

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

IN RE: **CASCADE ESTATES**
Water System No.: 5500104

TO: Mr. Phil Hoon, Owner
5 Bon Air Road Suite, 225
Larkspur, CA 94939

CC: Tuolumne County Environmental Health Department

John Jacobson, CEO/Certified Operator
Sierra Sunrise Water Treatment, Inc.
P.O. Box 669
Columbia, CA 95310

**CITATION FOR VIOLATION OF
CALIFORNIA CODE OF REGULATIONS, TITLE 22, SECTION 64426.1 TCR MCL
VIOLATION
October 2015**

Issued on January 11, 2016

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 Cascade Estates (hereinafter

1 “Estates”) (18330 Wards Ferry Road Sonora, CA 95370) and its owner of record for violation of
2 California Code of Regulations (CCR), Title 22, Section 64426.1

3
4 **APPLICABLE AUTHORITIES**

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

7
8 **STATEMENT OF FACTS**

9 The Estates is a privately-owned community water system located in Tuolumne County that
10 supplies water for domestic purposes to approximately 282 individuals through approximately
11 113 service connections. The Water System is a community public water system as defined in
12 CHSC, section 116275.

13
14 The Estates is required to collect a minimum of one (1) distribution system bacteriological
15 sample per month. In October, 2015, the bacteriological water analysis results submitted by the
16 Estates reported the presence of total coliform bacteria in six (6) of eight (8) samples collected.
17 Well No. 1 showed the presence of total coliform bacteria in two samples collected on October
18 23 and October 26, 2015. The Estates disconnected Well No.1 from the water system and
19 disinfected the entire distribution system. The following month, November 2015, the
20 bacteriological water analysis results submitted by the Estates reported the presence of total
21 coliform bacteria in Well No. 1 and the absence of total coliform bacteria in four (4) routine
22 samples collected. None of the positive samples showed the presence of fecal coliform or E.
23 coli bacteria.

24
25 A summary of all water sample results for coliform bacteria collected in October 2015 through
26 November 2015 are included in Attachment B.

1 The California Groundwater Rule (GWR) requires the collection of a sample for bacteriological
2 evaluation from the well(s) serving the system in response to a coliform-positive distribution
3 sample within 24 hours of being notified of the coliform-positive result. Based on data submitted
4 to the Division, the Estates collected the raw water samples in a timely manner in follow-up to
5 the total coliform-positive routine samples collected in the month of October 2015.

6
7 Public notification to the Division and consumers at the Estates is required whenever a violation
8 of the Total Coliform MCL occurs. Notification to the Division is required by the end of the
9 business day on which the violation has been determined. If the Division is closed, notification
10 shall be within 24 hours of the determination. In November 2015, the Division was notified, in
11 accordance with the above-referenced section.

12
13 Public notification to the customers of the Estates was initiated on November 18, 2015, advising
14 each customer of the failure of the total coliform MCL. Copies of the notice and certification of
15 public notification that was hand-delivered to the water customers are included as Attachment C
16 and Attachment E, respectively.

17
18 The cause of contamination was Well No.1 which is currently disconnected from the water
19 system.

20
21 **DETERMINATION**

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

1 The Division has determined that the Estates failed to comply with Title 22, CCR, Section
2 64426.1, Total Coliform MCL for the month of October 2015 due to the presence of total
3 coliform bacteria in more than one (1) sample collected.
4

5 **DIRECTIVES**
6

7 The Cascade Estates is hereby directed to take the following actions:
8

- 9 1. Comply with Title 22, CCR, Section 64426.1 in all future monitoring periods.
10
11 2. Section 64463.4 allows the water system to give public notice by posting the notice in
12 conspicuous locations throughout the area served by the water system and by the use of
13 one or more of the following methods in order to reach persons not likely to be reached by a
14 public posting: publication in a local newspaper or newsletter distributed to customers, e-
15 mailing the public notice to Estates' customers, post the public notice on the internet, or by
16 delivery to each customer. The Division allowed the Estates to use one method of
17 notification by hand delivering the notice to all water customers. The Division hereby waives
18 public notification by newspaper publication, posting, email or internet to the customer.
19
20 3. By **February 10, 2016**, the Estates shall complete and submit the enclosed "Positive Total
21 Coliform Investigation" form to the Division that describes the incident and all corrective
22 actions taken, and the results of the investigation. The appropriate investigation report is
23 provided as Attachment D.
24
25
26
27

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

4
5 Nothing in this Citation relieves the Estates of its obligation to meet the requirements of the
6 California Safe Drinking Water Act or any regulation, standard, permit or order issued
7 thereunder.

8
9 All submittal required by this Citation shall be submitted to the Division at the following address:

10
11 Kassy D. Chauhan, P.E.
12 Senior Sanitary Engineer, Merced District
13 State Water Resources Control Board
14 Division of Drinking Water
15 265 W. Bullard Avenue, Suite 101
16 Fresno, CA 93704

17
PARTIES BOUND

18 This Citation shall apply to and be binding upon the Cascade Estates, its officers, directors,
19 agents, employees, contractors, successors, and assignees.

20
SEVERABILITY

21 The Directives of this Citation are severable, and the Cascade Estates shall comply with each
22 and every provision thereof notwithstanding the effectiveness of any provision.

1 FURTHER ENFORCEMENT ACTION

2
3 The California SDWA authorizes the Board to: issue citation with assessment of administrative
4 penalties to a public water system for violation or continued violation of the requirements of the
5 California SDWA or any permit, regulation or order issued or adopted thereunder including, but
6 not limited to, failure to correct a violation identified in a citation or compliance order. The
7 California SDWA also authorizes the Board to take action to suspend or revoke a permit that
8 has been issued to a public water system if the system has violated applicable law or
9 regulations or has failed to comply with an order of the Board; and to petition the superior court
10 to take various enforcement measures against a public water system that has failed to comply
11 with an order of the Board. The Board does not waive any further enforcement action by
12 issuance of this citation.

13
14
15 1-11-16
16 Date

Kassy D. Chauhan
Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
DRINKING WATER FIELD OPERATIONS BRANCH

17
18 **CERTIFIED MAIL NO.: 7015 1660 0000 0781 7643**

19 **KDC/MLM**

20 **Attachments:**

- 21 Attachment A: Applicable Authorities
- 22 Attachment B: Summary of Bacteriological Samples from October to November 2015
- 23 Attachment C: Public Notice
- 24 Attachment D: Positive Total Coliform Investigation Report
- 25 Attachment E: Proof of Notification Form



APPENDIX 1

**Applicable Statutes and Regulations for Citation No. 03-12-16C-004
Violation of Total Coliform Rule MCL**

Section 116271 of the CHSC states in relevant part:

(a) The State Water Resources Control Board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:

- (1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).
- (2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.
- (3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.
- (4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).
- (5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.
- (6) Chapter 7 (commencing with Section 116975).
- (7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).
- (8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).
- (9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.
- (10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).
- (11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).
- (12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).

(b) The State Water Resources Control Board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the State Water Resources Control Board shall refer to the State Water Resources Control Board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500...

- (k)
- (1) The State Water Resources Control Board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.
 - (2) The deputy director is delegated the State Water Resources Control Board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken, but are not subject to reconsideration, by the State Water Resources Control Board. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the State Water Resources Control Board, but any aggrieved person may petition the State Water Resources Control Board for reconsideration of the decision or action. This subdivision is not a limitation on the State Water Resources Control Board's authority to delegate any other powers and duties.

Section 116555(a)(1) of the CHSC states in relevant part:

- (a) Any person who owns a public water system shall ensure that the system does all of the following:
- (1) Complies with primary and secondary drinking water standards.

Section 116650 (Citations) of the CHSC states in relevant part:

- (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 64424 (Repeat sampling) of the CCR states in relevant part:

- (a) If a routine sample is total coliform-positive, the water supplier shall collect a repeat sample set as described in paragraph (a)(1) within 24 hours of being notified of the positive result. The repeat samples shall all be collected within the same 24 hour time period. A single service connection system may request that the Division allow the collection of the repeat sample set over a four-day period.
 - (1) For a water supplier that normally collects more than one routine sample a month, a repeat sample set shall be at least three samples for each total coliform-positive sample. For a water supplier that normally collects one or fewer samples per month, a repeat sample set shall be at least four samples for each total coliform-positive sample.
 - (2) If the water supplier is unable to collect the samples within the 24-hour time period specified in subsection (a) or deliver the samples to the laboratory within 24 hours after collection because of circumstances beyond its control, the water supplier shall notify the Department within 24 hours. The Department will then determine how much time the supplier will have to collect the repeat samples.
- (b) When collecting the repeat sample set, the water supplier shall collect at least one repeat sample from the sampling tap where the original total coliform-positive sample was taken. Other repeat samples shall be collected within five service connections upstream or downstream of the original site. At least one sample shall be from upstream and one from downstream unless there is no upstream and/or downstream service connection.
- (c) If one or more samples in the repeat sample set is total coliform-positive, the water supplier shall collect and have analyzed an additional set of repeat samples as specified in subsections (a) and (b). The supplier shall repeat this process until either no coliforms are detected in one complete repeat sample set or the supplier determines that the MCL for total coliforms specified in §64426.1 has been exceeded and notifies the Department.
- (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 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.

Section 64426 (Significant Rise in Bacterial Count) of the CCR states in relevant part:

- (a) Any of the following criteria shall indicate a possible significant rise in bacterial count:
 - (1) 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;
 - (2) A system has a sample which is positive for fecal coliform or E. coli; or
 - (3) 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.

Section 64426.1 (Total Coliform Maximum Contaminant Level (MCL)) of the CCR states in relevant part:

- (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.

Section 64463.1 (Tier 1 Public Notice) of CCR states in relevant part:

- (a) A water system shall give public notice pursuant to this section and section 64465 if any of the following occurs:
- (1) Violation of the total coliform MCL when:
 - (A) Fecal coliform or *E. coli* are present in the distribution system; or
 - (B) When any repeat sample tests positive for coliform and the water system fails to test for fecal coliforms or *E. coli* in the repeat sample;...
- (b) As soon as possible within 24 hours after learning of any of the violations in subsection (a) or being notified by the State Board that it has determined there is a potential for adverse effects on human health [pursuant to paragraph (a)(4), (5), or (6)], the water system shall:
- (1) Give public notice pursuant to this section;
 - (2) Initiate consultation with the State Board within the same timeframe; and
 - (3) Comply with any additional public notice requirements that are determined by the consultation to be necessary to protect public health.
- (c) A water system shall deliver the public notice in a manner designed to reach residential, transient, and nontransient users of the water system and shall use, as a minimum, one of the following forms:
- (1) Radio or television;
 - (2) Posting in conspicuous locations throughout the area served by the water system;
 - (3) Hand delivery to persons served by the water system; or
 - (4) Other method approved by the State Board, based on the method's ability to inform water system users.

Section 64463.4 (Tier 2 Public Notice) of the CCR 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:
- (1) 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, community water systems shall give public notice by:
 - (A) Mail or direct delivery 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; and
 - (B) Use of one or more of the following methods to reach persons not likely to be reached by a mailing or direct delivery (renters, university students, nursing home patients, prison inmates, etc.):
 1. Publication in a local newspaper;
 2. Posting in conspicuous public places served by the water system, or on the Internet; or
 3. Delivery to community organizations.
 - (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.

Section 64465 (Public Notice Content and Format) of the CCR 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 or 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.

**Appendix 64465-A. Health Effects Language
Microbiological Contaminants.**

Contaminant	Health Effects Language
Total Coliform	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 samples than allowed and this was a warning of potential problems.
Fecal coliform/ <i>E. coli</i>	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly, and people with severely compromised immune systems.
Turbidity	Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the

presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

Section 64469 (Reporting Requirements) of CCR states in relevant part:

- (d) Within 10 days of giving initial or repeat public notice pursuant to Article 18 of this Chapter, except for notice given under section 64463.7(d), each water system shall submit a certification to the State Board that it has done so, along with a representative copy of each type of public notice given.

Ground Water Rule

California Code of Regulations (CCR), Section 64430 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 64423I,
- (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 64425I, and
- (c) section 141.402(a)(2)(iii), the phrase —§141.21(b) is replaced by —22 California Code of Regulations section 64424I.

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

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.

Bacteriological Distribution Monitoring Report

5500104 CASCADE ESTATES
Distribution System Freq: 1/M

Sample Date	Location	T Coli	E Coli	F Coli	HPC	Type	Cl2	Violation	Comment
10/21/2015	Lot 56	>8.0	<1.1	<1.1		Routine			
10/23/2015	Lot # 55	<1.1				Repeat			
10/23/2015	Lot # 57	4.6	<1.1	<1.1		Repeat		MCL	
10/23/2015	Lot #56	1.1	<1.1	<1.1		Repeat			
10/23/2015	Storage Tanks	4.6	<1.1	<1.1		Repeat			
10/23/2015	Well 1	2.6	<1.1	<1.1		Repeat			
10/23/2015	Well 3	<1.1				Repeat			
10/26/2015	Well 1	4.6	<1.1	<1.1		Repeat			
11/4/2015	Office HB	<1.1				Routine			
11/17/2015	Sp 56	<1.1				Routine			
11/17/2015	Well 1	>8.0	<1.1	<1.1		Other			Off line
11/25/2015	Sp 24	<1.1				Routine			
11/30/2015	Sp 33	<1.1				Routine			

Violation Key

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

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.

The Cascade Estates 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 you should do, what happened, and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took 7 samples to test for the presence of coliform bacteria during October 21-23, 2015. Five of our samples showed the presence of total coliform bacteria. The standard is that no more than one sample per month may do so.

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 system's treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **We did not find any of these bacteria in our subsequent testing, and further testing shows that this problem has been resolved.**
- 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 U.S. 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 was done?

Due to the presence of total coliform, the entire distribution system was disinfected with chlorine and flushed.

For more information, please contact John Jacobson at phone (209) 532-7398.

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 the Cascade Estates.

State Water System ID#: 5500104. Date distributed: 11-18-15.

POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in completing the investigation required by the State Water Resource Control Board (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					

TREATMENT

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

POSITIVE TOTAL COLIFORM INVESTIGATION

Page 2 of 5

TREATMENT	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	COMMENTS
2. Did the distribution system lose chlorine residual?						
3. If you do not provide routine chlorination, was emergency chlorination initiated? If Yes, when?						
4. Inspect each point where disinfectant is added and report a. For hypo-chlorinator systems						
1. Is the disinfectant feed pump feeding disinfectant?						
2. What is the feed rate of disinfectant in ml/minute						
3. What is the concentration of the disinfectant solution being fed? (percent, or mg/l of chlorine as HOCl)						
4. By what method was the concentration of solution determined? (ex: measured, manufacturer's literature)						
5. What is the age (days) of the disinfectant solution currently being used at this treatment location?						
6. What is the raw water flow rate at the point where disinfectant is added in gallons per minute?						
7. What is the total chlorine residual measured immediately downstream from the point of application?						
8. What is the free chlorine residual measured immediately downstream from the point of application?						
9. What is the contact time in minutes from the point of disinfectant application to the first customer?						

STORAGE	TANK (name)	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						

POSITIVE TOTAL COLIFORM INVESTIGATION

Page 3 of 5

STORAGE	TANK (name)	COMMENTS				
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 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.	
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?	

BOOSTER STATION	SYSTEM RESPONSES
1. Do you have a booster pump? How many?	
2. Do you have a standby booster pump if the main pump fails?	
3. Prior to bacteriological quality problems, did your booster pump fail?	
4. Do you notice standing water, leakage at the booster station?	

POSITIVE TOTAL COLIFORM INVESTIGATION

Page 4 of 5

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 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),				

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?	

POSITIVE TOTAL COLIFORM INVESTIGATION

Page 5 of 5

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: _____

Certification of Completion of Public Notification

This form, when completed and returned to the Division of Drinking Water - Merced District (265 W. Bullard Ave. #101, Fresno, CA 93704 or fax to 559-447-3304), serves as certification that public notification to water users was completed as required by Title 22, California Code of Regulations, Sections 64463-64465.

Public Water System Name: CASCADE ESTATES

Public Water System No.: 5500104

Public notification for **failure to comply with the TCR MCL for the month of October 2015** was performed by the following method(s) (check and complete those that apply):

The notice was mailed to users on: _____
A copy of the notice is attached.

The notice was hand delivered to water customers on: 11-18-15
A copy of the notice is attached.

The notice was published in the local newspaper on: _____
A copy of the newspaper notice is attached.

The notice was published in conspicuous places on: _____
A copy of the notice is attached.
A list of locations the notice was posted is attached.

The notice was delivered to community organizations on: _____
A copy of the notice is attached.
A list of community organizations the notice was delivered to is attached.

I hereby certify that the above information is factual.

Jeanette Moore
Printed Name

Park Manager
Title

[Signature]
Signature

11-17-15
Date

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 each day that the 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.

Due to the Division of Drinking Water within 10 days of issuance of notice to customers
System Number: _____
Enforcement Action No. _____