

STATE OF COLORADO

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Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

May 19, 2010

Certified Mail Number: 7009 1680 0000 2094 4718

PWSID# CO-0136600
Darrell Foster
Model Water Users Association
P.O. Box 7
Model, CO 81059

RE: Service of Drinking Water Enforcement Order, Number: DC-100519-1

Dear Mr. Foster:

Model Water Users Association is hereby issued the enclosed Enforcement Order (the "Order"). This Order is issued by the Colorado Department of Public Health and Environment, Water Quality Control Division (the "Department") pursuant to the authority given to the Department by §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."). The Department bases this Order upon findings that Model Water Users Association violated the *Colorado Primary Drinking Water Regulations* (the "Regulations") as described in the enclosed Order.

As a recipient of an Order the Model Water Users Association may request a formal hearing to contest the Order in accordance with the Regulations, 5 CCR 1003-1, §1.6.7(g). Requests for such a hearing shall be filed in writing with the Department within thirty (30) calendar days after service of the Order. Such requests, at a minimum, shall contain the information specified in 5 CCR 1003-1, §1.6.7(g), and 5CCR 1002-21, §21.4(B)(2). Hearings on Orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, Article 4 of Title 24, C.R.S., and the procedural rules promulgated in 5 CCR 1002-21.

This action could result in the imposition of administrative or civil penalties. The Department or a State District Court is authorized pursuant to §25-1-114.1, C.R.S., to impose a penalty of up to \$1,000 per violation per day. Please be advised that the Department is continuing its investigation into this matter and the Department may identify supplementary violations that warrant amendments to this Order or the issuance of additional enforcement actions.

Should Model Water Users Association desire to informally discuss this matter with the Department or if you have any questions regarding the Order, please don't hesitate to contact Jackie Whelan at (303) 692-3617 or by electronic mail at jackie.whelan@state.co.us.

Sincerely,



Russell Zigler, Legal Assistant
Enforcement Unit
Compliance Assurance Section
WATER QUALITY CONTROL DIVISION

Enclosure

cc: Las Animas-Huerfano Counties District Health Department
Doug Foster, System Operator

ec: Dave Knope, Engineering Section, CDPHE
Dick Parachini, Watershed Program, CDPHE
Betsy Beaver, Facility Operators Program, CDPHE
Shawn McCaffrey, EPA Region VIII



**COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION**

ENFORCEMENT ORDER

NUMBER: DC-100519-1

**IN THE MATTER OF: MODEL WATER USERS ASSOCIATION
PUBLIC WATER SYSTEM IDENTIFICATION NUMBER: CO-0136600
LAS ANIMAS COUNTY, COLORADO**

Pursuant to the authority vested in the Colorado Department of Public Health and Environment (the "Department") by §25-1-109 and §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."), which authority is implemented through the Department's Water Quality Control Division (the "Division"), the Division hereby makes the following findings and issues the following Enforcement Order:

GENERAL FINDINGS

1. The Model Water Users Association ("Model WA") owns and/or operates a drinking water system located in or near the unincorporated Town of Model, Colorado, in Las Animas County, Colorado (the "System").
2. The Model Water Users Association is a person as defined by 5 CCR 1003-1, §1.5.2(98).
3. The Model Water Users Association is a supplier of water within the meaning of §25-1.5-201(2), C.R.S., and its implementing regulation, 5 CCR 1003-1, §1.5.2(128).
4. The System is a public water system as defined by §25-1.5-201(1), C.R.S., and its implementing regulation, 5 CCR 1003-1, §1.5.2(107).
5. The Public Water System Identification Number ("PWSID") assigned to the System by the Department is PWSID #: CO-0136600.
6. Pursuant to 5 CCR 1003-1, §1.2, the System is subject to the *Colorado Primary Drinking Water Regulations* (the "Regulations"), which were adopted pursuant to §25-1.5-203, C.R.S.

7. The Model Water Users Association provides piped water for human consumption from the System to at least fifteen (15) service connections used by year-round residents of the area served by the System and/or regularly serves at least twenty-five (25) year-round residents. The System is therefore classified as a "community water system" as defined by 5 CCR 1003-1, §1.5.2(15).
8. The System's source of water is groundwater as defined by 5 CCR 1003-1, §1.5.2(63).

First Violation

(Failure to Comply with the Maximum Contaminant Levels for Fluoride)

9. Pursuant to 5 CCR 1003-1, §2.2, Table 2-3(9), all community public water systems are subject to the fluoride maximum contaminant level of 4.0 mg/L.
10. Pursuant to 5 CCR 1003-1, §6.1.5(d)(1), the System must monitor for fluoride by taking one sample at each sampling point, as defined in 5 CCR 1003, §6.1.5(b)(1), during each compliance period.
11. Pursuant to 5 CCR 1003-1, §6.1.5(d)(8), systems that exceed the maximum contaminant level for fluoride, as calculated in accordance with 5 CCR 1003-1, §6.1.3(a), shall monitor quarterly beginning in the next quarter after the violation occurred.
12. Pursuant to 5 CCR 1003-1, §6.1.3(a)(1), for systems which are conducting monitoring at a frequency greater than annual, compliance with the maximum contaminant level for fluoride is determined by a running annual average based on data from the most recent four consecutive quarters at any sampling point.
13. Pursuant to 5 CCR 1003-1, §6.1.2 and §1.6.4(a), the System shall report to the state the results of any fluoride test measurements or analyses required by the *Colorado Primary Drinking Water Regulations* within (1) the first ten calendar days following the month in which the result is received, or (2) the first ten calendar days following the end of the required monitoring period, as stipulated by the Department, whichever of these is shorter.
14. From calendar year 2008 to present, monitoring data submitted to the Division from the System establish the following fluoride running annual averages for the System:

Fluoride in mg/L				Running Annual Average in mg/L
1 st Q 2008 4.2	2 nd Q 2008 4.8	3 rd Q 2008 4.8	4 th Q 2008 4.3	4.5
2 nd Q 2008 4.8	3 rd Q 2008 4.8	4 th Q 2008 4.3	1 st Q 2009 5.1	4.8
3 rd Q 2008 4.8	4 th Q 2008 4.3	1 st Q 2009 5.1	2 nd Q 2009 4.1	4.6
4 th Q 2008 4.3	1 st Q 2009 5.1	2 nd Q 2009 4.1	3 rd Q 2009 4.4	4.5
1 st Q 2009 5.1	2 nd Q 2009 4.1	3 rd Q 2009 4.4	4 th Q 2009 4.9	4.6
2 nd Q 2009 4.1	3 rd Q 2009 4.4	4 th Q 2009 4.9	1 st Q 2010 4.9	4.6

15. Pursuant to 5 CCR 1003-1, §6.1.3(a)(1), for systems which are conducting monitoring at a frequency greater than annual, if the running annual average at any sampling point is greater than the maximum contaminant level then the system is out of compliance.
16. The Model WA's failure to comply with the maximum contaminant level for fluoride constitutes violations of 5 CCR 1003-1, §2.2, Table 2-3(9).

COMPLIANCE REQUIREMENTS

Based upon the foregoing factual and legal determinations and pursuant to 5 CCR 1003-1, §1.6.7, Model WA is hereby ordered to:

17. Immediately comply with the *Colorado Primary Drinking Water Regulations*, 5 CCR 1003-1, Articles 1 through 13.

Further, the Division hereby orders Model WA to comply with the following specific terms and conditions of this Enforcement Order.

18. In order to ensure long-term compliance with the *Colorado Primary Drinking Water Regulations*, specifically including the fluoride maximum contaminant level (Article 6) for public water supplies, Model WA shall evaluate and upgrade, as needed, the System's water sources and/or treatment processes in accordance with the following schedule:
 - a. By June 30, 2010, retain a qualified Professional Engineer (licensed in Colorado and experienced in drinking water systems) to evaluate and recommend treatment technologies or alternate water sources to the Model WA to ensure compliance with the maximum contaminant level for fluoride.

- b. By October 17, 2010, submit for Department review and comment a finalized Preliminary Engineering Report for system improvements to comply with the maximum contaminant level for fluoride. If an alternate water source is proposed, submit for Department review and comment a detailed description of the alternate water source along with a copy of the laboratory analyses supporting that the alternate water source is suitable.
- i. The Preliminary Engineering Report submittal package must be developed consistent with the *Colorado Drinking Water Preliminary Engineering Report Guidance & Review Checklist Form*.
(see http://www.cdphe.state.co.us/wq/opa/pdf/19_CPERGuideChecklistDW.pdf)
 - ii. If an alternate water source is proposed, submit for Department review and comment detailed engineering plans and specifications for the source including a description of the alternate water source along with a copy of the laboratory analyses supporting that the alternate water source is suitable.
 - iii. The Preliminary Engineering Report (if applicable) must clearly identify the specific treatment technology the Model WA will use to ensure compliance with the maximum contaminant level for fluoride.
 - iv. The Preliminary Engineering Report (if applicable) must include a process flow schematic of the distribution system from wellheads to points of use, including flow rates, treatment facilities, storage tanks and all service connections supplied by the wells. Alternative treatment locations for the selected treatment process or processes must be evaluated with a recommended location selection. The process flow schematic information and evaluation must be included to ensure all water from the System is treated.
 - v. The Preliminary Engineering Report (if applicable) must include a proposal for management of residuals from the treatment technology selected.
 - vi. The Preliminary Engineering Report submittal package must include design calculations showing the proposed treatment system is properly sized and chlorine contact times can be met for expected flow rates.
{Please note that, prior to construction, the Department must give final approval to any modifications to the System's water source or treatment process. The Department will not perform a detailed review and final approval of any proposed modifications until the final design plans and specifications have been received pursuant to paragraph 18(d) below.}
- c. By January 17, 2011, submit for Department review and comment the final Design Report for the Model WA System improvements to comply with the maximum contaminant level for fluoride.
- d. By April 16, 2011, submit Final Design Plans and Specifications for the System improvements for Department review and approval in accordance with the *State of Colorado Design Criteria for Potable Water Systems*.
- i. The Final Design Plans and Specifications submittal package must include specifications for treatment equipment and/or chemical additives that come in contact with the water that indicate ANSI standards 60 and 61 are met (NSF certification).

- e. By September 17, 2011, complete construction/implementation of the Department approved System improvements to ensure long-term compliance with the maximum contaminant level for fluoride.
 - i. If the Department requires a pilot study of the selected treatment technology prior to approval, then the pilot study and approval must be completed before the September 17, 2011, construction/implementation deadline.
 - f. By November 17, 2011, submit the Professional Engineer's Certification that the System improvements to comply with the maximum contaminant level for fluoride were constructed/installed as approved by the Department.
19. By no later than June 30, 2010, the Model WA shall complete an evaluation to determine appropriate interim measures to ensure that the System is providing the best possible quality of water available until the System implements improvements to ensure long-term compliance with the fluoride maximum contaminant level. The Model WA shall submit a written report of the results of this evaluation to the Division for review and comment. Implementation of the interim measures identified by the Model WA shall become a condition of this Enforcement Order unless notified by the Division, in writing, that alternate or additional interim measures are appropriate. If the Division imposes alternate or additional interim measures, they shall also become a condition of this Enforcement Order.
20. By no later than September 30, 2010, and every three (3) months thereafter, the Model WA shall issue a public notice in accordance with 5 CCR 1003-1, Article 9.2, for each fluoride maximum contaminant level violation identified in this Enforcement Order until the Model WA has effectively addressed and returned to compliance with the fluoride maximum contaminant levels outlined in 5 CCR 1003-1, §2.2, Table 2-3(9). Within ten (10) calendar days of completion of each required public notification, the Model WA shall submit to the Department, along with the mandatory Public Notification certification of delivery, a representative copy of notices distributed, published, posted, and/or made available to the persons served by the system and/or to the media. *(Attached are copies of procedures and forms to assist you with the public notification requirements.)*
21. Model WA shall submit "System Improvement Project - Progress Reports" to the Division every ninety (90) calendar days. The first report shall be submitted to the Division within thirty (30) calendar days after receipt of this Order. At a minimum, each report shall clearly indicate the status of the system evaluation/improvement project at the time the report is filed and outline activities to be undertaken within the next ninety (90) calendar days. These reports shall be required until the System has demonstrated reliable and consistent compliance with the fluoride maximum contaminant levels outlined in 5 CCR 1003-1, §2.2, Table 2-3(9).
22. All documents submitted under this Order shall use the same titles as stated in the Order and shall reference both the Order number and the paragraph number pursuant to which the document is required.

NOTICES AND SUBMITTALS

23. For all documents, plans, records, reports and replies required to be submitted by this order, Model WA shall submit an original and one copy (electronic is preferred) to the Division at the following address:

Colorado Department of Public Health and Environment
Water Quality Control Division / WQCD-B2-CAS
Compliance Assurance Section
Attention: Jackie Whelan
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Email: jackie.whelan@state.co.us
Fax: (303) 782-0390

(For any facsimile transmittals, please include a cover sheet addressed to Jackie Whelan.)

24. All reports, notices, summaries, and certifications required to be submitted to the Department by the public water system must bear the original signature of the owner or the owner's authorized representative.

NOTICE OF COMPLETION

25. The Model WA shall submit a Notice of Completion to the Division upon satisfactory completion of all requirements of this Enforcement Order. The Division shall either accept or reject the Notice of Completion in writing. If the Division rejects the Notice of Completion, it shall include in its notice a statement identifying the requirements that the Division considers incomplete or not satisfactorily performed and a schedule for completion. If Model WA wishes to dispute the Division's rejection of its Notice of Completion, it shall, within fifteen (15) calendar days of receipt of the Division's rejection, submit a written statement as to its belief of full compliance, addressing in detail all concerns the Division raised in the rejection letter to the System's Notice of Completion.

PRIOR APPROVAL REQUIRED

26. Pursuant to 5 CCR 1003-1, §1.11.2, no person shall commence construction of any new waterworks, or make improvements to or modify the treatment process of an existing waterworks, or initiate use of a new source, until plans and specifications for such construction, improvements, modifications or use have been submitted to, and approved by, the Department. A Professional Engineer registered in the State of Colorado shall design all treatment systems serving a community water supply. Department shall grant such approval when it finds that the proposed facilities are capable of complying, on a continuous basis, with all applicable laws, standards, rules and regulations.

POTENTIAL ADMINISTRATIVE/CIVIL AND CRIMINAL PENALTIES

27. You are also advised, pursuant to §25-1-114.1, C.R.S., that violators of the Regulations or final Enforcement Orders issued by the Department are subject to civil or administrative penalties of up to one thousand dollars (\$1,000) per violation per day, to be imposed by the Department or a State District Court. Further, pursuant to §25-1-114(4), C.R.S., any person, association, or corporation, or the officers thereof, who violates, disobeys, or disregards any provision of the Regulations or an Enforcement Order is guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than one thousand dollars (\$1,000), or by imprisonment in the county jail for not more than one (1) year, or by both such fine and imprisonment and, in addition to such fine and imprisonment, shall be liable for any expense incurred by health authorities in removing any nuisance, source of filth, or cause of sickness. By virtue of issuing this Enforcement Order, the Department has not waived its right to bring an action for administrative, civil or criminal penalties and may bring such action in the future.

REQUEST FOR HEARING OR APPEAL

28. You are further advised, pursuant to 5 CCR 1003-1, §1.6.7(g), that a recipient of an Enforcement Order may request a hearing contesting such order. Requests for such a hearing shall be filed in writing with the Department within thirty (30) calendar days after service of the order. Such requests, at a minimum, shall contain the information specified in 5 CCR 1003-1, §1.6.7(g), and 5 CCR 1002-21, §21.4(B)(2). Hearings on Enforcement Orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, Article 4 of Title 24, C.R.S., and the procedural rules promulgated in 5 CCR 1002-21.

ADDITIONAL ACTION

29. You are further advised that under §25-1-114.1(1), C.R.S., the Department may institute a civil action against any person who violates a final Enforcement Order of the Department issued for violation of any minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S.
30. Additionally, the Department may request the Attorney General to seek a temporary restraining order or permanent injunction to prevent or abate any violation of a minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S., Further information concerning the aforementioned action is contained in §25-1-114.1(3), C.R.S.

Issued at Denver, Colorado, this 19th day of May, 2009.

FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT



Lori M. Gerzina, Section Manager
Compliance Assurance Section
Water Quality Control Division

Since exceeding the fluoride maximum contaminant level (MCL) is a Tier 2 violation, you must provide Public Notification to persons served as soon as practical but within 30 days after you learn of the violation. You must issue a repeat Public Notification every three months for as long as the violation persists. **If you exceed the secondary maximum contaminant level of 2 milligrams per liter but not the MCL of 4 milligrams per liter, you must issue a special Public Notification with different health effects language.**

Community systems must use of the following methods:

- ✓ Hand or direct delivery
- ✓ Mail, as a separate Public Notification or included with the bill

Non-Community systems must use one of the following methods:

- ✓ Posting in conspicuous locations
- ✓ Hand delivery
- ✓ Mail

In addition, you must use *another* method reasonably calculated to reach others if they would not be reached by the first method. Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your Public Notification on letterhead, if available.

The Public Notification on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and you may not modify the mandatory health effects language.

Corrective Action

In your Public Notification, describe corrective actions you are taking. Do not use overly technical terminology when describing treatment methods. Listed below are some steps commonly taken by water systems with fluoride violations. Use one or more of the following actions, if appropriate, or develop your own:

- ✓ We are working with CDPHE/WQCD to evaluate the water supply and researching options to correct the problem. These options may include treating the water to remove fluoride or connecting to [system]'s water supply.
- ✓ We have stopped using the contaminated well. We have increased pumping from other wells, and we are investigating drilling a new well.
- ✓ We will increase the frequency at which we test the water for fluoride.
- ✓ We have since taken samples at this location and had them tested. They show that we meet the standards.

Repeat Public Notifications

If this is an ongoing violation and/or you fluctuate above and below the MCL, it is a good idea to give the history behind the violation. You should list the date of the initial detection, as well as how levels have changed over time. If levels are changing as a result of treatment you should indicate that fact.

After Issuing the Public Notification

Make sure to send the Rule Specialist at the CDPHE/WQCD copies of all Public Notification(s) and a certification that you have met all Public Notification requirements within ten days after issuing the Public Notification.

(THIS IS APPROPRIATE FOR COMMUNITY AND NON-COMMUNITY PUBLIC WATER SYSTEMS)
**TIER 2 - IMPORTANT INFORMATION ABOUT YOUR
DRINKING WATER**

[System Name] Has Levels of Fluoride Above Drinking Water Standards

Our water system recently violated a drinking water standard. Although this is not an emergency, as our customers, you have a right to know what happened, what you should do, and what we are doing to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results we received on [date] show that our system exceeds the standard, or maximum contaminant level (MCL), for fluoride. The average level of fluoride in samples taken during the last year was [level and units]. The standard for fluoride is that the average of samples taken over the last year may not exceed [MCL].

What should I do?

Children under the age of nine should use an alternative source of water that is low in fluoride. In addition, you may want to consult your dentist about whether to avoid dental products containing fluoride. Adults and children over age nine should consult their dentist or doctor and show him/her this Public Notification to determine if an alternate source of water low in fluoride should be used.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Fluoride in small amounts helps prevent tooth decay. However, *some people who drink water-containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or greater may cause mottling of children 's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums.* Although it takes many years of exposure to fluoride for bone disease to develop, mottling can occur after a relatively short period of exposure.

What happened? What is being done?

Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in high concentrations in our source water. [Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

For more information, please contact [name of contact] at [phone number] or [mailing address].

Please share this information with all the other people who drink this water, especially those who may not have received this Public Notification directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this Public Notification in a public place or distributing copies by hand or mail.

This Public Notification is being sent to you by [system name]
Colorado Public Water System ID#: _____
Date distributed: _____