

**Public Meeting on EPA's
Proposed Public Notification Rule and Handbook**

FINAL REPORT – JULY 16, 1999

**Arizona Department of Environmental Quality
Phoenix, AZ**

June 23-24, 1999

Public Notification Public Meeting
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The U.S. Environmental Protection Agency (EPA) is proposing changes to its drinking water public notification (PN) regulations (64 *FR* 25963, May 13, 1999). The PN regulations apply to owners and operators of public water systems that fail to comply with the drinking water standards and related regulations under the Safe Drinking Water Act. EPA is also developing a draft *Public Notification Handbook* (EPA 816-R-99-004) to aid water systems in their efforts to prepare effective public notices.

EPA held a meeting to take comment on the PN rule and the *Public Notification Handbook* at the Arizona Department of Environmental Quality, in Phoenix, AZ on June 23 and 24, 1999. (This was one of a series of meetings EPA held throughout the country; the other meetings were in Madison, WI, Washington, D.C., and Allentown, PA. EPA announced the public meetings in the *Federal Register*, 64 *FR* 27942, May 24, 1999.) Seventy-one people attended the Phoenix meeting (see Attachment 1). EPA had three major objectives during the meeting.

- *Invite public comment on the proposed rule:* EPA presented a summary of the requirements under the proposed PN rule. Participants asked clarifying questions during this presentation. Following the presentation, EPA invited people to submit formal public comments for the record.
- *Discuss the draft Public Notification Handbook in a workgroup setting:* In a plenary session, EPA solicited input on how easy the handbook is to use, its appropriateness for small systems, and its helpfulness for writing public notices. During breakout sessions, participants worked together to create draft notices and provided feedback on the usefulness of the templates and handbook as well as the effectiveness of their notice and chosen delivery method.
- *Obtain comment on sample public notices:* In an evening session, EPA asked a small group of people to review two sample notices created using the handbook. The group provided feedback on how effectively the notices communicated their message.

Introduction

Jeff Stuck of the Arizona Department of Environmental Quality (ADEQ) opened the meeting. Mr. Stuck told the group that this meeting provided water system operators in Arizona a unique opportunity to comment in person on an EPA rulemaking. Carl Reeverts of the U.S. EPA Office of Ground Water and Drinking Water and rule manager for the PN rule also welcomed the participants. Mr. Reeverts gave a preview of what EPA plans to accomplish during the meeting, and asked everyone in the group to introduce themselves.

Rule Summary

Mr. Reeverts summarized the PN rule. (Attachment 2 is a copy of the presentation.) During and after his presentation, participants asked clarifying questions and provided official comments for the record. The following comments and questions arose in this session:

Question: How would water systems that sell water get consecutive systems to give notice to their customers? (Harold Estes, U.S. Forest Service)

Carl Reeverts responded that if the purchasing system is a public water system (PWS), they must notify their consumers. If they are not a PWS, they are not subject to the PN requirements. However, it is the seller's obligation to take all reasonably calculated steps to reach all persons served. Mr. Estes followed up with a concern about complaints from people who get sick because the buyer did not provide PN.

Handbook comment: Bing Brown, City of Phoenix Water Services, responded that operators should document the steps they took to meet PN requirements to help protect them in the event of a lawsuit.

Question: Has the need for notifying customers of a purchasing system arisen in the past, and how can a system be sure that consecutive systems' customers and transient customers get the word in a PN situation? (Bing Brown, City of Phoenix Water Services)

Carl Reeverts responded that this situation has arisen in the past. He reiterated that the rule requires the seller to take all reasonably calculated steps to reach all persons served.

Comment: The use of electronic media helps to distribute public notice information.

Carl Reeverts responded that EPA stated in the proposed rule that systems must take steps to be sure all persons served receive the message, but did not specify what those steps should be.

Comment: The primacy agency might have input as to what constitutes a "reasonably calculated" method of delivery. (Dave Van Fleet, City of Peoria, AZ)

Carl Reeverts responded by referring to the proposed rule at 141.204 (c)(1)(ii), which says that unless the primacy agency directs otherwise, the form and manner of the public notice may vary based on the specific situation and type of water system, but it must, at a minimum, meet certain requirements.

Jill Korte of EPA's Region 9 added that the Region requires insertion of the mandatory language to encourage distribution to tenants, guests, etc.

Comment: The method to be used should depend on system size. A large system should broadcast a notice on the radio, even though it may hurt the system's reputation. At smaller systems, phone trees and hand delivery are the best methods to deliver public notices. (Judy Mandeville, Pine Valley Water)

Rule comment (141.205 (c)(2)): Many consumers do not read English, and something needs to be done to translate notices for these people. (William Randell, Valle Verde Water Company)

Carl Reeverts responded by saying the notice must have an "alert" in another language but does not necessarily need to be fully translated. He then read the multi-lingual requirements in the rule at 141.205 (c)(2).

Comment: For some notices, e.g., if the violation is resolved, translation is not that important. But if people should not drink the water, there should be something to that effect in the notice. (Judy Mandeville, Pine Valley Water)

Question: Did EPA consider the cost of producing and distributing notices and whether notices can be distributed in 24 hours? (Jackie Strong, City of Chandler)

Carl Reeverts responded that EPA estimated that postage costs are the most expensive component of the proposed rule.

Question: Would television stations distribute PN information as a public service?

Carl Reeverts responded that sometimes, TV stations will do this, however they may air this information in the middle of the night. This is a dilemma for systems considering distribution via TV. One commenter followed up with a concern that TV stations would alter the message.

Following his presentation, Mr. Reeverts invited members of the group to provide formal comments on the rule. Six people offered comments, which are summarized below. Three of the commenters read from written statements provided in Attachment 3.

Rule comment (no specific citation): The proposed rule is an unfunded mandate. This is a big cost for a small system such as ours serving 120 people with lots of absentee landlords. Where should systems get the money to comply with the new requirements? The corporation commission will not allow a rate increase of even \$.25-\$.30 to cover the additional cost. When EPA makes a rule, it should go to the corporation commission and ask it for a 1 percent rate increase to cover the cost. (Pete Mandeville, Pine Valley Water)

Rule comment (141.205(d)(2)): The standard language for monitoring violations in the rule is detrimental: most monitoring violations are unlikely to affect public health. The variety of potential monitoring violations calls for more than one uniform statement. The primacy agency could require specific language as a default, or the water system could write its own language

with approval from the primacy agency. This would be consistent with the rule's intention to give primacy agencies flexibility. In addition, for some monitoring results, such as groundwater systems with monitoring violations for VOCs, risk can be inferred during the time monitoring was not done if prior and subsequent results are available. (Jean Melillo, Tucson Water District)

Rule comment (141.202(a)): Turbidity exceedances should be included as Tier 1 violations. Studies by Harvard and the Centers for Disease Control have correlated spikes in turbidity levels in drinking water (in the absence of other indicators) with gastrointestinal illnesses and emergency room visits. Children and elderly adults are at risk. (Phyllis Rowe, Arizona Consumers Council)

Rule comment (141.203(b)): For Tier 2 violations, the 30-day deadline is too late for a violation with "serious adverse health effects;" a seven day deadline is recommended. (Phyllis Rowe, Arizona Consumers Council)

Rule comment (141.204): The CCR should be table format and be simple to read. Including monitoring violations would make the CCR more confusing. Monitoring violations should be in a separate notice, since they make up 90 percent of all violations. (Phyllis Rowe, Arizona Consumers Council)

Comment: All notices need to be in print that is easily readable. Notices should use a question and answer format and provide a phone number for more information.

Rule comment (141.202(a)): *Cryptosporidium* is difficult to detect in drinking water and causes devastating disease in AIDS patients. Because of its correlation to high turbidity levels, EPA should consider making turbidity violations a Tier 1 situation. More enforcement of bottled water quality standards is needed, because many AIDS patients drink bottled water and have a false sense of security about its safety. (Laura May, Arizona AIDS Network)

Rule comment (141.202(b)(1)): The 24 hour deadline for Tier 1 notification is difficult for small systems to meet. EPA should consider giving small systems the option of shutting down their operations and delivering water to their customers instead. Public notices can cause false illnesses. (Alan Friedman, Los Cerros Water Company)

Rule comment (141.202(c)): EPA should recommend mailing as the primary method of delivery for Tier 1 notices. Via express delivery, the Postal Service can deliver notices to each person within 24 hours, if the post office receives them by 5 p.m. The Postal Service can also provide EPA with guidance for formatting mass-mailing post cards that cost \$0.18 per piece to mail. (Monique Coady, U.S. Postal Service)

Carl Reeverts responded that the proposed rule does not preclude mail delivery, however it is not a preferred option for Tier 1 notification.

Discussion of the *Public Notification Handbook*

Mr. Reeverts described EPA's *Public Notification Handbook* to the group. Following Mr. Reeverts' presentation, Bridget O'Grady of the Association of State Drinking Water Administrators led the group through the Handbook, asking questions about its usefulness.

Ms. O'Grady asked the group for their general impressions of the handbook and how easy it is to use. People responded with the following questions and suggestions.

- Will the handbook be available electronically (e.g., in Microsoft Word or Adobe Acrobat)?

Ms. O'Grady responded that EPA plans to make the handbook available in electronic formats, although there are some difficulties in translating between different software formats and because the intent is to keep instructions and templates together on the front and back of each page.

- States and primacy agents should adapt the handbook to their own regulations and situations. For example, ADEQ could replace "contact the primacy agency" with "call ADEQ at [phone number]."
- Make the chapters easier to find. Use tabs, color coding, page numbering style with chapter number, titled tabs, or thumb nails.
- The instructions on how to use the handbook could be written as a flow chart with programmed text, i.e., If [condition], turn to page x. (Handbook, p. 3)
- Rewrite Step 5 of how to use the handbook to address the fact that in some cases a system may not be using a template because one might not be applicable to their situation. (Handbook, p. 3)
- Make additional templates available on the Internet as they are developed and give the address for finding them in the Handbook. (Handbook, p. 3)
- On Table 1, describe "other method, as needed" under method of delivery for Tier 2 and 3 notices, or at least add examples, such as newspapers. (Handbook, p. 5)

Rule comment (141.203 (b)): Mail or hand delivery of a Tier 2 notice within 30 days is difficult for large systems. Bill inserts are typically prepared one month ahead of mailing, and a Tier 2 notice would not be complete by the deadline. In some systems, the billing cycle is continuous; bills are sent out as meter results come in. Suggested alternatives include a preliminary notice in the newspaper or on the radio within 30 days, followed up by a more complete notice after the 30-day deadline. (Bing Brown, City of Phoenix Water Services)

Mr. Reeverts clarified that although extensions are allowable under the proposed rule, they were not intended to be used to solve administrative difficulties.

- On Table 2, highlight specific contaminants, either in bold text or by making them a sub-heading in the table. It is better for the table to expand to three pages if it is easier to read. (Handbook, p. 7)
- Explain what consumer confidence reports (CCRs) are. (Handbook, p. 5)
- Organize Table 1 by system size. For instance, a small system would not have to use radio. (Handbook, p. 5)

Rule comment (141.201 (c)): Clarify what is meant by “all persons served.” Does this mean everyone in the system or those affected? If it means only those affected, the language should be changed to reflect this. (Michelle De Haan, City of Scottsdale)

- How does “all persons served” or “all persons affected” impact surrounding areas? How would people such as prison crews or construction crews entering the area served by a water system learn of a violation?

Rule comment (141.204 (d)): Recommending use of the CCRs to distribute Tier 3 notices may encourage a violation if the timing of the CCR would exceed the 12-month deadline. Can the CCR deadline be changed? (Handbook, p. 5)

- If translations are necessary, systems would need to be able to “trust” that a translation into Spanish is accurate.
- EPA should provide translations of notices in Navajo and Pima languages; also, there are several dialects of these languages, and this could make translations difficult. Ms. O’Grady responded that EPA cannot translate notices into every possible language, but Mr. Reeverts offered EPA as a clearinghouse for any translations that are submitted. He also said EPA might be able to translate to some extent health effects language or actions consumers should take.
- Oral communication is another important tool for spreading word of a violation, especially to people who can not read in any language.

Rule comment (141.205 (c)(2)): Given the rapid turnaround for issuing a Tier 1 notice and the fact that notices must be approved by water system management (including legal counsel), approval of translations into Spanish makes 24-hour notification hard. Ms. O’Grady responded that Chapter 4 of the handbook encourages systems to plan ahead for situations such as the one described.

Rule comment (141.31(d)): What is “certification?” Do systems need a notary public for certification? Mr. Reeverts clarified that no notary is necessary and that certifications are not legal documents. He said no one would be criminally prosecuted for lying on a certification; however, the person signing it does assume some responsibility.

- The handbook should define appropriate signatories to the certification letter and include a template of a certification letter. When Ms. O’Grady pointed out the sample certification on page 12 of the handbook, people suggested that the paragraph not cite a federal regulation, since operators in primacy states will need to comply with State requirements. It was also suggested that the sample paragraph reference an enclosed copy of the notice. Participants also suggested simplifying the text by replacing the word “certifying” with “stating.” (Handbook, p. 12)
- The handbook needs to be clearer on which regulations are applicable to community water systems (CWS) only, such as the requirement for PN when the secondary maximum contaminant level for fluoride is exceeded. (Handbook, p. 6)
- What would EPA consider to be a large non English-speaking population for purposes of multi-lingual requirements? (Handbook, p. 11)

Ms. O’Grady said there was no definite answer in the rule; Carl Reeverts responded that primacy agencies would make this decision. If the state does not decide; it will be up to the system to decide.

The group offered the following comments and suggestions on Chapter 4 of the handbook, Making Public Notification Work.

- How can systems verify that bottled water meets Food and Drug Administration (FDA) standards? Systems can not send all available bottled water to a lab for testing, especially when they are busy dealing with a violation. Ms. O’Grady responded that the handbook says that operators should be sure that any bottled water from the municipal water system is not distributed, unless bottlers add treatment that would remedy the contamination.
- Because Internet addresses change frequently, the handbook should suggest that users “search for [topic] on www.epa.gov.”
- Should a water system notify FDA of a violation if it sells water to bottlers?

Mr. Reeverts said systems do not have to notify FDA; they need only notify the bottlers.

- Chapter 4 should include U.S. Postal Service-compatible formats for mailed notices, e.g., postcards. (Handbook, Ch. 4)
- Is there a way the rule can require the media to print a press release for public safety in its entirety without adding any media bias?

Ms. O’Grady said it was impossible to devise something that would cover all the agreements systems may already have in place with the media, but she recommended that systems take steps to reach agreements with their local media.

Rule comment (141.208): Can the standard language for exceedances of the secondary maximum contaminant level for fluoride be changed from units of mg/l to ppm or ppb, especially since this information might be included in the CCR?

- Is there anything that would prevent both mg/l and ppm from being used?

The group offered the following input on Chapters 5 through 7 of the handbook on the tier-specific requirements and suggestions:

- The handbook should include templates for electronic notices showing how the ten elements are addressed. A participant asked whether printed notices could be put on TV. (Handbook, Ch. 5)
- Web sites can be used as a method for delivery.
- The handbook should recommend hand delivery of notices if only a portion of the distribution system is affected. (Handbook, p. 18)
- The graphic boxes in the handbook with tips for small systems are helpful, and the handbook should include more of them.
- Primacy agencies must be available 24 hours a day. This makes their input to the handbook important. A participant suggested that primacy agencies set up a hotline for systems to contact them. This would help systems create an acceptable notice before it is distributed, eliminating the need for states to require a second notice.
- Could EPA or the primacy agency “pre-approve” PNs, so that systems can send them out immediately without waiting for approval or worrying that the notices they send would not be acceptable to the primacy agent?

Mr. Reeverts said EPA cannot speak for primacy agencies. It could recommend that systems check with their primacy agencies on this issue. Even if primacy agencies pre-approved the templates, the states still might deem a notice inadequate if they feel some of the fill in the blank areas are incomplete.

- EPA should send templates to all regulatory authorities.
- Primacy agencies should distribute handbook supplements with their specific requirements, rather than re-do the entire handbook.

- There is too much print in the handbook. EPA should add more color, white space, or pictures.
- Many readers will go straight to the templates; the handbook should be written with this in mind. The templates should be put together at the end of the handbook.
- Put pictures in the templates, for example a picture of a baby on the nitrate notice.

The group offered the following comments on Chapter 8, “Special Needs of Non-Community Systems.”

- This chapter does a good job of keeping the information simple and describing all requirements. The references to other chapters are clear.
- Include a space for the water system name in all of the templates.
- The handbook should better describe what transient non-community water systems and nontransient non-community water systems are, and give examples. (Handbook, p. 69)
- Small systems will refer to the handbook like it is the rule, even with the disclaimers.
- How would the system know what population is at risk from a given contaminant? The handbook should include resources such as the Safe Drinking Water Hotline and other information sources.

Mr. Reeverts said the population at risk is based on the contaminant, not the specific situation. The Safe Drinking Water Hotline might be useful for this information.

- Telling people to contact their doctor costs them money; the notice should explain why people need to call their doctors. EPA and the PWS are not medical authorities.
- Does the health effects language “... Some people, including immuno-compromised people, some elderly, and infants...” refer to all infants or some infants?
- Does the statement that “this is not an emergency” meet the requirement for identifying the population at risk?

Rule comment (141.205): The requirement for identifying the population at risk should not apply to Tier 3 notices.

- Why is the maximum contaminant level goal (MCLG) included in Appendix B? EPA should explain the purpose of including it in a footnote. (Handbook, p. 91)
- The templates should include that the notice is required by law.

Breakout Sessions

Participants spent the afternoon session on June 23 and the morning session on June 24 in small groups creating public notices based on a variety of scenarios (as described below). The group re-convened to discuss the notices they created and talk about suggestions and ideas for improving the handbook and templates. The sample notices each group created are provided in Attachment 4.

JUNE 23

Group 1: Surface Water Treatment Rule (Residual Disinfectant)

Scenario: A filtered system serving 50,000 people had a residual disinfectant concentration of 0.1 mg/l for 6 hours. A treatment technique violation occurs when the residual disinfectant drops below 0.2 for more than four hours. This is the first time there has been a problem with residual disinfectant at this system.

Because the scenario did not identify the cause of the violation, the group assumed the disinfectant levels dropped due to a blown chlorinator. A new chlorinator was installed, along with a backup pump to prevent a recurrence of the violation. It was also not clear in the scenario whether the whole system or just part of the system was affected. The members decided it was important to give as much information as possible and allow consumers to decide whether they want to read the notice. Otherwise, it could appear that the water system was trying to hide something.

The group used Template 2-7 on pages 55 and 56 to create the notice. Comments during the discussion included the following:

The health effects language is alarmist and does not fit the situation, especially since this was a one-time violation and the disinfectant levels were never zero.

- Besides the above issue, the template was adequate for developing a notice. But the resulting notice seemed like a lot of information for a relatively small problem that was quickly corrected. Because of this and the health effects language, the notice may not communicate well.
- The handbook should make it clear that systems may reorganize the information in the templates if they choose.

Group 2: Arsenic

Scenario: A system serving 500 people uses ground water and monitors quarterly for arsenic. Samples taken over the last four quarters have average arsenic levels of 0.08 mg/l. The MCL is 0.05 mg/l. Arsenic levels have been above the MCL since September, 1997. The arsenic occurs naturally.

The group determined that the situation represented a Tier 2 situation, and used Chapter 6 and Template 2-3 on page 48 of the handbook to create a notice. They agreed that the template is well-suited to the situation and fits the seriousness of a violation at the levels reported. They felt it conveyed the information in a good tone, and that the question and answer format is less “official” sounding and appropriate.

The group felt that, since the situation is an ongoing violation, the PN should be written as a progress report. The principal message is that there is a problem but it is not dangerous, the water system is working to fix it, and consumers’ day-to-day life will not be affected.

As the group completed the notice, several issues arose:

- How will the system know what steps they will need to take to remedy the violation, and how can the system accurately estimate when it will return to compliance? Systems are facing two issues at once: preparing a public notice and executing a corrective action.
- Saying that drinking water with arsenic at this level is not dangerous opens liability issues. The advice to consult a doctor eases this concern.
- PN needs to be part of a community’s standard emergency operations plan. “Pre-approving” public notices within water system chain of command can expedite delivery, especially for Tier 1 notices.
- The system should use the notice, especially one that is a “progress report” of an ongoing situation, to address the cost of providing safe drinking water, especially if water rates may go up. If grant money is coming, the system should present this “good news” in the notice.
- Consumers’ chief question upon receiving a notice will likely be “How much water do I have to drink to get sick?” Systems need to give accurate information on the significance of the contaminant at the levels detected.
- The notice should fit on one page and be written in big print to make it easily readable.
- The threshold for needing a multi-lingual notice would be different for Tier 1 and Tier 2 situations. Non-written communication may be needed for many people who speak Navajo, but do not necessarily read Navajo. A similar need arises in prisons, where many inmates cannot read and need interpreters.

The group discussed ideas for distributing the notices to all persons served in various situations. They arrived at the following ideas:

- Send multiple copies of the notice to apartment owners.

- For businesses, operators could use e-mail or distribute notices for company officials to pass on to their employees.
- Operators at schools need to address concerns that parents could feel “out of control” on issues surrounding their children’s health, since the water is not coming from their homes. Notices could be sent by mail to the parents. School staff may want to discuss the situation at a PTA meeting and offer bottled water.

Group 3: *E. coli* MCL

Scenario: A large CWS serves 500,000 people itself and sells water to five suburban systems each serving 50,000. Approximately 20 percent of the population of the city of 500,000 speaks Spanish as a first language. Eight samples taken three days ago were positive for total coliform. *E. coli* bacteria were present in five repeat samples taken the day before yesterday. The *E. coli* samples were all found in a 16 square-block area.

In the handbook, the group used page 7 (Table 2, which lists violations and their tiers), page 9 (Figure 1), page 18 (advice about broadcast media) and page 28 (the template for *E. coli*) to complete the notice.

Because the scenario did not provide a cause for the contamination, the group assumed that the system did not yet know the cause of the violation. The group decided that a 16 square-block distribution area could serve 3,000 to 10,000 people, so they decided to hand deliver to consumers in this area and back up this method with a notice in the media. The notice through the media would preempt any negative articles that might accuse the water system of trying to keep the violation a secret from the rest of the population. Although 20 percent of the overall population speaks Spanish, it was not known whether the area affected contained a similar percentage of Spanish speakers, so the group decided they would have the notice translated into Spanish. They also would place calls to the consecutive water systems and would ask stores and other businesses within the affected area to post notices.

The group also wrote the notice as a press release to a television station. The most important information was at the beginning of the notice, with the remaining elements included as an attachment. Reading the most important information took approximately 25 seconds; the other information was available to the station if it chose to run a longer story. Recommendations for the templates and other comments included the following:

Rule comment (141.205 (d)(3)): Add the word “customers” to the distribution language and italicize the distribution language in the template so operators know that it is mandatory.

Rule comment (141.205(a)(8)): Systems probably will not know within 24 hours how long it will take to fix the problem. It is not a good idea to put an estimated date in, because consumers may start drinking the water on that date whether the problem is corrected or not.

- Is there a way to estimate a return to compliance without giving a specific date or time period?
- Explain why consumers should boil the water—because it kills bacteria. In addition, the notice should have a headline that says bacteria can make people sick.
- Put the health department’s phone number on the notice as another unbiased source of information.
- If additional methods are used for Tier 1 distribution beyond one of the required methods, does the distribution through these methods still need to be completed within 24 hours?

Group 4: Monitoring—Multiple Violations, Inclusion in CCR

Scenario: Assume the current date is June 2000. A small community water system serving 1,000 people did not monitor for total coliform in July, October, and December, 1999 (it is required to monitor monthly). The system uses ground water and does not disinfect at the source. In March 1999, the system did test positive for coliform, but no coliform was present in the repeat samples. The system also did not monitor for VOCs (it was required to sample once during the last compliance period, which ended 12/99). More than 50 percent of the town is of Hispanic descent.

The group first decided on a method of delivery. They would mail the notice and supplement the mailing with posting at central locations such as the post office, grocery stores, or churches. They would also do limited hand delivery targeted to apartment buildings if needed. The notice should be fully translated into Spanish. Some group members preferred to issue a separate notice rather than including it in the consumer confidence report, but no decision was reached on this issue. However, because the first monitoring violation occurred 11 months ago, the notice would have to be delivered within the next month.

After choosing a method of delivery, everyone in the group spent about 20 minutes using the handbook to begin writing their own notice. They then collaborated to create a group notice based on Template 3-1. Several problems or questions came up, as listed below.

- Chapter 7 of the handbook is not clear about whether health effects language is required in Tier 3 notices. (Chapter 7 on Tier 3 simply refers back to the standard language requirements in Chapter 3.)

Rule comment (141.205 (d)(2)): The mandatory language does not work well for multiple violations, especially those with different compliance periods. It would have to say, “Because we did not monitor during 7/99, 10/99, 12/99, and 1/97-12/99, . . .” The dates are confusing because there is some overlap for different contaminant monitoring schedules. The language might have to be provided separately for each contaminant. Another possibility, which the group agreed to use, was to refer to the chart, saying, “Because we did not monitor during the compliance periods

shown below. . .” There was some question as to whether this would be considered a modification of the mandatory language. Some also suggested writing separate notices for each contaminant.

- The handbook should more clearly define the compliance period in the template instructions. The group had the following questions: Is it the past year (since this notice might be included in the CCR) or is it each individual compliance period (one month for coliform, three years for VOCs)? And is there a difference between monitoring period and compliance period?
- There were some questions on how to include the ten elements in a notice for monitoring violations, including the following: How does a system meet the “population at risk” requirement? Does the mandatory language for monitoring meet this requirement? Must the notice include the actual health effects language for the contaminant?
- The footnote about VOCs should give more information on these contaminants, rather than just listing them.
- The chart listing the monitoring violations should be moved to immediately after the language saying that samples taken since the violation have been negative. It flows better than if it is placed after “this is not an emergency.”
- The notice should say, “The information in this notice is required by state and federal laws.”
- Would systems be in violation if they do not translate a notice into Spanish or other languages?
- At nontransient non-community systems where employees are not literate or do not speak English, operators should verbally explain the situation. This is what is sometimes done to explain OSHA regulations. A similar approach can be used in small community systems, such as Indian communities, where people speak another language.

JUNE 24

Group 1: Chemical MCL (TCE)

Scenario: A water system serving 20,000 people and using ground water detected trichloroethylene over the last four quarters at an average level of 0.007 mg/l (the MCL is 0.005 mg/l). Possible sources of the TCE include an oil tank farm and a tool and die. Previous TCE levels were never higher than 0.001 mg/l. Ten percent of the town’s population speaks Spanish as a first language.

The group assumed all wells were contaminated. They also made up results for the quarterly TCE tests. Their comments on Template 2-3 are provided below.

- Modify the template to provide quarterly results.
- While not an absolute emergency, this is a serious situation. This is a new violation, so it is not as serious as an ongoing or recurrent violation. Instead of “this is not an emergency” say “this is not an immediate risk.” Or say, “This is not an emergency, but immediate steps are necessary to solve the problem. These may include installing treatment, finding alternative sources of water, and dealing with the polluter.”
- Add information on possible sources of TCE.
- Provide more information on the need to treat and begin planning for treatment, especially because the violation will probably get worse without it.

Group 2: Nitrate MCL

Scenario: A small town using ground water serving 1,000 people detected nitrate at 12 mg/l (the MCL is 10 mg/l) in its only well. A repeat sample 24 hours later showed nitrate levels of 11.2 mg/l. The system monitors quarterly. Although nitrate levels have been high before, especially during the summer, they have never exceeded the MCL. The violation is probably due to agricultural practices—farmers in the region grow corn.

The group thought that because this was an agricultural area, migrant workers would live or work in the area, so the notice should have a box at the top in Spanish. The notice would be hand delivered as well as posted in the post office and schools (if in session). The water system would also ask restaurants and stores to post the notice for their customers. Comments are given below.

Rule comment (141.205(a)(8)): Systems probably will not know within 24 hours how long it will take to fix the problem. It is not a good idea to include an estimate, because consumers may start drinking the water on that date whether the problem is corrected or not.

- Is there a way to estimate a return to compliance without giving a specific date or time period?
- The advice in the handbook says to be sure that any bottled water you provide does not have nitrate. How should systems do this?
- The templates for non-community systems are not relevant for nitrate violations in some nontransient non-community systems such as factories, where no children are present.

Group 3: Total Coliform MCL (Small System)

Scenario: A rural ground water system serving 800 people is required to take 1 sample per month for coliform bacteria. Last month the routine sample (taken May 25) was positive for coliform, as were the four repeat samples. Three of four of a second set of repeat samples were also positive. The system chlorinated and flushed the distribution system, which worked for about ten days. However, routine and repeat samples taken in the second week of June and later were positive. No fecal coliforms were detected in any samples. Before this, there had been no coliform MCL violation in the past five years. The system is not in range of any TV or radio stations.

Some members of the group believed that people would react strongly to the situation in the scenario. They felt that people will associate a total coliform violation with *E. coli* and disease outbreaks. The template seems to downplay the potential reactions; people will call the system with questions. Others disagreed, saying that they have faced similar situations recently, and that there was little reaction among their consumers. In one case, the natural taste of the water had caused people to drink bottled water prior to the coliform violation; in the other the system chlorinated and told people to expect a chlorine smell in the water.

The group agreed, however, that Template 2-1 was appropriate to the situation, and created a notice that followed this template. The following issues arose as the group developed their notice:

- The portion of the notice on what the water system is doing should explain the situation and inspire confidence.
- The notice should communicate that the operator is taking immediate steps to reduce the coliform levels, looking for the source of the problem, and investigating long-term solutions to fix the problem.
- The notice should tell people what to expect during the remedy. For example, the notice could say that while the system is increasing chlorination, people will smell chlorine in the water and to remove the smell, people should let the water sit in the refrigerator overnight.
- Operators should be sure to tell customers when the problem is resolved, either in bill stuffers or at a community meeting.
- Operators should be prepared for questions about chlorine by-products in the water, given recent press on disinfection by-products.

The group felt that the notice could be delivered by hand delivery or posting. One person suggested that cable TV scrollers could be used as a primary method of delivery. The group also discussed the need for translating the notice and making it available to blind consumers. One

person suggested that, to prepare in advance for translations, water systems should ask their customers about special communications needs when they apply for a service hook-up.

Group 4: Total Coliform MCL (Large System)

Scenario: A system using ground water and serving 75,000 takes 80 samples for coliform bacteria per month. Last month three routine samples in the northeast portion of the distribution system were positive for coliform. The three repeat samples taken for the first positive sample were also positive. The repeat samples taken for the second positive sample were not positive. Two of the repeats taken for the third routine sample were positive. No fecal coliforms were detected. The MCL is that no more than 5 percent of samples per month may test positive. The system had another MCL violation for total coliform nine months ago. Public notice was done at that time.

The group assumed that this violation happened at the end of the previous month, so there was no possibility that the system could resolve the problem or take enough extra samples so that less than 5 percent of the samples for the month test positive. In addition, if the system waited to put this notice in customers' bills, it would not meet the 30-day deadline for Tier 2 notification. Therefore, the group decided to mail out a separate notice within the next few days using the template for unresolved coliform violations on pages 43-44.

To reach those who might not receive a bill, the group decided to write a newspaper article. The group assumed the system had found a reporter who would give full coverage to the violation and try to get it published in the local news section, although this was the first time working with that reporter and there was no assurance the article would make it past the editor. The group would emphasize the mandatory language requirements. If the article did not get published, the group would pay for a notice. The violation was also seen as an opportunity to establish media contacts for the time when an emergency arose.

The following issues arose during preparation of the notice:

- The sentence referring consumers to the Safe Drinking Water Hotline should not precede the phone number of the water system. People might think they should call the hotline for information about the violation. The Hotline number should be moved to the bottom of the notice.
- The language in the template is contradictory. For example, the template says the situation is not an emergency but suggests that consumers call their doctors if they have concerns. It also tells people not to boil their water but says that coliform can indicate that potentially harmful bacteria may be present.
- Add to the health effects language, "This was a warning of potential problems *with the system's treatment or distribution system.*" This does not need to be part of the

mandatory health effects language, just added on. The sentence following the health effects language could then be deleted.

- For actions the system is taking, add, “We are investigating the source of contamination.”
- Delete the sentence, “We anticipate resolving this situation by . . .” and replace with, “We hope to resolve this situation within the next few days. However, we will notify you as soon as we have corrected the situation.” It is impossible to know whether resolving the situation will take a few days or a few weeks, especially if the cause of the problem has not been discovered. The suggested language gave an expected timeframe without being definitive.
- Delete the phrase “to learn more about your drinking water” from the sentence providing a water system contact. It implies that consumers need to protect their drinking water because the water system is not doing an adequate job.
- Italicize the distribution language at the bottom of the template, since it is mandatory.
- The first sentence of the instructions for both coliform templates read as if they only apply to systems taking fewer than 40 samples per month. The instructions should have separate bullets or columns applicable to the number of samples taken and use bold type for each situation. Another option would be to make a separate template for each situation.

Attachment 1
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Attachment 2
EPA Presentation on PN Rule

Attachment 3
Written Statements on the Proposed Public Notification Rule

Comment of Jean Melillo of Tucson Water

I'm Jean Melillo from Tucson Water, the municipal water utility for the City of Tucson. We will be providing more written comments on specific aspects of the rule, but at this time, for the sake of brevity, I'd like to read what my main concern is for our utility in this specific proposal.

We feel that the specific language required regarding risk for the monitoring and testing violations, as a uniform requirement, is inappropriate and detrimental, in some cases, to the public overall. EPA states that over 90 percent of violations are of this type, but most are unlikely to result in significant health risks. The reason for the required language is stated as concern that the public may assume that there was no risk, even when there may have been risk. So, we agree that some provision should be made to notify the public regarding risks for cases where concern does seem warranted. But requiring a uniform statement of risk in all of these huge numbers of monitoring and testing violations where the risk is unknown would only alarm the public without cause, in many cases.

Instead, we feel a better approach would be to allow the primacy agency to require this language regarding risk where appropriate; even a more stringent option would be to require the language as a default while allowing the option of alternate language based on approval of the primacy agency. This approach would be consistent with the provision in the proposal now that provides flexibility to the primacy agency to put monitoring violations up into Tier 2 or even Tier 1 on a case by case basis. It would provide for informing the public about risk where appropriate, without needlessly and unduly alarming people in the large numbers of cases where health risk is not really a concern for that type of monitoring violation. This is particularly true for groundwater-only systems where both previous and subsequent monitoring results are available, which would often be the case with the extended one-year reporting period.

In short, we feel that requiring the proposed risk language for all monitoring violations would mislead the public and should not be required simply to simplify the rule. That would be very similar to requiring that all monitoring violations be up in Tier 2, just because some of them should be up in Tier 2 and might be warranted. So, our prime concern at this point is to add a uniform requirement for risk language for all monitoring violations. Thank you.

Comment of Phyllis Rowe of the Arizona Consumers Council

The Arizona Consumers Council has for 30 years continued to work for the health and safety of Arizona consumers.

Tier 1 Violations

We believe that when turbidity of water exceeds EPA maximum standards that a public notice should be given on an emergency basis of 24 hours. We base this on the fact that spikes in turbidity of water were shown by Harvard School of Public Health to be associated with a day to day rise in serious gastrointestinal illnesses and emergency room visits. Neither filtration nor standard indicators predicted Cryptosporidium outbreaks from 1984 to 1994; a rise in turbidity levels was the only indicator for these outbreaks, according to Dennis Juranek of the Parasitic Branch of the Center for Disease Control. Children and the frail and elderly are particularly at risk from these illnesses, and an emergency 24 hour notice would help to reduce spread of these illnesses.

Tier 2 Violations

Public notice received after 30 days when there is a violation with serious adverse health effects is too late. Even the current rule states no later than 14 days. We recommend a seven-day deadline—violations with serious potential need a prompt notice.

Tier 3 Violations

We believe the Consumer Confidence Report should have a table form that is understandable by the average consumer. It should not be so complex and lengthy. For this reason we believe that the monitoring violations that make up about 90 percent of the violations should be on a separate notice.

These notices need to be in print that is easily readable and concise with question and answer format and phone numbers for further information.

Consumers need to be better informed in a timely way to reduce serious adverse health effects.

Comment of Laura H. May, RD, of the Arizona AIDS Nutrition Network

I do nutrition counseling for people with HIV, a vulnerable population. My concern is with the occasional presence of *Cryptosporidia parvum* (crypto) in treated drinking water. I realize that if it is present, it is difficult to detect and remove during the treatment process. None of the proposed standards are effective in predicting the presence of crypto in the water supply.

An increase in turbidity has been shown to be an indicator of an increased presence of crypto in the water. For example, in 1993, 400,000 people in Milwaukee suffered from gastroenteritis as a result of crypto in the water. An increase of turbidity preceded and accompanied this outbreak. Similar outbreaks of gastroenteritis have been accompanied by an increase in turbidity in the water in other places, too.

There is no treatment for crypto. It runs its course in a few weeks in a person with an intact immune system. A person with a suppressed immune system suffers from severe diarrhea and weight loss (30 lbs. in 30 days) and may die as a result of the infection.

Please add an increase in turbidity in the water to the list of Tier 1 violations so people will be notified within 24 hours. This will allow vulnerable populations to take additional precautions to protect their health.

Another concern is with bottled water. Many of my clients have turned to bottled water to protect themselves from the possibility of contracting crypto from drinking tap water. However, not all bottled water has been treated to remove crypto. Anything this group can do to encourage enforcement of standards for bottled water would be appreciated.

Thank you.

Attachment 4
Public Notices Created by Breakout Groups

The notices on the following pages were created by members of the breakout groups. The meeting report provides details on the breakout session discussions.

SWTR Disinfectant Residual

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Boulder Beach National Recreation Area Did Not Meet Treatment Requirements

We routinely monitor for disinfectant residual in the distribution system. This measurement tells us whether we are effectively disinfecting the water supply. Disinfectant residual is the amount of chlorine or related disinfectant present in the pipes of the distribution system. If the amount of disinfectant is too low, organisms could survive in the pipes. On June 23, disinfectant levels dropped below 0.2 milligrams per liter for 6 hours because of a malfunctioning chlorinator. The standard is that levels may not drop below 0.2 for more than four hours.

What does this mean to me?

This is not an emergency. If it had been, you would have been notified immediately. Tests taken during this same time period did not indicate the presence of bacteria in the water.

Inadequately treated water may contain disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

These symptoms, however, are not caused only by organisms in drinking water, but also by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice.

Some people, including immuno-compromised people, some elderly, and infants may be at increased risk. These people should seek advice about drinking water from their health care providers. Guidelines on ways to lessen the risk of infection by microbes are available from the Safe Drinking Water Hotline at 1(800) 426-4791.

What should I do?

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

The malfunctioning chlorinator was replaced within six hours. Disinfectant residual levels so far this month have met all requirements. A backup pumping system was installed to prevent this from happening again. Constant monitoring by operators helped detect this problem. The operators were able to quickly resolve the problem and restore system integrity.

For more information, or to learn more about protecting your drinking water please contact ____ at ____.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Tests Show Levels of Arsenic above Drinking Water Standards

The water system routinely monitors for the presence of drinking water contaminants. Since 1997, we have exceeded the standard of 0.05 milligrams per liter. The average level of arsenic over the last four quarters was 0.08

What does this mean to me?

Arsenic occurs naturally in the water. The reported level is 80 parts of arsenic per 1 billion parts of water. This is not an emergency. If it had been, you would have been notified immediately. However, *some people who drink water containing arsenic in excess of the maximum contaminant level over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.*

What should I do?

You do not need to use an alternative (e.g., bottled) water supply. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

We are continuing to work with the Arizona Dept. of Environmental Quality. We are drilling a new well and will blend the water from the new well with that from the existing well to lower arsenic levels. The possibility exists that your water rates may increase. We submitted a grant proposal for additional funding. The status of the request is ____.

We will inform you when [contaminant] levels meet the standards. We expect the new well to be online by _____. Drilling is _____.

For more information, or to learn more about protecting your drinking water please contact ____ at _____.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

***E. coli* -- notice for TV/Radio**

WARNING

Effective immediately, people in the area of A Street to P Street and from 1st Avenue to 16th Avenue should boil their water before using. Samples taken by Anytown Water Company on June 22 showed *E. coli* bacteria in water there. The bacteria can make people sick.

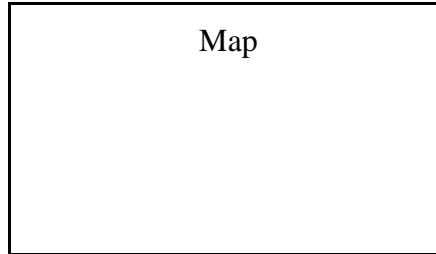
For more information about this situation, please call the company at 111-2222 or Jones County Health at 432-9999.

Assume TV or radio station will only run the information above, but include the following anyway:

- Boiling water for at least one minute kills the bacteria.
- Bottled water may be used instead of boiling the tap water.
- *Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.*
- These symptoms can be caused by symptoms can be caused by other factors. If you have these symptoms, check with your health provider.
- Anytown Water Company is flushing the water lines in that area and increasing disinfection in the water to kill the bacteria.
- The Company is collecting additional samples and will notify customers when the bacteria are gone and you no longer need to boil your water.
- Anytown Water Co. is asking its customers, “If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

WARNING
Effective Immediately

People in northeast Anytown from A to P Streets and 1st to 16th Avenues



BOIL YOUR WATER BEFORE USING

The Anytown Water company, which serves that area, discovered *E. coli* bacteria in the water supply there on June 22, 1999. The bacteria can make people sick. Boiling the water kills the bacteria. Bring the water to a boil for at least one minute. Bottled water may be used instead of boiling tap water.

- *Fecal coliforms and E. coli are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.*
- The above symptoms could also be caused by other factors. If you have these symptoms or have other medical questions, check with your primary health provider.
- Anytown Water Company is flushing the lines in the area and increasing the level of disinfectant in the water to kill the bacteria. Studies are under way to learn the cause of the contamination.
- We are collecting additional samples and will inform you when the bacteria are gone and you no longer need to boil your water.
- For more information on this situation, please contact ___ at _____. Information is also available from Jones County Health Department at 432-9999.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

Monitoring Violation/CCR

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Monitoring Requirements Not Met

Blank Water System did not test for coliform bacteria and volatile organic chemicals (VOCs) as required by State and Federal laws. *Because we did not monitor or failed to monitor completely during the dates shown in the table below, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time.*

All subsequent bacteria testing has been negative. Samples for VOCs have also been taken and indicate no presence of VOCs.

The contaminants we did not monitor for are listed in the table below, with the period during which samples should have been taken, the number of samples of each contaminant required, the number taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Compliance Period	Number of Samples Required	Number of Samples Taken During Monitoring Period	Date Additional Samples Were or Will Be Taken
VOCs ¹	1/96-12/98	1	0	2/99
Total Coliform Bacteria	7/1/99-7/31/99	1	0	8/1/99-8/31/99
Total Coliform Bacteria	10/1/99-10/31/99	1	0	11/1/99-11/31/99
Total Coliform Bacteria	12/1/99-12/31/99	1	0	1/1/00-1/31/00

What does this mean to me?

This is not an emergency. **You do not need to boil water or use an alternative source of water at this time.** The information in this notice is required by state and federal laws.

Steps have been taken to make sure these situations don't occur again. We experienced staffing problems but have since hired a new operator.

If you have any questions or comments about these violations, please call _____ at _____.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

¹VOCs, also known as volatile organic compounds, are manmade chemicals often used as solvents in industrial processes. VOCs are tested by collecting one sample and testing that sample for all the VOCs. VOCs include benzene, carbon tetrachloride, chlorobenzene, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichloroethane, cis-dichloroethylene, trans-dichloroethylene, dichloromethane, 1,2-dichloropropane, ethylbenzene, styrene, tetrachlorethylene, 1,1,1-trichloroethane, trichloroethylene, toluene, 1,2,4-trichlorobenzene, 1,1-dichloroethylene, 1,1,2-trichloroethane, vinyl chloride, and xylene.

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER TCE Test Levels above Drinking Water Standards

The Agua Wanna System routinely monitors for the presence of drinking water contaminants. Testing results we received on May 32 show that the system exceeds the standard, or maximum contaminant level, for TCE (trichloroethylene). TCE was found at 0.001, 0.004, 0.008, 0.015 during the four quarters ending May 32. The average level of TCE over the last four quarters was 0.007. The standard for TCE is 0.005.

What does this mean to me?

This is not an emergency. If it had been, you would have been notified immediately. However, *some people who drink water containing TCE in excess of the maximum contaminant level over many years could experience problems with their liver and may have an increased risk of cancer.*

What should I do?

You do not need to use an alternative (e.g., bottled) water supply yet. You may wish to take precautionary action.

What is the water system doing?

Agua Wanna System is looking for alternative sources of water to solve the high levels. Agua Wanna System is also working with the Arizona Department of Environmental Quality to identify and seek remedial actions to stop the contamination source. Agua Wanna is continuing to test weekly to see if the situation is worsening.

For more information, or to learn more about protecting your drinking water please contact ____ at ____.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

Nitrate

WARNING

FOR PARENTS OF INFANTS 6 MONTHS AND YOUNGER

Served by Anytown

DO NOT USE THE WATER FOR INFANT FORMULA

AVISO

PADRES DE FAMILIA CON BEBES DE 6 MESES DE EDAD Y MENORES
Servidos por Anytown

NO USEN EL AGUA PARA PREPARAR ALIMENTOS PARA BEBES

High nitrate levels were detected on June 24, 1999. A routine sample showed a nitrate concentration in the drinking water of 12 milligrams per liter. This is above the nitrate standard, or maximum contaminant level (MCL), of 10 milligrams per liter.

What does this mean to me?

- *Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome. Blue baby syndrome is indicated by blueness of the skin.*
- Symptoms in infants can develop rapidly, with health deteriorating over a period of days. If symptoms occur in a child less than 6 months old, seek medical attention immediately.
- **Do not boil the water.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. In fact, boiling water can make the nitrates more concentrated. Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or some other water low in nitrates should be used. Continue to use bottled water for infants until further notice. Adults and children older than six months can drink the tap water. However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

What is the water system doing?

- We are investigating water treatment and other options. These may include drilling a new well or mixing the water with low-nitrate water from another source.
- We will inform you when this problem has been corrected.
- Bottled water will be provided to the families of infants 6 months and younger at the Anytown office during business hours.
- For more information, please contact ___ at ____.
If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

TCR–Small System

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Tests Show Presence of Coliform Bacteria

We routinely monitor for the presence of drinking water contaminants. We took 14 samples between May 25 and June 25. During this time, 13 of our samples showed the presence of total coliform bacteria. The standard is that no more than 1 sample per month may do so.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves.

Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems.

Usually, coliforms are a sign that there could be a problem with the system's treatment or distribution systems.

Some people, including immuno-compromised people, some elderly, and infants may be at increased risk. These people should seek advice about drinking water from their health care providers. Guidelines on ways to lessen the risk of infection by microbes are available from the Safe Drinking Water Hotline at 1(800) 426-4791.

What should I do?

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

We flushed and are currently chlorinating while we continue to identify the source of the bacteria. You may notice a chlorine smell. This is not harmful. Set water out overnight to reduce the smell of chlorine in the water. We are continuing to sample several times a day.

We will let you know when levels return to below the standards.

For more information, including results of new samples, please contact ___ at ____.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____

TCR–Large System

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Tests Show Presence of Coliform Bacteria

We routinely monitor for the presence of drinking water contaminants. We took 89 samples during the month of May. During May, 9 percent of our samples showed the presence of total coliform bacteria. The standard is that no more than 5 percent of samples may do so.

What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Total coliform bacteria are generally not harmful themselves.

Coliforms are bacteria which are naturally present in the environment and are used as an indicator that other, potentially-harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems with the system's treatment or distribution systems.

Some people, including immuno-compromised people, some elderly, and infants may be at increased risk. These people should seek advice about drinking water from their health care providers.

What should I do?

You do not need to boil your water or take other corrective actions. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

The Grand Canyon Water System is flushing and chlorinating the water system. We are also increasing sampling and investigating the source of contamination.

We will inform you when additional samples show no coliform bacteria. We hope to resolve this situation in the next few days. However, we will notify you as soon as we have corrected the situation.

For more information please contact ___ at ____.

Guidelines on ways to lessen the risk of infection by microbes are available from the Safe Drinking Water Hotline at 1(800) 426-4791.

If other people, such as tenants, residents, patients, students, or employees, receive water from you, it is important that you provide this notice to them by posting it in a conspicuous location or by direct hand or mail delivery.

Water System ID: _____