

VIOLATION

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3 **1. Section 64533, Title 22, California Code of Regulations (CCR).**

4 Specifically, During the 2nd Quarter (April-June) of 2013, the total
5 trihalomethane (TTHM) concentrations in the drinking water supply
6 analyzed from the Gobernador Canyon sample site exceeded the Maximum
7 Contaminant Level of 0.080 mg/L based on the locational running annual
8 average (LRAA) of samples for the last four quarters of sampling.

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10 According to Section 116650 of the Health and Safety Code, the above is
11 classified as a non-continuing violation.

BACKGROUND

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14 The Carpinteria Valley Water District (CVWD) is a community water system
15 serving treated domestic water to a residential population of 16,050 through
16 3,413 residential, 211 commercial, 58 industrial and 428 irrigational
17 connections. CVWD has been operating under a domestic water supply permit
18 issued by the Department on July 21, 2004.

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21 The permitted sources of drinking water supply are three local groundwater
22 wells and purchased surface water (Lake Cachuma and imported State Project
23 Water) which receives treatment at City of Santa Barbara's conventional
24 filtration surface water treatment plant (Cater SWTP). CVWD has drilled a new
25 well, El Carro, to replace the old El Carro Well; currently, the source is in the
26 process being completed and permitted.
27



The treated surface water supplies are delivered to CVWD via Cachuma Project's (COMB) transmission system. Four storage facilities, five booster stations are used to convey the water supply to the seven pressure zone distribution system. CVWD also has the ability to serve and receive water from Casitas Municipal Water District (CMWD) during emergencies. CVWD maintains a free chlorine disinfectant residual in the distribution system.

CVWD is required to sample four distribution system monitoring locations quarterly for TTHM and HAA5 analyses via dual sample sets, for compliance with the Stage-2 Disinfection Byproducts Rule (Stage-2 DBPR) pursuant to Section 64534.2(d), Title 22, CCR; in accordance with a Department approved Stage-2 DBPR monitoring plan. The Stage-2 TTHM concentrations (ug/l) for the Gobernador Canyon Stage-2 site reported by CVWD are summarized below:

STAGE-2: #1 GOBERNADOR CYN

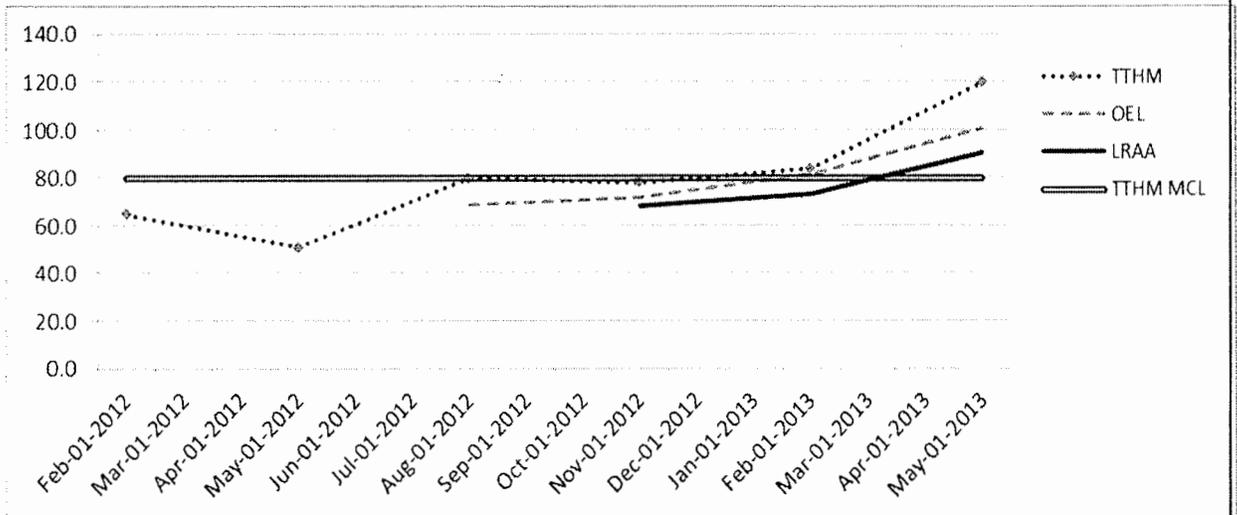
TTHM (ug/L)	Feb-06, 2012	May-07, 2012	Aug-06, 2012	Nov-12, 2012	Feb-06, 2013	May-08, 2013
	1st Qtr-2012	2nd Qtr-2012	3rd Qtr-2012	4th Qtr-2012	1st Qtr-2013	2nd Qtr-2013
TTHM	65.0	51.1	79.7	78.0	83.8	120.0
OEL			68.9	71.7	81.3	100.5
LRAA				68.5	73.2	90.4
TTHM MCL	80	80	80	80	80	80

LRAA: Locational Running Annual Average, OEL: Operational Evaluation Level

In the 3rd Quarter (Jul-Sep) 2012, the Gobernador Canyon Site experienced a 56% increase in TTHM concentrations, compared to the previous quarter. The subsequent two quarterly samples remained at elevated levels, resulting in an OEL exceedance for the 1st Quarter (Jan-Mar) of 2013. In the following quarterly sample, collected May 8, 2013, TTHM concentration was 120 ug/L,



and resulted in the Locational Running Annual Average (LRAA) concentration of 90.5 ug/l, computed based on the last four quarterly samples. Since, this value exceeds the TTHM Maximum Contaminant Level (MCL) of 80 ug/L in Table 64553-A, Title 22, CCR, CVWD is in violation of Section 64533(a), Title 22, CCR, for the 2nd Quarter (Apr-Jun) of 2013.



The raw surface waters received by Cater SWTP contain higher concentrations of organic compounds. The Cater SWTP uses free chlorination treatment; for both primary disinfection to achieve the inactivation requirements and secondary disinfection for disinfectant residual maintenance requirements of the SWTR. Reaction of free chlorine with trace organic compounds present in the water results in formation of TTHM and haloacetic acids (HAA5) Disinfection Byproducts (DBP) which can increase as water ages in the distribution system. Cater SWTP uses Powdered Activated Carbon (PAC) to control DBP pre-cursors.

The Cater SWTP is currently undergoing upgrades to replace it's primary disinfection treatment to ozonation which is expected to reduce trace organic



1 compounds thereby reducing DBP formation from secondary disinfection with
2 free chlorine. The upgrades are expected to be completed in the summer of
3 2013. A few months ago, Cater SWTP made treatment changes,
4 discontinuation of coagulant aluminium chlorohydrate (ACH) and PAC addition
5 and again restarting PAC addition two months later. Such treatment changes
6 affect DBP formation as water ages in the distribution system. It is good
7 operations and management practice for Public Water Systems that use
8 supplies treated by other agencies to stay abreast with current and planned
9 changes and events related to supply and treatment of the waters, well in
10 advance, and plan and implement necessary remedial actions to mitigate
11 possible negative impacts resulting from such changes in a timely manner.
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15 Groundwaters generally have low DBP formation potential and can be used to
16 blend down DBP concentrations in the distribution systems. CVWD's permitted
17 groundwater wells have a combined production capacity of approximately
18 2,180 gpm. Some of CVWD wells exceed the iron & manganese secondary
19 standards and are equipped with CDPH permitted filtration treatment facilities
20 to comply with the secondary drinking water standards. CVWD's groundwater
21 wells have been out of service for the past few months.
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23
24 CVWD maintains four water storage facilities in the distribution system that can
25 store up to 17.85 million gallons (MG) of treated drinking water. CVWD boosts
26 the chlorine residuals in the treated surface water upon delivery from COMB, at
27 its largest storage reservoir site (14.3 MG Carpinteria Reservoir), using free
chlorine in order to maintain adequate disinfectant residuals throughout the



1 system. Optimizing the operations of the storage facilities and the re-
2 chlorination treatment is a significant factor in controlling excessive DBP
3 formation.
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6 CVWD is required to give Tier-2 public notice for violation of the TTHM MCL,
7 pursuant to Section 64463.4, Title 22, CCR.

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9 **DIRECTIVES**

10 The CVWD is hereby directed to take the following actions:
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- 12 1. Within 30 days of receipt of this citation, complete notifying the public of the
13 TTHM MCL violation listed in this citation, pursuant to the Tier-2 public
14 notification procedures and format approved by the Department. CVWD
15 has been provided the public notification template by the Department.
16 CVWD has initiated the process of issuing the required Tier-2 public notice.
17
18 2. Submit certification of public notice issuance to the Department within 30
19 days of it's completion.
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21 3. Within 30 days submit a TTHM compliance plan and implementation
22 schedule for complying with the TTHM MCL. An updated compliance plan
23 shall continue to be submitted to the Department at least every 90 days
24 thereafter, based on new and planned changes to treatment, sources of
25 supply, and/or distribution system storage reservoir operations; until the
26 Department determines it is no longer necessary.
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4. Proof of public notification shall be submitted to:

Kurt Souza, P.E., Chief
Southern California Section
Santa Barbara District
Drinking Water Field Operations Branch
1180 Eugenia, Suite 200
Carpinteria, CA 93013-2000

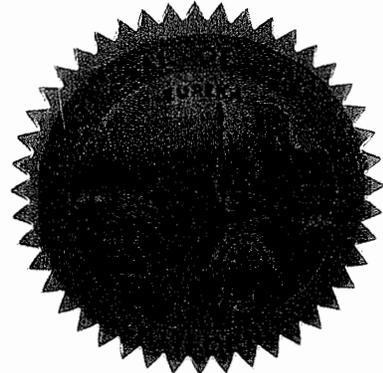
CIVIL PENALTIES

Sections 116650 (a), (d), and (e) of the H&S Code allow for the assessment of a civil penalty for failure to comply with requirements of Chapter 4. Failure to comply with any provision of this Citation will result in the Department imposing an administrative penalty of up to \$1000.00 (one thousand dollars) per day as of the date of violation of any provision of this Citation.

June 4, 2013
Date

Kurt Souza
Kurt Souza, P.E., Chief
Southern California Section
Santa Barbara District (CDPH-DWFOB)

cc: Santa Barbara County Environmental Health



ORGANIC CHEMICALS ANALYSIS

Date of Report : November 26, 2012 Sample ID : SP 1211574-001
 Laboratory Name : **FGL Environmental** Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2012-11-27
 Sampled On : 11/12/2012-09:50
 Received On : 11/12/2012-15:40 Sampler : Lance Edmondson
 Completed On : 11/17/2012 Employed By : Not Available

System Name : **CARPINTERIA VALLEY WATER DISTRICT** Number : 4210001-017 **EDT**

Name Or Number of Sample Source : **STAGE-2: #1 GOBERNADOR CYN**

User ID : TAP	Station Number : 4210001-017
Date/Time of Sample : 1211120950 YYMMDDTTTT	Laboratory Code : 5 8 6 7
Submitted By : FGL Environmental	Phone # : (805) 392-2000

REGULATED ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
551.1	Bromodichloromethane	32101	16.2	---	0.5
551.1	Bromoform	32104	0.7	---	0.5
551.1	Chloroform (Trichloromethane)	32106	53	---	1
551.1	Dibromochloromethane	32105	8.0	---	0.5
551.1	Total Trihalomethanes (THM'S/TTHM)	82080	78	80	1

ADDITIONAL ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
552.2	Dibromoacetic Acid	82721	ND	---	1
552.2	Dichloroacetic Acid	77288	ND	---	1
552.2	Monobromoacetic Acid	A-041	ND	---	1
552.2	Monochloroacetic Acid	A-042	ND	---	2
552.2	Trichloroacetic Acid	82723	14	---	1
552.2	Haloacetic acids (five)	A-049	14	60	2

MCL - Maximum Contaminant Level, DLR -Detection Limit for Reporting Purpose, ND - Not Detected at or above DLR



**ORGANIC CHEMICALS ANALYSIS**

Date of Report : August 20, 2012 Sample ID : SP 1207876-001
 Laboratory Name : **FGL Environmental** Approved By **Kelly A. Dunnahoo, B.S.**
 Sampled On : 08/06/2012-12:15
 Received On : 08/06/2012-15:30 Sampler : Greg Stanford
 Completed On : 08/09/2012 Employed By : Carpinteria Valley W

Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2012-08-20

System Name : CARPINTERIA VALLEY WATER DISTRICT Number : 4210001-017 EDT

Name Or Number of Sample Source : STAGE-2: #1 GOBERNADOR CYN

User ID	: TAP	Station Number	: 4210001-017
Date/Time of Sample	: 1208061215 YMMDDTTT	Laboratory Code	: 5 8 6 7
Submitted By	: FGL Environmental	Phone #	: (805) 392-2000

REGULATED ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
551.1	Bromodichloromethane	32101	15.3	---	0.5
551.1	Bromoform	32104	ND	---	0.5
551.1	Chloroform (Trichloromethane)	32106	58.8	---	0.5
551.1	Dibromochloromethane	32105	5.6	---	0.5
551.1	Total Trihalomethanes (THMS/TTHM)	82080	79.7	80	0.5

ADDITIONAL ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
552.2	Dibromoacetic Acid	82721	ND	---	1
552.2	Dichloroacetic Acid	77288	16	---	1
552.2	Monobromoacetic Acid	A-041	ND	---	1
552.2	Monochloroacetic Acid	A-042	ND	---	1
552.2	Trichloroacetic Acid	82723	12	---	1
552.2	Haloacetic acids (five)	A-049	28	60	1

MCL - Maximum Contaminant Level,

DLR -Detection Limit for Reporting Purpose,

ND - Not Detected at or above DLR



ORGANIC CHEMICALS ANALYSIS

Date of Report	: May 25, 2012	Sample ID	: SP 1204489-001
Laboratory Name	: FGL Environmental	Approved By	: Kelly A. Dunnahoo, B.S. <small>Digitally signed by Kelly A. Dunnahoo, B.S. Title: Laboratory Director Date: 2012-05-29</small>
Sampled On	: 05/07/2012-10:45		
Received On	: 05/07/2012-15:30	Sampler	: Lance Edmondson
Completed On	: 05/14/2012	Employed By	: Not Available

System Name : **CARPINTERIA VALLEY WATER DISTRICT** Number : **4210001** **EDT**

Name Or Number of Sample Source : **STAGE-2: #1 GOBERNADOR CYN**

User ID	: P	Station Number	: 4210001-017
Date/Time of Sample	: 1205071045 YMMDDTTT	Laboratory Code	: 5 8 6 7
Submitted By	: FGL Environmental	Phone #	: (805) 392-2000

REGULATED ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
551.1	Bromodichloromethane	32101	18.2	---	0.5
551.1	Bromoform	32104	2.5	---	0.5
551.1	Chloroform (Trichloromethane)	32106	21.8	---	0.5
551.1	Dibromochloromethane	32105	8.6	---	0.5
551.1	Total Trihalomethanes (THM'S/TTHM)	82080	51.1	80	0.5

ADDITIONAL ORGANICS CHEMICALS

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
552.2	Dibromoacetic Acid	82721	3	---	1
552.2	Dichloroacetic Acid	77288	12	---	1
552.2	Monobromoacetic Acid	A-041	ND	---	1
552.2	Monochloroacetic Acid	A-042	ND	---	2
552.2	Trichloroacetic Acid	82723	8	---	1
552.2	Haloacetic acids (five)	A-049	23	60	2

MCL - Maximum Contaminant Level, DLR -Detection Limit for Reporting Purpose, ND - Not Detected at or above DLR

