

1 end of the second quarter of 2011. Compliance with the Maximum Contaminant
2 Level (MCL) of 2.0 mg/L for fluoride is based on a running annual arithmetic
3 average of quarterly averages covering any four consecutive quarters.

- 4
5 2. CCR, Title 22, Section 64463.4. Specifically, the City did not give notice of the
6 violation within 30 days of the occurrence.

7
8 **BACKGROUND**

9 The City of Hemet is a community water system serving a population of 20,212
10 residents through 9,145 service connections in a service area that is approximately
11 5.25 square miles. The water system is located in the San Jacinto Valley in the
12 eastern part of Riverside County. The City's primary source of water supply consists
13 of local groundwater produced by nine wells. All wells except Well No. 13 have
14 detectable levels of fluoride, ranging from 0.2 mg/L to 1.4 mg/L.

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16 Well No. 13 is located in the northeastern part of the City's service area, an area
17 historically known for its past agricultural practices. Although there are minimal levels
18 of nitrate, which is a primary product of agriculture, present at this well, fluoride levels
19 are high. Fluoride levels at Well No. 13 range from 0.4 mg/L to 3.8 mg/L. The City
20 implemented quarterly sampling for fluoride at Well No. 13 following a June 2010
21 sample that had a fluoride level of 2.0 mg/L. Since the start of the quarterly monitoring
22 the well's fluoride levels have ranged from 0.5 mg/L to 3.8 mg/L.

23
24 **PREVIOUS ENFORCEMENT ACTIONS**

25 There have been no enforcement actions previously issued to this system for a similar
26 violation.

1 **CHRONOLOGY OF EVENTS**

2 The following is a summary of monitoring conducted at Well No. 13 and results used
3 to determine compliance with the fluoride standard:

4
5 **3rd Quarter 2010:** A sample collected on September 1, 2010, contained fluoride at 2.1
6 mg/L.

7
8 **4th Quarter 2010:** A sample collected on December 1, 2010, contained fluoride at 2.2
9 mg/L

10
11 **1st Quarter 2011:** A sample collected on March 2, 2011, contained fluoride at 2.3
12 mg/L.

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14 **2nd Quarter 2011:** A sample collected June 1, 2011, contained fluoride at 2.2 mg/L.
15 The running annual average (RAA) at the end of this quarter was 2.2 mg/L, which is
16 above the fluoride MCL of 2.0 mg/L. The well was removed from service June 14,
17 2011, but the City did not report the violation to the Department.

18
19 **3rd Quarter 2011:** A sample collected September 21, 2011, contained fluoride at 1.8
20 mg/L. According to City records, the well was not operated for potable distribution
21 from June 14 through October 3, 2011.

22
23 **4th Quarter 2011:** The well was offline for rehabilitation from November 16 through
24 March 11, 2012. The City did not collect a fluoride sample at the well during this
25 quarter.

26

1 **1st Quarter 2012:** The well was returned to service March 12, 2012. A sample
2 collected March 14, 2012, contained fluoride at 2.2 mg/L. The well was operated for
3 potable distribution a total of 17 days during this quarter.

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5 **2nd Quarter 2012:** A sample collected June 6, 2012, contained fluoride at 2.4 mg/L.

6
7 **3rd Quarter 2012:** A sample collected September 11, 2012, contained fluoride at 0.6
8 mg/L. According to City records, the well was not operated for potable distribution
9 from July 1 through September 30, 2012.

10
11 **4th Quarter 2012:** A sample collected December 19, 2012, contained fluoride at 2.4
12 mg/L.

13
14 **1st Quarter 2013:** A sample collected January 9, 2013, contained fluoride at 2.6 mg/L.
15 Another sample collected March 11, 2013, contained fluoride at 3.8 mg/L.

16
17 **March 13, 2013:** The City informed the Department that a fluoride sample taken at
18 Well No. 13 on March 11, 2013, had a level of 3.8 mg/L. The Department requested
19 the City collect a confirmation sample and shut down the well. The confirmation
20 sample had a fluoride level of 2.8 mg/L. Based on these results, the quarterly
21 average was determined to be 3.0 mg/L, with an RAA of 2.0 mg/L.

1 **DISCUSSION OF CONTRIBUTING PROBLEMS, SANITARY HAZARDS AND**
2 **PUBLIC HEALTH SAFEGUARDS**

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4 Fluoride is a naturally occurring contaminant in ground water. At low levels, fluoride
5 can help prevent cavities, but children drinking water containing more than 2 mg/L of
6 fluoride may develop cosmetic discoloration of their permanent teeth (dental
7 fluorosis). Drinking water containing more than 4 mg/L of fluoride can increase the risk
8 of developing bone disease. Aside from elevated fluoride levels, Well No. 13 also
9 produces water high in temperature. The City operates Well No. 13 nine months out
10 of the year, and removes the well from service during the summer months to limit the
11 supply of high temperature water to its customers. Following the detection of fluoride
12 at the well at 2.0 mg/L in June 2010, the City began monitoring the well quarterly in
13 accordance with drinking water regulations.

14
15 As detailed in the Chronology of Events, Well No. 13 violated the fluoride standard
16 after four consecutive quarters of operation, from July 1, 2010, through June 30,
17 2011. The four-quarter average fluoride level was 2.2 mg/L, which is above the
18 fluoride standard of 2.0 mg/L. According to the City, the violation was not determined
19 until June 14, 2011, at which time the City removed the well from service. The well
20 remained offline through October 5, 2011. The City did not notify the Department of
21 the violation, nor conduct public notification as required under Section 64463.4 of the
22 regulations.

23
24 The City of Hemet has wells that produce water that have failed primary drinking
25 water standards. To mitigate this problem, the City has used different methods, such
26 as removing the wells from service and/or blending the poor quality water with better
27 quality water well water. Monitoring results indicate an upward trend of fluoride at

1 Well No. 13, with the highest level to date of 3.8 mg/L detected in a March 2013
2 sample. The City does not currently have the ability to blend Well No. 13 water with
3 other groundwater sources to lower the fluoride levels prior to distribution. With
4 fluoride trending upward at the well, the Department is concerned that continued
5 operation of Well No. 13 will result in another MCL exceedance. Therefore, the
6 Department recommends that the City consider treatment options for Well No. 13.
7 Until such time the City can demonstrate that Well No. 13 can be operated to reliably
8 meet all drinking water standards, the well shall remain offline.

9
10 **DIRECTIVES**

11 The City of Hemet is hereby directed to take the following actions:

- 12
- 13 1. Cease and desist from failing to comply with the primary drinking water standards,
14 specifically for fluoride in accordance with Section 64431, Title 22, CCR. The City
15 shall not place Well No. 13 into service without prior approval from the
16 Department.
17
 - 18 2. Provide language regarding the 2011 fluoride MCL violation in the 2012 Consumer
19 Confidence Report that is due to customers by July 1, 2013, The City shall
20 provide a draft of the 2012 Consumer Confidence Report to the Department for
21 review and approval prior to distribution.
22
 - 23 3. Within 60 days of receipt of this citation, provide a written response to the
24 Department detailing the City's plans for operation of Well No. 13 to reliably meet
25 the fluoride standard.
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27

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

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3

J. Steven Williams, P.E.

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District Engineer

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Department of Public Health

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Division of Drinking Water and Environmental Management

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1350 Front Street, Room 2050

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San Diego, CA 92101

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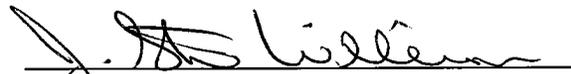
10 **CIVIL PENALTY**

11 Failure to comply with any provision of this citation may result in the Department
12 imposing an administrative penalty of not less than \$200.00 (Two hundred dollars) per
13 day as of the date of violation of any provision of this citation.

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4-9-2013



16

Date

J. Steven Williams, P.E.

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District Engineer

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Riverside District

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Drinking Water Field Operations Branch

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cc: County of Riverside, Department of Environmental Health

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