Water Resources Control Board (hereinafter "Board"), acting by and through its Division of Drinking Water (hereinafter "Division") and the Deputy Director for the Division (hereinafter "Deputy Director"), hereby issues a citation to the CLM – Belknap Campground water system (hereinafter "Water System") (P.O. Box 1640, Kernville, CA 93238) for violation of California Code of Regulations (CCR), Title 22, Section 64426.1 and 64430.

APPLICABLE AUTHORITIES

The applicable statutes and regulations are provided in Appendix A, attached hereto and incorporated by reference.

STATEMENT OF FACTS

The Water System is a transient water system serving a population of approximately thirty (30) persons through four (4) service connections. Effective July 1, 2014, the Tulare County Environmental Health Services Division (TCEHSD) transferred the jurisdictional regulatory oversight for this water system to the Division. The Water System currently operates under a water supply permit issued by the TCEHSD on September 15, 2003.

The Water System is required to collect a minimum of one (1) distribution system bacteriological sample per quarter. The bacteriological water analysis results submitted by the Water System reported the presence of total coliform bacteria in five (5) of ten (10) samples collected by the Water System in July 2014. None of the positive samples showed the presence of fecal coliform or *E. coli* bacteria.

The Water System was required to collect five (5) routine samples in July 2014 in response to having one total coliform positive routine sample in June 2014. Upon being informed of the presence of total coliform bacteria in five (5) routine samples collected on July 7, 2014, Water System staff collected a total of five (5) repeat samples on July 9, 2014. None of the repeat samples showed the presence of total coliform bacteria. All water samples for coliform bacteria collected over the past year are summarized in Attachment A.

The cause of the contamination is unknown since no specific source of contamination has been identified. The Water System does not provide for continuous chlorination of the distribution system. The Groundwater Rule (GWR) requires the collection of a sample for bacteriological evaluation from the well(s) serving the system in response to a coliform-

positive distribution sample within 24 hours of being notified of the coliform-positive result. According to Water System staff, the Water System was unable to collect a raw water well sample due to the configuration of the horizontal well and lack of raw water sample tap. In lieu of a raw water sample, the Division allowed the Water System to collect an additional distribution system sample along with the other repeat samples.

The five routine samples required the month following a month with one or more total coliform-positive samples were collected on August 11, 2014, and were negative for total coliform bacteria.

Public notification to the Division and consumers of a water system is required whenever a violation of the Total Coliform MCL occurs. Notification to the Division is required by the end of the business day on which the violation has been determined. If the Division is closed, notification shall be within 24 hours of the determination. The Division was notified on July 8, 2014, in accordance with the above-referenced section

Public notification to the consumers of the Water System was conducted on July 9, 2014, advising each customer of the failure of the total coliform MCL during the month of July 2014. A copy of the notice that was posted is provided as Attachment B. Proof of Notification is provided as Attachment C.

DETERMINATION

Title 22, CCR, Section 64426.1, Total Coliform Maximum Contaminant Level (MCL) provides that a public water system that collects fewer than 40 bacteriological samples per month has violated the regulation if more than one (1) sample collected during any month is total coliform-positive.

The Division has determined that the Water System failed to comply with Title 22, CCR, Section 64426.1, Total Coliform MCL for the month of July 2014 due to the presence of total coliform bacteria in five (5) of ten (10) samples collected in July 2014.

DIRECTIVES

The Water System is hereby directed to take the following actions:

1. Comply with Title 22, CCR, Section 64426.1, in all future monitoring periods.

2. By **October 1, 2014**, the Water System shall complete and submit the enclosed "Positive Total Coliform Investigation" form to the Division that describes the incident and all corrective actions taken, and the results of the investigation. The appropriate investigation report is provided as Attachment D.

3. By **November 1, 2014**, the Water System shall install a raw water sample tap, or provide the Division with a plan and timeline for installation to be completed.

4. By **November 1, 2014**, the Water System shall submit an updated Bacteriological Sample Siting Plan (BSSP). The BSSP should identify five (5) routine sample sites along with repeat sample sites according to the guidance provided as Attachement E.

The Division reserves the right to make such modifications to the Citation as it may deem necessary to protect public health and safety. Such modifications may be issued as amendments to this Citation and shall be effective upon issuance.

Nothing in this Citation relieves the Water System of its obligation to meet the requirements of the California Safe Drinking Water Act or any regulation, standard, permit or order issued thereunder.

All submittal required by this Citation shall be submitted to the Division at the following address:

Tricia A. Wathen, P.E.
Senior Sanitary Engineer
State Water Resources Control Board
Division of Drinking Water
265 W. Bullard Avenue, Suite 101
Fresno, CA 93704

PARTIES BOUND

This Citation shall apply to and be binding upon the CLM – Belknap Campground water system, its officers, directors, agents, employees, contractors, successors, and assignees.

SEVERABILITY

The Directives of this Citation are severable, and the Water System shall comply with each and every provision thereof notwithstanding the effectiveness of any provision.

FURTHER ENFORCEMENT ACTION

The California SDWA authorizes the Board to: issue citation with assessment of administrative penalties to a public water system for violation or continued violation of the requirements of the California SDWA or any permit, regulation or order issued or adopted thereunder including, but not limited to, failure to correct a violation identified in a citation or compliance order. The California SDWA also authorizes the Board to take action to suspend or revoke a permit that has been issued to a public water system if the system has violated applicable law or regulations or has failed to comply with an order of the Board; and to petition the superior court to take various enforcement measures against a

public water system that has failed to comply with an order of the Board. The Board does not waive any further enforcement action by issuance of this citation.

September 10, 2014
Date

Tricia A. Wathen
Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
DRINKING WATER FIELD OPERATIONS BRANCH

TW/SF

Attachments:

Attachment A: Summary of bacteriological samples collected over the past year
Attachment B: Public Notice
Attachment C: Proof of Notification Form
Attachment D: Positive Total Coliform Investigation report
Attachment E: Bacteriological Sample Siting Plan and Guidance

APPENDIX A

Applicable Statues and Regulations for Citation No. 03-12-14C-029

Section 116650 of the CHSC states in relevant part:

§116650. Citations

(a) If the Division determines that a public water system is in violation of this chapter or any regulation, permit, standard, citation, or order issued or adopted thereunder, the Division may issue a citation to the public water system. The citation shall be served upon the public water system personally or by certified mail. Service shall be deemed effective as of the date of personal service or the date of receipt of the certified mail. If a person to whom a citation is directed refuses to accept delivery of the certified mail, the date of service shall be deemed to be the date of mailing.

(b) Each citation shall be in writing and shall describe the nature of the violation or violations, including a reference to the statutory provision, standard, order, citation, permit, or regulation alleged to have been violated.

(c) A citation may specify a date for elimination or correction of the condition constituting the violation.

(d) A citation may include the assessment of a penalty as specified in subdivision (e).

(e) The Division may assess a penalty in an amount not to exceed one thousand dollars ($1,000) per day for each day that a violation occurred, and for each day that a violation continues to occur. A separate penalty may be assessed for each violation.

Section 64426.1 of Title 22, California Code of Regulations (CCR) states in relevant part:

§64426.1. Total Coliform Maximum Contaminant Level (MCL).

(a) Results of all samples collected in a calendar month pursuant to Sections 64423, 64424, and 64425 that are not invalidated by the Department or the laboratory shall be included in determining compliance with the total coliform MCL. Special purpose samples such as those listed in §64421(b) and samples collected by the water supplier during special investigations shall not be used to determine compliance with the total coliform MCL.

(b) A public water system is in violation of the total coliform MCL when any of the following occurs:

(1) For a public water system which collects at least 40 samples per month, more than 5.0 percent of the samples collected during any month are total coliform-positive; or

(2) For a public water system which collects fewer than 40 samples per month, more than one sample collected during any month is total coliform-positive; or

(3) Any repeat sample is fecal coliform-positive or E. coli-positive; or

(4) Any repeat sample following a fecal coliform-positive or E. coli-positive routine sample is total coliform-positive.

(c) If a public water system is not in compliance with paragraphs (b)(1) through (4), during any month in which it supplies water to the public, the water supplier shall notify the Department by the end of the business day on which this is determined, unless the determination occurs after the Department office is closed, in which case the supplier shall notify the Department within 24 hours of the determination. The water supplier shall also notify the consumers served by the water system. A Tier 2 Public Notice

shall be given for violations of paragraphs (b)(1) or (2), pursuant to section 64463.4. A Tier 1 Public Notice shall be given for violations of paragraphs (b)(3) or (4), pursuant to section 64463.1.

Ground Water Rule

Section 64430. of Title 22, California Code of Regulations (CCR) states in relevant part:

§64430. Requirements.

A public water system that uses ground water shall comply with the following provisions of 40 Code of Federal Regulations as they appear in the Ground Water Rule published in 71 Federal Register 65574 (November 8, 2006) and amended in 71 Federal Register 67427 (November 21, 2006) and 74 Federal Register 30953 (June 29, 2009), which are hereby incorporated by reference: Sections 141.21(d)(3), 141.28(a), 141.153(h)(6), Appendix A to Subpart O (Consumer Confidence Reports), 141.202(a)(8), 141.203(a)(4), Appendices A and B to Subpart Q (Public Notification), and 141.400 through 141.405, except that in:

(a) sections 141.402(a)(1)(ii), (a)(2), (a)(2)(ii), (a)(4), (a)(4)(ii)(A), (a)(5)(i), and (a)(5)(ii), the phrase —§141.21(a)‖ is replaced by —22 California Code of Regulations sections 64422 and 64423‖,

(b) sections 141.402(a)(1)(ii) and 141.405(b)(4), the phrase —§141.21(c)‖ is replaced by —22 California Code of Regulations section 64425‖, and

(c) section 141.402(a)(2)(iii), the phrase —§141.21(b)‖ is replaced by —22 California Code of Regulations section 64424‖.

[Note: The text reflecting this section is provided in Addendum A of this book.]

Addendum A

§141.402. Ground water source microbial monitoring and analytical methods.

(a) *Triggered source water monitoring* —

(1) *General requirements.* A ground water system must conduct triggered source water monitoring if the conditions identified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section exist.

(i) The system does not provide at least 4-log treatment of viruses (using inactivation, removal, or a State-approved combination of 4-log virus inactivation and removal) before or at the first customer for each ground water source; and

(ii) The system is notified that a sample collected under 22 California Code of Regulations sections 64422 and 64423 is total coliform-positive and the sample is not invalidated under 22 California Code of Regulations section 64425.

(2) *Sampling requirements.* A ground water system must collect, within 24 hours of notification of the total coliform-positive sample, at least one ground water source sample from each ground water source in use at the time the total coliform-positive sample was collected under 22 California Code of Regulations sections 64422 and 64423, except as provided in paragraph (a)(2)(ii) of this section.

(i) The State may extend the 24-hour time limit on a case-by-case basis if the system cannot collect the ground water source water sample within 24 hours due to circumstances beyond its control. In the case of an extension, the State must specify how much time the system has to collect the sample.

(ii) If approved by the State, systems with more than one ground water source may meet the requirements of this paragraph (a)(2) by sampling a representative ground water source or sources. If directed by the State, systems must submit for State approval a triggered source water monitoring plan that identifies one or more ground water sources that are representative of each monitoring site in the system's sample siting plan under 22 California Code of Regulations sections

64422 and 64423 and that the system intends to use for representative sampling under this paragraph.

(iii) A ground water system serving 1,000 people or fewer may use a repeat sample collected from a ground water source to meet both the requirements of 22 California Code of Regulations section 64424 and to satisfy the monitoring requirements of paragraph (a)(2) of this section for that ground water source only if the State approves the use of *E. coli* as a fecal indicator for source water monitoring under this paragraph (a). If the repeat sample collected from the ground water source is *E.coli* positive, the system must comply with paragraph (a)(3) of this section.

(3) *Additional requirements.* If the State does not require corrective action under §141.403(a)(2) for a fecal indicator-positive source water sample collected under paragraph (a)(2) of this section that is not invalidated under paragraph (d) of this section, the system must collect five additional source water samples from the same source within 24 hours of being notified of the fecal indicator-positive sample.

(4) *Consecutive and wholesale systems —*

(i) In addition to the other requirements of this paragraph (a), a consecutive ground water system that has a total coliform-positive sample collected under 22 California Code of Regulations sections 64422 and 64423 must notify the wholesale system(s) within 24 hours of being notified of the total coliform-positive sample.

(ii) In addition to the other requirements of this paragraph (a), a wholesale ground water system must comply with paragraphs (a)(4)(ii)(A) and (a)(4)(ii)(B) of this section.

(A) A wholesale ground water system that receives notice from a consecutive system it serves that a sample collected under 22 California Code of Regulations sections 64422 and 64423 is total coliform-positive must, within 24 hours of being notified, collect a sample from its ground water source(s) under paragraph (a)(2) of this section and analyze it for a fecal indicator under paragraph (c) of this section.

(B) If the sample collected under paragraph (a)(4)(ii)(A) of this section is fecal indicator-positive, the wholesale ground water system must notify all consecutive systems served by that ground water source of the fecal indicator source water positive within 24 hours of being notified of the ground water source sample monitoring result and must meet the requirements of paragraph (a)(3) of this section.

(5) *Exceptions to the triggered source water monitoring requirements.* A ground water system is not required to comply with the source water monitoring requirements of paragraph (a) of this section if either of the following conditions exists:

(i) The State determines, and documents in writing, that the total coliform-positive sample collected under 22 California Code of Regulations sections 64422 and 64423 is caused by a distribution system deficiency; or

(ii) The total coliform-positive sample collected under 22 California Code of Regulations sections 64422 and 64423 is collected at a location that meets State criteria for distribution system conditions that will cause total coliform-positive samples.

CLM - BELKNAP CAMPGROUND

5400760 *Distribution System Freq: M*

Chlorinator: N
Collected by: Dan Gannon

Sample Date	Time	Location	T Coli	E Coli	F Coli	Type	Cl2	Violation	Comment
8/5/2013	6:28	Spigot behind #3	A	A		Other			*Special sample 1 of 4. Possible system deficiencies.*
8/5/2013	6:35	Spigot behind #3	P	A		Other			*Special sample 2 of 4. Possible system deficiencies.*
8/5/2013	6:43	Spigot by #7	A	A		Other			*Special sample 3 of 4. Possible system deficiencies.*
8/5/2013	6:52	Spigot by #12	P	A		Other			*Special sample 4 of 4. Possible system deficiencies.*
8/8/2013	9:58	Spigot behind #3	A	A		Routine			
8/8/2013	10:07	Spigot by #7	A	A		Routine			
8/8/2013	10:16	Spigot behind #12	A	A		Routine			
9/9/2013	7:15	Spigot behind #3	A	A		Routine			*Routine sample 1 of 5. Samples not necessary.*
9/9/2013	7:21	Spigot behind #12	A	A		Routine			*Routine sample 2 of 5. Samples not necessary.*
9/9/2013	7:27	Spigot behind #7	A	A		Routine			*Routine sample 3 of 5. Samples not necessary.*
9/9/2013	7:48	Spigot behind #3	A	A		Routine			*Routine sample 4 of 5. Samples not necessary.*
9/9/2013	7:56	Spigot behind #12	A	A		Routine			*Routine sample 5 of 5. Samples not necessary.*
10/7/2013	8:25	Spigot behind #3	A	A		Routine			
3/18/2014	6:31	Spigot behind #2 & #3	A	A		Routine			
3/18/2014	6:54	Spigot behind #12	A	A		Routine			
3/24/2014	12:08	Behind Sites 2 & 3	A	A		Routine			
3/24/2014	12:23	Behind Site #12	A	A		Routine			
4/6/2014	16:40	Behind Sites 2 & 3	A	A		Routine			

Bacteriological Distribution Monitoring Report

5400760 CLM - Belknap Campground

Distribution System Freq: 1/Q

Sample Date	Location	T Coli	E Coli	F Coli	HPC	Type	Cl2	Cl2 Avg	Viol. Type	GWR Satisfied?	Comments
8/11/2014	spigot behind sites 2 &3	A	A			Routine					
8/11/2014	spigot behind site 2 & 3	A	A			Routine					
8/11/2014	spigot behind sites 2 & 3	A	A			Routine					
8/11/2014	spigot behind site 7	A	A			Routine					
8/11/2014	spigot behind site	A	A			Routine					
7/9/2014	spigot behind site	<2	<2			Repeat					
7/9/2014	spigot behind site 7	<2	<2			Repeat					
7/9/2014	spigot behind sites 2 & 3	<2	<2			Repeat					
7/9/2014	spigot behind sites 2 & 3	<2	<2			Repeat					
7/9/2014	spigot behind sites 2 & 3	<2	<2			Repeat					
7/7/2014	spigot behind sites 2 & 3	P	A			Routine					GWR waived, no sample tap
7/7/2014	Spigot behind sites 2 & 3	P	A			Routine			MCL		Cit 03-12-14C-029
7/7/2014	spigot behind sites 2 & 3	P	A			Routine					
7/7/2014	spigot by site 7	P	A			Routine					
7/7/2014	spigot begind site	P	A			Routine					
6/4/2014	spigot behind sites 2 and 3	A	A			Repeat					
6/4/2014	spigot behind sites 2 and 3 in liue of tank	A	A			Repeat					
6/4/2014	spigot by site 7	A	A			Repeat					
6/4/2014	spigot behind site	A	A			Repeat					
6/1/2014	spigot behind sites 2 and 3	P	A			Routine					GWR waived, no sample tap

Violation Key

MCL	Exceeds the maximum contaminant level	MR5	Incorrect number of repeat samples as follow-up to a positive sample
MR1	No monthly sample for the report month	MR6	No source sample
MR2	No quarterly sample for the report month	MR7	No summary report submitted
MR3	Incorrect number of routine samples for the report month	MR8	Other comments and/or info
MR4	Did not collect 5 routine samples for previous month's positive sample	MR9	Cl2 not reported

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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

CLM Belknap Campground Has Levels of Coliform Bacteria Above the Drinking Water Standard

Our water system recently failed a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what you should do, what happened and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took 5 samples to test for the presence of coliform bacteria on July 7, 2014. All 5 of these samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month may show the presence of coliform bacteria.

What should I do?

- **You do not need to boil your water or take other corrective actions.**
- This is not an emergency. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves. *Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other; potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.*
- Usually, coliforms are a sign that there could be a problem with the treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing. **Subsequent testing is currently in progress.**
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1(800) 426-4791.
- If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

What happened? What is being done?

Flushing of the water system is being carried out and follow-up samples are being collected. We anticipate resolving the problem within the next several days.

For more information, please contact Dan Gannon with Sequoia Recreation at 559-542-2116 or at the following mailing address: PO Box 468, Springville, CA 93265.

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

Secondary Notification Requirements

Upon receipt of notification from a person operating a public water system, the following notification must be given within 10 days [Health and Safety Code Section 116450(g)]:

- SCHOOLS: Must notify school employees, students, and parents (if the students are minors).
- RESIDENTIAL RENTAL PROPERTY OWNERS OR MANAGERS (including nursing homes and care facilities): Must notify tenants.
- BUSINESS PROPERTY OWNERS, MANAGERS, OR OPERATORS: Must notify employees of businesses located on the property.

This notice is being sent to you by Sequoia Recreation. Date distributed: 07/09/2014

559-447-3304

PROOF OF NOTIFICATION
(Return with copy of the Notice)

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by the **CLM Belknap Campground** of the failure to meet the **total coliform bacteria MCL** for the month of **July 2014** as directed by the Department. At least one primary distribution method is required: mail, hand-delivery or posting in conspicuous locations.

Notification was made on JULY 9, 2014 (date).

To summarize report delivery used and good-faith efforts taken, please check all items below that apply and fill-in where appropriate:

☐ The notice was distributed by mail delivery to each customer served by the water system.

☐ The notice was distributed by direct delivery to each customer served by the water system. Specify direct delivery method(s) used: _____

☐ Publication of the notice in a local newspaper or newsletter of general circulation (attach a copy of the published notice, including name of newspaper and date published).

X Posted the notice at the following conspicuous locations served by the water system .
Notices posted at all water spigots and at each restroom door.

☐ Email message to employees or students._____

☐ Other method used to notify customers. _____

DISCLOSURE: Be advised that Section 116725 and 116730 of the California Health and Safety Code state that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance with the attached order may be liable for a civil penalty not to exceed five thousand dollars ($5,000) for separate violation for each day that violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by a fine of not more than $25,000 for each day of violation, or be imprisoned in the county jail not to exceed one year, or by both the fine and imprisonment.

Certified by Name and Title: DAN GANNON CAMPGROUND HOST

Date: 7-17-2014 Signature: David J. Gannon

Due to the Dept. of Health Services within 10 days of notification to the public
Total Coliform MCL Failure / Enforcement Action No.: In progress

Attachment D

POSITIVE TOTAL COLIFORM INVESTIGATION
Simple Well with Pressure Tank Systems

This form is intended to assist public water systems in completing the investigation required by the Division of Drinking Water (Section 64426(b) of Title 22, California Code of Regulations) and may be modified to take into account conditions unique to the system.

ADMINISTRATIVE INFORMATION

PWS Name:		PWSID NUMBER:	
	Name	**Address**	**Telephone #**
Operator in Responsible Charge (ORC)			
Person that collected TC samples if different than ORC			
Owner			
Certified Laboratory for Microbiological Analyses			
Date Investigation Completed:			
Month(s) of Total Coliform MCL Failure:			

INVESTIGATION DETAILS

SOURCE	WELL (name)	WELL (name)	WELL (name)	WELL (name)	COMMENTS
1. Inspect each well head for physical defects and report					
a. Is raw water sample tap upstream from point of disinfection?					
b. Is wellhead vent pipe screened?					
c. Is wellhead seal watertight?					
d. Is well head located in pit or is any piping from the wellhead submerged?					
e. Does the ground surface slope towards well head?					
f. Is there evidence of standing water near the wellhead?					
g. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments)					
h. Is the wellhead secured to prevent unauthorized access?					
i. To what treatment plant (name) does this well pump?					
j. How often do you take a raw water total coliform (TC) test?					
k. Provide the date and result of the last TC test at this location					

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
1. What is the minimum pressure you are maintaining in the distribution system?	
2. Did pressure in the distribution system drop to less than 5 psi prior to experiencing the TCR positive finding.	

POSITIVE TOTAL COLIFORM INVESTIGATION

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
3. Has the distribution system been worked on within the last week? (service taps, hydrant flushing, main breaks, main extensions, etc.) If yes, provide details.	
4. Are there any signs of excavations near your distribution system not under the direct control of your maintenance staff?	
5. Did you inspect your distribution system to check for mainline leaks? Do you or did you have a mainline leak?	
6. If there was a mainline leak, when was it repaired?	
7. On what date was the distribution system last flushed?	
8. Is there a written flushing procedure you can provide for our review?	
9 Do you have an active cross connection control program?	
10. What is name and phone number of your Cross-Connection Control Program Coordinator?	
11. Is the review and testing of backflow prevention devices current?	
12. On what date was the last physical survey of the system done to identify cross-connections?	

SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)	Routine Site TC+ or EC+	Upstream Site	Downstream Site	Sample 4 (specify)
1. What is the height of the sample tap above grade? (inches)				
2. Is the sample tap located in an **ext**erior location or is it protected by an **enc**losure?				
3. Is the sample tap threaded, have a swing arm (kitchen sink) or aerator (sinks)?				
4. Is the sample tap in good condition, free of leaks around the stem or packing?				
5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?				
6. Is the sample tap and area around the sample tap clean and dry (free of animal droppings. other contaminants or spray irrigation systems)				
7 Is the area around the sample tap free of excessive vegetation or other impediments to sample collection				
8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.)				
9. Is this sample tap designated on the sampling plan submitted with this information request?				
10. What were the weather conditions at the time of the positive sample (rainy, windy, sunny),				

POSITIVE TOTAL COLIFORM INVESTIGATION

GENERAL OPERATIONS:	Response
1. Where there any power outages that affected water system facilities during the 30 days prior to the TC+ or EC + findings?	
2. Where there any main breaks, water outages, or low pressure reported in the service area where TC+ or EC+ samples were located.	
3. Does the system have backup power or elevated storage?	
4. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	
5. What were the symptoms of illness if you received complaints about customers being sick?	

ADDITIONAL INFORMATION TO BE SUBMITTED WITH RESPONSES TO THE ABOVE QUESTIONS

1. **Sketch** of System showing all sources, treatment locations, storage tanks, microbiological sampling sites and general layout of the distribution system including the location of all hazardous connections such as the wastewater treatment facility.
2. A set of photographs of the well, pressure tanks, and storage tanks in the system may be submitted if they would show that the contamination is directly related and changes have been made since the last inspection by our Department
3. Name, certification level and certificate number of the Operator in Responsible Charge.
4. Copy of the last cross connection survey performed that identifies the location of all unprotected cross connections.

SUMMARY: BASED ON THE RESULTS OF YOUR INVESTIGATION AND ANY OTHER INFORMATION AT YOUR DISPOSAL, WHAT DO YOU BELIEVE TO BE THE CAUSE OF THE POSITIVE TOTAL COLIFORM SAMPLES FROM YOUR PUBLIC WATER SYSTEM?

CERTIFICATION: I CERTIFY THAT THE INFORMATION SUBMITTED IN RESPONSE TO THE QUESTIONS ABOVE IS ACCURATE TO THE BEST OF MY PROFESSIONAL KNOWLEDGE

NAME:_____ **TITLE:**_____ **DATE:** _____

Division of Drinking Water
Visalia District

GUIDELINES FOR COMPLETING THE BACTERIOLOGICAL SAMPLE SITING PLAN FOR SMALL WATER SYSTEMS

The total coliform regulation requires the water supplier to submit a bacteriological sample siting plan to the Division of Drinking Water (Division), Visalia District Office for review and approval. The locations where samples are to be collected must be written down and formally approved by the Visalia District. These guidelines and Attachment 1, "Bacteriological Sample Siting Plan" Form, are to assist you in complying with these requirements.

To comply with the requirements for submitting a Bacteriological Sample Siting Plan, two (2) items must be submitted to the Visalia District at this time.

1. A system map, street map, or system schematic showing all sampling locations must be submitted. The map can be prepared by any system representative. It does not have to be prepared by an engineer. The following are also to be shown on the map:

    - Water Sources (i.e., well or spring)
    - Treatment Facilities (i.e., chlorination)
    - Storage Tanks
    - Pressure Reducing Stations
    - Booster Stations
    - Pressure Zones
    - Dead Ends
    - Service Area Boundaries
    - Routine Sample Sites
    - Repeat Sample Sites
    - Special Sample Sites

2. Complete Attachment 1, the "Bacteriological Sample Siting Plan" form, and **return the system map and form to the Visalia District for review and approval**.

    Once the Bacteriological Sample Siting Plan has been approved by the Division, copies should be provided to the person responsible for sample collection, the laboratory and the person responsible for reporting coliform-positive samples to the Division.

Selection of Sampling Sites

The routine sampling sites chosen must be representative of the water distribution system including all pressure zones, areas supplied by each water source and distribution reservoir.

Looped Systems: If your entire water distribution system is looped, then one routine sample point may be representative of your system, assuming valves are open.

Pressure Zones: You should only be concerned about sampling in different pressure zones if your water system serves different areas of varying elevations, for example in mountainous areas.

How many routine sampling sites are required?

A minimum of five (5) routine sampling sites must be selected and indicated on your map and sampling plan form. If your water system is required to collect fewer than 5 routine samples a month, then 5 routine samples must be collected the month following any coliform positive sample. This is the reason for identifying 5 routine sites in your plan.

If the water system is not adequately represented by 5 routine sample locations, you may identify additional locations and collect more than one sample per month. Each site identified should be rotated for sampling at least every three months.

How many repeat sampling sites are required?

For systems normally **collecting one or fewer samples per month**, a repeat sample set consists of four samples (could be greater than four if more than one source is providing water to the distribution) to be collected from the following locations:

- One repeat sample from the same routine location.
- One repeat sample from an *upstream location* (within 5 connections of the routine site).
- One repeat sample from a *downstream location* (within 5 connections of the routine site).
- One repeat sample from the operating well or another location within the system that would best help to identify the source or area of contamination.

The following criteria should be considered when determining where to collect the fourth repeat sample:

- For systems with only one active well and do not provide continuous chlorination, the sample may be collected at the wellhead.
- For systems with more than one active well, it may not be possible to determine which well was serving the area where the positive routine sample was collected. For these systems, the fourth repeat sample should be collected at a storage tank or another point in the distribution system.
- For systems providing continuous chlorination, the system should already be conducting raw-water bacteriological monitoring at a point ahead of chlorination on at least a quarterly basis. These samples should be used to determine if the source of bacteriological contamination is from the well itself. For these systems, the fourth repeat sample should be collected at a storage tank or another point in the distribution system.
- Contact the Visalia District Office for assistance.

For systems collecting **more than one routine sample per month**, a repeat sample set consists of three samples from the following locations:

- One repeat sample from the same routine location.
- One repeat sample from an upstream location (within 5 connections of the routine site).
- One repeat sample from a downstream location (within 5 connections of the routine site).

Note: All active groundwater sources in operation at the time of the coliform-positive sample must also be sampled along with the repeat sample set.

What if the water system does not have enough locations to select the required number of routine and repeat sample sites?

If the water system does not have enough sample locations to identify 5 routine sites and 3 to 4 repeat sites per routine, you may either (1) identify fewer than 5 routine sites as long as the sampling adequately reflects water quality in the distribution system, or (2) use some of the routine sites as repeat sites for other routines (i.e., double up on use of available sites).

Pointers for Sample Site Selection

- When selecting a routine sample site you should be able to select a site upstream and a site downstream for repeat sampling.
- Select a site where the water is used continuously all year round.
- Pick a site that is easily accessible, i.e., a fenced yard with a locked gate and vicious dog is not a good selection.
- When choosing a sampling tap you should consider these factors:

  The sampling tap should be located in as clean an environment as possible. It should be protected from contamination by humans, animals, airborne materials or other sources of contamination.

  If you choose an outside private tap, it should be one that is in frequent use, clean, and at least 1½ feet (18 inches) above the ground. The sample tap should discharge downward.

  If you choose an inside tap, be sure that you are not sampling from drinking fountains; taps that have aerators or strainers, or swivel faucets; or taps off of individual homeowner treatment units.

  Do not choose a fire hydrant as sampling tap.

  Avoid taps that are surrounded by excessive foliage or taps that are dirty or corroded.

  Avoid taps that leak, have fittings with packing, or have permanent hoses or attachments fastened to the tap (Never collect a sample from a hose).

  Avoid the use of dead ends for routine sample collection, and use them for repeat samples only of no other sample sites are available and if there is continuous water use from a service off the dead-end.

Instructions for Completing the Bacteriological Sample Siting Plan Form

This form has been designed to include all the requirements for the Bacteriological Sample Siting Plan.

- **Public Water System Classification**
  The public water system (PWS) classification for your water system is either community, nontransient noncommunity or transient noncommunity. This classification determines the type and frequency of all water quality testing. If you are uncertain of your classification, contact the Visalia District.

- **Month/Daily Users**
  The monthly population determines the frequency of bacteriological sample collection for community water systems. The daily population determines the frequency of sample collection for transient and nontransient noncommunity systems.

- **Active Service Connections (Community water systems only)**

This is the number of active hook-ups served by the system. If your system has a hook-up to a vacant lot, do not count this as an active connection. If a vacant lot has a right to a future connection, do not count this an active connection. If a residence is connected to the system, but the residence is vacant, count this as an active hook-up.

- **Sampling Frequency**
  This is the minimum number of routine bacteriological samples required at the frequency specified. If any routine sample is positive for coliform bacteria, additional repeat samples will be required. Repeat samples are in addition to the required routine samples. If you are uncertain of the routine sampling frequency for your water system, contact the Visalia District.

  A coliform-positive sample will increase the routine monitoring for a small system the following month. A system normally collecting less than 5 routine samples per month, which has a coliform positive sample, must collect a minimum of five (5) routine samples the following month.

- **Trained Sampler**
  The person collecting samples must be trained.

  Sampling Service: Water systems utilizing a certified laboratory or other sampling service for water sample collection will be considered to have trained samplers. Enter the name of the laboratory or sampling service collecting your samples. A copy of the approved Bacteriological Sample Siting Plan should be provided to the laboratory or sampling service, if one is used.

  Other Trained Samplers: Any person receiving a certificate from AWWA for attendance of the Water Sampling Training should submit a copy of their certificate along with the completed form. Any other samplers should submit a statement of their experience and training to this office for approval.

- **Analyzing Lab**
  Enter the state-certified laboratory, which will be analyzing your water samples.

- **Person Responsible to Report Coliform-Positive Samples to CDPH**
  This should be the person that the laboratory is required to contact when a sample is total or fecal coliform positive. This person must notify the Division within 24 hours of a violation of the total coliform standard (more than one positive sample in a month) or when any sample is fecal or *E. coli* positive. This person should have the authority to take corrective action as required by regulation and the Division. This should be the same person listed on your Emergency Notification Plan.

- **Day/Evening Phone Number**
  The Division requires that the water system provide the phone numbers of the person listed above so that they can be contacted by the laboratory or the Division at any time during the day or evening in the event of a bacteriological emergency.

- **Signature and Date**
  The person preparing the Sample Siting Plan should sign and date the plan. If the Division has questions regarding the sampling plan, this is the person to be contacted.

- **Sample ID**
  This should be entered on the laboratory slip when the sample is turned into the laboratory. This is the unique identifier for the water sample location or the location address may also be used. For systems, which have no more than five (5) routine locations, these routine sites will be 1-ROU, 2-ROU, 3-ROU, 4-ROU, and 5-ROU.

For systems collecting one or fewer routine samples per month, a minimum of five (5) routine sampling sites with three (3) repeat sampling sites for each routine sample locations must be listed.

For systems collecting more than one routine sample per month, a minimum of five (5) routine sampling sites with two (2) repeat sampling sites for each routine sample location must be listed. Repeat sample sites are to be located within five (5) service connections upstream and downstream of the routine sample site.

All sample locations should be marked in some way with the Sample ID or location address , i.e., the code painted on the sampling location or tagged with a water proof tag so the person collecting the water sample is sure to collect the water from the correct sample locations.

- **Sample Type**
  This describes what type of sample (routine or repeat) is to be collected at this location.

- **Sample Point**
  This is the type of the sample location. Use the following abbreviations, when appropriate.

HB	Hose Bib (exterior)
SF	Sink Faucet
PC	Goose Neck Type Copper Tube with Pet Cock

- **Location of Sample Point**
  This is the description of the area in the distribution that the sample site is located. Routine sample sites shall not be located at dead ends.

DE	Dead End (Not Recommended)
PZ	Pressure Zone
RD	Representative Distribution

- **Location Address**
  This is the actual physical location where the water sample is to be collected. If possible use a street address, i.e., 103 Good Street. If the location does not have a street address, use the nearest crossroads or use the last name of the resident, i.e., "Brown Residence." If the location is a business, please list the business name and address.

  When describing the location, keep in mind that the person collecting water samples must be able to locate the sample site from your description.

- **Months Sample Collected at This Location**
  This is the schedule for routine samples to be collected. For example, suppose two (2) sites are representative of your systems. Site No. 1 will be sampled in January, March, May, July, September, and November. Site No. 2 will be sampled in February, April, June, August, October, and December. All routine sites identified should be rotated to allow sampling at least every 3 months.

BACTERIOLOGICAL SAMPLE SITING PLAN FOR SMALL WATER SYSTEMS

System No.:	**System Name:**	
PWS Classification:	**No. Monthly Users:** **Daily Users:**	**List all Active Sources that may need to be sampled for each Total Coliform Positive:**
No. Active Service Connections:	**Sampling Frequency:**	
Name of Trained Sampler:	**Analyzing Lab:**	
Person responsible to report coliform-positive samples to the Division:		**Day/Evening Phone No:**
Signature of Water System Representative:		**Date:**

Sample ID	Sample Type	Sample Point	Location of Sample Point	Address of Sample Point	Months Sample Collection at this Location
1-ROU	Routine				
1-REP1	Repeat				Repeat Sample Only
1-REP2	Repeat				Repeat Sample Only
1-REP3 *	Repeat				Repeat Sample Only
2-ROU	Routine				
2-REP1	Repeat				Repeat Sample Only
2-REP2	Repeat				Repeat Sample Only
2-REP3 *	Repeat				Repeat Sample Only
3-ROU	Routine				
3-REP1	Repeat				Repeat Sample Only
3-REP2	Repeat				Repeat Sample Only
3-REP3 *	Repeat				Repeat Sample Only
4-ROU	Routine				
4-REP1	Repeat				Repeat Sample Only
4-REP2	Repeat				Repeat Sample Only
4-REP3 *	Repeat				Repeat Sample Only
5-ROU	Routine				
5-REP1	Repeat				Repeat Sample Only
5-REP2	Repeat				Repeat Sample Only
5-REP3 *	Repeat				Repeat Sample Only

If the water system has one or more total coliform-positive samples, at least five routine samples will be collected the following month.

If chlorine is being used, is it used on a continuous basis? Yes ☐ No ☐ *If yes, raw water samples must be taken. Frequency is* _____.

*** May be a source sample to satisfy the triggered source monitoring requirement under the Ground Water Rule (***if more than one source; designate all sources to be sampled***). Please be aware that this designation will count towards compliance with the total coliform MCL (maximum contaminant level).**