



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

Division of Drinking Water

May 29, 2015

Water System No. 3500562

Mr. Chase McAlpine, Manager
McAlpine Lake & Park
900 Anzar Road
San Juan Bautista, CA 95045

Attention Mr. McAlpine:

CITATION NO. 02_05_15C_005

**VIOLATION of TITLE 22, CALIFORNIA CODE OF REGULATIONS, SECTION 64426.1
FOR APRIL 2015**

Enclosed is a Citation issued to the McAlpine Lake and Park (System) public water system.

The System will be billed at the State Water Resources Control Board's (Water Board) hourly rate (currently estimated at \$128.00) for the time spent on issuing this Citation. California Health and Safety Code Section 116577 provides that a public water system must reimburse the Water Board for actual costs incurred by the Water Board for specified enforcement actions, including, but not limited to, preparing, issuing, and monitoring compliance with a citation. At this time, the Water Board has spent approximately three hours on enforcement activities associated with this violation.

The System will receive a bill sent from the Drinking Water Fee Branch in August of the next fiscal year. This bill will contain fees for any enforcement time spent on the System for the current fiscal year.

If you have any questions regarding this matter, please contact Lora Lyons of my staff at (831) 655-6942 or me at (831) 655-6934.

Sincerely,


Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Drinking Water Program

Enclosures

Certified Mail No. 7008-1830-0004-5435-4453

cc: San Benito County Environmental Health Department

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

1 A copy of the applicable statutes and regulations is included in Appendix 1, which is
2 attached hereto and incorporated herein by this reference.

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STATEMENT OF FACTS

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6 The System is classified as a non-transient non-community public water system that
7 serves an approximate population of 110 individuals through 33 service connections.

8 The Division received laboratory results for 14 bacteriological samples collected
9 during April 2015 from the distribution system. All samples were analyzed for the

10 presence of total coliform bacteria. Five of the 14 samples analyzed were positive for
11 total coliform bacteria.

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DETERMINATION

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15 Title 22, CCR, Section 64426.1, Total Coliform Maximum Contaminant Level (MCL)
16 states that a public water system is in violation of the total coliform MCL if it collects
17 fewer than 40 bacteriological samples per month, and more than one sample
18 collected during any month is total coliform-positive.

19

20 The System took fewer than 40 bacteriological samples during April 2015. The
21 results of five samples were total coliform positive. Therefore, the Division has
22 determined that System violated Title 22, CCR, Section 64426.1 in April 2015.

23

DIRECTIVES

System is hereby directed to take the following actions:

1. Comply with Title 22, Section 64426.1, in all future monitoring periods.
2. On or before **June 30, 2015**, notify all persons served by the System of the violation of 64426.1 in conformance with Title 22, CCR, Sections 64463.4 and 64465. Appendix 2: Notification Template may be used to fulfill this directive. The notice shall be hand delivered to all current residential customers who were at the park in April 2015 and posted in conspicuous locations throughout the area served by the System and shall remain posted for seven consecutive days.
3. Pursuant to Title 22, CCR, Section 64424(d), collect and have analyzed for total coliform bacteria five (5) routine bacteriological samples on or before May 31, 2015, as instructed by the Division to System staff by electronic mail dated May 21, 2015.
4. Complete Appendix 3: Compliance Certification Form. Submit it together with a copy of the public notification to the Division on or before **July 10, 2015**.
5. Submit to the Division the information required by Title 22, CCR, Section 64426, subsection (b)(2) on or before **July 10, 2015**. Appendix 4: Positive Total Coliform Investigation may be used to fulfill this directive.

1 All submittals required by this Citation shall be submitted to the Division at the
2 following address:

3
4 Jan Sweigert, P.E.
5 District Engineer, Monterey District Office
6 State Water Resources Control Board, Division of Drinking Water
7 1 Lower Ragsdale Drive, Building 1, Suite 120
8 Monterey, CA 93940

9
10 The Division reserves the right to make such modifications to this Citation as it may
11 deem necessary to protect public health and safety. Such modifications may be
12 issued as amendments to this Citation, and shall be effective upon issuance.

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14 Nothing in this Citation relieves the System of its obligation to meet the requirements
15 of the California Safe Drinking Water Act (CHSC, Division 104, Part 12, Chapter 4,
16 commencing with Section 116270), or of any regulation, standard, permit or order
17 issued thereunder.

18
19 **PARTIES BOUND**

20
21 This Citation shall apply to and be binding upon the System, its owners, shareholders,
22 officers, directors, agents, employees, contractors, successors, and assignees.

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24 **SEVERABILITY**

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

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FURTHER ENFORCEMENT ACTION

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Division 104, Part 12, Chapter 4, (commencing with Section 116270) of the California Health and Safety Code authorizes the Water Board to: issue a citation with assessment of penalties if a public water system continues to fail to correct a violation identified in a citation; take action to suspend or revoke a permit that has been issued to a public water system if it has violated applicable law or regulations or has failed to comply with orders of the Water Board; and petition the superior court to take various enforcement measures against a public water system that has failed to comply with an order of the Water Board. The Water Board does not waive any further enforcement action by issuance of this citation.

Jah Sweigert
Jah Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

5/29/2015
Date



Appendices (4):

1. Applicable Statues and Regulations
2. Notification Template
3. Compliance Certification Form
4. Positive Total Coliform Investigation Report Form

Certified Mail No. 7008-1830-0004-5435-4453

**APPENDIX 1: APPLICABLE STATUTES AND REGULATIONS
FOR CITATION NO. 02_05_15C_005**

Section 116650 of the CHSC states in relevant part:

- (a) If the Department 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 Department 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 Department 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.

California Code of Regulations, Section 64424 states in relevant part:

- (d) If a public water system for which fewer than five routine samples/month are collected has one or more total-coliform-positive samples, the water supplier shall collect at least five routine samples the following month. If the supplier stops supplying water during the month after the total coliform-positive(s), at least five samples shall be collected during the first month the system resumes operation. A water supplier may request the Department waive the requirement to collect at least five routine samples the following month, but a waiver will not be granted solely on the basis that all repeat samples are total coliform-negative. To request a waiver, one of the following conditions shall be met:
 - (1) The Department conducts a site visit before the end of the next month the system provides water to the public to determine whether additional monitoring and/or corrective action is necessary to protect the public health.
 - (2) The Department determines why the sample was total coliform-positive and establishes that the system has corrected the problem or will correct the problem before the end of the next month the system serves water to the public. If a waiver is granted, a system shall collect at least one routine sample before the end of the next month it serves water to the public and use it to determine compliance with §64426.1.

California Code or Regulations, Section 64426 states in relevant part:

- (a) Any of the following criteria shall indicate a possible significant rise in bacterial count:
 - (3) A system collecting at least 40 samples per month has a total coliform-positive routine sample followed by two total coliform-positive repeat samples in the repeat sample set;
 - (4) A system has a sample which is positive for fecal coliform or E. coli; or
 - (5) A system fails the total coliform Maximum Contaminant Level (MCL) as defined in §64426.1.
- (b) When the coliform levels specified in subsection (a) are reached or exceeded, the water supplier shall;
 - (1) Contact the Department by the end of the day on which the system is notified of the test result or the system determines that it has exceeded the MCL, unless the notification or determination occurs after the Department office is closed, in which case the supplier shall notify the Department within 24 hours; and
 - (2) Submit to the Department information on the current status of physical works and operating procedures which may have caused the elevated bacteriological findings, or any information on community illness suspected of being waterborne. This shall include, but not be limited to:
 - (A) Current operating procedures that are or could potentially be related to the increase in bacterial count;
 - (B) Any interruptions in the treatment process
 - (C) System pressure loss to less than 5 psi;
 - (D) Vandalism and/or unauthorized access to facilities;
 - (E) Physical evidence indicating bacteriological contamination of facilities;
 - (F) Analytical results of any additional samples collected, including source samples;
 - (G) Community illness suspected of being waterborne; and
 - (H) Records of the investigation and any action taken

California Code of Regulations, Section 64426.1 states in relevant part:

- (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.

California Code of Regulations, Section 64463.4 states in relevant part:

- (a) A water system shall give public notice pursuant to this section if any of the following occurs:
- (1) Any violation of the MCL, MRDL, and treatment technique requirements, except:
 - (A) Where a Tier 1 public notice is required under section 64463.1; or
 - (B) Where the Department determines that a Tier 1 public notice is required, based on potential health impacts and persistence of the violations;
 - (2) All violations of the monitoring and testing procedure requirements in sections 64421 through 64426.1, article 3 (Primary Standards-Bacteriological Quality), for which the Department determines that a Tier 2 rather than a Tier 3 public notice is required, based on potential health impacts and persistence of the violations;
- (b) A water system shall give the notice as soon as possible, within 30 days after it learns of a violation or occurrence specified in subsection (a), except that the water system may request an extension of up to 60 days for providing the notice. This extension would be subject to the Department's written approval based on the violation or occurrence having been resolved and the Department's determination that public health and welfare would in no way be adversely affected. In addition, the water system shall:
- (1) Maintain posted notices in place for as long as the violation or occurrence continues, but in no case less than seven days;
 - (2) Repeat the notice every three months as long as the violation or occurrence continues. Subject to the Department's written approval based on its determination that public health would in no way be adversely affected, the water system may be allowed to notice less frequently but in no case less than once per year. No allowance for reduced frequency of notice shall be given in the case of a total coliform MCL violation or violation of a Chapter 17 treatment technique requirement; and
- (c) A water system shall deliver the notice, in a manner designed to reach persons served, within the required time period as follows:

(2) Unless otherwise directed by the Department in writing based on its assessment of the violation or occurrence and the potential for adverse effects on public health and welfare, noncommunity water systems shall give the public notice by:

(A) Posting in conspicuous locations throughout the area served by the water system; and

(B) Using one or more of the following methods to reach persons not likely to be reached by a public posting:

1. Publication in a local newspaper or newsletter distributed to customers;
2. E-mail message to employees or students;
3. Posting on the Internet or intranet; or
4. Direct delivery to each customer

California Code or Regulations, Section 64465 states in relevant part:

(a) Each public notice given pursuant to this article, except Tier 3 public notices for variances and exemptions pursuant to subsection (b), shall contain the following:

(1) A description of the violation or occurrence, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);

(2) The date(s) of the violation occurrence;

(3) Any potential adverse health effects from the violation or occurrence, including the appropriate standard health effects language from appendices 64465-A through G;

(4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in drinking water;

(5) Whether alternative water supplies should be used;

(6) What actions consumers should take, including when they should seek medical help, if known;

(7) What the water system is doing to correct the violation or occurrence;

(8) When the water system expects to return to compliance or resolve the occurrence;

(9) The name, business address, and phone number of the water system owner, operator, or designee of the water system as a source of additional information concerning the public notice;

(10) A statement to encourage the public notice recipient to distribute the public notice to other persons served, using the following standard language: -Please share this information with all the other people who drink this water, especially those who may not have received this public 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: and

(11) For a water system with a monitoring and testing procedure violation, this language shall be included: -We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period dates], we [“_did not monitor or test_” or “_did not complete all monitoring or testing”] for [contaminant(s)], and therefore, cannot be sure of the quality of your drinking water during that time.)

(c) Each public notice given pursuant to this article shall contain information in Spanish regarding the importance of the notice, or contain a telephone number or address where Spanish-speaking residents may contact the water system to obtain a translated copy of the public notice or assistance in Spanish. For each non-English speaking group other than Spanish-speaking that exceeds 1,000 residents or 10% of the residents in the community served, whichever is less, the public notice shall:

(1) Contain information in the appropriate language(s) regarding the importance of the notice, or

(2) Contain a telephone number or address where such residents may contact the water system to obtain a translated copy of the notice or assistance in the appropriate language.

(d) Each public notice given pursuant to this article shall:

(1) Be displayed such that it catches people’s attention when printed or posted and be formatted in such a way that the message in the public notice can be understood at the eighth-grade level;

(2) Not contain technical language beyond an eighth-grade level or print smaller than 12 point; and

(3) Not contain language that minimizes or contradicts the information being given in the public notice.

Instructions for Tier 2 Unresolved Total Coliform Notice Template

Template Attached

Since exceeding the total coliform bacteria maximum contaminant level is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation [California Code of Regulations, Title 22, Chapter 15, Section 64463.4(b)]. Persistent total coliform problems can be serious. **Each water system required to give public notice must submit the notice to the State Water Resources Control Board, Division of Drinking Water (DDW) for approval prior to distribution or posting, unless otherwise directed by the DDW [64463(b)].**

Notification Methods

You must use the methods summarized in the table below to deliver the notice to consumers. If you mail, post, or hand deliver, print your notice on letterhead, if available.

<i>If You Are a...</i>	<i>You Must Notify Consumers by...</i>	<i>...and By One or More of the Following Methods to Reach Persons Not Likely to be Reached by the Previous Method...</i>
Community Water System [64463.4(c)(1)]	Mail or direct delivery ^(a)	Publication in a local newspaper
		Posting ^(b) in conspicuous public places served by the water system or on the Internet
		Delivery to community organizations
Non-Community Water System [64463.4(c)(2)]	Posting in conspicuous locations throughout the area served by the water system ^(b)	Publication in a local newspaper or newsletter distributed to customers
		Email message to employees or students
		Posting ^(b) on the Internet or intranet
		Direct delivery to each customer

(a) Notice must be distributed to each customer receiving a bill including those that provide their drinking water to others (e.g., schools or school systems, apartment building owners, or large private employers), and other service connections to which water is delivered by the water system.

(b) Notice must be posted in place for as long as the violation or occurrence continues, but in no case less than seven days.

The notice attached is appropriate for the methods described above. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects and notification language in italics unchanged. This language is mandatory [64465].

Multilingual Requirement

The notice must (1) be provided in English, Spanish, and the language spoken by any non-English-speaking group exceeding 10 percent of the persons served by the water system and (2) include a telephone number or address where such individuals may contact the water system for assistance.

If any non-English-speaking group exceeds 1,000 persons served by the water system, but does not exceed 10 percent served, the notice must (2) include information in the appropriate language(s) regarding the importance of the notice and (2) contain the telephone number or address where such individuals may contact the water system to obtain a translated copy of the notice from the water system or assistance in the appropriate language.

Population Served

Make sure it is clear who is served by your water system -- you may need to list the areas you serve.

Description of the Violation

The description of the violation and the MCL vary depending on the number of samples you take. The following table should help you complete the second paragraph of the template.

<u>If You Take Fewer Than 40 Samples a Month</u>	<u>If You Take 40 or More Samples a Month</u>
State the number of samples testing positive for coliform. The standard is that no more than one sample per month may be positive.	State the percentage of samples testing positive for coliform. The standard is that no more than 5.0 percent of samples may test positive each month.

Corrective Action

In your notice, describe corrective actions you are taking. If you know what is causing the coliform problem, explain this in the notice. Listed below are some steps commonly taken by water systems with a total coliform violation. Use one or more of the following actions, if appropriate, or develop your own:

- “We are chlorinating and flushing the water system.”
- “We are increasing sampling for coliform bacteria.”
- “We are investigating the source of contamination.”
- “We are repairing the wellhead seal.”
- “We are repairing the storage tank.”
- “We will inform you when additional samples show no coliform bacteria.”

After Issuing the Notice

Send a copy of each type of notice and a certification that you have met all the public notice requirements to the DDW within ten days after you issue the notice [64469(d)]. You should also issue a follow-up notice in addition to meeting any repeat notice requirements the DDW sets.

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately.

It is a good idea to issue a "problem corrected" notice when the violation is resolved.

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.

McAlpine Lake & Park Water System Has Levels of Coliform Bacteria Above the Drinking Water Standard

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we did to correct the situation. Please share this information with other people who drink this water, especially those who may not have received this notice directly. You can do this by posting this notice in a public place or giving out copies by hand or mail.

We routinely monitor for the presence of drinking water contaminants. We took 14 samples to test for the presence of coliform bacteria during April 2015. Five of those samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month may test positive for bacteria. The positive samples were tested further for E-coli. No E-coli were found. However, our drinking water exceeded the maximum contaminant level allowed for total coliform bacteria, as specified in Section 64426.1, Title 22 of the California Code of Regulations.

What does this mean?

The State Water Resources Control Board sets drinking water standards and has determined that the presence of total coliform bacteria is a possible health concern. Coliforms are bacteria that 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 drinking water samples than allowed. This was a warning of potential problems and a violation of the regulations.

What should I do?

This is not an emergency. If it had been, you would have been notified immediately.

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 (800) 426-4791.

If you have other health issues concerning the consumption of this water, you may wish to consult your doctor.

Has the problem been resolved? What corrective actions have been taken to prevent this violation from occurring in the future?

This notification of the public is being done in compliance with Section 64463.4, Title 22 of the CCR as a means of keeping the public informed.

Persons wishing more information should contact: _____

APPENDIX 3. COMPLIANCE CERTIFICATION

Citation Number 02_05_15C_005

Name of Water System: McAlpine Lake & Park

System Number: 3500562

I certify that the users of the water supplied by this water system were notified of the bacteriological violation of Title 22, California Code of Regulations, Section 64426.1 for the compliance period of April 2015 and that the following actions listed below were completed:

<u>Required Action</u>	<u>Date Completed</u>
(Citation Directive 2) Public Notification-posted in conspicuous locations throughout the area served by the System and Other Notification Method completed	
(Citation Directive 3) Collect and have analyzed for total coliform bacteria five (5) routine bacteriological samples	
(Citation Directive 5) Complete and Submit Positive Total Coliform Investigation Report.	

Signature of Water System Representative

Date

Attach a copy of the notice posted and the laboratory results from the 5 water samples.

THIS FORM MUST BE COMPLETED AND RETURNED TO THE DEPARTMENT NO LATER THAN JULY 10, 2015

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 Safe Drinking Water Act may be liable for, respectively, a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violation or, for continuing violations, for each day that violation continues, or be punished by a fine of not more than \$25,000 for each day of violation, or by imprisonment in the county jail not to exceed one year, or by both the fine and imprisonment.

APPENDIX 4. POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in completing the investigation required by the State of California Water Resources Control Board – 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

Entity Name:	Name	System Address & Email	Telephone Number
PWSID NUMBER:	System Type:		
Operator in Responsible Charge (ORC)	Person that collected TC samples if different than ORC		
System 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 (attach additional pages if needed)
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 does the System take a raw water total coliform (TC) test?					
k. Provide the date and result of the last TC test at this location					
2. Inspect and review records for surface water source (if applicable)					
a. Have there been any events in the watershed or near the intake that might have contributed to TC+ or EC+ results? (Describe)					

TREATMENT

TREATMENT	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	COMMENTS
1. If continuous chlorination treatment is provided, was there any equipment failure?					
a. Did the distribution system maintain chlorine residual?					
b. Was emergency chlorination initiated? If yes, for how long?					
c. Did the distribution system lose chlorine residual?					

APPENDIX 4. POSITIVE TOTAL COLIFORM INVESTIGATION

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TREATMENT	PLANT (NAME)	COMMENTS				
2. If routine chlorination is not provided, was emergency chlorination initiated? If Yes, when?						
3. Inspect each point where disinfectant is added and report						
a. Is the disinfectant feed pump feeding disinfectant?						
b. What is the feed rate of disinfectant in ml/minute?						
c. What is the concentration of the disinfectant solution being fed? (percent or mg/l of chlorine as HOCl)						
d. By what method was the concentration of solution determined? (ex: measured, manufacturer's literature)						
e. What is the age (days) of the disinfectant solution currently being used at this treatment location?						
f. What is the raw water flow rate at the point where disinfectant is added in gallons per minute?						
g. What is the total chlorine residual measured immediately downstream from the point of application?						
h. What is the free chlorine residual measured immediately downstream from the point of application?						
i. What is the contact time in minutes from the point of disinfectant application to the first customer?						

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 exterior location or is it protected by an enclosure?				
3. Is the sample tap threaded, have a swing arm (kitchen sink) or an 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 areas 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,				

APPENDIX 4. POSITIVE TOTAL COLIFORM INVESTIGATION

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SAMPLE SITE EVALUATION (Complete for all TC+ or EC+ findings)	Routine Site TC+ or EC+	Upstream Site	Downstream Site	Sample 4 (specify)
and sunny)?				

STORAGE	TANK (name)	TANK (name)	TANK (name)	TANK (name)	COMMENTS
1. Is each tank locked to prevent unauthorized access?					
2. Are all vents of each tank screened down-turned to prevent dust and dirt from entering the tank?					
3. Is the overflow on each tank screened?					
4. Are there any unsealed openings in the tank such as access doors, water level indicators hatches, etc.?					
5. Is the roof/cover of the tank sealed and free of any leaks?					
6. Is the tank above ground or buried?					
a. If buried or partially buried, are there provisions to direct surface water away from the site.					
b. Has the interior of the tank been inspected to identify any sanitary defects, such as root intrusion?					
8. Does the tank "float" on the distribution system or are there separate inlet and outlet lines?					
9. What is the measured chlorine residual (total/free) of the water exiting the storage tank today?					
10. What is the volume of the storage tank in gallons?					
11. Is the tank baffled?					
12. Prior to the TC+ or EC+, what was the previous date item #1-7 were checked and documented?					

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
1. What is the minimum pressure maintained in the distribution system?	
2. Did pressure in the distribution system drop to less than 5 psi prior to positive bacteriological testing?	
3. Has the distribution system been worked on within the last week? (taps, hydrant flushing, main breaks, mainline extensions, etc.) If yes, provide details.	
4. Are there any signs of excavations near the distribution system not under the direct control of maintenance staff?	
5. Was the distribution system inspected for mainline leaks? Was there 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. Does the system have a written flushing procedure?	

APPENDIX 4. POSITIVE TOTAL COLIFORM INVESTIGATION

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DISTRIBUTION SYSTEM	SYSTEM RESPONSES
9. Does the system have an active cross-connection control program?	
10. What is name & phone number of the 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?	
BOOSTER STATION	Response
1. Does the system have a booster pump? How many?	
2. Does the system have a standby booster pump if the main pump fails?	
3. Prior to bacteriological quality problems, did a booster pump fail?	
4. Was there standing water, leakage at the booster station?	
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, were any complaints received of any customers' illness suspected of being waterborne? How many?	
5. What were the symptoms of illness if complaints were received 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 Division.
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.
5. Updated source water assessment(s) (DWSAP) if there have been changes to well construction or potentially contaminating activities (PCA list) since last inspection.

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

APPENDIX 4. POSITIVE TOTAL COLIFORM INVESTIGATION

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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:** _____