



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

December 2, 2013

Marsha Kelpé, Secretary  
Rainbird Valley Mutual Water Company  
PO Box 1222  
Weldon, CA 93283

**COMPLIANCE ORDER FOR VIOLATION OF THE NITRATE AND URANIUM DRINKING WATER STANDARDS, RAINBIRD VALLEY WATER SYSTEM, SYSTEM NO. 1500393**

Dear Mrs. Kelpé:

The California Department of Public Health (Department) is issuing Compliance Order No. 03-19-13O-007 (enclosed) to Rainbird Valley Mutual Water Company (hereinafter Water Company) for violation of the nitrate and uranium drinking water standards. Domestic water produced by Well 01 (PS Code: 1500393-002), and Well 02 (PS Code: 1500393-001) of the Water Company contains nitrate and uranium at levels exceeding the Maximum Contaminant Levels (MCLs) of 45 milligrams per liter (mg/L) and 20 pico Curies per liter (pCi/L), respectively.

As required in the Compliance Order, the Water Company is expected to propose a solution and implement a project to ensure that water delivered to customers meets the nitrate drinking water standard. **Until the Department determines that the Water Company is in compliance with the nitrate and uranium MCLs, the Water Company must continue to provide quarterly public notification for nitrate and uranium, and also conduct quarterly nitrate and uranium monitoring of Well 01 and quarterly uranium monitoring of Well 02.** After providing quarterly public notification, a copy of the public notice along with a completed proof of notification form should be submitted to the Bakersfield CDPH, Drinking Water Program Office. Please note that a written response to the compliance order is required. Failure to comply may result in further enforcement action by the Department.

Please note that the time we have spent on preparing the compliance order is considered enforcement time and has been billed to the Water System at our currently billing rate of \$126 per hour. If you have any questions regarding this matter, please contact Elia Estasy in our office at (661) 335-7322.

Sincerely,

Jaswinder S. Dhaliwal, P.E.  
Senior Sanitary Engineer  
Tehachapi District  
Southern California Branch

DRINKING WATER FIELD OPERATIONS

Enclosure: Compliance Order No. 03-19-13O-007

cc: Kern County Environment Health Services Department (w/o enclosures)  
McMor Chlorination, Inc., Contract Sampler

**Compliance Order #03-19-13O-007**

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2  
3 **STATE OF CALIFORNIA**  
4 **CALIFORNIA DEPARTMENT OF PUBLIC HEALTH**

5 **IN RE: RAINBIRD VALLEY MUTUAL WATER COMPANY WATER SYSTEM**  
6 **Water System No. 1500393**

7  
8 **TO: Marsha Kelpo, Secretary**  
9 **Rainbird Valley Mutual Water Company**  
10 **P.O. Box 1222**  
11 **Weldon, CA 93283**

12 **BY CERTIFIED MAIL**

13 **COMPLIANCE ORDER**  
14 **NITRATE AND URANIUM MAXIMUM CONTAMINANT LEVEL VIOLATION**

15 **Compliance Order No. 03-19-130-007**

16 **Issued on December 2, 2013**

17 Section 116655, Chapter 4 of the California Health and Safety Code (H&S Code) authorizes  
18 the California Department of Public Health (hereinafter Department) to issue an Order for  
19 failure to comply with any requirement (s) of the California Safe Drinking Water Act, given in  
20 Chapter 4 of the H&S Code or to comply with any permit, regulation or standard issued or  
21 adopted pursuant to Chapter 4. The Department regulates public water supply systems for  
22 compliance with all California regulations related to drinking water.  
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1 BACKGROUND

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3 The Rainbird Valley Mutual Water Company (hereinafter Water Company) serves a  
4 community water system that is located near the intersection of Highway 178 and Poplar Street  
5 in the community of Weldon, Kern County. The Water Company currently serves drinking  
6 water to 188 residents through 85 service connections and operates under a water supply permit  
7 (No. 03-12-97P-005) issued on August 14, 1997, by the State Department of Health Services  
8 (now California Department of Public Health).  
9

10  
11 The facilities described in the water supply permit consist of two active wells "Well 01 (PS  
12 Code: 1500393-002)" and "Well 02 (PS Code:1500393-001)", one 49,000-gallon storage tank,  
13 two booster pumps, one 5,000-gallon pressure tank, one 2,000-gallon pressure tank and the  
14 distribution system. Continuous chlorination treatment is provided to the water.  
15

16  
17 Well 01 was drilled in 1973 to a depth of 240 feet. It has a 14-inch diameter steel casing and a  
18 50-foot annular seal. The static water level is 31 feet below ground, and it is pumped with a  
19 15-hp electric turbine pump. The well capacity of 245 gpm is based on a 1998 pump test.

20 Well 01 pumps to a 2,000-gallon pressure tank, from which water is boosted to the distribution  
21 system.  
22

23  
24 Well 01 has been listed as a standby source. However, due to problems with Well 02, the  
25 Water Company has been using Well 01 since the beginning of July 2013. By a letter dated  
26 August 7, 2013 (Attachment C), the Department directed the Water Company to submit a  
27



1 permit amendment application to change the status of Well 01 from a standby source to an  
2 active source of supply. No permit amendment application has been submitted yet.

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4  
5 Well 02 was drilled in 1973 to a depth of 253 feet. It has a 14-inch diameter steel casing and a  
6 50-foot annular seal. The static water level is 26 feet below ground, and it is pumped with a  
7 50-hp electric turbine pump. The well capacity of 872 gpm is based on a 1998 pump test. Due  
8 to drought conditions in the area, the pumping capacity of Well 02 has reduced significantly.  
9 Well 02 now produces only 100 gpm. After making repairs to the well, the well was placed  
10 back in service in late October 2013. Well 02 pumps to a 49,000-gallon tank, from which  
11 water is boosted to 5,000-gallon pressure tanks and into the distribution system. Two 15  
12 horsepower booster pumps are used to boost the water into the system.

### 14 15 HISTORY

16 To document the nitrate and uranium violations, the Department has issued several  
17 enforcement documents to the Water Company, as follow:

- 18 • Compliance Order No. 03-12-99O-002, issued on May 05, 1999, to document Wells 01  
19 and 02 uranium MCL violation.
- 20 • Enforcement Letter No. 03-12-99E-087, issued on October 06, 1999, to document Well  
21 01 nitrate MCL violation.
- 22 • Enforcement Letter No. 03-12-99E-098, issued on November 03, 1999, to document the  
23 notification of the uranium MCL violation and to amend the Compliance Order No. 03-  
24 12-99O-002, issued on May 05, 1999.



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- Enforcement Letter No. 03-12-02E-042, issued on May 09, 2002, to document the failure to conduct the nitrate monitoring in 2000 and 2001.
  - Enforcement Letter No. 03-12-13E-014, issued on June 27, 2013, to document the failure to conduct the nitrate monitoring in 2012.

6

7 **FINDINGS**

8 • ***NITRATE***

9 As previously discussed, Well 01 has been listed as a standby source. However, due to  
10 capacity problems with Well 02, the Water Company has been using Well 01 since the  
11 beginning of July 2013.

12

13 Well 01 has a history of high nitrate and currently produces water containing nitrate at a level  
14 exceeding the nitrate MCL of 45 milligrams per liter (mg/L) (*see Attachment A*, report from  
15 the Department's water quality database), thus prompting quarterly nitrate monitoring of Well  
16 01, starting from the 3<sup>rd</sup> quarter of 2013. The Department's water quality database shows that  
17 nitrate concentration in Well 01 has fluctuated over the years from 34.5 mg/L to 110.0 mg/L.  
18 A graph is also provided under *Attachment B* to show the trend in nitrate concentration over  
19 time. A water sample collected on July 10, 2013, from Well 01 showed a nitrate result of  
20 100.0 mg/L. The last nitrate sampling of the well was conducted on October 16, 2013, and the  
21 result was 110 mg/L. This result is not yet showing up in the Department's water quality  
22 database; a copy of this result is provided under *Attachment A*.

23

24

25 Water produced by Well 02 is in compliance with the nitrate MCL of 45 mg/L. The  
26 Department's water quality database shows that nitrate concentration in Well 02 has fluctuated  
27 over the years from 2.4 mg/L to 16 mg/L. A graph is also provided under *Attachment B* to



1 show the trend in nitrate concentration over time. A water sample collected on January 9,  
2 2013, from Well 02 showed a nitrate result of 3.9 mg/L. During the 4<sup>th</sup> quarter of 2013, Well  
3 02 was sampled on October 31, 2013 and November 13, 2013, and the nitrate results were 5.7  
4 mg/L and 5.8 mg/L, respectively. These results are not yet showing up in the Department's  
5 water quality database; copies of these results are provided under Attachment A.  
6

7  
8 • **URANIUM**

9 Wells 01 and 02 both produce water containing uranium at a level exceeding the uranium MCL  
10 of 20 pico Curies per liter (pCi/L) (see Attachment A, report from the Department's water  
11 quality database).  
12

13 Compliance with the primary MCL for uranium is determined by a running annual average  
14 (RAA) value of four consecutive quarters of sampling results. If a system has not analyzed the  
15 required number of samples, compliance is determined by the average of the samples collected  
16 at the site during the most recent 12 months. Well 02 was last sampled for uranium on October  
17 31, 2013, and November 13, 2013, and both results were 29.0 pCi/L. These results are not yet  
18 showing up in the Department's water quality database; copies of these results are provided  
19 under Attachment A. The most recent RAA values of uranium for both Wells 01 and 02 are  
20 42 and 33 pCi/L, respectively, (based on the RAA values from the most recent four consecutive  
21 quarters (for Well 01 sampling during 2011 and for Well 02 sampling during 2013 - see  
22 Attachment A for details).

23 • **COMBINED RADIUM (RADIUM 226 AND RADIUM 228)**

24 To determine compliance with combined radium (Rad-226 and Rad-228) MCL of 5 pCi/L, the  
25 Water Company is required to conduct combined radium monitoring if the difference between  
26 the gross alpha plus 0.84 of the Counting Error (CE) minus uranium exceeds 5 pCi/L. The  
27 Water Company had conducted the monitoring for combined radium only once on June 29,



1 1999, from both wells, and the results were below the MCL of combined radium of 5 pCi/L  
2  
3 (see Attachment A, report from the Department's water quality database). Monitoring for at  
4 least four quarters of Radium 228 is required to determine compliance with the initial  
5 monitoring for radiochemicals.

#### 6 7 MONITORING AND REPORTING REQUIREMENTS

##### 8 9 • *Well 01*

10 Since Well 01 has been a standby source of supply, the Water Company has been conducting  
11 monitoring of nitrate and uranium from Well 01 once every nine years. As previously  
12 mentioned, due to problems with Well 02, the Water Company has been using Well 01 since  
13 the beginning of July 2013. By a letter dated August 07, 2013, the Department directed the  
14 Water Company to commence quarterly monitoring for nitrate and uranium from Well 01. The  
15 Water Company conducted nitrate and uranium monitoring of Well 01 on July 10, 2013. The  
16 Water Company complied with the monitoring requirement but has not yet submitted a permit  
17 amendment application to change status of Well 01 from standby to active.  
18

##### 19 20 • *Well 02*

21 The Water Company has been conducting annual monitoring of Well 02 for nitrate and  
22 uranium. However, the Water Company failed to monitor Well 02 for nitrate in 2009 and  
23 2012. Therefore, the Water Company violated monitoring and reporting regulations during  
24 2009 and 2012.  
25

26 Also, the Water Company failed to monitor Well 02 for uranium in 2010. Therefore, the Water  
27 Company violated monitoring and reporting regulations during 2010. Water systems that fail



1 to monitor in accordance with regulations are required to inform their customers of that fact in  
2 the next annual Consumer Confidence Report.

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5 **PUBLIC NOTIFICATION**

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7 • ***NITRATE***

8 When a water system monitors a source for nitrate and the level of nitrate in a single sample  
9 exceeds the MCL, the water system is required by Section 64432.1 of Chapter 15, Division 4,  
10 Title 22, of the California Code of Regulations to collect another sample from that source  
11 within 24 hours of notification of the MCL exceedance. The water system must have the  
12 second sample analyzed and if the average result of the two nitrate samples exceeds the MCL,  
13 report the result to the Department within 24 hours. If the average does not exceed the MCL,  
14 the water system must inform the Department of the results within seven days from the receipt  
15 of the original analysis. If a water system is unable to resample within 24 hours, it is required  
16 to notify the consumers by issuing a Tier 1 Public Notice pursuant to Section 64463.1 and then  
17 collect and analyze a confirmation sample within two weeks of notification of the results of the  
18 first sample. **The Water Company complied with this requirement as explained below.**

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20  
21 As mentioned previously, until July 2013, the Water Company was able to comply with the  
22 nitrate MCL by using water produced by Well 02 only. However, due to problems with Well  
23 02, the Water Company has been using Well 01 (standby source of supply) since the beginning  
24 of July 2013. Well 01 currently produces water containing nitrate at a level exceeding the  
25 nitrate MCL of 45 mg/L. Water produced by Well 01 on July 10, 2013, showed nitrate result  
26 of 100.0 mg/L; above the nitrate MCL of 45 mg/L.  
27



1 By a letter dated August 07, 2013, (*see Attachment C*), the Department directed the Water  
2 Company to provide public notifications (Tier 1 violation per Section 64463.1(b) of Title 22,  
3 California Code of Regulations) for violating the nitrate MCL and submit proof of notification  
4 to the Department. The Department also directed the Water Company to post the nitrate MCL  
5 violation notice at conspicuous locations within service area of the Water Company. The  
6 Department has received the signed public notice and the proof of notification. Copies of  
7 nitrate public notice and proof of notification are provided under Attachment D. According to  
8 these documents, the public notification was provided on October 01, 2013.  
9

10 Well 01 was last sampled for nitrate on October 16, 2013 (representing the 4<sup>th</sup> quarter of 2013),  
11 and the result was 110 mg/L. The Water Company is required to notify the customers of the 4<sup>th</sup>  
12 quarter 2013 nitrate result by issuing an updated public notice. A copy of the public notice,  
13 which includes mandatory language for the nitrate MCL violation, is provided in Attachment  
14 E. Attachment E also includes a *Proof of Notification* form that the Water Company will need  
15 to complete for each quarterly public notification of the nitrate MCL violation and submit the  
16 completed form to the Department within 10 days of providing the public notification.  
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21 • **URANIUM**

22 Since exceeding radiological MCLs is a Tier 2 violation, the Water Company must provide  
23 public notice to persons served as soon as practical but within 30 days after learning of the  
24 violation (CCR, Title 22, Chapter 15, Section 64463.4(b)). As long as the Water Company is  
25 in violation of the uranium MCL, quarterly public notification will be required. The Water  
26  
27



1 Company must submit the notice to the Department for approval prior to distribution or  
2 posting. The Water Company did not comply with this requirement as explained below.  
3

4 Based on the Department's records, the Water Company has not notified the customers of the  
5 uranium MCL violation in third or 4<sup>th</sup> quarters of 2013 and must do so by December 15, 2013,  
6 and submit proof of notification to the Department within 10 days of providing the public  
7 notification. In addition, Well 01 and Well 02 must be sampled quarterly for uranium.  
8

9 Attachment E contains the uranium public notice that is required to be distributed to the  
10 consumers whenever the Water Company is out of compliance with the uranium MCL. The  
11 public notice shall be updated every quarter to reflect the latest uranium running annual  
12 average. A copy of *Proof of Notification* form that Water Company will need to complete and  
13 submit to the Department, following each quarterly public notification is also provided in  
14 Attachment E.  
15

### 16 INVESTIGATION

17

18 The Water Company has a small distribution system. Chlorination treatment is provided to the  
19 water produced by Well 02. A review of the Water Company's bacteriological monitoring data  
20 shows that all distribution system samples collected in the last five years have been negative for  
21 total coliform bacteria. Based on a review of the bacteriological quality data, it doesn't appear  
22 that nitrate contamination is coming from the Water Company's septic tank. The source of  
23 nitrate contamination in Well 01 may be attributed to agricultural activities in the area  
24 surrounding the well. Protection of this source may necessitate controlling/minimizing the  
25 agricultural activities further away from the well.  
26

27



1 Also, Wells 01 and 02 produce water containing uranium at a level exceeding the uranium MCL  
2 of 20 pCi/L. Uranium is a naturally occurring contaminant sometimes found in drinking water.  
3  
4 Uranium contamination in groundwater is usually caused by erosion of natural deposits.  
5

## 6 OPTIONS

7 The Water Company must take corrective actions to ensure that it serves domestic water to its  
8 customers that meets drinking water standards at all times. Possible solutions for the nitrate  
9 water quality problem are discussed below:  
10

11 1. **Drill a replacement well** - Generally, this option is considered by water purveyors  
12 hoping to get water that is free of groundwater contaminants. Drilling a new well may  
13 or may not solve the nitrate problem due to nitrate contamination in the area. Zone  
14 testing using services of a hydrogeologist may be helpful to isolate high nitrate and  
15 uranium zones. The Water Company is already working with the Department on a  
16 Proposition 84 planning project to drill test wells in the area, as part of the Long  
17 Canyon funding project. As part of the planning project, a licensed hydrogeologist will  
18 recommend test well locations.  
19

20  
21 2. **Install a Nitrate and Uranium Removal Treatment Plant** - Nitrate and uranium are  
22 fairly easily removed from water using anion exchange technology. However, the  
23 resulting nitrate and uranium waste stream (salts are generated) must be disposed off  
24 properly and the initial capital cost and ongoing operation and maintenance costs could  
25 be high. If a test well is not successful, a licensed engineer will review the treatment  
26 options and will design a nitrate and uranium removal treatment. Proposition 84  
27 planning project will pay for designing the treatment facilities, if needed.



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3. **Point of Entry (POE)/Point of Use (POU) Treatment** - Point of entry/point of use treatment may also be an option; subject to meeting the requirements of the POE and POU regulations. If needed, this option may be evaluated under Proposition 84 planning project.

4. **Consolidation with a Nearby Large Water System** – Connecting to a nearby public water system, which is permitted by the Department and has adequate water supply available that meets all MCLs. The Water Company may continue to exist as the retail supplier of the purchased water, or annexation of the service area to that public water system. This option will be evaluated as part of the Proposition 84 planning project.

The Water Company should evaluate all options, including but not limited to the above, and select a feasible long-term solution.

**CONCLUSIONS OF LAW**

Based on the above findings, the Department has determined that the Rainbird Valley Mutual Water Company has violated provisions contained in the California Health and Safety Code (H&S Code) and Title 22, California Code of Regulations (CCR). These violations include, but are not limited to, the following:

1. H&S Code Section 116555 (a)(1). Specifically, the Water Company is operating wells that produce water that do not comply with the primary drinking water standards for nitrate and uranium.

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2. H&S Code, Section 116555 (a)(3). Specifically, the Water Company has failed to ensure that all customers are provided with a reliable and adequate source of pure, wholesome, healthful and potable water.

3. CCR, Section 64431(a). Specifically, the Water Company does not at all times deliver water to its customers which contains less than 45 mg/L of nitrate, thereby failing to provide water to the public that complies with all primary drinking water standards.

4. CCR, Section 64432.1(a). Specifically, the Water Company failed to monitor Well 02 for nitrate in 2009 and 2012.

5. CCR, Title 22, Section 64442(a): Specifically, the water supplied by the Water Company is in violation of the MCL of 20 pCi/L for uranium, and therefore, does not comply with primary drinking water standard for uranium.

6. CCR, Section 64442.1(b). Specifically, the Water Company failed to monitor Well 02 for uranium in 2010.

**ORDER**

To ensure that the water supplied by the Rainbird Valley Mutual Water Company is at all times safe, wholesome, healthful, and potable, and pursuant to Section 116655 of the H&S Code, the Water Company is ordered to take the following actions:

1. Cease and desist from failing to comply with H&S Code Section 116555(a) and (c) and CCR Sections 64431(a) and 64442 (a) by ensuring that customers are provided with a reliable and adequate source of pure, wholesome, healthful, and potable water, which is in compliance with all primary drinking water standards.

2. Provide public notification to all water customers of the Water Company's inability to meet the nitrate and uranium MCLs since Wells 01 and 02 are needed to meet system

1  
2 demand. Public notification of the nitrate and uranium MCL violations shall continue  
3 as long as the nitrate and uranium MCLs are violated or until the Water Company  
4 provides water that meets all applicable drinking water standards. Provide the public  
5 notice to all customers at least once every three months in accordance with Sections  
6 64463 and 64463.1, Title 22, Chapter 15, Article 18, CCR. Public notices shall be also  
7 posted at all conspicuous locations throughout the Water Company's service area.  
8 Copies of the notices, which include mandatory language for the nitrate and uranium  
9 MCL violations, are provided under Attachment E. **If not already provided, public  
10 notification for the nitrate and uranium MCL violation shall be provided before  
11 December 15, 2013.**

12 3. Submit Proof of Notification to the Department following public notification required  
13 under Order No. 2. Submit copies of the updated public notices to the Department  
14 along with the quarterly Proof of Notification after providing each quarterly public  
15 notification. Blank Proof of Notification forms are provided under Attachment D.  
16 **Next Proof of Notification Form is due no later than December 25, 2013.**

17 4. Collect quarterly nitrate, gross alpha and uranium samples from both Wells 01 and 02  
18 to determine ongoing compliance with the nitrate and uranium MCLs. The next  
19 quarterly sample is due before **March 31, 2014.**

20 5. Collect quarterly radium 228 (Ra-228) samples for one year from both Wells 01 and 02  
21 to satisfy the initial monitoring requirement and determine compliance with the radium  
22 228 MCL. The next quarterly sample is due before **December 31, 2013.** In addition,  
23 monitoring for combined radium shall be conducted during a quarter if the difference  
24 between gross alpha and uranium results is 5 pCi/L or higher.  
25

26 6. By **January 31, 2014**, submit a plan and time schedule to the Department for review  
27 and approval to correct the existing water quality problem and eliminate the need to



1  
2 deliver water that does not meet the primary drinking water standards. Beginning April  
3 01, 2014, submit quarterly progress reports to the Department.

4 7. Complete all the improvements and/or additions outlined in the proposed project  
5 submitted pursuant to Item 6 above in accordance with the time schedule to be reviewed  
6 and approved by the Department, but not later than June 30, 2017.

7  
8 8. The Department reserves the right to make such modifications to this Order as it may  
9 deem necessary to protect public health and safety. Such modifications may be issued  
10 as amendments to this Order and shall be effective upon issuance.

11 9. All submittals required by this Order shall be addressed to:

12  
13 Jaswinder S. Dhaliwal, P.E.  
14 Senior Sanitary Engineer  
15 California Department of Public Health  
16 Drinking Water Field Operations Branch  
17 4925 Commerce Drive, Suite 120  
18 Bakersfield, CA 93309

19  
20 10. If the Water Company is unable to perform the tasks specified in this Order for any  
21 reason, whether within or beyond its control, and if the Water Company notifies the  
22 Department in writing no less than five days in advance of any due date, the Department  
23 may extend the time for performance if the Water Company demonstrates that it has  
24 used its best efforts to comply with the schedule and other requirements of this Order.

25  
26 11. If the Water Company fails to perform any of the tasks specified in this Order by the  
27 time described herein or by the time subsequently extended pursuant to Item 10 above,  
the Water Company shall be deemed to have not complied with the obligations of this



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Order and may be subject to additional judicial action, including civil penalties specified in H&S Code Section 116725 and 116730.

12. The State of California shall not be liable for any injuries or damages to persons or property resulting from acts of omissions by the Water Company, its employees, agents, or contractors in carrying out activities pursuant to this Order, nor shall the State of California be held as a party to any contract entered into by the Water Company or its agents in carrying out activities pursuant to this Order.

**FURTHER ENFORCEMENT ACTIONS**

Section 116650, Division 104, Part 12, Chapter 4, Article 9 of the H&S Code authorizes the Department to issue additional citations with assessment of penalties if the public water system continues to fail to correct a violation identified in a compliance order. Furthermore, Section 116625, Division 104, Part 12, Chapter 4, Article 8 of the H&S Code authorizes the Department to take action to suspend or revoke a permit that has been issued to a public water system if the system has violated applicable law or regulations or has failed to comply with orders of the Department; and petition the superior court to take various enforcement measures against a public water system that has failed to comply with orders of the Department. The Department does not waive any further enforcement action by issuance of this order.

**PARTIES BOUND**

This Order shall apply to and be binding upon the Rainbird Valley Mutual Water Company, its officers, directors, agents, employees, contractors, successors, and assignees.

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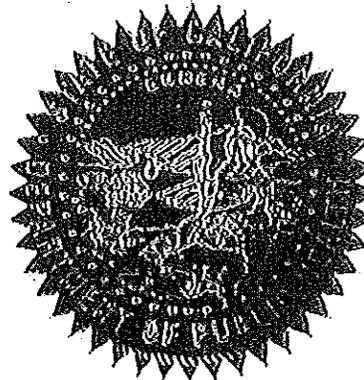
**SEVERABILITY**

The requirements of this Order are severable, and the Rainbird Valley Mutual Water Company shall comply with each and every provision thereof not withstanding the effectiveness of any provisions.

December 2, 2013  
Date



Carl L. Carlucci, P.E., Chief  
Central California Section  
SOUTHERN CALIFORNIA BRANCH  
DRINKING WATER FIELD OPERATIONS BRANCH



**Attachments:**

- Attachment A: Nitrate, and Uranium Data from Department's Water Quality Database for Well 01, and Well 02, and Copies of Nitrate and Uranium Results from 4<sup>th</sup> Quarter 2013
- Attachment B: Nitrate and Uranium Trend graphs.
- Attachment C: Letter Dated August 07, 2013
- Attachment D: Signed Nitrate Public Notice and Proof of Notification for 3<sup>rd</sup> Quarter of 2013
- Attachment E: Nitrate and Uranium Public Notification forms and Proof of Notification forms

cc: Kern County Environmental Health Services Department (w/o attachments)  
Kern County Public Health Laboratory (w/o attachments)  
McMor Chlorination, Inc., Contract Sampler (via email)

USD/EAE

## **ATTACHMENT A**

**Nitrate and Uranium Data from Department's Water Quality Database for  
Well 01 and Well 02  
and  
Copies of Nitrate and Uranium Results from 4<sup>th</sup> Quarter 2013**

DATE: 12/02/13  
 REPORT: R-040/2-3

STATE OF CALIFORNIA  
 DRINKING WATER PROGRAM

PAGE: 1

DRINKING WATER ANALYSES RESULTS REPORT  
 ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
 FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 002 NAME: WELL 01 PSCODE: 1500393-002 CLASS: CTGA STATUS: AR

GROUP IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
-----						
NI NITRATE/NITRITE						
71850 NITRATE (AS NO3)	11/05/1996	34.5000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	05/21/1999	37.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	08/31/1999	57.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	10/11/1999	47.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	02/28/2000	51.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	04/16/2001	37.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	06/10/2005	39.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	04/01/2008	49.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	08/28/2008	49.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	01/08/2009	35.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	12/21/2011 <	75.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	01/09/2013	62.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	07/10/2013	100.0000 *	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	10/16/2013	110.0000 *	45.0000	2.0000	23.0000	MG/L
00620 NITRITE (AS N)	11/05/1996 <	100.0000	1,000.0000	400.0000	500.0000	UG/L
00620 NITRITE (AS N)	06/10/2005 <	400.0000	1,000.0000	400.0000	500.0000	UG/L
-----						
RA RADIOLOGICAL						
01501 GROSS ALPHA	09/08/1997	30.2700 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA	05/17/1999	26.0200 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA	08/16/1999	34.3000 *	15.0000	3.0000	5.0000	PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
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DRINKING WATER ANALYSES RESULTS REPORT  
 ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
 FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 002 NAME: WELL 01 PSCODE: 1500393-002 CLASS: CTGA STATUS: AR

GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
01501 GROSS ALPHA		11/20/2008	19.4000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		11/04/2010	44.4000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		12/07/2011	50.8000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		02/01/2012	43.5000 *	15.0000	3.0000	5.0000	PCI/L
01502 GROSS ALPHA COUNTING ERROR		09/08/1997	4.2800 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		05/17/1999	2.9200 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		08/16/1999	3.4100 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		11/20/2008	1.6200 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		11/04/2010	.9100 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		02/01/2012	.7200 *				PCI/L
A-072 GROSS ALPHA MDA95		11/20/2008	.3430 *				PCI/L
03501 GROSS BETA		09/08/1997	10.7700	50.0000	4.0000	50.0000	PCI/L
03502 GROSS BETA COUNTING ERROR		09/08/1997	2.6200 *				PCI/L
09501 RADIUM 226		06/29/1999	.4680	3.0000	1.0000	3.0000	PCI/L
09502 RADIUM 226 COUNTING ERROR		06/29/1999	.4000 *				PCI/L
11501 RADIUM 228		06/29/1999	.2800	2.0000	1.0000	2.0000	PCI/L
11502 RADIUM 228 COUNTING ERROR		06/29/1999	.4700 *				PCI/L
28012 URANIUM (PCI/L)		07/02/1996	25.1700 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		09/08/1997	12.3100	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		05/17/1999	17.0500	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		08/16/1999	33.9200 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		11/20/2008	31.0000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		12/07/2011	42.0000 *	20.0000	1.0000	20.0000	PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
 NOTE2: .000 = RESULT WAS REPORTED AS NON-DETECTED EXCEPT FOR RAD

DATE: 12/02/13  
REPORT: R-040/2-3

STATE OF CALIFORNIA  
DRINKING WATER PROGRAM

PAGE: 3

DRINKING WATER ANALYSES RESULTS REPORT  
ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
SOURCE NO: 002 NAME: WELL 01 PSCODE: 1500393-002 CLASS: CTGA STATUS: AR

GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
28012 URANIUM (PCI/L)		07/10/2013	29.0000 *	20.0000	1.0000	20.0000	PCI/L
A-028 URANIUM COUNTING ERROR		07/02/1996	2.3000 *				PCI/L
A-028 URANIUM COUNTING ERROR		09/08/1997	1.8100 *				PCI/L
A-028 URANIUM COUNTING ERROR		05/17/1999	1.8800 *				PCI/L
A-028 URANIUM COUNTING ERROR		08/16/1999	2.6800 *				PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
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DATE: 12/02/13  
 REPORT: R-040/2-3

STATE OF CALIFORNIA  
 DRINKING WATER PROGRAM

PAGE: 1

DRINKING WATER ANALYSES RESULTS REPORT  
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 FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 001 NAME: WELL 02 PSCODE: 1500393-001 CLASS: CTGD STATUS: AR

GROUP IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
-----						
NI NITRATE/NITRITE						
71850 NITRATE (AS NO3)	10/11/1999	6.7000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	12/13/1999	3.1000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	04/16/2001	3.6000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	03/18/2003	3.0000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	03/23/2004	2.8000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	04/12/2005	3.3000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	12/19/2006	10.0000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	03/13/2007	3.1000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	05/20/2008	16.0000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	03/11/2010	15.0000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	04/22/2010	2.4000	45.0000	2.0000	23.0000	MG/L
71850 NITRATE (AS NO3)	01/09/2013	3.9000	45.0000	2.0000	23.0000	MG/L
00620 NITRITE (AS N)	12/13/1999	<	1,000.0000	400.0000	500.0000	UG/L
00620 NITRITE (AS N)	03/18/2003	<	1,000.0000	400.0000	500.0000	UG/L
00620 NITRITE (AS N)	03/23/2004	<	1,000.0000	400.0000	500.0000	UG/L
00620 NITRITE (AS N)	03/13/2007	<	1,000.0000	400.0000	500.0000	UG/L
00620 NITRITE (AS N)	04/22/2010	<	1,000.0000	400.0000	500.0000	UG/L
-----						
RA RADIOLOGICAL						
01501 GROSS ALPHA	04/10/1995	29.4400 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA	07/10/1995	32.1000 *	15.0000	3.0000	5.0000	PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
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 ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
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 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 001 NAME: WELL 02 PSCODE: 1500393-001 CLASS: CTGD STATUS: AR

GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
01501 GROSS ALPHA		10/10/1995	39.6400 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		01/08/1996	23.5900 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		05/21/1999	40.5600 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		08/16/1999	70.7400 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		02/28/2000	48.4700 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		07/24/2001	34.5000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		05/10/2005	49.8000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		11/20/2008	44.7000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		08/03/2011	58.3000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		05/09/2012	49.5000 *	15.0000	3.0000	5.0000	PCI/L
01501 GROSS ALPHA		08/01/2012	46.0000 *	15.0000	3.0000	5.0000	PCI/L
01502 GROSS ALPHA COUNTING ERROR		04/10/1995	3.8500 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		07/10/1995	4.0300 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		10/10/1995	5.1200 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		01/08/1996	4.1100 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		05/21/1999	3.6400 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		08/16/1999	4.8300 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		02/28/2000	3.9600 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		07/24/2001	2.6000 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		05/10/2005	3.7800 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		11/20/2008	2.3100 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		08/03/2011	1.0600 *				PCI/L
01502 GROSS ALPHA COUNTING ERROR		05/09/2012	1.0800 *				PCI/L

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DRINKING WATER ANALYSES RESULTS REPORT  
 ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
 FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 001 NAME: WELL 02 PSCODE: 1500393-001 CLASS: CTGD STATUS: AR

GROUP IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
01502 GROSS ALPHA COUNTING ERROR	08/01/2012	1.0100 *				PCI/L
A-072 GROSS ALPHA MDA95	11/20/2008	.3430 *				PCI/L
A-072 GROSS ALPHA MDA95	05/09/2012	1.0900 *				PCI/L
A-072 GROSS ALPHA MDA95	08/01/2012	1.1600 *				PCI/L
09501 RADIUM 226	06/29/1999	.5380	3.0000	1.0000	3.0000	PCI/L
09502 RADIUM 226 COUNTING ERROR	06/29/1999	.4100 *				PCI/L
11501 RADIUM 228	06/29/1999	.3470	2.0000	1.0000	2.0000	PCI/L
11502 RADIUM 228 COUNTING ERROR	06/29/1999	.5000 *				PCI/L
28012 URANIUM (PCI/L)	04/10/1995	44.8300 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	07/10/1995	38.6100 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	10/10/1995	36.3000 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	01/08/1996	45.0500 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	05/21/1999	32.2800 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	08/16/1999	68.8000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	02/28/2000	50.1100 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	07/24/2001	37.9000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	12/30/2002	41.0000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	06/23/2003	51.2000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	09/09/2003	36.9000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	12/15/2003	36.9000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	11/20/2008	60.0000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	12/08/2009	48.0000 *	20.0000	2.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)	08/03/2011	36.0000 *	20.0000	1.0000	20.0000	PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
 NOTE2: .000 = RESULT WAS REPORTED AS NON-DETECTED EXCEPT FOR RAD

DRINKING WATER ANALYSES RESULTS REPORT  
 ALL SAMPLES FOR SELECTED CHAPTER 15 GROUPS - ALL RESULTS  
 FOR SAMPLE DATE RANGE OF 19940101 THRU 20131202  
 REPORT OF COUNTY: 15 KERN

SYSTEM NO: 1500393 NAME: RAINBIRD VALLEY MUTUAL WATER COMPANY COUNTY: KERN  
 SOURCE NO: 001 NAME: WELL 02 PSF CODE: 1500393-001 CLASS: CTGD STATUS: AR

GROUP IDENTIFICATION	CONSTITUENT IDENTIFICATION	SAMPLE DATE	RESULT *	MCL	DLR	TRIGGER	UNIT
28012 URANIUM (PCI/L)		08/01/2012	41.0000 *	20.0000	1.0000	20.0000	PCI/L
28012 URANIUM (PCI/L)		07/10/2013	29.0000 *	20.0000	1.0000	20.0000	PCI/L
A-028 URANIUM COUNTING ERROR		04/10/1995	1.7700 *				PCI/L
A-028 URANIUM COUNTING ERROR		07/10/1995	1.5300 *				PCI/L
A-028 URANIUM COUNTING ERROR		10/10/1995	2.7200 *				PCI/L
A-028 URANIUM COUNTING ERROR		01/08/1996	3.0400 *				PCI/L
A-028 URANIUM COUNTING ERROR		05/21/1999	2.5600 *				PCI/L
A-028 URANIUM COUNTING ERROR		08/16/1999	3.8200 *				PCI/L
A-028 URANIUM COUNTING ERROR		02/28/2000	2.5400 *				PCI/L
A-028 URANIUM COUNTING ERROR		07/24/2001	3.7900 *				PCI/L
A-028 URANIUM COUNTING ERROR		06/23/2003	3.7400 *				PCI/L
A-028 URANIUM COUNTING ERROR		09/09/2003	3.0500 *				PCI/L
A-028 URANIUM COUNTING ERROR		12/15/2003	3.0700 *				PCI/L

NOTE1: \* = RESULT IS EQUAL TO OR GREATER THAN TRIGGER  
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McMor Chlorination, Inc.  
6734 Charity Ave. #8  
Bakersfield, CA 93308

Reported: 11/06/2013 16:32  
Project: Drinking Water Samples - EDT  
Project Number: 1500393-001 Rainbird Valley Mutual Water  
Project Manager: Dennis Gatson

### Water Analysis (General Chemistry)

BCL Sample ID:	1323653-01	Client Sample Name:	Well Discharge Well #2, 10/31/2013 11:57:00AM, A. Wilkinson
----------------	------------	---------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quale	Run #
Nitrate as NO3	5.7	mg/L	0.44	EPA-300.0	ND		1

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	11/01/13	11/01/13	12:05	LD1	IC2	1	BWK0082



**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

McMor Chlorination, Inc.  
6734 Charity Ave. #8  
Bakersfield, CA 93308

Reported: 11/19/2013 8:52  
Project: Drinking Water Samples - EDT  
Project Number: 1500393 Rainbird  
Project Manager: Dennis Gatson

### Water Analysis (General Chemistry)

BCL Sample ID: 1324931-01	Client Sample Name: Well #02 1500393-001, 11/13/2013 1:31:00PM, Aaron Wilkinson
---------------------------	---

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Nitrate as NO3	5.8	mg/L	0.44	EPA-300.0	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	11/14/13	11/14/13 11:27	LD1	IC5	1	BWK1077



**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

McMor Chlorination, Inc.  
6734 Charity Ave. #8  
Bakersfield, CA 93308

Reported: 11/06/2013 16:32  
Project: Drinking Water Samples - EDT  
Project Number: 1500393-001 Rainbird Valley Mutual Water  
Project Manager: Dennis Gatson

### Metals Analysis

BCL Sample ID: 1323653-01 Client Sample Name: Well Discharge Well #2, 10/31/2013 11:57:00AM, A. Wilkinson

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Uranium	29	pCi/L	0.67	EPA-200.8	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.8	11/04/13	11/05/13 03:47	JSS	PE-EL2	1	BWK0234

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.



**Laboratories, Inc.**

Environmental Testing Laboratory Since 1949

McMor Chlorination, Inc.  
6734 Charly Ave. #8  
Bakersfield, CA 93308

Reported: 11/19/2013 8:52  
Project: Drinking Water Samples - EDT  
Project Number: 1500393 Rainbird  
Project Manager: Dennis Gatson

### Metals Analysis

BCL Sample ID: 1324931-01 Client Sample Name: Well #02 1500393-001, 11/13/2013 1:31:00PM, Aaron Wilkinson

Constituent	Result	Units	PQL	Method	MB Bias	Lab Quals	Run #
Total Recoverable Uranium	29	pCi/L	0.67	EPA-200.8	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.8	11/18/13	11/18/13 14:45	JSS	PE-EL2	1	BWK1328

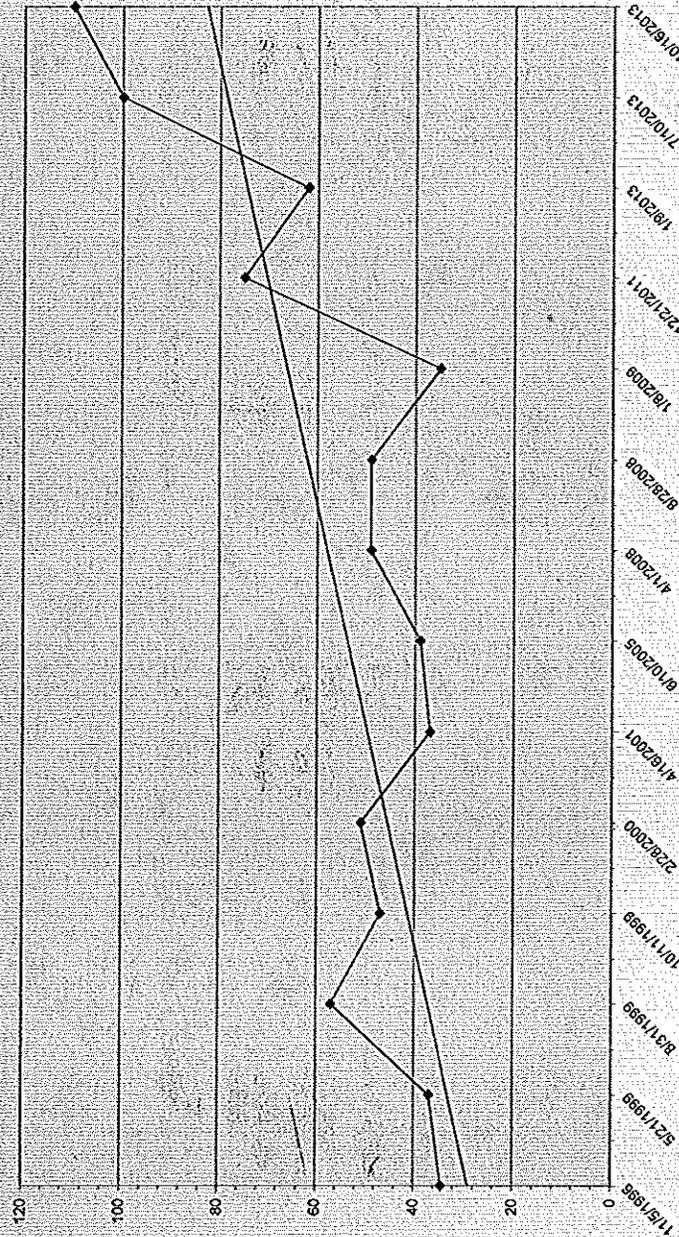
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. All results listed in this report are for the exclusive use of the submitting party. BC Laboratories, Inc. assumes no responsibility for report alteration, separation, detachment or third party interpretation.

# **ATTACHMENT B**

## **Nitrate Trend Graphs**

Rainbird Valley Mutual Water Company  
 Nitrate Summary-Well 01 (PS Code: 1500393-002)

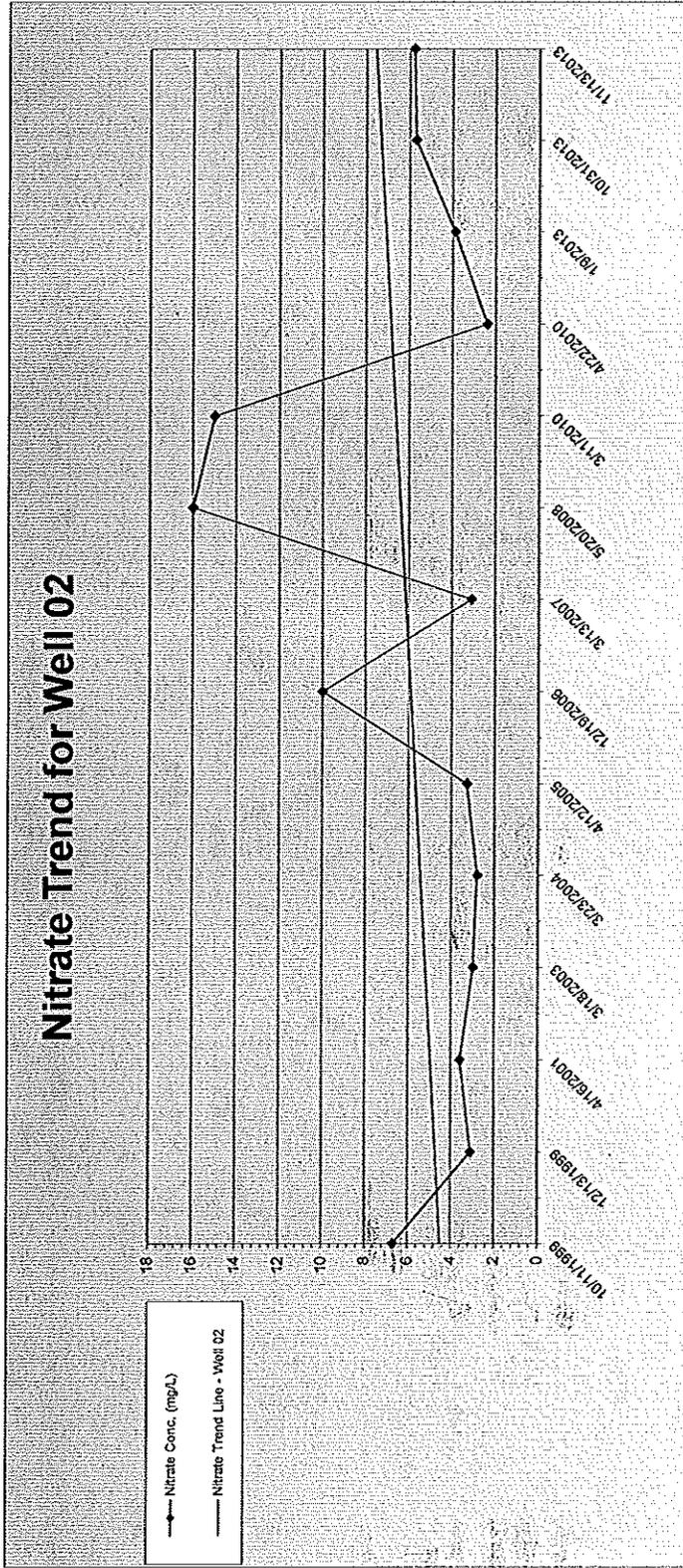
### Nitrate Trend for Well 01



Sample Date	Nitrate Conc. (mg/L)
11/5/1996	34.5
5/21/1999	37
8/31/1999	57
10/11/1999	47
2/28/2000	51
4/16/2001	37
6/10/2005	39
4/1/2008	49
8/28/2008	49
1/8/2009	35
12/21/2011	75
1/9/2013	62
7/10/2013	100
10/16/2013	110

Rainbird Valley Mutual Water Company  
 Nitrate Summary-Well 02 (PS Code: 1500393-001)

Sample Date	Nitrate Conc. (mg/L)
10/11/1999	6.7
12/13/1999	3.1
4/16/2001	3.6
3/18/2003	3
3/23/2004	2.8
4/12/2005	3.3
12/19/2006	10
3/13/2007	3.1
5/20/2008	16
3/11/2010	15
4/22/2010	2.4
1/9/2013	3.9
10/31/2013	5.7
11/13/2013	5.8



**ATTACHMENT C**

**CDPH Letter Dated August 07, 2013**



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

August 7, 2013

Marsha Kelpo, Secretary  
Rainbird Valley Mutual Water Company  
PO Box 1222  
Weldon, CA 93283

**REQUIREMENTS FOR CHANGING STATUS OF WELL 01 FROM STANDBY TO ACTIVE  
RAINBIRD VALLEY MUTUAL WATER COMPANY WATER SYSTEM, (System No. 1500393)**

Dear Mrs. Kelpo:

This is in response to your recent inquiry regarding changing the status of Well 01 from standby to active. Due to problems with Well 02, Rainbird Valley Mutual Water Company (hereinafter Water Company) has already been using Well 01 since the beginning of July 2013. To allow continuous use of Well 01, the Water Company needs to submit a permit amendment application as discussed below.

1. **Permit Application**

Application for an amended permit must be made as required by Section 116550, Article 7, Chapter 4, Part 12, Division 104, of the California Health and Safety Code. Included with this letter is a permit application (**Attachment A - Form EH 100**) that should be used. Return the completed application, along with the information required in Items 2, 3, and 4 (if available) to the Tehachapi District Office at the address listed below.

***For water systems serving fewer than 1,000 connections:*** a permit application fee of \$258.00 must be submitted with the application for an amendment of a domestic water supply permit due to an addition or modification of the source of supply. Please make checks payable to the Department of Public Health.

2. **Drinking Water Source Assessment Requirements**

As of April 1, 1999, all new sources must have an assessment completed and submitted with the permit application. This assessment must be conducted in accordance with the Department's Drinking Water Source Assessment and Protection Program (DWSAP). The assessment must include the following:

- A ***Delineation*** of protection areas/zones around the well (2 year, 5 year and 10 year time of travel).

- An ***Inventory*** of Possible Contaminating Activities (PCAs) within the identified protection areas/zones.
- A ***Vulnerability Assessment*** to identify the PCAs to which the source is most vulnerable.

A brief summary of the Department's DWSAP is provided in **Attachment B**. To obtain detailed information on the procedures to complete a source assessment, you may contact the Tehachapi District Office or access the Department's web site at:

<http://www.cdph.ca.gov/certlic/drinkingwater/Pages/DWSAPGuidance.aspx>

In August 2002, the Department completed the DWSAP document for Well 02 and sent to you. You may use that document for guidance.

### 3. **DWR Well Completion Report**

Section 13751 of Chapter 10 of Division 7 of the Water Code requires that any person who digs, bores, or drills a water well, cathodic protection well, or a monitoring well, or abandons or destroys any such well, or who deepens or re-perforates any such well shall file with the DWR a report of completion (Well Completion Report) of such well within 30 days after its construction or alteration has been completed. The report shall be made on forms furnished by DWR. A Well Completion Report is a document completed by the well driller at the time of construction. The Report includes the following information: owner, location, proposed use, equipment employed in the construction of the well, gravel pack, casing material and diameter, perforations, well seal, water levels, well tests, well log, date drilled and the name of the well driller.

A review of our files indicates that we don't have a well log to verify the construction details of Well 01. **Please submit a copy of the Well Completion Report to the Department.**

### 4. **Water Quality Reports**

**Bacteriological Quality:** The Water Company provides continuous chlorination treatment. As such, the raw water from the Well 01 is required to be monitored quarterly for total coliform bacteria. Please conduct the quarterly bacteriological monitoring of the wells and report the results to the Department

**Chemical Monitoring of the Source:** The Water Company shall conduct monitoring and reporting of water quality for Well 01 in accordance with the appropriate Monitoring Schedule (CTGA) (copy enclosed in Attachment C). In particular, the Water Company shall conduct the following:

- a. Monitoring for Volatile Organic Chemicals (VOCs) shall be conducted every six years.
- b. Monitoring for the Synthetic Organic Chemicals (SOCs) Dibromochloropropane (DBCP), Ethylene Dibromide (EDB) shall be conducted every three years; and Alachlor, Atrazine and Simazine shall be conducted every nine years.
- c. Monitoring for Inorganic Chemicals (IOCs) shall be conducted every three years.

- d. Monitoring for nitrates shall be conducted quarterly.
- e. Monitoring for nitrite shall be conducted every three years.
- f. Monitoring for gross alpha and uranium shall be conducted quarterly. In addition, monitoring for total radium (radium 226 and radium 228) shall be conducted during a quarter if the difference between gross alpha and uranium results is 5 pCi/L or higher.
- g. Initial monitoring for radium 228 is also required for four consecutive quarters. If the first two quarters show non-detect results, monitoring may be waived for the remaining two quarters.
- h. Well 01 is overdue for monitoring for some chemical constituents. A copy of the "Delinquent Monitoring Schedule Report" is provided in Attachment D. The Water Company shall review the monitoring status of Well 01, and schedule delinquent monitoring within 60 days. After conducting the monitoring, please advise your contract laboratory to report the results electronically to the Department's water quality database using the appropriate Primary Station Code (PS Code) 1500393-002 assigned to Well 01.

**Compliance with the Nitrate Maximum Contaminant Level (MCL) of 45 mg/L and Uranium MCL of 20 pCi/L**

Based on our review, water produced by Well 01, does not meet the nitrate MCL of 45 mg/L and the uranium MCL of 20 pCi/L. According to our records, the last nitrate and uranium monitoring of Well 01 was conducted in January 09, 2013 and December 07, 2011, respectively. The Water Company is also required to find a long term solution to the nitrate and uranium problems. **Until the Water Company is back in compliance with the nitrate and uranium MCLs, quarterly nitrate and uranium monitoring and quarterly public notification must continue.**

**Public Notification Requirement for Nitrate and Uranium MCL Failure**

The Water Company is required to provide quarterly public notification of the ongoing nitrate and uranium MCLs violation as long as the violation continues. Result from the last nitrate sampling that was conducted on January 09, 2013, should be used to provide public notification for nitrate.

Compliance with the uranium MCL is based on the average concentration of four consecutive quarterly samples (or Running Annual Average (RAA)) for Well 01. The current RAA value for uranium concentration from Well 01 is 42 pCi/L, which should be used to provide public notification for uranium.

**The Water Company must provide next quarterly public notification by August 31, 2013. Attachment E is a template of the public notice that you may use for providing public notification for the current notification. Also, included under Attachment E is the proof of notification form that must be returned to the Department within 10 days of issuance of each quarterly public notification. Please include a copy of the final notice with the proof of notification form.**

**5. Inspection**

After receiving the permit amendment application for Well 01, a member of the Department's staff may conduct a field inspection of the well.

Please be advised that in order to change the status of Well 01 to an active source, the Water Company needs to submit the above mentioned documents to the Department and obtain written approval from the Department. If you have any questions regarding this matter, please contact Elia Estasy at (661) 335-7322.

Sincerely,



Jaswinder S. Dhaliwal, P.E.  
Senior Sanitary Engineer  
DRINKING WATER FIELD OPERATIONS BRANCH

cc: Kern County Environmental Health Services Department  
McMor Chlorination, Inc., Contract Sampler

**Attachments**

- Attachment A - Permit Amendment Application
- Attachment B - Drinking Water Source Assessment Program (DWSAP) Summary
- Attachment C - Water Quality Monitoring Schedule CTGA for Well 01
- Attachment D - Delinquent Monitoring Schedule Report
- Attachment E – Nitrate and Uranium Public Notification forms and Proof of Notification forms

Ltr080713-Reg. change of Status of Well 01 from Standby to Active.doc

## **ATTACHMENT D**

**Signed Nitrate Public Notice and Proof of Notification for 3<sup>rd</sup> Quarter of 2013**

**DRINKING WATER WARNING****Rainbird Valley Mutual Water Company water has high levels of nitrate.**

Este informe contiene información muy importante sobre su agua potable.  
Tradúzcalo o hable con alguien que lo entienda bien.

**DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD  
OR USE IT TO MAKE INFANT FORMULA**

We are again using our Stand-by Well 01; we began using this well since the beginning of July 2013, due to some mechanical problem with the pump on our main Well 02. Well 01 will be used to supplement our supply. Water sample results collected on January 9, 2013 from our Stand-by Well 01 showed nitrate levels of 62 mg/L. This is above the nitrate standard or maximum contaminant level (MCL) of 45 milligrams per liter (mg/L). Nitrate in drinking water is a serious health concern for infants less than six months old.

**What should I do?**

- **DO NOT GIVE THE WATER TO INFANTS OR PREGNANT WOMEN.** *Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. Medical advice should be sought immediately if any of these symptoms occur. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women. If you are pregnant or have specific health concerns, you may also consult your doctor.*
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Non-pregnant women, men, and children older than six months can drink the tap water (nitrate is a concern for infants because they can not process nitrates in the same way adults can).

**What happened? What is being done?**

Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year. We are already working with the Department on a funding project to resolve the high nitrate problem.

For more information, please contact Marsha Kelpe, Secretary, Rainbird Valley Mutual Water Company at (760) 378-4290 or the California Department of Public Health at (661) 335-7315.

*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 notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by the Rainbird Valley Mutual Water Company in compliance with the California Domestic Water Quality and Monitoring Regulations as a means of keeping the public informed.

Dated: 10/1/13

*Marsha Kelpe*  
Marsha Kelpe, Secretary





RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

PROOF OF NOTIFICATION

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by **Rainbird Valley Mutual Water Company** of the failure to comply with the nitrate maximum contaminant level during the 1<sup>st</sup> 2<sup>nd</sup> **3<sup>rd</sup>** 4<sup>th</sup> quarter of 2013 (year).

Notification was made on 10/1/13 by \_\_\_\_\_ (date)

hand delivered or mailed/posted written notice.  
(circle all completed)

Marsha Kelpe  
Signature of Water System Representative

10/1/13  
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 for each day that 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 August 31, 2013, then quarterly  
Nitrate MCL Failure  
System Number 1500393



# **ATTACHMENT E**

## **Nitrate and Uranium Public Notification Forms and Proof of Notification Forms**

## DRINKING WATER WARNING

### Rainbird Valley Mutual Water Company water has high levels of nitrate.

Este informe contiene información muy importante sobre su agua potable.

Tradúzcalo o hable con alguien que lo entienda bien.

### **DO NOT GIVE THE WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA**

We are again using our Stand-by Well 01; we began using this well since the beginning of July 2013, due to some mechanical problem with the pump on our main Well 02. Well 01 will be used to supplement our supply. Water sample results collected on October 16, 2013, from our Stand-by Well 01 showed nitrate levels of 110 mg/L. This is above the nitrate standard or maximum contaminant level (MCL) of 45 milligrams per liter (mg/L). Nitrate in drinking water is a serious health concern for infants less than six months old.

#### What should I do?

- **DO NOT GIVE THE WATER TO INFANTS OR PREGNANT WOMEN.** *Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. Medical advice should be sought immediately if any of these symptoms occur. High nitrate levels may also affect the oxygen-carrying ability of the blood of pregnant women. If you are pregnant or have specific health concerns, you may also consult your doctor.*
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Non-pregnant women, men, and children older than six months can drink the tap water (nitrate is a concern for infants because they can not process nitrates in the same way adults can).

#### What happened? What is being done?

Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year. We are already working with the Department on a funding project to resolve the high nitrate problem.

For more information, please contact Marsha Kelpe, Secretary, Rainbird Valley Mutual Water Company at (760) 378-4290 or the California Department of Public Health at (661) 335-7315.

*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 notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by the Rainbird Valley Mutual Water Company in compliance with the California Domestic Water Quality and Monitoring Regulations as a means of keeping the public informed.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Marsha Kelpe, Secretary



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

**PROOF OF NOTIFICATION**

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by **Rainbird Valley Mutual Water Company** of the failure to comply with the nitrate maximum contaminant level during the 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> quarter of \_\_\_\_\_ (year).

Notification was made on \_\_\_\_\_ by \_\_\_\_\_ (date)

hand delivered or mailed/posted written notice.  
(circle all completed)

\_\_\_\_\_  
Signature of Water System Representative

\_\_\_\_\_  
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 for each day that 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: December 25, 2013**  
Nitrate MCL Violation  
System Number 1500393  
Compliance Order No. 03-19-13O-007

## 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.

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### Rainbird Valley Mutual Water Company Has levels of Uranium Above Drinking Water Standards

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We are again using our Stand-by Well 01; we began using this well since the beginning of July 2013, due to some mechanical problem with the pump on our main Well 02. Well 01 will be used to supplement our supply. Water sample results collected on December 7, 2011 from our Stand-by Well 01 showed uranium level of 42 pico Curies per liter (pCi/L). This is above the uranium standard or maximum contaminant level (MCL) of 20 pCi/L. Compliance with the Uranium maximum contaminant level (MCL) is based on the average concentration of four consecutive quarterly samples (or an annual average) for each well. Testing results from Well 01 collected over the last four quarters show that our system exceeds the Uranium MCL of 20 pCi/L. The average Uranium concentration from the well is 42 pCi/L.

#### What should I do?

Concerns about the health effects of uranium are related to long-term exposure. However, you may want to consider the use of bottled water for drinking water and cooking until we notify you that we have installed treatment to reduce the uranium level in your water. Do not boil the water because boiling will not reduce the levels of uranium and could possibly increase the levels of inorganic contaminants such as nitrate and lead in the water.

#### What does this mean?

This is not an immediate risk. If it had been, you would have been notified immediately. However, *some people who drink water containing Uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.*

#### What happened? What was done?

We are working with the State Department of Public Health to resolve the high uranium problem.

For more information, please contact Marsha Kelpé, Secretary, Rainbird Valley Mutual Water Company at (760) 378-4290 or the California Department of Public Health at (661) 335-7315.

*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 notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by the Rainbird Valley Mutual Water Company in compliance with the California Domestic Water Quality and Monitoring Regulations as a means of keeping the public informed.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Marsha Kelpé, Secretary



RON CHAPMAN, MD, MPH  
Director & State Health Officer

State of California—Health and Human Services Agency  
California Department of Public Health



EDMUND G. BROWN JR.  
Governor

**PROOF OF NOTIFICATION**

As required by Section 116450 of the California Health and Safety Code, I notified all users of water supplied by **Rainbird Valley Mutual Water Company** of the failure to comply with the **uranium** maximum contaminant level during the 1<sup>st</sup> 2<sup>nd</sup> 3<sup>rd</sup> 4<sup>th</sup> quarter of \_\_\_\_\_ (year).

Notification was made on \_\_\_\_\_ by \_\_\_\_\_  
(date)

hand delivered or mailed/posted written notice.  
(circle all completed)

\_\_\_\_\_  
Signature of Water System Representative

\_\_\_\_\_  
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 for each day that 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 **December 25, 2013**, then quarterly  
Uranium MCL Failure  
System Number 1500393  
Compliance Order No. 03-19-130-007