

## State Water Resources Control Board

Division of Drinking Water

September 9, 2015

James Hansen  
General Manager  
Mariana Ranchos County Water District  
9600 Manzanita Street  
Apple Valley, CA 92308

**CITATION NO. 05-13-15C-005  
TOTAL COLIFORM MCL EXCEEDANCE IN JULY 2015  
MARIANA RANCHOS COUNTY WATER DISTRICT (SYSTEM NO. 3610030)**

Dear Mr. Hansen:

The State Water Resources Control Board, acting by and through its Division of Drinking Water (Division), hereby issues a citation to Mariana Ranchos County Water District (hereinafter District) for the following violation:

- Title 22, California Code of Regulations (CCR), Section 64426.1(b)(2). Specifically, the District failed to meet the Primary Drinking Water Standards for bacteriological quality in the month of July 2015. A public water system which collects fewer than 40 samples per month is in violation of the Total Coliform Maximum Contaminant Level (MCL) when more than one (1) sample collected during a single month is total coliform-positive.

The District has already submitted the required submittals for the citation and no additional action is required. If you have any questions regarding this letter, please contact Andrés Aguirre at (909) 383-4308 or by e-mail at [andres.aguirre@waterboards.ca.gov](mailto:andres.aguirre@waterboards.ca.gov).

Sincerely,



Sean F. McCarthy, P.E.  
District Engineer  
San Bernardino District  
Southern California Field Operations Branch

Enclosure: Citation No. 05-13-15C-005

## **ENCLOSURE**

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CITATION NO. 05-13-15C-005

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**STATE OF CALIFORNIA**  
**WATER RESOURCES CONTROL BOARD**  
**DIVISION OF DRINKING WATER**

TO: Mariana Ranchos County Water District  
9600 Manzanita Street  
Apple Valley, CA 92308

ATTN: James Hansen  
General Manager

**CITATION FOR VIOLATION OF CALIFORNIA CODE OF REGULATIONS,  
TITLE 22, SECTION 64426.1 (b)(2) - WATER SYSTEM NO. 3610030**

**CITATION NO. 05-13-15C-005**

**Issued on September 9, 2015**

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, 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 Mariana Ranchos County Water District (hereinafter District) for the following violation:

- Title 22, California Code of Regulations (CCR), Section 64426.1(b)(2). Specifically, the District failed to meet the Primary Drinking Water Standards for bacteriological quality in the month of July 2015. A public water system which collects fewer than 40 samples per month is in violation of the Total Coliform Maximum Contaminant Level (MCL) when more than one (1) sample collected during a single month is total coliform-positive.

In the month of July 2015, the District collected two routine distribution system samples for bacteriological analysis. Both routine samples resulted present for total coliform but absent for *E.coli*. A total of six (6) repeat samples were collected, two (2) sets of three (3) repeat samples, and two triggered source samples (**see Attachment No 1**). All repeats and triggered source samples resulted absent for total coliform and *E.coli*/Fecal except Well 2 which was positive for total coliform and absent for *E.coli*. A repeat sample of the well was absent for total coliform and *E.coli*.

## HISTORY

The District is a community water system supplying water for domestic purposes to approximately 1,403 persons through 420 service connections. The District serves an unincorporated area in the vicinity of the Town of Apple Valley in San Bernardino County. The District distribution system consists of three (3) reservoirs supplying water to three (3) pressure zones. The District collects a minimum of two (2) routine distribution system samples per month. Water is produced from two (2) active wells, Well Nos. 1 and 2. Wells are not routinely sampled for total coliform, only when required. Continuous chlorination is not provided but provisions for emergency chlorination are maintained. The water system is currently operating by authority of Domestic Water Permit No. 80-037 issued by the Division on June 27, 1980.

1 On July 23, 2015, the District collected two (2) routine samples from the distribution system for  
2 bacteriological analyses. Both routine samples resulted present for total coliform and absent for  
3 *E.coli*/Fecal.

4

5 On July 24, 2015, the laboratory notified the District of the positive samples. The District notified  
6 the Division and proceeded to collect three (3) repeat samples from the distribution system, one  
7 at the original site with the present total coliform, one upstream, and one downstream for each  
8 site for a total of six (6) samples. The District also collected triggered source (total coliform)  
9 samples from the two active sources serving the system, per the Groundwater Rule. All repeat  
10 and triggered source samples resulted absent for total coliform and *E.coli*/Fecal except for Well 2  
11 that was positive for total coliform, absent for *E.coli*.

12

13 On July 25, 2015, the laboratory notified the District of the positive sample. The District notified  
14 the Division of the positive well sample and requested to allow re-sample of Well 2 on Monday  
15 July 27, 2015 while maintaining the well offline. The Division consented to the extension.

16

17 On July 27, 2015, the Company proceeded to collect one (1) repeat sample at Well 2. The result  
18 was absent for total coliform

19

20 Pursuant to Section 64426.1(b) a public water system who collects fewer than 40 samples per  
21 month and if more than one sample collected during any month is total coliform-positive, it is in  
22 violation of the total coliform MCL. Therefore, the District is in violation of the Total Coliform  
23 Maximum Contaminant Level (MCL), because more than one sample collected during the month  
24 of July 2015 was total coliform-positive.

25

26

1 **DIRECTIVES**

2  
3 The District is hereby directed to take the following actions:

- 4
- 5 1. The District shall notify it's consumers of the bacteriological water quality failure in  
6 conformance with Section 64426.1 (c), Title 22, CCR: A Tier 2 Resolved Total Coliform  
7 Notice has been submitted and approved for distribution.
- 8 • The notice shall be issued to consumers by mail or direct delivery, including those that  
9 provide their drinking water to others (e.g. schools, or schools system, apartment  
10 building owners, or large private employers), and other service connections to which  
11 water is delivered by the water system. **(The District completed this directive July 31,  
12 2015, see Attachment No. 2)**
- 13
- 14 2. The District shall submit Proof of Notification that all the public notice requirements have  
15 been met pursuant to Section 64469 (d), Title 22, CCR **(The District completed this  
16 directive on August 3, 2015, see Attachment No. 2)**
- 17
- 18 3. By September 10, 2015, the District shall submit a monthly bacteriological report for the  
19 month of August 2015 showing five (5) distribution bacteriological samples were collected  
20 **(The District completed this directive on September 8, 2015, see Attachment No. 3)**
- 21
- 22 4. **By October 14, 2015**, the District must submit a completed Positive Total Coliform Rule  
23 Investigative report to the Division **(The District completed this directive on August 3,  
24 2015, see Attachment No. 4).**
- 25  
26

1 All submittals required by this citation shall be sent to:

2

3

Sean F. McCarthy, P.E.

4

Senior Sanitary Engineer

5

State Water Resources Control Board

6

Division of Drinking Water

7

464 W. 4th Street, Suite 437

8

San Bernardino, CA 92401

9

10 **CIVIL PENALTIES**

11

12 Section 116650 (d) and (e) of the H&S Code allow for the assessment of a civil penalty for failure  
13 to comply with requirements of the Safe Drinking Water Act. Failure to comply with any provision  
14 in this citation will result in the Division imposing an administrative penalty of up to \$200.00 (two  
15 hundred dollars) per day as of the date of violation of any provision of this citation.

16

17

September 9, 2015  
Date

Sean F. McCarthy  
Sean F. McCarthy, P.E.  
District Engineer  
San Bernardino District  
Southern California Field Operations Branch

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21 Attachments (4)

22

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Attachment No. 1

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July 2015 Monthly Coliform Monitoring Report/Lab Results

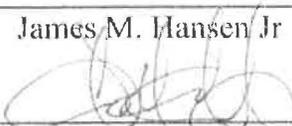
MONTHLY SUMMARY OF DISTRIBUTION SYSTEM  
COLIFORM MONITORING

System Name <b>Mariana Ranchos County Water District</b>	System Number <b>3610030</b>
Sampling Period Month: <b>July</b>	Year <b>2015</b>

	Number Required	Number Collected	Number Total Coliform Positives	Number Fecal/E.coli Positives
1. Routine Samples (see note 1)	<u>2</u>	<u>2</u>	<u>2</u>	<u>0</u>
2. Repeat Samples Following Samples Which are Total Coliform Positive and Fecal/E.coli <i>Negative</i> (see notes 5 and 6)		<u>9</u>	<u>1</u>	<u>0</u>
3. Repeat Samples Following Routine Samples Which are Total Coliform Positive and Fecal/E.coli <i>Positive</i> (see notes 5 and 6)		<u>0</u>	<u>0</u>	<u>0</u>
4. MCL Computation for Total Coliform Positive Samples				
a. Totals (sum of columns)	<u>2</u>	<u>11</u>	<u>3</u>	
b. If 40 or more samples collected in month, determine percent of samples that are total coliform positive. [(total number positive/total number collected) x 100] = _____				
c. Is system in compliance.....with fecal/E. coli MCL? (see notes 2 and 3)	<u>XX</u> Yes	_____ No		
...with monthly MCL? (see note 4)	<u>XX</u> Yes	_____ No		
5. Invalidated Samples (Note what samples, if any, were invalidated; who authorized the invalidation; and when replacement samples were collected. Attach additional sheets, if necessary.)				

RECEIVED  
SEP 08  
Initial: \_\_\_\_\_  
RECEIVED  
SEP 08 '15  
Initial: M

6. Summary Completed By:

Signature <b>James M. Hansen Jr</b> 	Title General Manager	Date 7/27/2015
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NOTES AND INSTRUCTIONS:

1. Routine samples include:

- a. Samples required per 22, CCR, Section 64423;
- b. Extra samples required for systems collecting less than five routine samples per month that had one or more total coliform positives in previous month.
- c. Extra samples for systems with high source water turbidities that are using surface water or groundwater under the direct influence of surface water and do not practice filtration in compliance with regulations.

Note: For a repeat sample following a total coliform positive sample, any fecal/E.coli positive repeat (boxed entry) *constitutes an MCL violation and requires Immediate notification to the Department (22, CCR, Section 64426.1).*

Note: For a repeat sample following a fecal/E.coli positive sample, any total coliform positive repeat (boxed entry) *constitutes an MCL violation and requires Immediate notification to the Department (22, CCR, Section 64426.1).*

Total coliform MCL (Notify Department within 24 hours of MCL violation):

- a. For systems collecting less than 40 samples, if two or more samples are total coliform positive, then the MCL is violated.
- b. For systems collecting 40 or more samples, if more than 5.0 percent of samples collected are total coliform positive, then the MCL is violated.

Positive results and their associated repeat samples must be tracked on the worksheet on the other side.

For systems collecting more than one routine sample per month, three repeat samples must be collected for each total coliform positive sample- Repeat samples must be collected within 24 hours of being notified of the positive result.

# Geo-Monitor, Inc.

JT/9/05



*Client:* Mariana Ranchos  
9600 Manzanita St.  
Apple Valley, CA 92308

*Contact:* James Hansen  
*Phone:* (760) 247-9405 / (760) 912-9400  
*Fax:* (760) 247-1205  
*System:* 3610030

*Project:*

*Sampler:* Greg Watkins  
*Date Sampled:* July 23, 2015  
*Date/Time Setup:* July 23, 2015 1630  
*Date/Time Read:* July 24, 2015 1030  
*Date Reported:* July 24, 2015

## Results

Laboratory ID	Sample Time	Sample Location	Cl Res (mg/L)	Sample Type	SM 9223		SM 9215B
					Total Coliform	E. coli	HPC cfu / 1 mL
B494	15:12	SP @ Bella Vista		1-D	Present (1)	Absent	2946
B495	15:02	SP @ Sage Brush		1-D	Present (1)	Absent	2947

(1) Notified Jim 7-24-15 @ 8:35

RECEIVED  
SEP 08 2015  
Initial: \_\_\_\_\_

### Sample Types

- 1 = routine
- 2 = repeat
- 3 = replacement
- 4 = special
- W = well
- D = distribution

Director: Bd Juy

# Geo-Monitor, Inc.

J. Hansen  
①



**Client:** Mariana Ranchos  
9600 Manzanita St.  
Apple Valley, CA 92308

**Contact:** James Hansen  
**Phone:** (760) 247-9405 / (760) 912-9400  
**Fax:** (760) 247-1205  
**System:** 3610030

**Project:**

**Sampler:** James Hansen  
**Date Sampled:** July 24, 2015  
**Date/Time Setup:** July 24, 2015 1520  
**Date/Time Read:** July 25, 2015 1010  
**Date Reported:** July 27, 2015

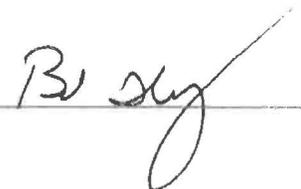
## Results

Laboratory ID	Sample Time	Sample Location	Cl Res (mg/L)	Sample Type	SM 9223		SM 9215B
					Total Coliform	E. coli	HPC cfu / 1 mL
B507	13:12	Well # 1		W	Absent		
B508	13:17	Well # 2		W	Present (1)	Absent	
B509	12:41	Sagebrush SS		2-D	Absent		
B510	12:40	9645 Sagebrush St.		2-D	Absent		
B511	12:57	9577 Sagebrush St.		2-D	Absent		
B512	13:58	Bella Vista SS		2-D	Absent		
B513	13:54	9828 Bella Vista St.		2-D	Absent		
B514	14:00	9775 Bella Vista St.		2-D	Absent		

(1) Notified Jim H. 7-25-15 @ 10:15

Sample Types

- 1 = routine
- 2 = repeat
- 3 = replacement
- 4 = special
- W = well
- D = distribution

Director: 

# Geo-Monitor, Inc.

IN 6/20/15



**Client:** Mariana Ranchos  
9600 Manzanita St.  
Apple Valley, CA 92308

**Contact:** James Hansen  
**Phone:** (760) 247-9405 / (760) 912-9400  
**Fax:** (760) 247-1205  
**System:** 3610030

**Project:**

**Sampler:** James Hansen  
**Date Sampled:** July 27, 2015  
**Date/Time Setup:** July 27, 2015 1430  
**Date/Time Read:** July 28, 2015 0830  
**Date Reported:** July 28, 2015

## Results

Laboratory ID	Sample Time	Sample Location	Cl Res (mg/L)	Sample Type	SM 9223		SM 9215B
					Total Coliform	E. coli	HPC cfu / 1 mL
B517	8:26	Well # 2		2-W	Absent		
B518	9:00	Sagebrush #1 500K NIS		4	Absent		

Sample Types

- 1 = routine
- 2 = repeat
- 3 = replacement
- 4 = special
- W = well
- D = distribution

Director: BJ Dwyer

Attachment No. 2

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Tier 2 Notice and Proof of Notification

Drinking Water Notification to Consumers

AUG 3 2015

Drinking Water Division  
San Bernardino County

PROOF OF NOTIFICATION

Name of Water System: Mariana Ranchos County Water District

Please explain what caused the problem if you have determined what it was and what steps you have taken to correct it. We had a main distribution line failure. We will insist on better spot chlorination during and after repairs. We will also do a system wide chlorination to establish a residual immediately after any major repairs.

Consumers Notified XXX Yes \_\_\_\_\_ No

If not, Explain: \_\_\_\_\_

Date of Notification: July 31<sup>st</sup>, 2015 in their normal billing

On the date of notification set forth above, I served the above referenced document(s) on the consumers by:

XXX Sending a copy through the U.S. Mail, first class, postage prepaid, addressed to each of the resident(s) at the place where the property is situated, pursuant to the California Civil Code. Attach copy of Notice.

Newspaper (if the problem has been corrected). Attach a copy of Notice.

Personally hand-delivering a copy to each of the consumers. Attach a copy of notice.

XXX Posted on a public bulletin board, that will be seen by each of the consumers (for small, non-community water systems with prior Division approval). Attach copy of Notice.

XXX A copy was posted on the District's Web site.

I hereby declare the forgoing to be true and correct under penalty of perjury.

Dated: August 03, 2015

  
\_\_\_\_\_  
Signature of Person Serving Notice

**\*\*Notice:** Complete this Proof of Notification and return it along with a copy of the notification to the Division within 10 days of receipt of giving public notice.

Disclosure: Be advised that the California Health and Safety Code states that any person who knowingly makes a 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 each separate violation for each day that violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by fine of not more than twenty-five thousand dollars (\$25,000) for each day of violation, or be imprisoned in county jail not to exceed one year or by both the fine and imprisonment.

7  
AUG 3 2014  
California State Water Resources Control Board

## 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.

### Mariana Ranchos County Water District 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 two samples to test for the presence of coliform bacteria during July 2015. Both of those 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?**

On July 22<sup>nd</sup>, 2015 we experienced a major distribution line break at the intersection of Roundup Way and Sagebrush Street. This resulted in replacement of an eight to a ten inch T-fitting and removal of a valve that dated back to 1963. Even though spot chlorination was performed by the maintenance crews, some dirt and dirty water accidentally entered the distribution system. This intrusion was discovered during our monthly testing on July 23<sup>rd</sup>, 2015. Upon notification from the lab of the coliform present samples, we immediately began a complete chlorination of our system. This started at the tanks and worked all the way through the system street by street, always ensuring that we had a safe residual amount of chlorine until we reached the farthest points of the system. At that time we retested a total of six samples sites on July 24<sup>th</sup>, 2015. These six samples were found to be absent for coliforms when they were read on July 25<sup>th</sup>, 2015.

As a standard measure, MRCWD will now ensure that a more complete spot chlorination is completed on any major repair. Then we will perform a system chlorination from tanks to farthest connection as a additional protection.

For more information, please contact James Hansen at 760-912-9400 or 9600 Manzanita Street, Apple Valley, California 92308.

*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 Mariana Ranchos County Water District.

State Water System ID#: 3610030. Date distributed: July 30<sup>th</sup>, 2015.

Attachment No. 3

---

Positive Total Coliform Investigation Form

## POSITIVE TOTAL COLIFORM INVESTIGATION

This form is intended to assist public water systems in completing the investigation required by the State 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: PWSID NUMBER: 3610030 Type: Community/Non-Transit	System	Name Mariana Ranchos County Water District	System Address & Email 9600 Manzanita St, Apple Valley 92308 gm@mrcwd.org	Telephone Number 760-247-9405
Operator in Responsible Charge (ORC)		James M Hansen Jr.	21724 Hercules St, Apple Valley 92308	760-954-3363
Person that collected TC samples if different than ORC		Greg Watkins/Geo-Monitor	17152 Darwin Ave, Hesperia 92340	760-244-3481
System Owner		Special District (Public)		
Certified Laboratory for Microbiological Analyses		Geo-Monitor	17152 Darwin Ave, Hesperia 92340	760-244-3481
Date Investigation Completed: 28 July 2015				
Month(s) of Total Coliform MCL Failure: 1				

### INVESTIGATION DETAILS

SOURCE	WELL #1	WELL #2	WELL (name)	WELL (name)	COMMENTS <small>(attach additional pages if needed)</small>
1. Inspect each well head for physical defects and report			NONE	NONE	
a. Is raw water sample tap upstream from point of disinfection?	Yes	Yes	NONE	NONE	
b. Is wellhead vent pipe screened?	Yes	Yes	NONE	NONE	
c. Is wellhead seal watertight?	Yes	Yes	NONE	NONE	
d. Is well head located in pit or is any piping from the wellhead submerged?	No	No	NONE	NONE	
e. Does the ground surface slope towards well head?	No	No	NONE	NONE	
f. Is there evidence of standing water near the wellhead?	No	No	NONE	NONE	
g. Are there any connections to the raw water piping that could be cross connections? (describe all connections in comments)	No	No	NONE	NONE	
h. Is the wellhead secured to prevent unauthorized access?	Yes	Yes	NONE	NONE	
i. To what treatment plant (name) does this well pump?	N/A	N/A	NONE	NONE	
j. How often do you take a raw water total coliform (TC) test?	Monthly	Monthly	NONE	NONE	
k. Provide the date and result of the last TC test at this location	7/24/15	7-27-15	NONE	NONE	
2. Inspect and review records for surface water source (if applicable)	N/A	N/A	NONE	NONE	
a. Have there been any events in the watershed or near the intake that might have contributed to TC+ or EC+ results? (Describe)	N/A				

TREATMENT	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	COMMENTS
1. If you provide continuous chlorination treatment was there any equipment failure?	N/A	N/A	N/A	N/A	
a. Did the distribution system maintain chlorine residual?	N/A	N/A	N/A	N/A	
b. Was emergency chlorination initiated? If yes, for how long?	N/A	N/A	N/A	N/A	
c. Did the distribution system lose chlorine residual?	N/A	N/A	N/A	N/A	
2. If you do not provide routine chlorination, was emergency chlorination initiated? If Yes, when?	Yes 07/24/15				Immediately upon notification of hot bact from Lab.
3. Inspect each point where disinfectant is added and report	N/A	N/A	N/A	N/A	

## POSITIVE TOTAL COLIFORM INVESTIGATION

Page 2 of 5

TREATMENT	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	PLANT (NAME)	COMMENTS
a. Is the disinfectant feed pump feeding disinfectant?	N/A	N/A	N/A	N/A	
b. What is the feed rate of disinfectant in ml/minute?	N/A	N/A	N/A	N/A	
c. What is the concentration of the disinfectant solution being fed? (percent or mg/l of chlorine as HOCl)	N/A	N/A	N/A	N/A	
d. By what method was the concentration of solution determined? (ex: measured, manufacturer's literature)	N/A	N/A	N/A	N/A	
e. What is the age (days) of the disinfectant solution currently being used at this treatment location?	N/A	N/A	N/A	N/A	
f. What is the raw water flow rate at the point where disinfectant is added in gallons per minute?	N/A	N/A	N/A	N/A	
g. What is the total chlorine residual measured immediately downstream from the point of application?	N/A	N/A	N/A	N/A	
h. What is the free chlorine residual measured immediately downstream from the point of application?	N/A	N/A	N/A	N/A	
i. What is the contact time in minutes from the point of disinfectant application to the first customer?	N/A	N/A	N/A	N/A	

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)	48	36	36	N/A
2. Is the sample tap located in an exterior location or is it protected by an enclosure?	ENC	EXT	EXT	N/A
3. Is the sample tap threaded, have a swing arm (kitchen sink) or an aerator (sinks)?	NO	Yes	Yes	N/A
4. Is the sample tap in good condition, free of leaks around the stem or packing?	Yes	Yes	Yes	N/A
5. Can the sample tap be adjusted to the point where a good laminar flow can be achieved without excessive splash?	Yes	Yes	Yes	N/A
6. Is the sample tap and areas around the sample tap clean and dry (free of animal droppings other contaminants or spray irrigation systems)?	Yes	Yes	Yes	N/A
7. Is the area around the sample tap free of excessive vegetation or other impediments to sample collection?	Yes	Yes	Yes	N/A
8. Describe how the tap was treated in preparation for sample collection (ran water, swabbed with disinfectant, flamed, etc.).	Ran Water to ensure Temp change	Ran Water to ensure Temp change	Ran Water to ensure Temp change	N/A
9. Is this sample tap designated on the sampling plan submitted with this information request?	Yes	Yes	Yes	N/A
10. What were the weather conditions at the time of the positive sample (rainy, windy, and sunny)?	Sunny/Windy	Sunny/Windy	Sunny/Windy	N/A

## POSITIVE TOTAL COLIFORM INVESTIGATION

Page 3 of 5

STORAGE	TANK Sagebrush A	TANK Sagebrush B	TANK Valley Vista	TANK (name)	COMMENTS
1. Is each tank locked to prevent unauthorized access?	Yes	Yes	Yes	N/A	
2. Are all vents of each tank screened down-turned to prevent dust and dirt from entering the tank?	Yes	Yes	Yes	N/A	
3. Is the overflow on each tank screened?	Yes	Yes	Yes	N/A	
4. Are there any unsealed openings in the tank such as access doors, water level indicators hatches, etc.?	No	No	No	N/A	
5. Is the roof/cover of the tank sealed and free of any leaks?	Yes	Yes	Yes	N/A	
6. Is the tank above ground or buried?	Above	Above	Above	N/A	
a. If buried or partially buried, are there provisions to direct surface water away from the site.	N/A	N/A	N/A	N/A	
b. Has the interior of the tank been inspected to identify any sanitary defects, such as root intrusion?	Yes	Yes	Yes	N/A	
8. Does the tank "float" on the distribution system or are there separate inlet and outlet lines?	Yes	Yes	Yes	N/A	
9. What is the <b>measured</b> chlorine residual (total/free) of the water exiting the storage tank <b>today</b> ?	2.0	.05	.05	N/A	
10. What is the volume of the storage tank in gallons?	500K	200K	200K	N/A	
11. Is the tank baffled?	No	No	No	N/A	
12. Prior to the TC+ or EC+, what was the previous date item #1-7 were checked and documented?	07/20/15	07/20/15	07/20/15	N/A	

DISTRIBUTION SYSTEM	SYSTEM RESPONSES
1. What is the minimum pressure you are maintaining in the distribution system?	<b>45psi</b>
2. Did pressure in the distribution system drop to less than 5 psi prior to positive bacti?	<b>no</b>
3. Has the distribution system been worked on within the last week? (taps, hydrant flushing, main breaks, mainline extensions, etc.) If yes, provide details.	<b>Yes, mainline failure on 7-22-15</b>
4. Are there any signs of excavations near your distribution system not under the direct control of your maintenance staff?	<b>no</b>
5. Did you inspect your distribution system to check for mainline leaks? Do you or did you have a mainline leak?	<b>Yes, no</b>
6. If there was a mainline leak, when was it repaired?	<b>n/a</b>
7. On what date was the distribution system last flushed?	<b>4 various points on July 16<sup>m</sup>, 2015</b>
8. Is there a written flushing procedure you can provide for our review?	<b>yes</b>
9. Do you have an active cross-connection control program?	<b>yes</b>
10. What is name & phone number of your Cross-Connection Control Program Coordinator?	<b>James Hansen 760-247-9405</b>
11. Is the review and testing of backflow prevention devices current?	<b>yes</b>
12. On what date was the last physical survey of the system done to identify cross-connections?	<b>1<sup>st</sup> week of January 2015</b>

## POSITIVE TOTAL COLIFORM INVESTIGATION

Page 4 of 5

BOOSTER STATION	Response
1. Do you have a booster pump? How many?	3
2. Do you have a standby booster pump if the main pump fails?	yes
3. Prior to bacteriological quality problems, did your booster pump fail?	no
4. Do you notice standing water, leakage at the booster station?	no

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?	no
2. Where there any main breaks, water outages, or low pressure reported in the service area where TC+ or EC+ samples were located.	yes
3. Does the system have backup power or elevated storage?	yes
4. During or soon after bacteriological quality problems, did you receive any complaints of any customers' illness suspected of being waterborne? How many?	none
5. What were the symptoms of illness if you received complaints about customers being sick?	n/a

### 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.
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 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?

**We had a distribution line failure at the intersection of Sagebrush and Roundup Way. The maintenance crew did not perform an adequate spot chlorination during and after the repair to the T-Connection on the 8" and 10" main lines. Nothing in the system has changed since the last Sanitary survey performed on this system. I therefore won't be submitting any of the items in 1-5 above.**

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

**NAME: James M Hansen Jr. {original signed} TITLE: General Manager/D3#21669/T2#30302**

**DATE: August 03,2015**

**POSITIVE TOTAL COLIFORM INVESTIGATION**

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Attachment No. 4

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August 2015 Monthly Coliform Monitoring Report/Lab Results

MONTHLY SUMMARY OF DISTRIBUTION SYSTEM  
COLIFORM MONITORING

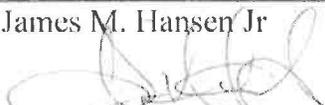
System Name <b>Mariana Ranchos County Water District</b>	System Number <b>3610030</b>
Sampling Period Month: <b>August</b>	Year <b>2015</b>

	Number Required	Number Collected	Number Total Coliform Positives	Number Fecal/E.coli Positives
1. Routine Samples (see note 1)	<u>5</u>	<u>5</u>	<u>0</u>	<u>0</u>
2. Repeat Samples Following Samples Which are Total Coliform Positive and Fecal/E.coli <i>Negative</i> (see notes 5 and 6)		<u>0</u>	<u>0</u>	<u>0</u>
3. Repeat Samples Following Routine Samples Which are Total Coliform Positive and Fecal/E.coli <i>Positive</i> (see notes 5 and 6)		<u>0</u>	<u>0</u>	<u>0</u>
4. MCL Computation for Total Coliform Positive Samples				
a. Totals (sum of columns)	<u>5</u>	<u>5</u>	<u>0</u>	
b. If 40 or more samples collected in month, determine percent of samples that are total coliform positive. [(total number positive/total number collected) x 100] =				
c. Is system in compliance.....with fecal/E. coli MCL? (see notes 2 and 3)	<u>XX</u> Yes	<u>    </u> No		
...with monthly MCL? (see note 4)	<u>XX</u> Yes	<u>    </u> No		

RECEIVED  
SEP 18 2015  
Initial:     

5. Invalidated Samples  
(Note what samples, if any, were invalidated; who authorized the invalidation; and when replacement samples were collected. Attach additional sheets, if necessary.)

6. Summary Completed By:

Signature <b>James M. Hansen Jr</b> 	Title General Manager	Date 8/27/2015
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NOTES AND INSTRUCTIONS:

1. Routine samples include:

- a. Samples required per 22, CCR, Section 64423.
- b. Extra samples required for systems collecting less than five routine samples per month that had one or more total coliform positives in previous month.
- c. Extra samples for systems with high source water turbidities that are using surface water or groundwater under the direct influence of surface water and do not practice filtration in compliance with regulations.

Note: For a repeat sample following a total coliform positive sample, any fecal/E.coli positive repeat (boxed entry) *constitutes an MCL violation and requires Immediate notification to the Department (22, CCR, Section 64426.1).*

Note: For a repeat sample following a fecal/E.coli positive sample, any total coliform positive repeat (boxed entry) *constitutes an MCL violation and requires Immediate notification to the Department (22, CCR, Section 64426.1).*

**Total coliform MCL (Notify Department within 24 hours of MCL violation):**

- a. For systems collecting less than 40 samples, if two or more samples are total coliform positive, then the MCL is violated.
- b. For systems collecting 40 or more samples, if more than 5.0 percent of samples collected are total coliform positive, then the MCL is violated.

Positive results and their associated repeat samples must be tracked on the worksheet on the other side.

For systems collecting more than one routine sample per month, three repeat samples must be collected for each total coliform positive sample- Repeat samples must be collected within 24 hours of being notified of the positive result

# Geo-Monitor, Inc.

JAN 2015



**Client:** Mariana Ranchos  
9600 Manzanita St.  
Apple Valley, CA 92308

**Contact:** James Hansen  
**Phone:** (760) 247-9405 / (760) 912-9400  
**Fax:** (760) 247-1205  
**System:** 3610030

**Project:**

**Sampler:** James Hansen  
**Date Sampled:** August 17, 2015  
**Date/Time Setup:** August 17, 2015 1200  
**Date/Time Read:** August 18, 2015 1200  
**Date Reported:** August 18, 2015

## Results

Laboratory ID	Sample Time	Sample Location	Cl Res (mg/L)	Sample Type	SM 9223		SM 9215B
					Total Coliform	E. coli	HPC cfu / 1 mL
B362	8:33	SP @ Bella Vista		1-D	Absent		
B363	8:58	SP @ Sagebrush		1-D	Absent		
B364	8:44	SP @ Moonbeam		1-D	Absent		
B365	9:31	Well #1		1-W	Absent		
B366	9:07	Well #2		1-W	Absent		

### Sample Types

- 1 = routine
- 2 = repeat
- 3 = replacement
- 4 = special
- W = well
- D = distribution

Director: 