

Testing and Review of Sample Public Notices

FINAL REPORT – JULY 16, 1999

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Testing and Review of Sample Public Notices

The U.S. Environmental Protection Agency (EPA) held meetings to obtain input on sample public notices of drinking water violations developed using the draft *Public Notification Handbook*. These meetings were announced and held in conjunction with the public meetings on the proposed public notification (PN) rule and handbook in Madison, WI, Washington, DC, Allentown, PA, and Phoenix, AZ in May and June 1999. EPA held a total of five meetings—one meeting was held in each of these cities, except in Madison, where two meetings were held.

EPA created a variety of Tier 1, 2, and 3 sample notices based on the handbook templates; for some of the meetings, EPA also wrote mock newspaper articles on violations. The sample notices followed the templates closely in order to replicate as much as possible the type of notice that water system operators would most likely create if they used the handbook to meet PN requirements. In the meetings, participants read the notices and discussed their effectiveness.

The meetings were announced in the Federal Register (64 FR 27942). In addition, staff of the Wisconsin Department of Natural Resources, EPA Headquarters and Region 3, and the Arizona Department of Environmental Quality made special efforts to publicize the meetings, utilizing community organizations, public officials, and citizen groups to attract attendees who are representative of people who might receive such a notice. The attendees were, in general, active on community or environmental issues, although none worked directly on drinking water issues or represented a water system. Each meeting had three to five attendees. Also in attendance at each meeting was a person to lead the discussion, a note-taker, and other observers. Each meeting lasted approximately one hour.

During the meetings, attendees first discussed where they generally get information about their drinking water, to what extent they think about drinking water, and how they would expect to hear of a violation of drinking water standards. They then focused on a review of two or three sample notices for different violations. Participants were given a few minutes to read each sample notice, then discussed their perception of the notices' understandability and effectiveness.

Participants discussed their reactions to the notice and what got their attention, whether they could understand the information in the notice, and whether more or less information was needed. They also addressed whether they read the whole notice or skimmed it and whether they would read such a notice if they received one. The groups also discussed what they would do if they received a similar notice (including whether they would continue to drink the water) and how much they trusted or believed the information presented.

In addition, the notices presented to the group in Phoenix included information in Spanish saying the notice contained important information about their drinking water. The group discussed whether the information in Spanish was understandable.

A summary of each meeting, along with the sample notices each group reviewed, are contained in four appendices as follows: Appendix A summarizes the Madison meeting, Appendix B summarizes the Washington, DC meeting, Appendix C is the Allentown summary, and Appendix D contains notes of the Phoenix meeting.

APPENDIX A

Summary of Madison, WI Meeting

Review of Sample Public Notices
Best Western Inn on the Park, Madison, WI
May 25, 1999, 3 p.m. - 4 p.m.

The meeting began with Christine O'Brien (EPA, OGWDW) introducing herself as the leader of the discussion. Participants were informed that this meeting was part of a series of meetings EPA was holding around the country to get feedback from the public, that notes from the meeting would be documented, and that their opinions, both positive and negative, were important.

Participants were asked to introduce themselves. The group included two men and one woman (a retired teacher and two students working on their PhDs). They considered themselves to be well-informed about issues related to the environment and water.

To introduce the topic, participants were asked to discuss where they normally get information about their drinking water, how much they think about their drinking water, and how they would expect to find out if there was a problem with their drinking water.

Participants indicated that they currently get information from the city (two had called specifically to ask for water testing results), one participant had his own water tested. No one reported having received information directly from their water system. All said they would expect to hear about problems through the media, in addition to mail or posted notices.

Participants were then given a sample public notice to read for a nitrate violation (Attachment A1). Discussion continued once participants had a chance to read the notice.

Discussion of Nitrate Notice:

Participants had an immediate and strong reaction to the nitrate notice. Participants thought the notice was very serious, and thought the top part of the notice should be structured to make the immediacy of the problem clearer. They suggested, "Warning: Public Drinking Water Emergency," or something similar. They also thought the text for the notice should be larger, especially the part about infants under the age of six months possibly dying. Participants wondered if the water really would be safe for those older than six months to drink, and all said that they would personally stop drinking the water if they saw this notice.

The most important part of the notice, participants felt, was the infant warning. Information such as "parents of" and "customers served by water system" was felt to be less important and to distract from the fact that infants could die. It was mentioned that people in addition to parents care for infants and that infants consumed water in more than formula. Participants thought a visual image (such as baby drinking water with an X through it) would make the notice communicate its main message better. They also advocated a multilingual message. Participants thought the next most important part of the message was that alternate water was available, followed by the fact that adults can safely drink the water.

In general, participants agreed that the notice should use short sentences and short words to make its points. The second paragraph was universally viewed as too long. Key phrases should be marked in bold, but the notice should not be longer than one page.

Participants did read the entire notice, though they felt the infant information was too buried in the notice. Participants liked the inclusion of the symptoms of blue baby syndrome, but wanted more detail, such as how long it takes for symptoms to appear, why the water quality problem

was appearing now, and how it could have been prevented. Participants felt the top part of the notice was too cluttered with information and should be re-organized. Participants did not understand why the water system ID number was included on the notice, and were concerned that no where on the notice did it say where the notice came from. In addition to the water system phone number, they would want to know who else they could call for information.

When they were asked what information they would want to feel comfortable drinking the water again, participants seemed to have some mis-trust in the water company as a source of information on their health, and said they would want to get that information from the state health department. They also would want the state labs to have analyzed the water.

Discussion of Atrazine Notice:

Participants were then given an Atrazine notice to read and react to (Attachment A2). Participants did not feel that this notice described as serious of a problem as the nitrate notice. However, none of the participants stated that they would continue to drink the water after receiving this notice, until they had been notified by a reliable source (again, the local health department or a state lab) that the problem had been corrected.

The primary complaint about this notice was that the information provided was “vague.” Participants did not understand that “last four quarters” referred to calendar quarters. The health effects information prompted more questions -- What level is considered to be well in excess of the standard? How long is a long time? Are special sub-populations more at risk? Do the effects bio-accumulate or is the risk from repeat exposure? What is Atrazine? How large is the relative risk? What are the specific corrective actions being taken? Participants were interested in more specific scientific information about studies done, or at the very least wanted the notice to reference a more specific source of information, such as a phone number or fact sheet.

Participants also thought the title of the notice was not strong enough -- they thought it should say “Atrazine alert” or something equivalent, to make more prominent what the actual problem is.

Close:

Participants were thanked for the comments, and the meeting ended at 4 p.m. There were no observers present who wished to comment.

Review of Sample Public Notices
Best Western Inn on the Park, Madison, WI
May 25, 1999, 4:15 p.m.- 5:15 p.m.

The meeting began with Christine O'Brien (EPA, OGWDW) introducing herself as the leader of the discussions. Participants were informed that this meeting was part of a series of meetings EPA was holding around the country to get feedback from the public, that notes from the meeting would be officially documented, and that their opinions, both positive and negative, were important.

Participants were asked to introduce themselves. The group included two men and one woman (two were politically active and retired, one a city employee), and well-informed about issues related to politics. None of the participants had any specific drinking water knowledge.

To introduce the topic, participants were asked to discuss where they normally get information about their drinking water, how much they think about their drinking water, and how they would expect to find out if there was a problem with their drinking water.

One of the participants reported regular use of water filters, another discussed activities to protect ground water from contamination, and one stated great confidence in the drinking water supply. All expected to be notified of drinking water problems through the mail and through the media, and stated that the only current information they receive about their drinking water is periodic notices in the newspaper about flushing pipes.

Participants were then given and asked to read a sample public notice for a radium violation (Attachment A3). Discussion continued once participants had a chance to read the notice.

Discussion of Radium Notice:

The group's immediate reaction to this notice was fairly negative. There was confusion over the fact that the violation itself didn't seem to be fairly significant, but that the distribution language at the bottom stated to distribute the notice widely. There was some confusion as to whether the notice was needed at all, and a perception that the water system might just be covering itself in this situation.

In particular, the group wanted more detail about what radium was (and how it differed from radon), what people can do (is there a treatment that would help?), and what the main message of the notice was. They stated that even though it wasn't stated on the notice "don't drink the water" that they would probably avoid doing so if possible. They also wondered if any particular sub-population would be more at risk than others from this violation. Other questions participants would like answers to included: How does radium occur? How does it get in water? What does an excess amount specifically do? Is there a specific action to take now? Is the water okay to cook with and shower in? Do human activities contribute to these problems? How much has radium been studied?

Participants thought the notice would be better if sent on official letterhead, preferably from the state or local health department. They would also want to hear from the health department when the water was safe to drink again.

Discussion of Monitoring Notice:

Participants were then given a sample notice (Attachment A4) showing monitoring violations, and given time to read it.

The monitoring notice got an immediate reaction as participants laughed at the term VOCs, which they called 'vaks' (as opposed to VOCs). The notice itself was generally well understood.

Participants were confused by the monitoring periods, especially by the fact that the sampling period for VOCs was three years. They wondered if that was a typo, or why the sampling would be so infrequent, and why that sampling period was different from that of the notice itself. Participants also expressed some skepticism as to why water systems would be allowed to miss taking required samples. Participants did understand, however, the concept of a monitoring violation and had no trouble understanding the grouping of the VOC violations.

Participants again felt the notice should be sent on letterhead or possibly signed by the mayor. They suggested that the portion of the standard language for monitoring violations saying "... we are unable to tell you whether your health was at risk during this time" be clarified to list symptoms, so people would know whether or not they had been exposed. Participants didn't know what the water system ID number is.

Participants stated that they would continue to drink the water, though they would call the water system to ask questions and "make a mental note" to be alert for future notices.

Close:

Participants were thanked for the comments, and the meeting ended at 5:15 p.m. There were no observers present who wished to comment.

WARNING

Effective Immediately

FOR PARENTS OF INFANTS 6 MONTHS AND YOUNGER

Served by Springfield Water Company

DO NOT USE THE WATER FOR INFANT FORMULA

High nitrate levels were detected May 25, 1999. A routine sample showed a nitrate concentration in the drinking water of 12 milligrams per liter (mg/l). This is above the nitrate standard, or maximum contaminant levels (MCL), of 10 mg/l.

What does this mean?

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.** Springfield Water Company and the Springfield Health Department are providing free bottled water to families with infants. Water is available between 9 a.m. and 5 p.m. Monday through Friday at the Health Dept. office at the Town Hall. Water will be provided until the nitrate problem is resolved.

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.

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 a 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.

The nitrate levels are probably the result of fertilizer application. Nitrates are used in fertilizer, which is applied in the spring and summer. Nitrates often are washed into ground water by heavy rains during this time.

We will inform you when the nitrate problem has been corrected. We anticipate resolving the problem by June 15. For more information, please contact Jane Smith of the Springfield Water Company at 555-1212.

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: WI0000001

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

The Springfield Water System routinely monitors for the presence of drinking water contaminants. Testing results we received on May 4 show that the system exceeds the standard, or maximum contaminant level, for atrazine. The average level of atrazine over the last four quarters was 0.004 milligrams per liter (mg/l). The standard for atrazine is an average of 0.003 mg/l over four quarters.

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 atrazine well in excess of the maximum contaminant level over many years could experience problems with their cardiovascular systems or reproductive difficulties.

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 working with the Wisconsin Department of Natural Resources to evaluate the water supply and research options to correct the problem. These options may include treating the water to remove atrazine or connecting to the Town of Middletown's water supply.

We will inform you when atrazine levels meet the standards. We anticipate resolving the problem by August.

For more information, or to learn more about protecting your drinking water, please contact Joe Smith at the Springfield Water System at 555-1212.

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.

Attachment A3 **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**
Tests Show Levels of Radium above Drinking Water Standards

The Arlington Water Department routinely monitors for the presence of drinking water contaminants. Testing results we received on May 4 show that the system exceeds the standard, or maximum contaminant level, for radium. The average level of radium over the last four quarters was 7 picocuries per liter (pCi/l). The standard for radium is an average of 5 pCi/l over four quarters.

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 radium in excess of the maximum contaminant level over many years may have an increased risk of cancer.

Radium is a naturally occurring radioactive element. It sometimes gets into groundwater at low levels in areas where surrounding geological formations contain radium.

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 working with the Wisconsin Department of Natural Resources to evaluate the water supply and research options to correct the problem. These options may include treating the water to remove radium or connecting to the Town of Fairfield's water supply. We will inform you when radium levels meet the standards. We anticipate resolving the problem by January.

For more information, or to learn more about protecting your drinking water, please contact Jane Smith of the Arlington Water Dept. at 555-1212.

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: WI0000003

Attachment A4 **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring Requirements Not Met**

Maple River Mobile Home Park did not test for several contaminants as required by State and Federal laws. Because we did not monitor or failed to monitor completely during parts of May 1998-April 1999, 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.

Samples taken since then show that all results met acceptable limits.

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 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	Monitoring Period	Number of Samples Required	Number of Samples Taken During Monitoring Period	Date Additional Samples Were Taken
VOCs ¹	1/96-12/98	1	0	2/99
Total Coliform Bacteria	10/1/98-10/31/98	1	0	11/1/98-11/31/98
Total Coliform Bacteria	3/1/99- 3/31/99	1	0	4/1/99-4/30/99

If you have any questions or comments about these violations, please call John Smith at 555-1212.

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: WI0000004

¹VOCs, also known as volatile organic compounds, 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.

APPENDIX B

Summary of Washington, DC Meeting

Review of Sample Public Notices
U.S. Environmental Protection Agency, Washington, DC
June 2, 1999, 5 p.m. - 6 p.m.

The meeting began with Christine O'Brien (EPA, OGWDW) introducing herself as the leader of the discussion. Participants were informed that this meeting was part of a series of meetings EPA was holding around the country to get feedback from the public, that notes from the meeting would be documented, and that their opinions, both positive and negative, were important.

Participants were asked to introduce themselves. In attendance were three women, all of whom had experienced a boil water situation in Washington, D.C. One woman said she does not currently drink DC tap water. All participants were fairly active in their local communities (but not specifically in drinking water issues) including attending meetings, and speaking on local television shows.

To introduce the topic, participants were asked to discuss where they normally get information about their drinking water, how much they think about their drinking water, and how they would expect to find out if there was a problem with their drinking water.

Participants indicated that if there ever was a problem with their local drinking water, they would expect to hear about it from local media and the local health department, and that they would expect this to be a coordinated effort. Participants indicated that past efforts to inform people about drinking water issues were not well coordinated.

Participants were then given a sample public notice for a turbidity violation to read (Attachment B1). Discussion continued once participants had a chance to read the notice.

Discussion of Turbidity Notice:

Participants' immediate reaction to the notice was to wonder why the notice was being sent, since there was nothing people needed to know because the violation had been resolved, and only affected a limited group of people (immuno-compromised). Participants indicated that the notice didn't immediately get their attention, and that they either wouldn't read the notice or might throw it out if they received it in the mail.

Participants suggested that the notice should include bulleted points, and that, in general, the notice was long and wordy and included unnecessary technical information (e.g., the word "microbes"). One participant did think the notice contained the right amount of information. The notice was described as "confusing" and "frustrating." Participants didn't think it was clear who really should be concerned about the notice, and felt it should specifically identify people with HIV/AIDS, for example, as more at risk (the term immuno-compromised was not well understood). Participants did indicate, though, concern about why there was a long delay between the problem and the notice.

Some participants also had problems with the language encouraging people to consult their doctors if they had specific health problems. They thought it was too vague and wondered how people would know which health concerns they should worry about.

Participants wanted to re-order the notice to better focus the information. The suggested order

was: This is not an emergency; this is more of a concern if you are immuno-compromised; here's who you can call for more information; the cause of the situation (rainfall in this case); and, here are the details of what happened.

Additional questions people had included "what are the coliform numbers regularly like?" and "how can people get this information more consistently?".

Participants generally found the notice to be trust-worthy, but noted that their perception of trustworthiness had a great deal to do with the past history of the water system. The emphasized that notices should be as truthful as possible to be as credible as possible. This particular notice appeared to them to not have a particular bias, and, thus, they believed it. They also liked the water system's invitation to ask for more information. They thought water systems should work in advance of these situations to make sure they have a credible TV spokesperson to explain situations to the community if problems occurred.

Participants worried that notices might not reach everyone if they only went out as bill inserts (as not everyone gets a water bill) and thought the media was an appropriate way to distribute important notices. As they discussed it, participants agreed this particular notice wasn't so important that they would expect landlords to slip a copy under all apartment dwellers' doors. They did think posting it in a common area of the building might be appropriate.

Discussion of Fecal Coliform Notice:

Participants were then given a notice for fecal coliform to read and react to (Attachments B2 & B3). The notice was distributed both as a regular print notice (for posting or a water bill) and as a newspaper article.

Participants immediately observed that the notice was targeted more at immuno-compromised people, and suggested that "severely compromised immune system" (with examples of what that means) might be a better way to explain who the notice was aimed at.

Participants liked that the notice started out with "Warning" and said that would immediately get their attention. Some would want to know why this situation had occurred, how long it had been going on, and whether it had happened before. One participant, however, said she was not interested in the cause of the problem.

Another thing that concerned participants was the advice to buy bottled water (there was some concern regarding whether or not bottled water was actually safer than tap water).

Participants thought this notice did a better job of getting people's attention and explaining the situation. The essential information was easy to find and to understand. Participants stated that they would read the entire notice, would boil their water and follow the notice's instructions, and pay attention to the media for more information. Participants also liked the bulleted format of the notice. This particular notice read like a one-time emergency.

The newspaper notice was not as effective as the printed notice at getting people's attention (the headline was particularly un-engaging), but was understood by participants. One participant also said the newspaper article should go into more detail on the history of the system, and whether these were new problems or not.

Other discussion:

From this discussion, participants indicated that they would be interested in getting more information about their drinking water on a regular basis (for example, a daily red, yellow, green indicator in the newspaper like for ozone alerts), and that they would like more background and context information (for instance, why the taste of the water varies from place to place). The stated that it was better for people to be prepared than panicked.

Close:

Participants were thanked for their comments, and the meeting ended at 6 p.m. There were no observers present who wished to comment.

King Richard Water System
1000 Water Rd.
King Richard, MD 22000
(410) 555-1212

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER King Richard Water System Does Not Meet Treatment Requirements

We routinely monitor for turbidity (cloudiness). This measurement tells us whether we are effectively filtering and disinfecting the water supply.

During the month of May, 15 percent of turbidity samples were above 0.5 turbidity units. None of the samples was higher than 1 turbidity unit. The standard is that no more than 5 percent of samples may exceed 0.5 turbidity units.

What does this mean to me?

This is not an emergency. If it had been, you would have been notified immediately. The turbidity levels are relatively low, but their persistence is a concern.

Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites which can cause symptoms such as nausea, cramps, diarrhea, and associated headaches.

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

Some people, including immunocompromised 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. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

We are sampling both untreated and treated water for the presence of coliform bacteria. We are also sampling chlorine levels and adjusting the amount of chlorine added as necessary. The cause of the elevated turbidity levels is the high amount of rainfall the region has had recently. The rain causes soil erosion and increases the amount of urban storm water runoff the Potomac River receives.

For more information, or to learn more about protecting your drinking water please contact Jane Smith of the King Richard Water System at (410) 555-1212.

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: MD0000001

Sample Only -- This is not a real situation

Middlesex County Water Department
1000 Water Plant Rd.
Lafayette, VA 22000
(703) 555-1212

WARNING

Effective Immediately

People served by Middlesex County Water Department (including Churchville)

BOIL YOUR WATER BEFORE USING

Fecal coliform bacteria were found in your water supply on June 1.

- Bring all water to a boil, let it boil for one minute, and let cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice.

What does this mean to me?

- 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 symptoms above are not caused only by organisms in drinking water, but may be caused by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers.

What is the water system doing?

- We are increasing sampling for coliform bacteria to determine the source of the contamination. We will also chlorinate and flush the water system.
- We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem by June 5.
- For more information on this situation, please contact Jane Smith of the Middlesex County Water Department at (703) 555-1212. 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: VA0000001

Sample Only -- This is not a real situation

Middlesex County Water Department Detects Fecal Coliform Bacteria

Consumers in Middlesex County, City of Churchville, Should Boil Water Before Using

Associated Press

Fecal coliform bacteria were found in the water supply of Middlesex County yesterday, according to John Smith, the manager of the Middlesex County Water Department.

Consumers in Middlesex County and in Churchville, which buys water from Middlesex County, are advised to bring all water to a boil, let it boil for one minute, and let it cool before using. They may also use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice.

According to Smith, 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.

However, the symptoms above are not caused only by organisms in drinking water, but may be caused by other factors. Consumers who experience any of these problems, especially persistent problems, may want to see medical advice, Smith said. People at increased risk should see advice about drinking water from their health care providers, he added.

"We have increased sampling for coliform bacteria to determine the source of the contamination," Smith said. "We will also chlorinate and flush the water system. This will kill any bacteria and other microorganisms sitting in the

pipes."

Smith estimated that it would take several days to find the cause of the problem, fix it, and confirm that bacteria were no longer present. "We believe the problem should be solved by June 5, but we will inform the public again when we know for sure that we are back in compliance."

For more information on this situation, consumers are asked to contact Michelle Jones of the Middlesex County Water Department at (703) 555-1212.

Miller also said, "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."

Sample Only -- This is not a real situation

APPENDIX C

Summary of Allentown, PA Meeting

Review of Sample Public Notices
Days Inn and Conference Center, Allentown, PA
June 8, 1999, 7 p.m. - 8 p.m.

The meeting began with Christine O'Brien (EPA, OGWDW) introducing herself as the leader of the discussion. Participants were informed that this meeting was part of a series of meetings EPA was holding around the country to get feedback from the public, that notes from the meeting would be documented, and that their opinions, both positive and negative, were important.

Participants were asked to introduce themselves. There were two men and three women, all of whom were interested in drinking water issues. Two of the participants were involved with local water system's customer groups; another participant had worked at a water system several years ago.

To introduce the topic, participants were asked to discuss where they normally get information about their drinking water, how much they think about their drinking water, and how they would expect to find out if there was a problem with their drinking water. One of the participants currently received a great deal of information about his water system from his water bill; all other participants said they never got any information about their drinking water even after repeated requests for it. Participants said that they would expect to receive this information from the newspaper, in the mail, through word of mouth, through phone calls, or through fliers.

Participants were then given a sample public notice for a lead treatment technique violation to read (Attachment C1). Discussion continued once participants had a chance to read the notice.

Discussion of Lead Treatment Technique Notice:

Participants had a difficult time understanding the message of this notice. The confusion centered around what exactly the problem was. While participants understood that there was an issue with lead in the water, there was confusion about why the situation was not an emergency if the levels were above the limit, and what the funding issues were which were preventing the problem from being solved. Participants wanted more information on the requirements the water system wasn't meeting and how much time the system has had to correct it. Participants were also confused by the fact that while this was a violation there were no lead levels given in the report (they were looking for the lead levels as well as the action level itself).

Participants had a very difficult time deciphering how serious the violation was. They stated that they read the notice several times, but had difficulty interpreting it. They thought the notice gave varying messages as to what people should do, might want to do, or should perhaps consider doing. They were unclear from reading the notice how serious the problem was or exactly what had caused it, though they were able to understand which steps they should take to protect themselves. Some specific questions that came up included: Is it the water that is in violation or the pipes that cause the problem? What is corrosion control? What does the health effects information really mean (some thought it was too specific and others thought it was not relevant)? Why does boiling the water not help (several said that boiling would be their first reaction)? Why isn't this an emergency (the health effects language is very severe)? Why isn't there a date on the notice and why are the dates in the notice so long ago (i.e. -- why does this take so long to correct)

Participants also felt that the first two paragraphs should be moved down, and they weren't sure what the main point of the notice was. The group's summary of the situation, after some discussion was:

“There are high amounts of lead in the water. There may be too much lead at your tap. The water isn’t being treated correctly.” Participants still weren’t sure what they could do about the problem or where exactly the problem had occurred. The actions consumers could take were fairly easy to understand, but the information on getting the water testing was perceived as confusing.

Participants said that if they received this notice they would read it several times and then probably call someone for more information. Participants said they would be concerned if they received this notice and would stop drinking the water. They would not want to drink the water again until the problem was solved. When asked, they said they would consider having their own water tested.

Whether this notice was considered believable would depend on the water system’s past history and record of communicating with its customers. Some felt they would have trusted the system more if it told them ahead of time that they were not going to meet their deadline.

Discussion of Fecal Coliform Notice:

Participants were then given a fecal coliform water notice to read and react to (Attachments C2 & C3). Discussion continued once the participants had a chance to read the notice. The notice was universally viewed as easier to understand, and containing the perfect amount of information. Participants found the notice to the point and thought it communicated well. Participants especially liked the bulleted format. They said they could identify with the problem and thought the notice seemed less wordy than the lead notice. Participants liked the inclusion of both an 800 number and a local number, and said they would do exactly what this notice said.

Participants said that they would continue to drink the water again once they had been notified that the problem was corrected (or perhaps a day later to be safe). The notice was viewed as being very credible. They liked the print ad better than the newspaper article, because they preferred to be notified directly by the system rather than the media.

One participant indicated that it would be useful to have an explanation of why boiling the water would help.

Discussion of Monitoring Violation Notice:

Participants were then asked to look at a sample notice for several monitoring violations (Attachment C4). After participants had a chance to read the notice, the discussion continued.

Participant’s initial reaction to this notice was, “Why did my water system send this to me?” It didn’t make sense that water systems would voluntarily tell their customer that they had done something wrong, especially if the problem had already been corrected.

After some discussion, participants decided that the water system must be required to send this notice to its customers -- they thought it would be useful to specify in the notice that the water system is required by the state and federal government to send this notice if that is the case (which it is). Participants said they would be concerned that their water system wasn’t testing its water, and would want to know who was responsible and how the system was going to prevent a future occurrence of this same problem. Participants also wondered if the system did not sample because it had something to hide. At the same time, some questioned whether or not the missed monitoring was actually “a big deal.”

Participants said that they would like to see in the table the actual test results they felt it would add an extra level of comfort to know that the water system was doing what it needed to do. Along with the numbers, participants would want to see what the safety standards were.

Participants were a little confused by the fact that total coliform was listed in the table twice, with different sampling dates. Participants assumed that perhaps it needed to be tested for more frequently than some of the other contaminants, but the idea of monitoring schedules was not readily understandable to the participants from reading the notice. They also did not understand what “date additional samples were taken” meant.

Participants had a mixed reaction to the VOC footnote. Some thought the information was excessive, others found it helpful to have the additional information. Some participants found the chemical names to be scary - “this stuff could kill you.”

Participants liked how the notice stated “this is not an emergency,” and seemed to anticipate people’s questions and respond to them.

The standard language for monitoring violations was somewhat confusing. People didn’t understand why, if the tests had since been taken, the system could not tell them whether their health was at risk. People seemed to generally understand that it meant “during the monitoring period we can’t tell you, but we can tell you now, and you can assume it was safe then” but also had the sense that the language was more to “cover” the water system from liability than anything else. This language was met with a little suspicion.

Participants said they would read the notice if it came with their water bill.

Close:

Participants were thanked for their comments, and the meeting ended at 6 p.m. There were no observers present who wished to comment.

Smithton Water System
1000 Water Rd.
Smithton, PA 30000

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Lead Treatment Violation

The Smithton Water System routinely samples water for lead at consumers' taps. Your drinking water may pick up lead from lead and brass pipes and plumbing fixtures as it travels from the treatment plant into your home. At the treatment plant, the water does not contain lead, but it may pick up additional lead from pipes in the distribution system or from your home if your plumbing contains lead or brass.

As a result of lead levels in the water above the limit, or "action level," we are required to install corrosion control treatment. This treatment helps prevent lead in the pipes from dissolving into the water. Corrosion control should have been installed by May 1, but installation is incomplete.

What should I do?

You can take the following steps to reduce your exposure to lead.

- Call the number below to find out how to get your water tested for lead.
- Find out whether your house contains lead pipes or solder.
- Run your water for 15-30 seconds before using it for drinking or cooking. This flushes any standing lead from the pipes.
- Don't use hot tap water for cooking; instead, heat cold tap water on the stove. Lead dissolves more easily in hot water.
- **Do not boil your water.** Boiling water makes the lead more concentrated.

What does this mean to me?

Infants and children who drink water containing lead in excess of the Action Level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems, high blood pressure, or may be at an increased risk of getting cancer.

What is the water system doing?

We conducted a lead public education program in July, 1998. You should have received a brochure explaining in more detail steps you can take to reduce exposure.

This is not an emergency. If it had been, you would have been notified immediately. Corrosion control will be in place by January 2000. The delay in installation is due to funding problems.

For more information, contact Jane Smith of the Smithton Water System at (555) 555-1212.

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: PA000001

Sample only – This is not a real situation

City of Smithville
1000 Main St.
Smithville, PA 30001

WARNING

Effective Immediately

People served by City of Smithville Water Department

BOIL YOUR WATER BEFORE USING

Fecal coliform bacteria were found in your water supply on June 7.

- Bring all water to a boil, let it boil for one minute, and let cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice.

What does this mean to me?

- 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 symptoms above are not caused only by organisms in drinking water, but may be caused by other factors. If you experience any of these symptoms and they persist, you may want to seek medical advice. People at increased risk should seek advice about drinking water from their health care providers.

What is the water system doing?

- We are increasing sampling for coliform bacteria to determine the source of the contamination. We will also chlorinate and flush the water system.
- We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem by June 5.
- For more information on this situation, please contact John Smith of the City of Smithville Water Department at (555) 555-1212. 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: PA0000003

Sample only – This is not a real situation

City of Smithville Water Department Detects Fecal Coliform Bacteria

Smithville Consumers Should Boil Water Before Using

Associated Press

Fecal coliform bacteria were found in the water supply of the City of Smithville yesterday, according to John Smith, the manager of the City of Smithville Water Department.

Consumers in Smithville are advised to bring all water to a boil, let it boil for one minute, and let it cool before using. They may also use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, and food preparation until further notice.

According to Smith, 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.

However, the symptoms above are not caused only by organisms in drinking water, but may be caused by other factors. Consumers who experience any of these problems, especially persistent problems, may want to see medical advice, Smith said. People at increased risk should see advice about drinking water from their health care providers, he added.

“We have increased sampling for coliform bacteria to determine the source of the contamination,” Smith said. “We will also chlorinate and flush the water system. This will kill any bacteria and other microorganisms sitting in the pipes.”

Smith estimated that it would take several days to find the cause of the problem, fix it, and confirm that bacteria were no longer present. “We believe the problem should be solved by June 5, but we will inform the public again when we know for sure that we are back in compliance.”

For more information on this situation, consumers are asked to contact Michele Jones of the Smithville Water Department at (555) 555-1212.

Miller also said, “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.”

Sample only – This is not a real situation

Maple River Mobile Home Par
2000 Route 1
Smithton, PA 30000

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER
Monitoring Requirements Not Met**

Maple River Mobile Home Park did not test for several contaminants as required by State and Federal laws. Because we did not monitor or failed to monitor completely during parts of May 1998-April 1999, 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.

Samples taken since then show that all results met acceptable limits.

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 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	Monitoring Period	Number of Samples Required	Number of Samples Taken During Monitoring Period	Date Additional Samples Were Taken
VOCs ²	1/96-12/98	1	0	2/99
Total Colifor Bacteria	10/1/98-10/31/98	1	0	11/1/98-11/31/98
Total Colifor Bacteria	3/1/99- 3/31/99	1	0	4/1/99-4/30/99

If you have any questions or comments about these violations, please call John Smith at 555-1212.

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: PA0000004

²VOCs, also known as volatile organic compounds, 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.

APPENDIX D

Summary of Phoenix, AZ Meeting

Review of Sample Public Notices
Arizona Department of Environmental Quality, Phoenix, AZ
June 23, 1999, 7 p.m. - 8 p.m.

To begin the meeting, Shari Ring of the Cadmus Group, Inc. introduced herself as the leader of the discussion. She told the participants that the discussion was part of a series of meetings EPA is holding around the country to get feedback from the public on drinking water issues.

The participants included two women and one man. Each of them were concerned about drinking water issues. Two members of the group are served by a private water company and receive water that is not in compliance with drinking water standards; they currently drink bottled water. All three members of the group were familiar with public notices and had received drinking water notices in the past. One participant showed copies of notices for nitrate and radium exceedances distributed in her area. She said people over-reacted to the radium notice, but seemed not to care when bird waste is found in the reservoir.

The group indicated that they get general information about their drinking water from consumer publications and the newspaper. One member said she relied more on the Internet or contacts with EPA or the Arizona Department of Environmental Quality, saying that the media cover water related issues only when there is a significant problem.

The participants said that, if there was something wrong with their drinking water, they would expect to get information from the water company. Some expressed mistrust of their water supplier, saying they would have to threaten them to get this information. One member said she thought the local newspaper or media would distribute such information. She said people would listen to information more readily than read it, especially in urgent situations. She said this is why TV stations should pass along drinking water information during the day, not in public service announcements at 3:00 a.m.

One member said that door hangers, which are often posted on gates, can blow away. She also pointed out that readers need a "college chemistry course to understand them." She continued by saying that direct mail is the best method to distribute drinking water information: she lives in a rural area where TV reception is weak and that is served by one newspaper (to which not everyone subscribes). She caveated this by saying that an accurate notice relies on the operator's honesty.

Discussion of Nitrate Notice:

Participants were given a sample public notice of a nitrate violation to read (see Attachment D1). Discussion continued once the participants had a chance to read the notice.

The participants' initial reactions to the notice were that it is too complicated, but better than notices they currently receive. One member of the group said she liked the notice, another noted that the word "Warning" along with the Spanish "Aviso" would get peoples attention.

Two of the members felt the notice contains too much information. A member suggested that the notice be condensed: it should say what the problem is, what it means, what consumers should do, and give details and a phone number at the bottom. Another member agreed, saying that "more is better" is not always the case.

The group felt that the most important information in the notice is that there is a problem with the water (high nitrate levels), that this can make people, especially infants and the elderly, sick and that people should not boil the water. They offered suggestions for improving the important messages in the notice, including writing “don’t boil the water” in bigger text, using larger print throughout the notice, and printing the notice on colored paper. One person said that there are many redundant facts in the notice, e.g., the water company name is repeated several times.

One participant said that AIDS, lupus, and ALS patients are also affected by oxygen-exchange deficiencies (brought on by nitrate in the water) and the health effects language should include them as well. She said that people should be told to go to the emergency room, rather than “seek medical attention immediately,” as some people could interpret this as saying they should go to the doctor. She added that people should be told to tell their doctors to look for nitrogen poisoning, since many local doctors would not know what to look for.

The group members agreed that notices should be written for a 6th to 8th grade audience. A technical language (e.g., the terms “12 mg/l” or “MCL”) should be eliminated, and the writing should be limited to two-syllable words. The notice should also spell out more potential uses of water that people need to avoid, e.g., making oatmeal or applesauce from apples.

One member of the group who spoke Spanish liked the Spanish part of the notice, saying it is “very good, perfect.” He said it catches people’s attention, and that the two Spanish sentences tell all that people need to know and give a phone number for more information. Another member said that public notices currently distributed are written in English on one side and in Spanish on the reverse.

One person said she did not read the whole notice. She skipped the part about what she should do, and the company name. A participant said the bottom of the notice contains too much information. Another said that people only read the top of something unless it really gets their attention. The group suggested that a notice should be written like a newspaper article: it should have a big headline in oversized type, and the rest of the information should be much in smaller text. The first paragraph should include all the information needed.

Participants said they would probably read the notice if it came in their water bills, as this would associate the notice with the water company. One said that notices that are posted in small towns are likely to be read, but this is hard for immediate communication. One member observed that people are inundated by “important information” in the mail (e.g., about their bills, bank accounts, etc.). The notice should be written to grab their attention.

When asked if they trusted the information presented, one participant replied that people are likely to believe the information in the notice. She said people are gullible and, if something comes from an official source or is on TV, it must be accurate. Another person said the notice should come from a third party, and it should not be assumed that the water company is ethical. One member expressed concern that a nitrate violation may exist for 30 days before the system becomes aware of it. For violations such as *E. coli*, a much shorter notification timeframe, on the order of two days, is needed.

The group said they would not drink the water if they received this notice, and would continue not to do so until they received another notice. One alluded to the boil water notice issued in Washington DC, from which some still drink bottled water. Another noted that drinking bottled water is a fad.

Discussion of Trichloroethylene (TCE) Notice:

Participants were asked to read a sample notice of a TCE violation (see Attachment D2). Discussion continued once the participants had a chance to read the notice.

In general, the group felt that, while the TCE notice is more concise than the nitrate notice, it is overly technical and confusing. One reader said she was lost with the word “trichloroethylene,” which is more than three syllables. In general, the group felt that the TCE notice is written to be understood by a higher educated public. They suggested eliminating the scientific information, e.g., the terms “trichloroethylene” and “milligrams.” One person suggested writing “TCE” first, then spelling out trichloroethylene in the notice.

The group thought the notice is confusing. They said it was hard to pick out the main message, and that it was necessary to read the whole notice in order to understand it. They all questioned why the water system would be providing this information if the situation is not an emergency. One member said the notice is a waste: it says in the short term your health is not affected, but in the long term, we don’t know what can happen. She said that all people care about is whether or not the water is bad for them. One participant asked what “specific health concerns” would require calling the doctor. A member suggested that the contact information should be bolder.

They said the positive aspects of the notice are the guidance on where to get more information and that it is more concise than the nitrate notice. One member suggested the following title, “Tests show too much TCE in the drinking water, this is not an emergency and you can continue to drink it.” Another suggested reversing the flow of the notice by placing the “what should I do” section before the section on “what does this mean.”

One person said the notice appears to be contradictory: she asked why, if TCE has been detected at twice the allowable level, is it safe to continue to drink the water (i.e., if this level is safe to drink, EPA should change the drinking water standard). The notice seems frightening to one person, who said: “this big word is in your water and it causes cancer.” She said she would not drink the water because of this.

One member of the group said that the Spanish phrase at the bottom would not be read. He explained that it is too small, and appears to be an afterthought. He suggested that it should be in big print at the top of the notice, as in the nitrate example.

The group felt the message of the notice is that the system is following the law (without being particularly positive or negative), but gives no information other than that the water is being tested and the results will follow. One member said the most important message is that people can still drink the water.

One participant indicated that she would read the notice, but her husband would not. She said the notice and title do not catch people’s eyes or stand out among all the other “important information” that comes in the mail. She continued by saying that drinking water notices need a

standard identity, e.g., printing on water system letterhead, so that they are immediately recognized as important. A participant said the information is trustworthy, saying it must be accurate since somebody did some research.

One participant observed that, when people receive many Tier 2-type notices, the water system appears to be “crying wolf,” and the public stops paying attention. She said that notification of lower level violations may suffice with a line on the water bill. This person suggested that a graphic comparing the current level of the contaminant with representations of varying levels of toxicity would be helpful.

Close:

Participants were thanked for the comments, and the meeting ended at 8 p.m after one hour. None of the observers present wished to comment.

WARNING

Effective Immediately

FOR PARENTS OF INFANTS 6 MONTHS AND YOUNGER
Served by Springfield Water Company
DO NOT USE THE WATER FOR INFANT FORMULA

AVISO

NO USEN EL AGUA PARA PREPARAR ALIMENTOS PARA BEBES

Este informe contiene información muy importante sobre su agua de beber. Hable con alguien que lo entienda bien o llame al telefono 555-1200 para hablar en español sobre este aviso.

High nitrate levels were detected June 22, 1999. A routine sample showed a nitrate concentration in the drinking water of 12 milligrams per liter (mg/l). This is above the nitrate standard, or maximum contaminant levels (MCL), of 10 mg/l.

What does this mean?

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.** Springfield Water Company and the Springfield Health Department are providing free bottled water to families with infants. Water is available between 9 a.m. and 5 p.m. Monday through Friday at the Health Dept. office at the Town Hall. Water will be provided until the nitrate problem is resolved.

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.

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 a 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.

The nitrate levels are probably the result of fertilizer application. Nitrates are used in fertilizer, which is applied in the spring and summer. Nitrates often are washed into ground water by heavy rains during this time.

We will inform you when the nitrate problem has been corrected. We anticipate resolving the problem by July 15. For more information, please contact John Smith of the Springfield Water Company at (602) 555-1212.

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.

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

The Sunshine Water System routinely monitors for the presence of drinking water contaminants. Testing results we received on June 1 show that the system exceeds the standard, or maximum contaminant level, for trichloroethylene (TCE). TCE was found at .009 milligrams per liter (mg/l). The standard for TCE is .005 mg/l.

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 livers 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. However, if you have specific health concerns, consult your doctor.

What is the water system doing?

We are working with the Arizona Department of Environmental Quality to evaluate the water supply and research options to correct the problem. These options may include treating the water to remove TCE or connecting to the City of Phoenix's water supply.

We will inform you when TCE levels meet the standards. We anticipate resolving the problem by August 1999.

For more information, or to learn more about protecting your drinking water please contact Jane Brown of the Sunshine Water System at (602) 555-1212.

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.

Este informe contiene información muy importante sobre su agua de beber. Hable con alguien que lo entienda bien o llame al teléfono 555-1200 para recibir este aviso en español.

Water System ID: AZ0000002

Sample only – This is not a real situation