

## **APPENDIX Q**

**EPA Revised Public Notification Handbook  
(EPA 816-R-04-003, March 2007)**



# Revised Public Notification Handbook

(Original Document: EPA 816-R-00-010, June 2000)

(Revised Document: EPA 816-R-07-003, March 2007)



Revised Public  
Notification  
Handbook

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This handbook provides guidance to States, public water systems, and the general public concerning how EPA interprets its public notification regulations. This document does not, however, substitute for the public notification regulations, nor is it a regulation itself. Thus, it cannot impose legally-binding requirements on EPA, States, or water suppliers and may not apply to a particular situation. This document is not intended, nor can it be relied upon, to create any rights enforceable by any party in litigation with the United States. EPA may decide to follow the guidance provided in this document, or to act at variance with the guidance based on its analysis of the specific facts present. This guidance may be revised without public notice to reflect changes in EPA's approach to implementing public notice, or to clarify and update text.

You should read the regulations thoroughly to ensure that you are in compliance. The public notice (PN) regulations are in the Code of Federal Regulations under Chapter 40, Part 141, Subpart Q, beginning at section 141.201. The most recent version of the rule can be found at [www.epa.gov/safewater/publicnotification](http://www.epa.gov/safewater/publicnotification). A copy of Subpart Q of the Federal Register notice for the final PN rule (May 4, 2000) is in Appendix D.

This document includes public notification requirements and information for all regulations up through July 2006. It does not include public notification requirements and information for the Ground Water Rule (GWR) published November 8, 2006.

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# Contents

<b>Acronyms .....</b>	<b>v</b>
<b>1. Introduction .....</b>	<b>1</b>
Why is Effective Public Notification Important? .....	1
<b>2. How to Use This Handbook.....</b>	<b>3</b>
Appropriate Use of the Templates .....	4
<b>3. Summary of Requirements.....</b>	<b>5</b>
When and how do I need to notify my consumers? .....	5
Whom must I inform when a violation or situation occurs? .....	6
Does every notice need to be sent to everyone in the distribution system? .....	6
What if I sell water to other systems?.....	6
What kinds of violations and situations require public notice? .....	6
What information do I need to include in each notice for a violation or situation? .....	9
What standard language do I have to include in my notices? .....	11
What information do I need to include for special notices for fluoride SMCL exceedances?.....	11
What do I need to include for special notices for unregulated contaminant monitoring? .....	11
What if I have been issued a variance or exemption? .....	12
Are there formatting requirements for public notices?.....	12
Will I have to provide notices in languages other than English? .....	12
What information must I provide to my primacy agency? .....	13
<b>4. Making Public Notification Work – Plan In Advance .....</b>	<b>15</b>
Planning in Advance for Public Notification.....	15
Assemble Your Response Team.....	15
Understand Your Audience and How to Reach Them.....	16
Create Your Communication Channels.....	17
Prepare Your Messages .....	18
Have Materials Readily Available.....	19
Consider Contingencies .....	19
During a Violation or Situation Requiring Public Notification .....	20
How can I make a notice easier to read? .....	20
How can I ensure that the media distributes an accurate notice? .....	20
What other steps should I take after issuing a notice? .....	22
How can I prevent overreaction to a public notice? .....	23
Follow-up After the Situation is Resolved .....	24

<b>5. Tier 1 Notice Requirements and Suggestions.....</b>	<b>25</b>
What is the deadline for issuing a Tier 1 notice? .....	26
Which methods of delivery must I use? .....	26
Suggestions for Effective Public Notification Delivery .....	27
Suggestions for Layout of the Notice .....	29
TIER 1 TEMPLATES .....	31
Nitrate MCL Exceedance Notice–Template 1-1 .....	33
Spanish Nitrate MCL Exceedance Notice–Template 1-1A.....	35
Nitrate Failure to Take a Confirmation Sample Notice–Template 1-2 .....	37
Non-community PWSs Allowed Up to 20 mg/L Nitrate Notice–Template 1-3.....	39
Fecal Coliform or <i>E. coli</i> Notice–Template 1-4.....	41
Spanish Fecal Coliform or <i>E. coli</i> Notice–Template 1-4A.....	43
Waterborne Disease Outbreak Notice–Template 1-5.....	45
IESWTR or LT1 CFE Maximum Turbidity Exceedance, or Turbidity Single Exceedance as Tier 1 Notice–Template 1-6.....	47
Chlorine Dioxide MRDL Notice–Template 1-7 .....	49
Tier 1 “Problem Corrected” Notice–Template 1-8.....	51
<b>6. Tier 2 Notice Requirements and Suggestions.....</b>	<b>53</b>
What is the deadline for issuing a Tier 2 notice? .....	53
When might a Tier 2 violation be elevated to Tier 1?.....	54
Which methods of delivery must I use? .....	54
Suggestions for Effective Public Notification Delivery .....	55
Suggestions for Layout of the Notice .....	56
TIER 2 TEMPLATES .....	59
Unresolved Total Coliform Notice–Template 2-1 .....	61
Resolved Total Coliform Notice–Template 2-2 .....	63
Chemical or Radiological MCLs Notice–Template 2-3.....	65
Fluoride MCL Notice–Template 2-4.....	67
SWTR Failure to Filter Notice–Template 2-5 .....	69
SWTR Turbidity Exceedance Notice–Template 2-6.....	71
SWTR Disinfection Treatment Notices–Template 2-7.....	73
LCR Failure to Install Corrosion Control Notice–Template 2-8 .....	75
LT2ESWTR Failure to Install Treatment Notice–Template 2-9a .....	77
LT2ESWTR Uncovered Finished Water Reservoir Treatment Notice–Template 2-9b .....	79
LT2ESWTR Unfiltered System Failure to Install Treatment Notice–Template 2-9c .....	81
LT2ESWTR Failure to Conduct Source Water Monitoring (Initial or Second Round) Notice–Template 2-9d .....	83



Stage 1 DBPR TTHM or HAA5 MCL Violation Notice–Template 2-10 .....	85
Stage 2 DBPR TTHM or HAA5 MCL Violation Notice–Template 2-11 .....	87
Filter Backwash Recycling Rule Treatment Technique Violation Notice–Template 2-12 .....	89
Failure to Comply with the Conditions of an Exemption Notice – Template 2-13 .....	91
Monitoring Violation Elevated to Tier 2 Notice – Template 2-14 .....	93
<b>7. Tier 3 Notice Requirements and Suggestions.....</b>	<b>95</b>
What is the deadline for issuing a Tier 3 notice? .....	95
Which methods of delivery must I use? .....	96
Suggestions for Effective Public Notification Delivery .....	96
May I combine notices for multiple Tier 3 violations or situations? .....	97
Suggestions for the Layout of the Notice .....	98
TIER 3 TEMPLATES .....	99
Monitoring Violations Annual Notice–Template 3-1A .....	101
Monitoring Violations Annual Notice–Template 3-1B .....	103
Failure to Comply with a Testing Procedure Notice – Template 3-2 .....	105
Operating Under an Exemption Notice – Template 3-3 .....	107
Special Notice for Availability of Unregulated Contaminant Monitoring Data – Template 3-4 .....	109
Fluoride SMCL Notice–Template 3-5 .....	111
<b>Appendix A NPDWR Violations and Other Situations Requiring Public Notice .....</b>	<b>115</b>
<b>Appendix B Standard Health Effects Language for Public Notification .....</b>	<b>123</b>
<b>Appendix C Translated Phrases .....</b>	<b>133</b>
<b>Appendix D The Public Notification Rule (40 CFR Part 141, Subpart Q).....</b>	<b>137</b>

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## Acronyms

CCR	Consumer Confidence Report
CDC	Centers for Disease Control and Prevention
CFE	Combined Filter Effluent
CWS	Community Water System
DBP	Disinfection Byproduct
EAS	Emergency Alert System
EPA	Environmental Protection Agency
FBRR	Filter Backwash Recycling Rule
HAA5	Haloacetic acids (five)
HPC	Heterotrophic Plate Count
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOC	Inorganic Chemical
LCR	Lead and Copper Rule
LT1ESWTR	Long Term 1 Enhanced Surface Water Treatment Rule
LT2ESWTR	Long Term 2 Enhanced Surface Water Treatment Rule
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
NCWS	Non-Community Water System
NOAA	National Oceanic and Atmospheric Administration
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
NTU	Nephelometric Turbidity Unit
NWS	National Weather Service
OGWDW	Office of Ground Water and Drinking Water
OW	Office of Water
PN	Public Notification
PWS	Public Water System
SDWA	Safe Drinking Water Act
SMCL	Secondary Maximum Contaminant Level
SOC	Synthetic Organic Chemical
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TT	Treatment Technique
TTHM	Total Trihalomethanes
TNCWS	Transient Non-Community Water System
VOC	Volatile Organic Chemical



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# **1. Introduction**

The purpose of this handbook is to explain EPA's Public Notification Rule and provide examples of effective public notices. This handbook is designed to meet the needs of public water systems of all sizes. Throughout the handbook there are suggestions and instructions targeted to very small community systems (systems that serve 500 people or less). These suggestions, along with other useful hints for creating effective notices, are set aside in shaded boxes.

This version of the handbook updates the June 2000 version. It reflects some recent EPA regulations, including the Filter Backwash Recycling Rule, Long Term 1 Enhanced Surface Water Treatment Rule, Long Term 2 Enhanced Surface Water Treatment Rule, and Stage 2 Disinfectants and Disinfection Byproducts Rule. New templates for some violations under these rules are included. Also, Chapter 4 includes new information on effective risk communication. This version of the handbook does not include public notification requirements and information for the Ground Water Rule (GWR) published November 8, 2006.

## **Why is Effective Public Notification Important?**

Public notification is designed to protect public health. As a public water supplier, you are required by law to prepare and distribute public notification to consumers. One of the best ways water systems can contribute to community health is to make sure as many people as possible within a service area know about water quality issues and how to protect themselves from potential risks. Public notification of drinking water violations and other situations provides a way to educate the public, protect public health, build trust with consumers through open and honest sharing of information, and establish an ongoing, positive relationship with your community. The greater the effort your water system makes to reach and inform everyone in your service area on your system, the more they will trust your commitment to delivering safe water and protecting public health.

This guidance is designed to help water systems understand public notification requirements *and* deliver effective information to educate their public and protect community health. Throughout this document are tips and suggestions to help you create an effective communication strategy for meeting the public notification requirements. The suggestions contained in this document are based on the guiding principles for good risk communication and public education, including:

1. Accept and involve the public as a legitimate partner.
2. Plan carefully and evaluate your efforts.
3. Listen carefully to the public's concerns.
4. Be honest, frank, and open.
5. Coordinate and collaborate with other credible sources.
6. Meet the needs of the media.
7. Speak clearly and with compassion.<sup>1</sup>

The communication strategy outlined in this document will help water systems plan for effective public notification by analyzing the population they serve, determining the best ways to reach consumers, and creating effective channels for distributing public notices.

<sup>1</sup>From: Covello, V.T. and Sandman, P.M. 2001. "Risk Communication: Evolution and Revolution." In: Wolbarst, A, ed. Solutions to and Environment in Peril. Baltimore, MD: Johns Hopkins Univ. Press. pp 164-178.

In addition to increasing the effectiveness of public notices, this handbook will help public water system owners and operators comply with Federal and State requirements. State and Tribal primacy agencies will find this handbook useful as well. The Public Notification Rule provides flexibility to primacy agencies, allowing them to set different requirements on both a case-by-case and a rule-by-rule basis. Systems should keep this in mind when using the handbook.

Finally, as you read, you will notice references in parentheses throughout the document. These are references to the appropriate federal regulatory requirement found in the Federal Public Notification Rule (see Appendix D) and are included to help you understand the particular requirement being discussed.

## 2. How to Use This Handbook

This handbook contains information to help you prepare and issue a public notice. *Before you are faced with a violation or situation requiring public notification, you should read this handbook.* You should also check with your local health department or other primacy agency to see if your state has additional public notification requirements or if more stringent public notification requirements apply. The steps to take to respond to a drinking water violation or other situation requiring notice are listed below:

1. **Determine what tier your violation or situation falls into.** Use Table 2 in Chapter 3 for a summary of major violations and situations requiring notice and your deadline for providing public notice. You can also refer to Appendix A for a listing by contaminant (141.201(a)).
2. **Consult your primacy agency** if required.

**For Tier 1 violations and situations, immediately consult with your primacy agency when you learn of the violation or situation** (141.202(b)). You must issue the notice within 24 hours, even if you are unable to contact the primacy agency.

**For single exceedances of turbidity limits or for a two-day turbidity MCL violation, immediately consult with your primacy agency when you learn of the violation.** Your primacy agency will determine whether the violation needs to be elevated to Tier 1 (141.203(b)).

3. **Review the requirements for public notices.** Read Chapter 3 “Summary of Requirements” which describes content, mandatory language, formatting, and distribution requirements that are applicable to all notices. Chapter 4 provides guidance on effective public communication.
4. **Determine the appropriate method(s) of delivery.** Chapters 5, 6, and 7 describe required delivery methods for Tier 1, 2, and 3 notices, respectively, as well as ideas for creating the most effective notice possible. Required methods vary based on system type and tier. If you operate a transient non-community water system, read the “Public Notification Handbook for Transient Non-Community Water Systems” (EPA 816-R-07-004) for assistance on delivery methods.
5. **Develop a notice; you can use the templates that fit your situation or write your own.** A list of templates is provided in the table of contents. At the ends of Chapters 5, 6, and 7 are templates for commonly occurring violations and situations, along with violation-specific instructions for modifying each template. The instructions for each template are on the front of the page; the corresponding template is on the back. **If there is no template for your violation or situation,** write your own notice using the list of required elements in Chapter 3 or other applicable requirements provided in Chapter 3, and follow the suggestions on layout in Chapters 5 through 7. Some situations and all violations, including monitoring violations, have **required language** regarding health effects (141.205(d)). This language is discussed in Chapter 3 and is found in Appendix B and in the templates.
6. **Translate the notice** if a large proportion of the population you serve does not speak English (141.205(c)). See Chapter 3 for more on how to determine if you need translations and how to get help translating notices.



7. **Provide your notice to persons served as soon as practical** but within the allowed time frame. Use the method of delivery chosen in step 4 above.
8. **Send a copy of each type of notice issued (including repeat notices) to your primacy agency** within ten days after you distribute the notice, along with a statement certifying that all public notification requirements have been met (141.31(d)). See the sample certification statement in Chapter 3.

### **Appropriate Use of the Templates**

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The templates in this handbook are designed to help operators create public notices for a variety of violations. **However, it is important to note that the templates included here are not inclusive and may not be appropriate for all violations and situations.** Depending on the severity of your violation or situation, it may be necessary to modify the instructions you give to consumers or to change the timing of the notice. For instance, if trichloroethylene levels are ten times the standard (rather than a slight exceedance), you should not tell your customers that they can continue to drink the water. In these cases, you should issue a notice immediately, rather than waiting up to 30 days. It is important to consult your local health department or primacy agency in such situations. In some cases, your primacy agency may instruct you to modify the timing or the notice to fit the situation.

Note that the public notice requirements described in this handbook are based on Federal regulations. States or Tribes may have alternate public notice requirements or more stringent drinking water standards. **You should obtain approval from the primacy agency in order to meet its specific requirements.**

### 3. Summary of Requirements

This chapter summarizes the federal PN rule requirements. Except where noted, all requirements in this chapter can be found in the Code of Federal Regulations (CFR) at 40 CFR 141, Subpart Q, beginning at Section 141.201. See Appendix D for a copy of this regulation. Check with your primacy agency to see if more stringent requirements apply.

#### When and how do I need to notify my consumers?

EPA has assigned each violation and situation requiring notice to one of three categories, or tiers, based on the risk of adverse health effects (see Appendix A). After you learn of a violation or situation, public notice must be provided as summarized in Table 1 below. Delivery requirements for community water systems (CWSs) and non-community water systems (NCWSs) differ, as indicated below. Transient non-community water system operators should refer to the “Public Notification Handbook for Transient Non-Community Water Systems” (EPA 816-R-07-004) to see requirements that are specific to them.

**Table 1. Requirements for Issuing a Public Notice**

Violation Tier	Deadline for initial notice	Repeated Notices *	Delivery Methods to Use **	Go To...
1	24 hours***	As dictated by the primacy agency	<ol style="list-style-type: none"> <li>1) Broadcast media (radio or television) or hand delivery or posting</li> <li>2) Another method as needed to reach consumers not likely to receive a notice from methods noted in item #1.</li> </ol>	Chapter 5
2	30 days ****	Every 3 months	CWS: <ol style="list-style-type: none"> <li>1) Mail or hand delivery</li> <li>2) Another method as needed to reach consumers not likely to receive a notice from methods noted in item #1.</li> </ol>	Chapter 6
			NCWS: <ol style="list-style-type: none"> <li>1) Posting, hand delivery, or mail</li> <li>2) Another method as needed to reach consumers not likely to receive a notice from methods noted in item #1.</li> </ol>	
3	1 year*****	Annually	CWS: <ol style="list-style-type: none"> <li>1) Mail or hand delivery (public notice delivery may be provided by CCR if one year requirement is met.)</li> <li>2) Another method as needed to reach consumers not likely to receive a notice from methods noted in item #1.</li> </ol>	Chapter 7
			NCWS: <ol style="list-style-type: none"> <li>1) Posting, hand delivery, or mail</li> <li>2) Another method as needed to reach consumers not likely to receive a notice from methods noted in item #1.</li> </ol>	
* Repeated notices are required if the violation or situation persists, unless otherwise directed by the primacy agency. Posted notices must remain posted and may need periodic updating. ** Primacy agencies may approve other methods. *** For Tier 1, systems must also initiate consultation with the primacy agency within 24 hours. **** Systems with turbidity MCL violations based on the average of samples over two days or with turbidity single exceedance treatment technique violations must consult with the primacy agency within 24 hours after learning of the violation. ***** EPA recommends consolidating all Tier 3 violations and situations occurring within a given year into an annual notice.				



## **Whom must I inform when a violation or situation occurs?**

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If you are faced with a violation or situation requiring public notification, you must provide the notice to persons served by your system. This means you must take all reasonable steps to inform people if they would not be reached by the most commonly used methods of notification. This does not mean that every person in the area served by the system must be notified (this may be impossible), but you must identify different types of consumers and make an effort to reach them. Additionally, every new billing customer or unit must be notified of any ongoing violations or situations for which notice has previously been issued (at non-community systems notices must be posted for as long as a violation or situation lasts). Remember that the most effective public notices—those that protect public health and build consumer understanding and trust—reach the largest possible group of people.

For example, if a community water system mails a notice to its billing customers only, people who do not receive water bills, such as tenants whose utilities are included in their rent or people who work in the area served by the system but live elsewhere, would not receive a notice. Publishing a notice in the newspaper and providing copies of the notice to landlords to distribute to their tenants would help reach those people. At a non-community system, hand delivery of notices would reach only those consumers who are present when the notices are distributed. Posting would reach visitors or newcomers.

You are required to include standard language in your notices that encourages distribution of the notice, where applicable. This language is described in Chapter 3 and is intended to increase public awareness of the situation. Use of this language does not relieve you of your obligation to notify persons served, however.

## **Does every notice need to be sent to everyone in the distribution system?**

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In general, notices must be provided to people who are served throughout the distribution system. In some very limited cases, however, if you can show that a violation affects a portion of the distribution system that is physically or hydraulically isolated from the rest of the distribution system, your primacy agency may allow you to notify only those people in the portion of the system that is out of compliance. You must receive written permission from your primacy agency to limit distribution of a notice.

## **What if I sell water to other systems?**

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The obligation to notify persons served includes notifying owners or operators of other systems that buy or otherwise obtain water from you. The owners or operators of those systems are responsible for notifying their customers before the appropriate deadline, with the “clock” starting when the purchasing system learns of the violation or situation from you. Sometimes, however, it may be easier and less confusing for consumers if one system notifies all the customers in consecutive systems (e.g., if the notice is broadcast over television or radio). In that case, you should send copies of your notice to purchasing systems prior to notifying the media if time permits. You should incorporate procedures and chains of communication for such situations into your emergency management or communications plan. In addition, any memoranda of understanding you sign with other water systems should spell out each system’s public notification responsibilities.

## **What kinds of violations and situations require public notice?**

In general, public notice is required for any of the following violations:

- ▶ Exceedances of maximum contaminant levels (MCLs) or maximum residual disinfectant levels Violation of treatment techniques;
- ▶ Monitoring and testing procedure violations; and
- ▶ Failure to comply with the schedule of a variance or exemption.

Other situations (not violations) which require notice include:

- ▶ Operation under a variance or exemption;
- ▶ Occurrence of a waterborne disease outbreak or other waterborne emergency;
- ▶ Exceedance of the secondary maximum contaminant level for fluoride;
- ▶ Availability of unregulated contaminant monitoring results; and
- ▶ Exceedance of the nitrate MCL in non-community systems that have been granted permission by the primacy agency to continue to exceed the nitrate MCL of 10 mg/l (although they must not exceed 20 mg/l).

Primacy agencies may also require notice for other violations and situations.

Table 2 on the next page shows the organization of violations and situations into tiers, based on the seriousness of potential adverse health effects. For a complete list of contaminants and their appropriate tiers, refer to Appendix A.



## Table 2. Violations and Situations Requiring Public Notice

### Tier 1 Violations and Other Situations Requiring Notice Within 24 Hours\*

1. Violation of the MCL for total coliform, when *fecal coliform* or *E. coli* are present in the water distribution system, or failure to test for fecal coliform or *E. coli* when any repeat sample tests positive for coliform;
2. Violation of the MCL for *nitrate, nitrite, or total nitrate and nitrite*; or when a confirmation sample is not taken within 24 hours of the system's receipt of the first sample showing exceedance of the nitrate or nitrite MCL;
3. Exceedance of the *nitrate MCL* (10 mg/l) by non-community water systems, where permitted to exceed the MCL (up to 20 mg/l) by the primacy agency;
4. Violations of the MRDL for *chlorine dioxide* when one or more of the samples taken in the distribution system on the day after exceeding the MRDL at the entrance of the distribution system or when required samples are not taken in the distribution system;
5. Violation of the *turbidity MCL* of 5 NTU, where the primacy agency determines after consultation that a Tier 1 notice is required or where consultation does not occur in 24 hours after the system learns of violation;
6. Violation of the *treatment technique* requirement resulting from a single exceedance of the maximum allowable *turbidity* limit, where the primacy agency determines after consultation that a Tier 1 notice is required or where consultation does not take place in 24 hours after the system learns of violation;
7. Occurrence of a *waterborne disease outbreak*, as defined in 40 CFR 141.2, or *other waterborne emergency*; and
8. Other violations or situations with significant potential for serious adverse effects on human health as a result of short term exposure, as *determined by the primacy agency* either in its regulations or on a case-by-case basis.

\* If your system has any of these violations or situations, in addition to issuing public notice, you must initiate consultation with your primacy agency as soon as practical but within 24 hours after you learn of the violation or situation. See Chapter 5 for more details.

### Tier 2 Violations Requiring Notice Within 30 Days\*\*

1. All violations of the *MCL, MRDL, and treatment technique* requirements except where Tier 1 notice is required;
2. Violations of *monitoring requirements where the primacy agency determines that a Tier 2* public notice is required, taking into account potential health impacts and persistence of the violation; and
3. Failure to comply with the terms and conditions of any variance or exemption in place.

\*\* If you exceed the maximum allowable turbidity level, as identified in Appendix A, you must consult with your primacy agency as soon as practical but no later than 24 hours after learning of the violation. See Chapter 6 for more details.

### Tier 3 Violations and Other Situations Requiring Notice Within 1 Year

1. *Monitoring violations*, except where Tier 1 notice is required or the primacy agency determines that the violation requires a Tier 2 notice;
2. *Failure to comply with an established testing procedure*, except where Tier 1 notice is required or the primacy agency determines that the violation requires a Tier 2 notice;
3. *Operation under a variance* granted under §1415 or exemption granted under §1416 of the Safe Drinking Water Act;
4. Availability of *unregulated contaminant monitoring results*; and
5. Exceedance of the secondary maximum contaminant level for *fluoride*.

## What information do I need to include in each notice for a violation or situation?

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Your public notice must include specific information in order to be considered complete. For each violation and situation requiring notice (except for fluoride SMCL exceedances, availability of unregulated contaminant monitoring data, and operation under a variance or exemption), you must provide a clear and easy-to-understand explanation of the following:

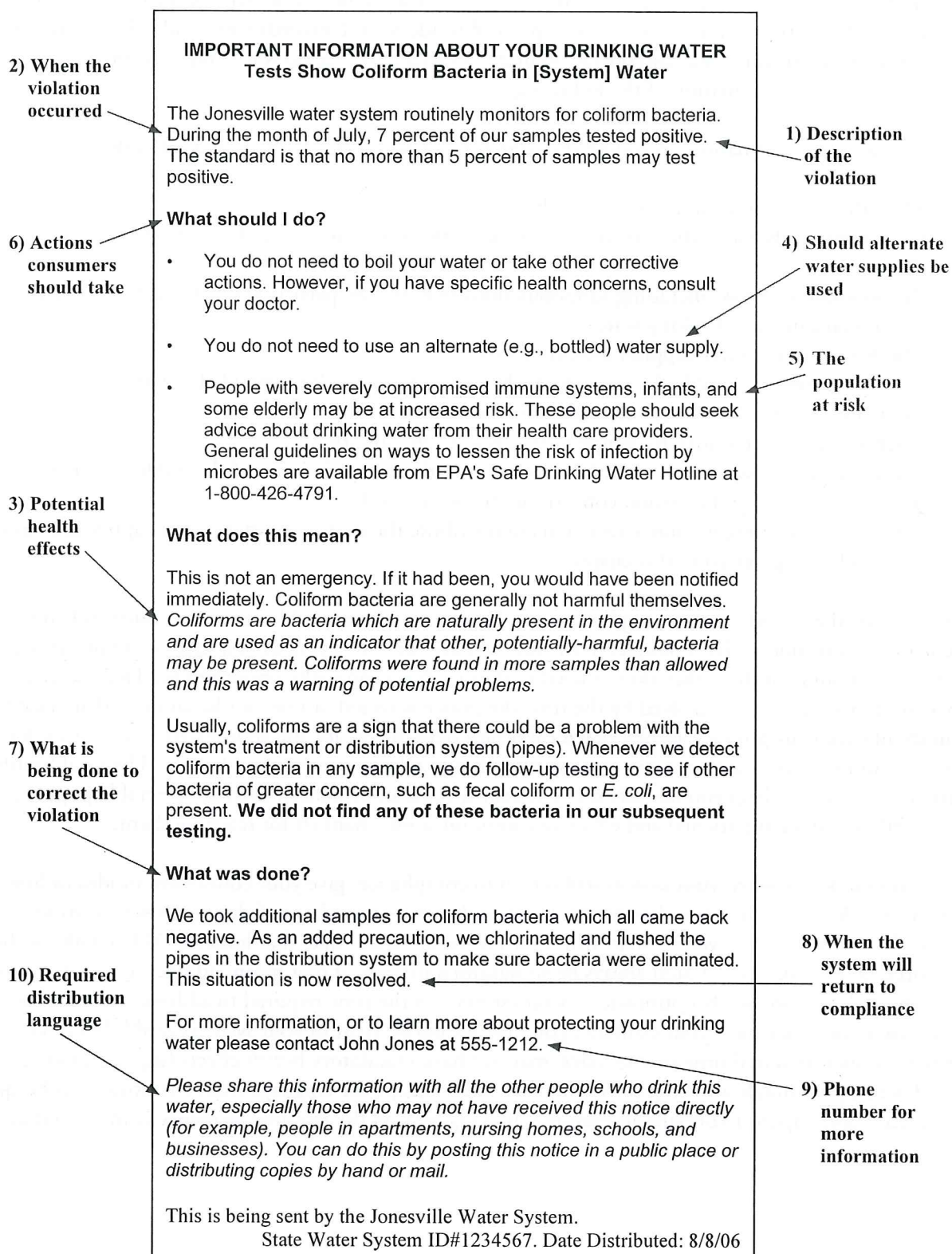
1. The violation or situation, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);
2. When the violation or situation occurred;
3. Any potential adverse health effects from drinking the water, using mandatory language described in Chapter 3;
4. The population at risk, including subpopulations that may be particularly vulnerable if exposed to the contaminant in their drinking water;
5. Whether alternate water supplies should be used;
6. Actions consumers should take, including when they should seek medical help, if known;
7. What you are doing to correct the violation or situation;
8. When you expect to return to compliance or resolve the situation;
9. Your name, business address, and phone number or those of a designee of the public water system as a source of additional information concerning the notice; and
10. A statement encouraging notice recipients to distribute the notice to others, where applicable, using the standard language given in this chapter.

Some required elements may not apply to every violation or situation. However, you must still address these elements in your notice. For example, if it is unnecessary for consumers to boil their water or drink bottled water, you should tell them they do not need to do so. This is especially important for Tier 2 notices, where a violation may have been resolved by the time the notice is issued or may not be an immediate health risk. You should ask your primacy agency or a local health department for the appropriate information for some elements of the notice, such as actions consumers should take to protect their health. The local health department also can help you identify other system-specific information, such as vulnerable populations (e.g., children, dialysis patients) and effective communication channels for reaching them.

If you do not know when your system will return to compliance, give your consumers an idea of how long it may take—for example, a few days for an *E. coli* violation or months for failure to install corrosion control. If you do not know when your system will return to compliance, state that honestly. When talking about potential health risks, you should always be straightforward even if that means admitting you don't know something. If you are overly optimistic in your estimate of the time required to address a problem and your system does not meet your estimate, you may see public trust in your system's credibility erode. Some situations, such as waterborne emergencies, may not have mandatory health effects language, but you must still describe potential health effects. You may be able to adapt the language from a treatment technique or MCL violation. Figure 1 contains an example showing how all the required elements fit into a public notice.



Figure 1  
The Required Elements of a Public Notice



## **What standard language do I have to include in my notices?**

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*Health effects language for MCL and MRDL violations, treatment technique violations, and violations of the conditions of a variance or exemption.* You must include the health effects language specified in **Appendix B for such violations**. You must also describe potential health effects for other situations, even if there is no mandatory language.

*Language to encourage the widest possible distribution of the notice to all persons served.* You must include the following language in all notices. However, there are situations where this may not apply—for example this language would probably not be necessary on a posted notice, since posting makes the notice available to everyone who passes by. It would also not be needed for a notice provided by broadcast and print media. Use of this language does not relieve you of your obligation to notify persons served:

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

*Language for monitoring violations (including testing procedure violations).* You must include the following language for all monitoring and testing procedure violations:

“We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period], we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [contaminant(s)], and therefore cannot be sure of the quality of your drinking water during that time.”

## **What information do I need to include for special notices for fluoride SMCL exceedances?**

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Community water systems that exceed the secondary maximum contaminant level of 2 mg/l for fluoride but do not exceed the MCL of 4 mg/l must include the special fluoride language shown in Template 3-5 and fill in the blanks as appropriate. You do not need to include the ten elements listed in Figure 1 above, as these are addressed in the language. You must provide notice as soon as practical but no later than 12 months after you learn of the exceedance and repeat the notice annually as long as the exceedance persists. See Chapter 7 for more information. Primacy agencies may require earlier initial notification or more frequent repeat notification on a case-by-case basis.

## **What do I need to include for special notices for unregulated contaminant monitoring?**

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If you monitor for unregulated contaminants, you must issue a public notice stating that the results of the monitoring are available and give a phone number to call for those results. You do not need to include the ten elements listed in Figure 1 above, but you must follow the Tier 3 schedule. You may include this information in an annual notice for Tier 3 situations and violations.



## **What if I have been issued a variance or exemption?**

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Notices for operating under a variance or exemption have different content requirements than notices for the violations and situations described above. If you are operating under a variance or exemption, you must notify your consumers within one year of obtaining it and repeat the notice annually for as long as the variance or exemption exists. You must include the following in your notice:

- ▶ An explanation of the reason(s) for the variance or exemption;
- ▶ The date on which the variance or exemption was issued;
- ▶ A brief status report on the steps you are taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and
- ▶ A notice of any opportunity for public input in the review of the variance or exemption.

## **Are there formatting requirements for public notices?**

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All public notices must meet certain formatting standards. These requirements help prevent the notice from being “buried” in a newspaper and help ensure that consumers can easily read and understand the notice.

Notices must:

- ▶ Be displayed in a conspicuous way (where printed or posted);
- ▶ Not contain overly technical language or very small print;
- ▶ Not be formatted in a way that defeats the purpose of the notice; and
- ▶ Not contain language which nullifies the purpose of the notice.

Your primacy agency may have special formatting requirements. Check to be sure that you meet all of its requirements.

## **Will I have to provide notices in languages other than English?**

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Remember that your goal is to inform and protect the public and the best way to do that is to make it easy for them to understand your message. Messages are easiest to understand when they are presented in the audience’s first language. When it comes to communicating about risks, it is important to make it as easy as possible for your audience to understand your message; clarity and simplicity help people understand risks and put them in perspective.

If a large proportion of the population you serve does not speak English, the PN rule requires you to provide at least partially multilingual notices. If translations are needed, your notice must, at a minimum, contain information in the appropriate language(s) regarding the importance of the notice, or it must provide a phone number or address where a translated notice or information or assistance in the appropriate language is available. Your primacy agency may have established criteria for what constitutes a large proportion of the people you serve; check with the agency to be sure. If your primacy agency does not define what constitutes a large proportion of non-English speaking consumers, it is up to you to make this determination. You should rely on your knowledge of your consumer base or contacts with community representatives. As a guideline in making your determination, some states have used a threshold of ten percent of the population or 1,000 people, whichever is less, for providing multilingual information in Consumer Confidence Reports (CCRs). See Chapter 4 for more on identifying whether translated notices are needed, and how to reach non-English speaking people.



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## **4. Making Public Notification Work – Plan In Advance**

Effective risk communication, particularly when potentially serious health risks are involved, requires advanced planning, effective communication, and follow-up. The discussion that follows describes some of the key steps you can take before, during, and after a situation that requires public notification. It includes suggestions for making your communication efforts as effective as possible. Systems are not required to perform all of the activities discussed in this chapter; however, it will be helpful to them if they do.

### **Planning in Advance for Public Notification**

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Any advanced work you can do to prepare for a public notification effort will pay off if you are faced with a violation or situation. Advanced planning will allow accurate information to be transferred quickly to all affected consumers with ease and will allow for time to correct issues if situations do not go as planned.

When your community and water system conduct emergency planning, include Tier 1 public notification requirements in your plans. When a serious violation, waterborne disease outbreak, or other emergency occurs you will already have in place an established process, chain of command, and knowledge of the best communication channels and delivery methods for reaching your public. You will also have the relationships, contacts, and understanding of key stakeholders that you will need if you are faced with a very short turnaround time for communicating required information to the public.

### **Assemble Your Response Team**

- ▶ Develop a working relationship and response plan with your local health department so you have an agreed-upon process for sharing information about water-related health risks and communicating with the public. Consumers may call the health department for information about health risks described in your communications; if you coordinate in advance, you can help to ensure that, regardless of whom they call, your public hears consistent messages that will help them understand the risks and how to manage them.
- Remember, situations that require public notices will probably affect health professionals in your community. They will need accurate and clear information on contaminants and health risks so that they can help your public understand the risks and how to manage them. Health professionals need to understand how the violation or situation affects their patients (especially those professionals who treat children, the elderly, or people with compromised immune systems). Public health officials may know the most effective channels for reaching your community's health providers. Discuss this in advance so that you are not trying to find every clinic, doctor, and nurse in your community at the same time that you are trying to solve a contamination problem. The local health department or sanitarian is also likely to have valuable information to share about the populations you serve, particularly about the subpopulations most vulnerable to water-related illnesses and ways to reach them.
- ▶ Work with your community's emergency managers to establish ties with the state office that works with National Oceanic and Atmospheric Administration (NOAA)/National Weather Service (NWS) to access the Emergency Alert System (EAS). Through memoranda of agreement between states and the NWS, communities can broadcast alerts of non-weather emergencies, including drinking water violations and situations, via NOAA Weather Radio and NOAA Weather Wire Service. This is a very effective delivery method to have at your disposal in case of a violation requiring a Tier 1 public notice.



- ▶ Create a list of emergency contact numbers for all of the people who will be critical to your outreach efforts, including public health representatives; Web masters that support your web site and key web sites hosted by the local government, health department, etc.; media contacts; local government officials and leaders from the subpopulation groups you identify in your service community. Ensure this list is kept up to date for future notices. Identify printers or copying services that have the capacity to generate high volumes of copies, and other vendors that supply services that you may need in an emergency.
- ▶ Find out whom you should contact at the primacy agency for cases where consultation is required. Determine whether there are alternative procedures for notifying the agency when violations or situations occur on weekends or holidays. Also, be sure you have a way to contact them during an emergency, such as a power failure, that may cause them to not be at their place of business. This is especially true if you routinely communicate via e-mail.

### **Understand Your Audience and How to Reach Them**

Water systems need to know their customers before they are faced with a critical need to reach and inform them. One of the most effective steps you can take to plan in advance for a public notice distribution is to analyze and segment your service population. The key to segmenting your audience for effective communication is to identify the number of discrete subgroups within your community that receive information in different ways than other groups. For example, your community may consist of several language groups, several groups with different reading proficiencies, and multiple groups that obtain their information from different media sources. If you can identify the number of subgroups within your community and identify what differentiates each group, you will be well prepared to reach each group effectively. Questions to research in advance include:

- What languages are spoken in your service area?
  - Within each language community, what percentage of people is also proficient in English?
  - Are there large numbers of people in your service area with low literacy levels?
  - If so, are low-literacy groups “clustered” in certain zip codes or neighborhoods?
  - What sources of information do these groups trust?
- ▶ To find information on the languages spoken in your area, see the U.S. Census Bureau's website, <http://factfinder.census.gov> to find information about your community. The census database includes answers to questions about literacy levels, what languages besides English are spoken at home and the level of English proficiency. (English proficiency is important, because if a group tends to speak a language at home, but is also able to read and understand English, a notification in a second language may not be necessary.) You should also be able to find out the number of people who speak each language. See Chapter 3 for information on the multi-lingual requirements for public notices.
  - ▶ Consider your local media as another good source of information on your audience. It is the media's job to know the community inside and out. Media outlets have an economic need to understand how to reach various segments of the audience, and typically have a mission to “serve” the community. These two goals mean that they likely have knowledge of various subgroups in your community; and contacts with key leaders within the community who have strong relationships or access to specific subgroup. Since you need to establish relationships with your media anyway (as partners in communication), one way to develop allies within the media is to recognize their knowledge and ability by asking them for valuable information about your service population.

- ▶ Identify community and ethnic group leaders and discuss with them your commitment to provide safe drinking water to their constituents. These “grassroots” groups have a high level of contact with target demographic groups, and tend to be trusted by them. Establish and maintain working alliances with these grassroots organizations so that if you need to quickly distribute a message about the drinking water in the future, you already have channels in place to reach your diverse audience. This can demonstrate your concern for the community they serve and establish a level of trust that will increase the likelihood that they will assist you when needed.
  
- ▶ Consider local government officials, neighborhood and civic associations, community leaders, large employers, church leaders, grocery store owners, barber shop owners...everyone who has the ear of a particular subgroup within your community is a potential ally.
  - Ethnic organizations, churches/mosques/synagogues, and multicultural centers are in touch with the needs and concerns of specific racial, religious, or ethnic groups, including people who cannot speak or read English.
  - Health care providers, hospital and nursing home directors, social service providers, are a first source of information for many people, especially vulnerable populations, such as parents of small children or HIV/AIDS patients.
  
- ▶ Determine the key local media that each subgroup looks to for information. For example, identify non-English radio stations, television shows on cable access, popular hip-hop stations, and local public radio stations that may appeal to your various target subgroups. Identify local Foreign-language newspapers, and determine which of these reach the most people. Remember that some may only be published weekly, and would therefore not be appropriate for Tier 1 situations.

Consider how you can deliver your messages most effectively to each subgroup in your community. Different audiences demand different messages because they have differing concerns and, sometimes, different ways of absorbing information. In the discussion of how to make materials more readable below, you will find suggestions for including graphics and other visual cues to help your audience understand printed information. Also consider that some of your audience may have low-literacy skills or visual impairments that make it difficult to process written information and consider how you can provide information to them through television, radio, in public meetings or through word-of-mouth. You may want to ensure radio or televised announcements are provided late at night and early in the morning to help ensure consumers on such schedules receive the information. Also, remember that all of your customers are not residential and some of your commercial customers may want information about how the violation or situation affects them (e.g., can a restaurant owner use the water for cooking, can a landscape business use the water on their plants, etc.).

### **Create Your Communication Channels**

Once you have analyzed your population and have an idea of the multiple groups you will want to reach in the event of a public notice, establish the relationships and processes you will need to have in place to work through those groups to reach your target audiences. For example, if you know you have a large Hispanic population in your service area and that many members of the community tend to listen to specific radio stations, watch certain television programs, read particular periodicals and convene at specific locations, make advance connections to those sources of information.



- ▶ Call on the media that can help you reach your target communities and explain your commitment to providing safe drinking water and that you sometimes need to reach as many people as possible in a short time period to share important health messages. Enlist them in your cause and establish a process for sharing information with these “third-party communicators” so that they can help you distribute public notices. Explain ahead of time what constitutes an emergency and what it means if you contact them in the future to request help with distribution of a public notice.
  - Develop relationships with the media. Hold an annual media day where you can offer tours and explain how your system operates, including any improvements you may be implementing. In addition, find out if local news outlets hold community outreach days. The more informed your local media is about your water system, the more accurate and positive they will be when writing about a violation or situation. Cultivate a positive image—that your water system is a resource to protect, not simply another “utility.” Designate one person on your staff to serve as a liaison to the media. Establish a relationship with a key reporter, e.g., someone who covers environmental or public health issues, so that you can make quick contact with them in an emergency. A good relationship will improve the likelihood that your message is aired the way that you want it to be.
  - Ask your media contacts what kind of information about water quality issues they would find valuable in case of an emergency and prepare draft materials for the media. If you make it easy for the media to cover your story correctly, they are more likely to do so.
  
- ▶ Establish contacts with institutions and people who can translate notices into other languages for you and help you target non-English speaking populations to receive translated notices. Community centers, universities, high school teachers, and community activists can help provide translations. Make contacts ahead of time for low-cost translations. Consider word-of-mouth as a good way to get notices to non-English speaking consumers, especially if there are no television or radio stations or newspapers in those languages. To stimulate word-of-mouth transfer of information, you need to have relationships with opinion leaders who are well connected within each community you want to reach. It is also important to work with community or ethnic organizations, such as churches, mosques, temples, and community associations to make sure the notice gets to non-English speaking consumers. See Chapter 3 for information on the multi-lingual requirements for public notices.
  
- ▶ Each public notification tier has required methods of delivery. Review this handbook in advance of a violation or situation so that you are prepared to distribute information as quickly and widely as possible.

## **Prepare Your Messages**

Do not wait for a violation or situation to occur to begin preparing your messages. Think ahead about the key concerns that each of your subgroups may have in the case of different violations or situations and identify specific subgroups that may face particular health risks from different contaminants to treatment problems. This is especially true if your system is at risk of a violation, for example if contaminant levels are below the MCL but have the potential in the future to exceed it, or if there are recurring pollution problems associated with naturally occurring contaminants or land uses in your area.

Even emergency situations will generate a number of common concerns. When a violation or situation affects their drinking water, people will be most concerned with what they need to do, whether they or their family are at risk, and what is being done to address the situation.

- ▶ If possible, test your messages ahead of time with groups who can serve as surrogate audiences. The Public Notice templates in this handbook have been tested with focus groups for readability and understandability. Consider organizing focus groups and special interest groups (e.g., the elderly, non-English speaking, renters, etc.) to evaluate your notification process and provide feedback. Of course, any time you are faced with a situation that requires a public notice, you should pay attention to the reactions among your consumers, so if you are faced with a similar situation, any difficulties will not be repeated.
- ▶ Train spokespersons, build web pages, create fact sheets and brochures and develop agendas for public meetings in advance. In the wake of a crisis you will be glad to have draft materials ready for final review and quick distribution.
- ▶ If applicable, consider including a statement in your message that the primacy agency regulations are more stringent than the federal regulations.

### **Have Materials Readily Available**

Obtain fact sheets on contaminants from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or the Agency's website at <http://www.epa.gov/safewater/dwhealth.html>. This way if you issue a public notice in the future, you will already have the explanatory materials your consumers may ask for after receiving your notice. EPA's fact sheets are updated periodically, so check EPA's web site regularly to make sure that you have the most recent version. You may consider including the Agency's website on the public notice so that consumers may obtain information directly regarding public notification and the contaminant of concern. In addition, you may consider including your system's website on the public notice if you plan to have up-to-date information regarding the situation on the website. The EPA Hotline can also provide phone numbers for state laboratory certification offices, where you can get a list of labs certified to analyze tap water.

The U.S. Centers for Disease Control and Prevention (CDC) is a good source of information on drinking water contaminants that can cause disease, including *Cryptosporidium* (<http://www.cdc.gov>, 1-800-311-3435). For instance, guidelines on notification for cryptosporidiosis are available in *Cryptosporidium and Water: A Public Health Handbook*. This handbook discusses the decision-making process for issuing boil water advisories, provides information on preparing news releases, and contains educational fact sheets on preventing disease. Much of the information in the handbook is also applicable to other types of disease outbreaks and emergencies. The handbook, along with fact sheets and other publications on *Cryptosporidium* are available at: <http://www.cdc.gov/ncidod/dpd/parasites/cryptosporidiosis/default.htm>. Information on other diseases is available at: <http://www.cdc.gov/ncidod/diseases/water/index.htm>. Remember, your primacy agency may have more stringent requirements for when to issue a boil water notice.

### **Consider Contingencies**

You may need to provide bottled water, especially for a Tier 1 violation or situation, so you should confirm ahead of time and periodically reconfirm that available bottled water supplies meet the Food and Drug Administration or state safety standards by asking bottlers for their most recent testing results. Make sure your bottled water supplier understands your emergency plan and has its own plan for providing you with large quantities of water on short notice; they should also commit to providing water to you before others in an emergency situation.



## **During a Violation or Situation Requiring Public Notification**

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### **How can I make a notice easier to read?**

Most readers only read the top half of a notice (or what can be read in ten seconds) and focus on large text such as headings and bolded text. The most important information, especially instructions to protect consumers' health, should be placed on the top half of the notice in large print. Smaller type is appropriate for the less critical elements, e.g., what the system is doing, an explanation of the cause of the violation or situation, etc. You must still include all the required elements in the notice.

- ▶ Try to limit wordiness. A question and answer format is easy to read and guides readers to the information that is likely to concern them. Each paragraph should only deal with one topic and it is very important to limit the number of different messages you include in your communications. When dealing with potential health risks, people become emotional and have difficulty processing information. The best way to help your public understand your public notice messages is to present a limited number of messages and to strive for consistency of messaging across all communications media. If people hear your few, simple messages over and over again, they are more likely to accurately estimate their risks and to take the right steps to manage them.
- ▶ The templates for public notices contained in Chapters 5, 6, and 7 provide examples of concise messages that meet the requirements of the Public Notification Rule in a clear, understandable manner. The most important components of the message (i.e., those that have the greatest implications for protecting public health) are presented at the top of the templates, in large text.
- ▶ Use a font for your public notice that is easy to read. The font used for the public notice examples in this document is Arial which is a sans serif font.
- ▶ Use graphics, such as photographs or drawings, to illustrate your messages. Wherever possible, provide an image that describes the actions the public should take to protect themselves from potential health risks. Appendix C includes simple pictures that convey the concept of "do not drink the water," that would be understood by someone who cannot read.
- ▶ Highlight the name of your system, especially where people in your area are served by more than one water system. You may also want to prepare a map showing the area you serve, especially if it extends beyond city limits. You may want to print the notices on your system's letterhead which, coupled with the title of the notice, will help people recognize that the notice is important.

### **How can I ensure that the media distributes an accurate notice?**

When you need to work with the media to distribute a public notice, call on your contacts who already understand your mission to inform and protect the public. Having established relationships with editors, writers, producers, and program hosts will help you to get your message out to the public quickly. However, you should not rely solely on the media to distribute your notice. To ensure key facilities are properly notified, keep and maintain a listing of these facilities and their contacts and notify them directly.

If you write a press release or get a reporter to write a story for the newspaper, TV, or radio, explain what information you are trying to communicate and why (i.e., the ten elements required on each public notice). Explain to the media in clear and open terms what you are required to do to communicate about a violation

or situation and make it easy for them to identify the most important information, including a description of the violation or situation, the population at risk, the instructions to consumers, and potential health effects. The easier you make it for the media to accurately cover your story, the more likely you are to get the results you want. Whenever possible, visit your media contacts in person to request coverage.

- ▶ Draft a press release for the media and make sure it highlights the key information and includes a contact name and number for more information. When you send the notice to radio and TV stations and newspapers, write “PRESS RELEASE FOR PUBLIC SAFETY” at the top of the notice to emphasize its importance.
- ▶ Offer to be interviewed on the air by a TV or radio station. Ideally, spokespeople should understand and be trained to deal with the pressures associated with an interview, so that they will appear calm (and not evasive or defensive).
- ▶ Write a draft story or an op-ed for the newspaper and give a completed draft to an editor.
- ▶ Provide radio and television programs with talking points, sources for impartial information (e.g., links to the EPA or CDC, contacts at the health department, etc.) and suggestions of people they can interview for a story.
- ▶ Provide statistics, charts, graphics (photographs, video footage, drawings, maps, etc.) along with your text to make it easy for different types of media to broadcast your story.
- ▶ Always take phone calls from the media whether you can answer their questions or not.

#### **CASE STUDY**

##### **City of Lacey, Washington**

To alert residents of an *E. coli* violation, the City of Lacey and the Washington State Department of Health issued a joint press release. (The City also hand-delivered notices in the affected neighborhood.) Co-issuing the notice gave the press release greater credibility and showed that the City and State were providing consistent information. At the same time, the City contacted Seattle and Tacoma television and radio stations and newspapers. The local newspaper also interviewed system personnel daily. While Lacey received positive feedback on its efforts within the affected neighborhood, it also learned an important lesson about working with the media. Many unaffected consumers were unnecessarily alarmed because lengthy television interviews were edited to short sound bites, some of which did not mention that only 450 homes in the system’s 40,000-person distribution area were affected. Lacey addressed the misperception through the local newspaper and a special consumer hotline. This taught the City the importance of prioritizing information for the press and making sure the press knows what information the public critically needs.

**If the media will not run a story** on your violation or situation, ask an official from your emergency management department to participate by reading the notice on the air or agreeing to an interview. The media may be more likely to air a public notice connected to such officials.

**If a newspaper will not publish a story or press release**, you may need to buy space to print the notice in its entirety. You should buy an advertisement as close to the front of the paper as possible and make it



large enough that people will easily see it. Legal notices are not recommended because they rarely meet the formatting requirements for public notices and are not widely read.

### **General Tips on Working with the Media**

- ▶ Be truthful and up-front about local water quality issues.
- ▶ Don't be defensive when answering questions.
- ▶ Answer questions as well as you can, but don't be afraid to say that you need to check on something if there is a question you can't answer (once you find the information, quickly report back on what you've found).
- ▶ Keep in mind that reporters are not familiar with state or federal requirements for safe drinking water - avoid technical jargon!
- ▶ Provide additional sources of information (for instance, referrals to state contacts or EPA fact sheets).
- ▶ Be sensitive to the fact that reporters may be working on tight deadlines.
- ▶ Provide a list of the elements that the media must address to adequately inform the public about potential risks and how to manage them.
- ▶ Don't be upset if a newspaper article isn't exactly as you would want it, but politely tell a reporter if a significant piece of information is wrong or missing.

When you send a press release to local television and radio stations, try to get them to commit to airing the story. **Watch or listen to the news** to be sure the public notice is aired. It is possible that, despite your best attempts, the story will be incomplete or the TV/radio station will not air the notice. If this happens, distribute a written follow-up notice as soon as possible, even if the deadline has passed. Include any additional information that has become available since the initial notice was prepared. Although a partial notice telling consumers what to do is better than no notice, your obligation under the PN rule is not satisfied until a complete notice is distributed.

### **What other steps should I take after issuing a notice?**

Notify local health professionals about the violation or situation. People may call their health care providers with questions about how the violation or situation may affect their health, and these professionals should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to make plans to use uncontaminated water.

To address sensitive populations, maintain a list of key facilities and their contacts and notify them directly. This will be beneficial in instances where the media may be unreliable or these facilities may otherwise not receive the notice in a timely manner.

Customers will call you with questions. The people staffing the phone lines should understand the violation that prompted the notice, and be prepared to respond to people's concerns: what they need to do, whether they are at risk, and how quickly the situation will be resolved (if known). Consider preparing a list of possible questions and answers for people answering the phones.

As with the media, it is important not to be evasive or defensive in responding to questions. Remember that some callers may not be proficient in English. You may need to have someone on your staff that is bilingual

or enlist the help of a grassroots organization or translator. Consider asking community volunteers to support a multi-lingual telephone bank in the event of an emergency and make sure people who answer the phones are prepared to read or explain the entire notice to callers if necessary.

Consider providing handouts and additional information at places like the public library, town hall, and supermarkets, etc.

Your system's web page can also be a valuable communications tool; it is a good place to furnish updates and more detailed information after the initial notice is provided. (This is especially true in "well-connected" communities where a high percentage of the population has Internet access. It is also appropriate for some non-community water systems where users regularly use computers and e-mail, such as an office building, a business or a college.) Add a date and time stamp to your page and update it frequently (even if the content of the message does not change). People want to know that the information they are reading is as current as possible. This could help limit the volume of calls you receive. Web products should be accessible to the visually disabled. Most software that creates web pages or word processing software allows the text to be read aloud by a computer.

Your privacy agency may require you to do follow-up or "problem corrected" notices for violations or situations, particularly for Tier 1. If it does not, you should consider issuing such a notice anyway. Sometimes, information on the source of the contamination is not available at the time of an initial notice. Providing a notice with updated information demonstrates that you are working on the problem. Consumers will expect to receive official word that the problem is solved or being addressed. Template 1-8 at the end of Chapter 5 is an example of a notice for a corrected violation.

### **How can I prevent overreaction to a public notice?**

Public education can minimize overreaction to a water problem and can help focus community attention on the source of a problem. Public education about contaminants, what a public notice means, and specific types of water problems is an excellent public relations tool. It helps create a partnership between you and your customers that demonstrates your commitment to providing safe water, and reduces the prevalence of the "us versus them" mentality.

Public notification for recurring problems such as nitrate is more effective if supplemented by a public education program. There are a number of ways to create awareness of a contaminant problem and of what it means for public health. These include public meetings at community centers, newspaper or local TV and radio coverage, working with local libraries to establish a reference section on the problem, or newsletters or fact sheets mailed with monthly bills or otherwise distributed broadly throughout the community. Information that is helpful to the public includes:

- Descriptions of the contaminant(s);
- Information on how contaminants get into the water;
- What you are doing to prevent or correct the problem;
- Why the problem recurs, and what the public can do to prevent a recurrence;
- If and why protection measures have a limited effectiveness; and
- The impact on the consumer.

While ongoing problems warrant implementing an early and ongoing public education campaign, public response to a notice can point you to other areas in which public education would be useful. For example, if



you receive a high number of calls about a notice, there is probably a need for greater public understanding of the problem.

Another way to prevent over-reaction is to recruit spokespeople who are perceived by the public as neutral experts to share your message. Examples include university experts with relevant expertise; local doctors and health professionals; or leaders of local non-profit or advocacy groups with an environmental, community, or public health focus. Communications that are solely through water system staff, politicians, and consultants could be perceived as biased.

Begin your communications with a genuine expression of empathy. Do not try to downplay the issues that your public expresses concern about. Instead, state your awareness and understanding of their concerns and your commitment to keeping them informed so that they know everything that you know. People feel more comfortable about risk when they know the people communicating with them believe their concerns are valid.

### **Follow-up After the Situation is Resolved**

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Implement ongoing public education programs about contaminants for which you are at risk of violation; that is, contaminants whose levels are below the MCL but have the potential in the future to exceed it (or have previously exceeded it). This would apply to naturally occurring contaminants, such as radium, fluoride, or arsenic, and for recurring pollution problems (e.g., nitrate, pesticides). With an education program in place, consumers will be better informed if a violation occurs.

Continue to demonstrate your commitment to public health. Schedule public meetings to discuss the violation or situation and to explain necessary treatments (if they are needed) or how citizens can protect the water supply so that future violations are less likely. Invite the public to tour your facility. Maintain good relationships with the media or civic leaders so that they will provide fair news and information about the water system—whether you have another PN situation or not.

Follow-up testing can help ensure that the message in the notice was received as intended and that all target audiences understood the notice. The results of such an analysis can help mold future efforts.

- ▶ Media surveys can assess how well the information was reported by television and radio stations and the press. Media coverage can be monitored by reviewing the Web sites of local media outlets, or purchasing the services of media surveillance firms. Relevant information includes the frequency of stories, the media through which they were reported, and the content of the stories (e.g., whether the most important facts were covered or if any erroneous information was reported).
- ▶ Polling citizens can directly gauge their opinion of the outreach by determining citizens' awareness of the violation, how they perceived the information, and if they were satisfied with and could understand it. The telephone is the most common polling avenue; however, phone polls should be undertaken and interpreted with caution, as the subjects of a phone survey would not include low income residents with no telephone (door-to-door surveys are an option in these areas). Pollsters should be able to speak all of the languages represented in the service area. Grassroots organizations may be surveyed as well.
- ▶ To ensure accuracy and ease in developing future notices, you should evaluate your notification process and update your contacts annually.

## 5. Tier 1 Notice Requirements and Suggestions

Tier 1 notices must be issued for the following violations or situations and must meet the content, format, and multilingual requirements described in Chapter 3, “Summary of Requirements” (141.202(a)):

- ▶ **Total coliform MCL violations where fecal coliform or *E. coli*** are present, or failure to test for fecal coliform or *E. coli* when any repeat sample tests positive for coliform (some times referred to as an acute violation of the Total Coliform Rule);
- ▶ **Nitrate, nitrite, or total nitrate and nitrite MCL** violations, or failure to take a confirmation sample for nitrate or nitrite within 24 hours after learning that an initial sample exceeded the MCL;
- ▶ Exceedance of the **nitrate MCL by non-community water systems** that have been granted permission by the primacy agency to continue to exceed the MCL of 10 mg/l, although they must not exceed 20 mg/l;
- ▶ **Chlorine dioxide MRDL** violations when one or more of the samples **taken in the distribution system** exceeded the MRDL on the day after a chlorine dioxide measurement taken at the entrance to the distribution system exceeded the MRDL, or when required samples are not taken in the distribution system;
- ▶ **Turbidity MCL** violations of 5 NTU or more, **if elevated to Tier 1** by the primacy agency, or if consultation does not occur within 24 hours of the violation (see Chapter 6);
- ▶ **Treatment technique violations** resulting from a single exceedance of turbidity limits, **if elevated to Tier 1** by the primacy agency, or if consultation does not occur within 24 hours of the violation (see Chapter 6);
- ▶ The occurrence of a **waterborne disease outbreak or other waterborne emergency** such as a treatment failure, chemical spill or overfeed, sewage spill, or natural disaster; and
- ▶ **Other violations or situations** which could cause serious health effects, **as determined by your primacy agency.**

### CASE STUDY

#### **Public Notification of Waterborne Emergencies**

When a construction crew accidentally ruptured a sewer line one mile from its wellfield, the Town of Walkersville, MD immediately issued a precautionary boil water advisory for infants, the elderly, and people with severely compromised immune systems. While no drinking water contamination was evident, the Town was concerned that its treatment plant might not be capable of removing or inactivating *Cryptosporidium* that might be present in the sewage. To notify consumers, volunteer fire department staff knocked on doors at 3,000 homes and businesses, and Walkersville notified the cable company and other local media. Walkersville also provided water in tanker trucks to a local nursing home and spoke to medical professionals in the area. Three days later, when tests of untreated well water showed increasing bacteria concentrations (but before any contamination was detected in the finished water) the boil water advisory was extended to all residents, including those using private wells. The volunteer fire department again assisted with notification. Tanker trucks were set up in four locations. The advisory was rescinded when Walkersville temporarily connected to the nearby Frederick, MD water supply. Even though bacteria levels reached 30,000 organisms/100 ml in well water and *Cryptosporidium* was confirmed in the sewage, no residents became ill due to the incident, in large part due to the early public notification and quick response by the Town.



## What is the deadline for issuing a Tier 1 notice?

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As soon as practical but within 24 hours of learning of a violation or situation, you must:

- Issue a public notice.
- Initiate consultation with your primacy agency (141.202(b)).

The **consultation** with the primacy agency is independent of the public notice itself. You must issue the notice within 24 hours, even if you are unable to contact anyone at the primacy agency. Most primacy agencies have 24-hour emergency hotlines, so consultation should be possible at any time. As a result of the consultation, your primacy agency may set additional public notice requirements (141.202(b)). It may ask you to issue repeat notices for continuing violations or situations, “problem corrected” notices, or, if your initial notice does not meet the requirements, another initial notice. The agency may also require you to provide notice to specific groups, such as health care providers.

Remember to **send a copy of each type of notice and a certification statement** to your primacy agency within ten days after providing the initial and any repeat notice (141.31(d)). You must also notify new billing customers of ongoing violations or situations for which you’ve previously provided notice (141.206).

### Required Elements of a Public Notice (141.205(a))

1. A description of the violation or situation;
2. When the violation or situation occurred;
3. Potential adverse health effects, using language in Appendix B or language for monitoring violations;
4. Population(s) at risk;
5. Whether alternative water supplies should be used;
6. Actions consumers should take, including when they should seek medical help, if known;
7. What you are doing to correct the violation or situation;
8. When you expect to return to compliance;
9. Name, business address, and phone number for additional information; and
10. Standard language encouraging distribution to all persons served, where applicable.

## Which methods of delivery must I use?

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You must use one or more of the following: **broadcast media** (radio and television), posting in conspicuous locations, **hand delivery**, or a **method approved by the primacy agency** in advance or during consultation. The method(s) you choose must be reasonably calculated to reach all persons served, including residents, employees, and travelers. Therefore, you may need to use other methods *in addition to* those previously mentioned. For instance, in a large system, you should provide the notice to local radio and television stations; then, to reach people who don’t watch or listen to the news, you should also put the notice in the newspaper. You must use at least one of the required methods and whatever other methods are necessary to reach all consumers (141.202(c)).

Be sure that people understand the importance of notifying others who may travel through the distribution area of the violation or situation. For instance, people who patronize restaurants or work in office buildings in the distribution area but live elsewhere may not be aware of the violation or situation. Owners of these establishments should know what they need to tell their customers and are encouraged to tell their customers about the violation or situation.



## Suggestions for Effective Public Notification Delivery

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When **choosing a method for public notification**, you should consider several issues, including the population served, population density (i.e., is the area rural, urban, or suburban), available assistance, and your proximity to radio and television stations and newspapers.

**Large systems** should use a combination of broadcast media and newspaper, if available. You should also supplement media notices by posting in public buildings and delivering multiple copies of notices to clinics or community centers.

When you write a notice for **radio or television**, assume that it will only receive a few seconds of air time. Make sure the most important information, including a phone number to call for more information, will be included. See Chapter 4, “Making Public Notification Work – Plan in Advance,” for tips on working with the media.

**The Internet** offers the advantage of being very dynamic; Web sites can be updated as new information becomes available or to address people’s concerns and answer their questions. However, access to the Internet is limited and is skewed toward affluent citizens. **Add a date and time stamp to your page** and update it frequently (even if the content of the message does not change). People want to know that the information they are reading is as current as possible. **E-mail** is an effective way to contact most of the students at a college or university.

For TV notices, ask the station or cable company to put “**scrollers**” across the screen similar to National Weather Service announcements for tornado watches. This is a good way to put the notice on TV and reach people who don’t watch the news, as well as target a subsection of the TV audience. You can also work with the appropriate state office to broadcast alerts on NOAA Weather Radio and NOAA Weather Wire Service.

### Tips for Very Small Community Systems

- ▶ Here are some suggestions for these systems to use to reach the people they serve:
- ▶ Hand delivery combined with posting at grocery stores, banks, public bus stops, train stations, etc., may be appropriate for you, especially if radio and/or TV are impractical.
- ▶ In rural areas within range of a radio or TV station in a larger town, ask the station to air the notice (make sure that they clearly identify the area affected so as to not cause undue alarm to people in unaffected areas). You may still need to use additional methods of notification.
- ▶ Hold community meetings, especially where consumers have low reading ability or don’t speak English (where the operator or a community member can translate).

**Automatic phone dialers** may be effective in large systems as a supplement to broadcast media. Some cities and counties have a computer-based rapid-call system which can be integrated with geographic information systems to target a specific service area. Dialers should not be relied on too heavily; consumers may hang up on recorded messages, children may answer the phone and not transmit the message to their parents, or residents of some homes may not speak English.

Prepare written notices on your **water system’s letterhead**. This gives the notice additional credibility and makes it easily recognizable as official word from the water system. Also, consider putting date on notice.

It is strongly recommended that you **fully translate Tier 1 notices** into other languages or provide a phone number for assistance in other languages if there are non-English speaking populations in your service area. See Chapter 4 for more information on translating and getting the notice to these groups. At a minimum, you must include some information in the appropriate language if there is a large proportion of such people (141.205(c)). You may also target the blind and deaf communities and people with low reading abilities.

### Selecting a Delivery Method

Here are some questions to consider when determining how to deliver your notice:

- ▶ My system is in a suburban area. How can I write the notice so that it will not alarm the rest of the metropolitan area when delivered through the media?
- ▶ Can I be sure the radio or TV station will give the notice the air time it needs?
- ▶ Will the local newspaper write an accurate article about the violation or situation? Will it prominently publish the information in a press release? Will I need to buy an ad or notice?
- ▶ Do I have the time and resources to deliver the notice door-to-door?
- ▶ Are volunteers available to assist me?

Send a **broadcast e-mail or fax**. Create an “address list” in your e-mail software that includes contacts at each newspaper and radio or television station in the area. Program your fax machine with the fax numbers of all local media contacts so that the push of a button sends the notice to all of them.

You can make **door hangers** for hand delivery that will not easily blow away. Knot a rubber band through a hole punched in the notice and put the rubber band around consumers’ door knobs.

If you post a notice, **be sure that the notice is durable**. It should not blow away if posted outdoors. Consider laminating notices that will be placed over sinks or outside, especially if they are likely to remain there for an extended time.

### CASE STUDY

#### City of Lacey, Washington

Throughout the course of an *E. coli* violation, the City of Lacey water system maintained close contact with the lab, seeking its insight on tests, protocols, and ramifications. This enabled the system to make timely decisions or at least prepare for likely outcomes. The system could then anticipate and initiate the next outreach or public awareness piece. As soon as it became evident that repeat samples for *E. coli* would be positive, the water system mobilized city employees to conduct an early evening door-to-door notification to about 450 homes in the affected area. Employees rang doorbells to talk to residents and provided door hangers that included a boil water order, health effects language on *E. coli*, and information on a community meeting to be held the next day. City employees also staffed a hotline for consumers. Lacey set up a temporary bulletin board in the affected neighborhood to post updates. The electronic and print media also ran stories on the situation. When the boil water order was lifted, the system held another meeting and again hand-delivered door hangers, which included customer evaluation forms. Ninety percent of the respondents gave Lacey a rating of satisfactory or higher for its handling of the event, citing the City’s proactive outreach effort as the reason for the solid rating.



## Suggestions for Layout of the Notice

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Tier 1 notices should convey the urgency of the situation and make it clear to consumers what actions they must take. Templates 1-1 through 1-9 at the end of this chapter offer sample language and instructions for preparing Tier 1 public notices. Template 1-1A contains Spanish language for a nitrate notice; Template 1-4A contains Spanish language for a fecal coliform or *E. coli* notice. Make sure your notice clearly displays the following information:

1. **Title** – Public notices for Tier 1 violations and situations, especially those used for posting, hand delivery, or in a newspaper, should have an attention-getting title. For example, “WARNING” is better than “Public Notice.” This should be followed by the targeted audience or the population at risk, such as “People served by \_\_\_ Water System” for notices for fecal coliform violations or disease outbreaks, or “Infants under 6 months” for notices for nitrate violations. If the area you serve does not follow municipal boundaries or if only a portion of the distribution system is affected, define the area at the top of your notice or include a map. Titles should be in large and/or bold type and centered across the top of the page.
2. **Consumer Actions** – The instructions to consumers should be next in your notice. This should be a short phrase in large type, such as “Boil Your Water” or “Do Not Drink the Water.”
3. **Description of the Violation or Situation** – A short description in large type of the violation or situation should follow instructions to consumers. As soon as consumers read “Boil Your Water” for a fecal coliform notice, they will want to know why they should do so. However, since this is a headline, it should be kept short and concise. As another example, for nitrate violations, you could say, “High nitrate levels have been detected.” Then the level detected should be listed in normal type, followed by the maximum contaminant level (MCL), or action level, if applicable. A more detailed explanation of the violation or situation should be given in the body of the notice.
4. **Other Consumer Actions** — For nitrate violations, the notice should instruct consumers not to boil water, since that may be their first reaction, and explain that boiling the water will concentrate the nitrate and may make levels even higher. For microbiological violations or waterborne disease outbreaks or other emergencies, provide detailed instructions on using boiled water for brushing teeth, cooking, making ice, etc. If you instruct consumers to use bottled water, you should make sure that any water you provide meets standards. Be sure to provide instructions for those who are not at high risk as well. For example, nitrates at levels below 20 mg/l are not generally considered hazardous to adults. Fecal coliform might only be present in part of the distribution system, and unaffected consumers (i.e., people outside of a narrow area impacted who do not need to boil their water) should be told they do not need to take action but have a right to be informed of the problem.
5. **Other Elements** — The following order is suggested for the remaining elements: whether (and where) consumers should seek alternative drinking water sources; potential health effects (using the language in Appendix B - do not alter the health effects language in any way); the date the violation or situation occurred; corrective action you are taking; when you expect to return to compliance or resolve the situation; and the name, address, and phone number of a person to contact for more information. If you are coordinating with the local health department, you may wish to also list its phone number.



6. **Optional Elements** — If you know the source of the contamination, include it in the notice. This information helps the consumer understand why there is a violation or other situation and what is necessary to resolve it. It also reinforces the fact that drinking water is a vulnerable resource that must be protected and that treatment can be costly.
7. **Public Water System ID Number/Date of Distribution**— You should include your PWS ID number at the bottom of the notice. This will help your primacy agency track compliance and prevent tracking errors between systems with similar names. Also include the date you distributed the notice.

## Tier 1 Templates

Tier 1 notices must be issued for the following violations or situations:

- ▶ **Total coliform MCL violations where fecal coliform or *E. coli*** are present, or failure to test for fecal coliform or *E. coli* when any repeat sample tests positive for coliform (some times referred to as an acute violation of the Total Coliform Rule);
- ▶ **Nitrate, nitrite, or total nitrate and nitrite MCL** violations, or failure to take a confirmation sample for nitrate or nitrite within 24 hours after learning that an initial sample exceeded the MCL;
- ▶ Exceedance of the **nitrate MCL by non-community water systems** that have been granted permission by the primacy agency to continue to exceed the MCL of 10 mg/l, although they must not exceed 20 mg/l;
- ▶ **Chlorine dioxide MRDL** violations when one or more of the samples **taken in the distribution system** exceeded the MRDL on the day after a chlorine dioxide measurement taken at the entrance to the distribution system exceeded the MRDL, or when required samples are not taken in the distribution system;
- ▶ **Turbidity** MCL violations of 5 NTU or more, **if elevated to Tier 1** by the primacy agency, or if consultation does not occur within 24 hours of the violation (see Chapter 6);
- ▶ **Treatment technique violations** resulting from a single exceedance of turbidity limits, **if elevated to Tier 1** by the primacy agency, or if consultation does not occur within 24 hours of the violation (see Chapter 6);
- ▶ The occurrence of a **waterborne disease outbreak or other waterborne emergency** such as a treatment failure, chemical spill or overfeed, sewage spill, or natural disaster; and
- ▶ **Other violations or situations** which could cause serious health effects, **as determined by your primacy agency.**

The pages that follow contain templates for these Tier 1 violations or situations, as listed below. Along with each template are instructions, including the required method of delivery and suggestions for completing individual sections of the notice. These instructions are designed to supplement Chapter 5, so you may see much of the information repeated here.

**Mandatory language on health effects, which must be included as written with blanks filled in, is presented in italics (141.205(d)).**

You must also include the following italicized language in all notices, where applicable (141.205(d)). Use of this language does not relieve you of your obligation to take steps reasonably calculated to notify all persons served:

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

## Templates

Nitrate MCL Exceedance Notice–Template 1-1

Spanish Nitrate MCL Exceedance Notice–Template 1-1A

Nitrate Failure to Take a Confirmation Sample Notice–Template 1-2

Non-community PWSs Allowed Up to 20 mg/L Nitrate Notice–Template 1-3

Fecal Coliform or *E. coli* Notice–Template 1-4

Spanish Fecal Coliform or *E. coli* Notice–Template 1-4A

Waterborne Disease Outbreak Notice–Template 1-5

IESWTR or LT1 CFE Maximum Turbidity Exceedance, or Turbidity Single Exceedance as Tier 1 Notice–Template 1-6

Chlorine Dioxide MRDL (Tier 1) Notice–Template 1-7

Tier 1 “Problem Corrected” Notice–Template 1-8



## Instructions for Nitrate MCL Exceedance Notice – Template 1-1

### Template on Reverse

Since exceeding the nitrate maximum contaminant level is a Tier 1 violation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the violation (141.202(b)). During this time period you must also contact your primacy agency. You should also coordinate with your local health department. This template is also applicable to nitrite and total nitrate and nitrite violations. You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served.

The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice. If you do, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)). If you post or hand deliver, print your notice on letterhead, if available.

### Alternative Sources of Water

If you are providing alternative sources of water for infants, your notice should say where it can be obtained. Remember that bottled water can also be contaminated. If you are providing bottled water, make sure it meets the standard for nitrates by contacting the bottler and asking for the most recent test results.

### Repeat Notices

If this is a repeat notice (as required by your primacy agency), or if your system's nitrate levels fluctuate around the MCL, you may wish to include an explanation similar to the following:

You were initially notified of high nitrate levels on [give date]. Since that time we have been monitoring the nitrate concentration every three months. Seasonal fluctuations in nitrate concentrations have been observed, due to nitrates contained in fertilizer. It appears that high nitrates occur during the later summer and fall. Note that prior to [year] we were meeting drinking water standards for nitrate.

### Corrective Action

In your notice, describe corrective actions you are taking. The bullet below describes one action commonly taken by water systems with nitrate/nitrite violations. You can use the following language, if appropriate, or develop your own:

- We are investigating water treatment and other options. These may include drilling a new well, mixing the water with low-nitrate water from another source, or buying water from another water system.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)). You should also issue a follow-up notice in addition to meeting any repeat notice requirements your primacy agency sets.

You should notify health professionals in the area of the violation. People may call their doctors with questions, and the doctors should have the information they need to respond appropriately. They also need to make sure the water is not provided to infants in their care.

## DRINKING WATER WARNING

[System] water has high levels of nitrate –

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

Water sample results received [give date] showed nitrate levels of [level and units]. This is above the nitrate standard, or maximum contaminant level (MCL), of [state/federal MCL]. Nitrate in drinking water is a serious health concern for infants less than six months old.

Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year.

#### What should I do? What does this mean?

- **DO NOT GIVE THE WATER TO INFANTS.** *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, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

#### What is being done?

[Describe corrective action and when system expects to return to compliance.]

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for Spanish Nitrate MCL Exceedance Notice – Template 1-1A

### Template on Reverse

The template on reverse is a Spanish translation of Template 1-1 for nitrate. All the instructions of Template 1-1 apply. This template is an exact translation of the English template, so if you need to modify the English templates, you should modify this template accordingly. Schools or universities may be able to provide low cost translations. See Chapter 4 for suggestions on creating effective multilingual notices.



## AVISO SOBRE SU AGUA POTABLE

Agua del sistema [system name] tiene altos niveles de nitratos –

### NO DAR DE BEBER ESTA AGUA A BEBES MENORES DE 6 MESES DE EDAD NI USARLA PARA HACER LECHE DE FORMULA

Resultados de muestras de agua recibidos en [date of violation in Spanish (day-month-year)] muestran concentraciones de nitratos en el agua de [level and units in Spanish]. Este nivel está por encima de la norma, o nivel máximo de contaminación (NMC) de [state/federal MCL in Spanish]. Nitratos en agua potable puede generar serios problemas de salud para bebés menores de 6 meses de edad.

Nitratos en el agua pueden provenir de fuentes naturales, industriales or de la agricultura (incluyendo descargas de tanques sépticos y lluvias). Las concentraciones de nitratos en el agua potable varían a lo largo del año.

#### ¿Qué debo hacer? ¿Qué es la significa de este?

- **NO LE DE ESTA AGUA A BEBES.** *Bebés menores de seis (6) meses que ingieran agua con nitratos en exceso del nivel máximo de contaminación (NMC) se pueden enfermar seriamente y, de no ser tratados, pueden morir. Los síntomas incluyen dificultad en respirar y síndrome de bebé azul.* El síndrome de bebé azul se refiere al color azulado que toma la piel del bebé. Los síntomas en los bebés pueden desarrollarse con rapidez, con el deterioro de su salud en los días subsiguientes. Si los síntomas ocurren en infantes menores de seis (6) meses de edad, busque atención médica inmediatamente.
- Agua, jugo o leche en polvo para bebés menores de seis (6) meses de edad no debe prepararse con agua del grifo. Debe emplear agua embotellada u otra agua baja en nitratos hasta próximo aviso.
- **No hierva el agua.** Hervir, congelar, filtrar o dejar el agua en reposo no reduce el nivel de nitratos. De hecho, al hervir el agua puede aumentar aún más la concentración de nitratos, debido a que los nitratos permanecen cuando parte del agua se evapora.
- Adultos e infantes mayores de seis (6) meses de edad pueden tomar el agua del grifo. (Los nitratos son peligrosos para los bebés debido a que ellos no pueden procesar los nitratos de la misma manera que los adultos). Sin embargo, si usted está embarazada o tiene algún problema de salud en particular, puede optar por hacer una consulta con su médico.

#### ¿Qué se está haciendo al respecto?

[Describe corrective action and when the system expects to return to compliance in Spanish.]

Para mayor información, favor contactar a [name of contact] al teléfono [phone number] o escribiendo a [mailing address].

*Por favor comparta esta información con otros que pueden tomar de esta agua, colocando este aviso en lugares visibles, o remitiéndolo por correo, o entregándolo manualmente. Es de particular interés distribuir este aviso ampliamente si usted lo recibe representando un negocio, un hospital u hogar de infantes u hogar de ancianos o comunidad residencial.*

Este aviso ha sido enviado a usted por [system]. Numero de Identificación : \_\_\_\_\_.  
Fecha de distribución: \_\_\_\_\_.

## Instructions for Nitrate Failure to Take a Confirmation Sample Notice – Template 1-2

### Template on Reverse

Since failure to take a confirmation sample for nitrate within 24 hours after learning that an initial sample exceeded the MCL is a Tier 1 violation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the violation (141.202(b)). During this time period you must also contact your primacy agency. You should also coordinate with your local health department. This template is also applicable to nitrite and total nitrate and nitrite violations. You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served.

The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice. If you do, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)). If you post or hand deliver, print your notice on letterhead, if available.

### Alternative Sources of Water

If you are providing alternative sources of water for infants, your notice should say where it can be obtained. Remember that bottled water can also be contaminated. If you are providing bottled water, make sure it meets the standard for nitrates by contacting the bottler and asking for the most recent test results.

### Repeat Notices

If this is a repeat notice (as required by your primacy agency), or if your system's nitrate levels fluctuate around the MCL, you may wish to include an explanation similar to the following:

You were initially notified of our system's failure to take a confirmation sample following high nitrate level on [give date]. Since that time we have taken a confirmation sample on [give date] that also resulted in a high nitrate level. We are currently monitoring the nitrate concentration every three months. Seasonal fluctuations in nitrate concentrations have been observed, due to nitrates contained in fertilizer. It appears that high nitrates occur during the later summer and fall. Note that prior to [year] we were meeting drinking water standards for nitrate.

### Corrective Action

In your notice, describe corrective actions you are taking. The bullet below describes one action commonly taken by water systems with nitrate/nitrite violations. You can use the following language, if appropriate, or develop your own:

- We are in the process of collecting a confirmation sample to determine if we have high nitrate levels. If the sample shows we are meeting our drinking water standards, you will not receive another notice. However, if the sample shows that we do have high nitrate levels in our water, another notification will be issued within 24 hours after we receive the results

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)). You should also issue a follow-up notice in addition to meeting any repeat notice requirements your primacy agency sets.

You should notify health professionals in the area of the violation. People may call their doctors with questions, and the doctors should have the information they need to respond appropriately. They also need to make sure



## DRINKING WATER WARNING

[System] did not take a confirmation sample to determine if the water has high levels of nitrate –

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

We are required to monitor your drinking water for nitrate on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. Water sample results received on [give date] showed nitrate levels of above the nitrate standard, or maximum contaminant level (MCL), of [MCL]. We were required to take a confirmation sample within 24 hours. We did not complete the required confirmation sample monitoring and therefore cannot be sure of the quality of our drinking water during that time. Nitrate in drinking water is a serious health concern for infants less than six months old.

Nitrate in drinking water can come from natural, industrial, or agricultural sources (including septic systems and run-off). Levels of nitrate in drinking water can vary throughout the year.

### What should I do? What does this mean?

- **DO NOT GIVE THE WATER TO INFANTS.** *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, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

### What is being done?

[Describe corrective action and when system expects to return to compliance.] After receiving the results of our first sample, we failed to collect a second sample within 24 hours to confirm the results of the first sample. We have since collected the second sample and are waiting for the results.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_  
Date distributed: \_\_\_\_\_



## Instructions for Non-community PWSs Allowed Up to 20 mg/L Nitrate Notice – Template 1-3

### Template on Reverse

Non-community water systems that have received approval by their primacy agency to exceed the nitrate maximum contaminant level of 10 mg/l but no more than 20 mg/l are required to provide Tier 1 notification. You do not incur a violation but are still required to provide public notice to persons served as soon as practical but within no more than 24 hours of learning of the situation (141.202(b)). You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Posting in conspicuous locations
- Hand or direct delivery
- Radio
- Television

You may need to use additional methods if needed to reach all persons served.

The language encouraging distribution of the notice is included on this template; however, if you post this notice, omit the mandatory language to encourage distribution. If you modify the notice, you must leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Alternative Sources of Water

If you are selling or providing bottled water, your notice should say where it can be obtained. Remember that bottled water can also be contaminated. If you are providing bottled water, make sure it meets U.S. Food and Drug Administration (FDA) and/or state bottled water safety standards.

### Continuous Notices

As long as nitrate levels exceed 10 mg/L, continuous posting of this notice is a requirement (141.209(b))

### After Issuing the Notice

Be sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notification requirements within ten days after issuing the notice (141.31(d)).

## DRINKING WATER WARNING

[System] water has high levels of nitrate –

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

Water sample results show nitrate levels of [level and units]. This is above the nitrate standard or maximum contaminant level (MCL), of 10 mg/l. Nitrate in drinking water is a serious health concern for infants less than six months old.

We have been given permission by [primacy agency] to provide water in excess of the standard as long as:

- Nitrate levels do not exceed 20 mg/l.
- The water is not made available to children under 6 months of age.
- We continuously post this notice meeting all public notice requirements.
- Local and state health officers are notified annually.
- No adverse health effects result.

#### What should I do? What does this mean?

- **DO NOT GIVE THE WATER TO INFANTS.** *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, seek medical attention immediately.
- Water, juice, and formula for children under six months of age should not be prepared with tap water. Bottled water or other water low in nitrates should be used for infants until further notice.
- **DO NOT BOIL THE WATER.** Boiling, freezing, filtering, or letting water stand does not reduce the nitrate level. Excessive boiling can make the nitrates more concentrated, because nitrates remain behind when the water evaporates.
- Adults and children older than six months can drink the tap water (nitrate is a concern for infants because they can't process nitrates in the same way adults can). However, if you are pregnant or have specific health concerns, you may wish to consult your doctor.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for Fecal Coliform or *E. coli* Notice – Template 1-4

### Template on Reverse

Since exceeding the fecal coliform or *E. coli* maximum contaminant level is a Tier 1 violation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the violation (141.202(b)). During this time, you must also contact your primacy agency. You should also coordinate with your local health department. You may also have to modify the template if you also have high nitrate levels or other coliform MCL violations. You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served.

The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice. If you do, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)). If you post or hand deliver, print your notice on letterhead, if you have it.

### Population Served

Make sure it is clear who is served by your water system--you may need to list the areas you serve.

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with fecal coliform or *E. coli* violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We are chlorinating and flushing the water system.
- We are switching to an alternate drinking water source.
- We are increasing sampling for coliform bacteria to determine the source of the contamination.
- We are repairing the wellhead seal.
- We are repairing the storage tank.
- We are restricting water intake from the river/lake/reservoir to prevent additional bacteria from entering the water system and restricting water use to emergencies.

### After Issuing the Notice

Send a copy of each type of notice and a certification that you have met all the public notice requirements to your primacy agency within ten days from the time you issue the notice (141.31(d)).

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to know of contamination so they can use bottled water.

It is a good idea to issue a "problem corrected" notice when the violation is resolved. See Template 1-8.



## DRINKING WATER WARNING

[System] water is contaminated with [fecal coliform/*E. coli*]

### BOIL YOUR WATER BEFORE USING

Fecal coliform [or *E. coli*] bacteria were found in the water supply on [give date]. These bacteria can make you sick, and are a particular concern for people with weakened immune systems.

Bacterial contamination can occur when increased run-off enters the drinking water source (for example, following heavy rains). It can also happen due to a break in the distribution system (pipes) or a failure in the water treatment process.

#### What should I do? What does this mean?

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it 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. Boiling kills bacteria and other organisms in the 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 symptoms above are not caused only by organisms in drinking water. 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 being done?

[Describe corrective action.] We will inform you when tests show no bacteria and you no longer need to boil your water. We anticipate resolving the problem within [estimated time frame].

For more information, please contact [name of contact] at [phone number] or [mailing address]. General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for Spanish Fecal Coliform or *E. coli* Notice – Template 1-4A

### Template on Reverse

The template on reverse is a Spanish translation of Template 1-4 for fecal coliform or *E. coli*. All the instructions of Template 1-4 apply. This template is an exact translation of the English template, so if you need to modify the English templates, you should modify this template accordingly. Schools or universities may be able to provide low cost translations. See Chapter 4 for suggestions on creating effective multilingual notices.

## AVISO SOBRE SU AGUA POTABLE

El Agua del Sistema [system name] esta contaminado con [bacterias coliformes fecales/*E. coli*]

### HIERVAN EL AGUA ANTES DE USARLA

Bacterias coliformes fecales (o *E. coli*) fueron encontradas en su servicio de agua el día [date of violation in Spanish (day-month-year)]. Estas bacterias pueden enfermarle, y son especialmente peligrosas para personas con las defensas bajas o sistemas inmunológicos débiles.

Contaminación bacteriana puede ocurrir cuando exceso de aguas rebasan sus cauces y entran a las fuentes de agua potable (por ejemplo, luego de una lluvia fuerte). También pueden ocurrir cuando se rompe un sistema de recolección de aguas negras, o cuando hay una falla en el tratamiento de agua.

#### ¿Qué debo hacer? ¿Qué es la significa de este?

- **NO BEBA EL AGUA SIN ANTES HERVIRLA.** Hierva toda el agua, déjela hervir por un minuto, y déjela reposar antes de usarla, o utilice agua embotellada. Agua hervida o embotellada debe ser usada para beber, hacer hielo, lavarse los dientes, lavar los platos y para preparar la comida hasta próximo aviso. Hierviéndola mata a bacteria y otros organismos en el agua.
- *Coliformes fecales o E. coli son bacterias cuya presencia indica que el agua esta contaminada con desechos humanos o de animales. Microbios de esos desechos pueden causar diarrea, cólicos, nausea, dolores de cabeza u otros síntomas. Pueden representar un peligro para la salud de bebés, niños y niñas de corta edad y personas con sistemas inmunológicos en alto riesgo.*
- Los síntomas descritos arriba no ocurren solamente debido a los microbios. También pueden ser causados por otros motivos. Si usted siente estos síntomas y estos persisten, usted puede optar por hacer una consulta con su médico. Personas en situaciones de alto riesgo deben consultar con sus proveedores de servicios médicos.

#### ¿Qué se está haciendo al respecto?

[Describe corrective action in Spanish] Le informaremos cuando las pruebas demuestren que no hay bacterias y que usted ya no necesita hervir su agua. Anticipamos que resolveremos el problema el [date of expected resolution in Spanish day-month-year].

Para mayor información, por favor póngase en contacto con [contact name] al [phone number] o escribiendo a [mailing address].

*Por favor comparta esta información con otros que pueden tomar de esta agua, colocando este aviso en lugares visibles, o remitiéndolo por correo, o entregándolo manualmente. Es de particular interés distribuir este aviso ampliamente si usted lo recibe representando un negocio, un hospital u hogar de infantes u hogar de ancianos o comunidad residencial.*

Este aviso ha sido enviado a usted por [system]. Numero de Identificación : \_\_\_\_\_.  
Fecha de distribución: \_\_\_\_\_.



## Instructions for Waterborne Disease Outbreak Notice – Template 1-5

### Template on Reverse

Since a waterborne disease outbreak is a Tier 1 situation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the situation (141.202(b)). You must contact your primacy agency during this time. You should coordinate with your local health department as well. **You must also issue a public notice if you are experiencing a waterborne emergency other than a waterborne disease outbreak, such as one caused by flooding or treatment failure. In such cases, you may be able to modify this template to apply to your situation.** Check with your primacy agency for more direction. More information on waterborne disease outbreaks and emergencies is available from the Centers for Disease Control and Prevention (<http://www.cdc.gov/health/diseases.htm>, 1 (800) 311-3435). For a waterborne disease outbreak or other emergency, you must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served. If you post or hand deliver, print your notice on letterhead, if available. The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio, TV notice, or posting.

#### Describing the Outbreak

If known, list any organisms detected, the number of affected people, any water treatment problems contributing to the waterborne disease outbreak, and any sources of contamination, such as flooding.

#### Potential Health Effects

No mandatory health effects language exists for waterborne disease outbreaks. You may wish to use the sentence below, if appropriate, or contact your primacy agency or health department. These symptoms are common to many diseases caused by microscopic organisms:

- Symptoms may include nausea, cramps, diarrhea, jaundice, and associated headaches and fatigue.

#### Population at Risk

Some people who contract waterborne diseases can be affected more severely than others, as described on the reverse page. The specific language on the reverse is not mandatory, but you must provide information on the population at risk. In addition, make sure it is clear who is served by your water system--you may need to list the areas you serve.

#### Corrective Action

In your notice, describe the corrective actions you are taking. Listed below are some steps commonly taken by water systems with waterborne disease outbreaks. You can use one or more of the following actions, if appropriate, or develop your own:

- We are repairing our filtration system.
- We are increasing sampling for disease-causing organisms.

Make sure to send a copy of each type of notice and a statement certifying that you've met all public notification requirements to your primacy agency within ten days after issuing the notice (141.31(d)). It is a good idea to issue a "problem corrected" notice when the waterborne disease outbreak is under control. See Template 1-8.

It is recommended that you notify health professionals in the area of the outbreak. People may call their doctors with questions about how the situation may affect their health, and the doctors should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to know of contamination so they can use bottled water.

## DRINKING WATER WARNING

### BOIL YOUR WATER BEFORE USING

Disease-causing organisms have entered [system's] water supply.

These organisms are causing illness in people served by [system]. We learned of a waterborne disease outbreak from [agency] on [give date].

#### What should I do? What does this mean?

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it 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. Boiling kills bacteria and other organisms in the water.
- [Describe symptoms of the waterborne disease.] If you experience one or more of these symptoms and they persist, contact your doctor. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers.

#### What is being done?

[Describe the corrective action and when the outbreak might end.]

We will inform you when you no longer need to boil your water.

For more information, please contact [name of contact] at [phone number] or [mailing address]. General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for IESWTR or LT1 CFE Maximum Turbidity Exceedance, or Turbidity Single Exceedance as Tier 1 Notice – Template 1-6

### Template on Reverse

If your primacy agency has designated this turbidity single exceedance as a Tier 1 violation (141.202(a)), you must provide public notice to persons served within 24 hours after it has been designated Tier 1 (141.202(b)). Turbidity violations are Tier 2 by default, but may frequently be elevated to Tier 1 by your primacy agency. In addition, violations are automatically elevated if you are unable to consult with your primacy agency within 24 hours. **In such cases, you must issue a notice within the next 24 hours.** You may elevate the violation to Tier 1 yourself as well. You should also coordinate with your local health department. One or both agencies should tell you whether to instruct consumers to boil water. You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served. If you post or hand deliver, print your notice on letterhead, if you have it.

The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice or posting. If you modify the notice, you must leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Population Served

Make sure it is clear who is served by your water system--you may need to list the areas you serve.

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with a single turbidity exceedance. You can use one or more of the following actions, if appropriate, or develop your own:

- We are adding chemicals that reduce turbidity.
- We are sampling both untreated and treated water for the presence of coliform bacteria.
- We are monitoring chlorine levels and will adjust them as needed to compensate for filtration problems.
- We are inspecting and repairing the filters.

### Source of the Problem

If you know why the turbidity is high, explain it in your notice. For instance, unusual conditions such as heavy rains and flooding can overburden the water plant and treated water may therefore not meet the standards. In addition, run-off from parts of the watershed could contain increased concentrations of sediment and animal waste.

### After Issuing the Notice

Send a copy of each type of notice and a certification that you have met public notice requirements to your primacy agency within ten days after you issue the notice (141.31(d)). It is a good idea to issue a "problem corrected" notice when the violation is resolved. See Template 1-8.

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately. In addition, health professionals, including dentists, use tap water during their procedures and need to know of potential microbiological contamination so they can use bottled water.



**IESWTR or LT1 CFE Maximum Turbidity Exceedance, or Turbidity Single Exceedance  
as Tier 1 Notice – Template 1-6**

**DRINKING WATER WARNING**

[System] has high turbidity levels

**BOIL YOUR WATER BEFORE USING**

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. A water sample taken [give date] showed turbidity levels of [number] turbidity units. This is above the standard of [standard] turbidity units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms.

**What should I do? What does this mean?**

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, washing dishes, brushing teeth, and food preparation until further notice.
- *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. People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers.*
- The symptoms above are not caused only by organisms in drinking water. If you experience any of these symptoms and they persist, you may want to seek medical advice.

**What is being done?**

[Describe corrective action and when the system expects to return to compliance.]

We will inform you when turbidity returns to appropriate levels and when you no longer need to boil your water.

For more information, please contact [name of contact] at [phone number] or [mailing address]. General guidelines on ways to lessen the risk of infection by microbes are available from the EPA Safe Drinking Water Hotline at 1-800-426-4791.

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for Chlorine Dioxide MRDL (Tier 1) Notice – Template 1-7

### Template on Reverse

Since exceeding the chlorine dioxide MRDL when one or more of the samples taken in the distribution system on the day after exceeding the MRDL at the entrance of the distribution system or when required samples are not taken in the distribution system is a Tier 1 violation, you must provide public notice to persons served as soon as practical but within 24 hours after you learn of the violation (141.202(b)). (Exceeding the chlorine dioxide MRDL at the entry point to the distribution system only is a Tier 2 violation; modify this template or Template 2-3 to create a Tier 2 notice.) You must also contact your primacy agency within 24 hours of learning of the violation or situation. You should also coordinate with your local health department. You must use one or more of the following methods to deliver the notice to consumers (141.202(c)):

- Radio
- Television
- Hand or direct delivery
- Posting in conspicuous locations

You may need to use additional methods (e.g., newspaper, delivery of multiple copies to hospitals, clinics, or apartment buildings), since notice must be provided in a manner reasonably calculated to reach all persons served. If you post or hand deliver, print your notice on letterhead, if you have it.

The notice on the reverse is appropriate for hand delivery or a newspaper notice. However, you may wish to modify it before using it for a radio or TV notice. If you do, you must still include all required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Alternative Sources of Water

If you are selling or providing bottled water, your notice should say where it can be obtained. Remember that bottled water can also be contaminated or be high in chlorine dioxide if the bottler uses municipal water. Make sure the bottled water meets the standard by contacting the bottler and asking for the most recent test results.

### Population at Risk

The language on the reverse lists “young children” as one of the groups at increased risk. Because the potential health effects of chlorine dioxide are based on tests on laboratory animals, there is no way to determine at exactly what age the water is safe to drink. If your consumers have questions, encourage them to err on the side of caution.

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with chlorine dioxide violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We are resetting the generator to generate the correct amount of chlorine dioxide.
- We are repairing the generator.
- We have already fixed the problem but it will take additional time for the extra chlorine dioxide to be flushed from the distribution system (pipes).

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)). You should also issue a follow-up notice in addition to meeting any repeat notice requirements your primacy agency sets.

It is a good idea to issue a “problem corrected” notice when the violation is resolved. See Template 1-8.

It is recommended that you notify health professionals in the area of the violation. People may call their doctors with questions about how the violation may affect their health, and the doctors should have the information they need to respond appropriately.



## DRINKING WATER WARNING

### PREGNANT WOMEN AND YOUNG CHILDREN SHOULD NOT DRINK THE WATER

Sampling results received [give date] showed chlorine dioxide levels of [level and units]. This is above the standard, or maximum residual disinfectant level (MRDL) of 0.8 milligrams per liter. Chlorine dioxide is used for disinfection, but too much of it over a short period of time may harm the development of children, infants, and fetuses.

Chlorine dioxide is used in small amounts every day to kill bacteria and other organisms that may be in your drinking water. A problem occurred with our chlorine dioxide generator, and too much chlorine dioxide was released.

#### What should I do? What does this mean?

- **DO NOT USE THIS WATER IF YOU ARE PREGNANT OR GIVE IT TO YOUNG CHILDREN.** Bottled water should be used until further notice. Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant mothers who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.

*The chlorine dioxide violations reported today include exceedances of the EPA standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from excessive chlorine dioxide exposure. There are no obvious symptoms, but chlorine dioxide can affect development of the nervous system.*

- Water, juice, and formula for young children and for pregnant women should not be prepared with tap water.
- Adults who are not pregnant and older children can drink the tap water because their nervous systems are already developed. However, if you have specific health concerns, you may wish to consult your doctor.

#### What is being done?

[Describe corrective action and when you expect to return to compliance.]

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for Tier 1 “Problem Corrected” Notice – Template 1-8

### Template on Reverse

It is a good idea to issue a notice when a serious violation or situation has been resolved. Although EPA regulations do not require such notices, your primacy agency may require you to issue one. You should coordinate with your local health department as well. Below are some recommended methods for a “problem corrected” notice. You should use the same delivery methods you used for the original notice.

- Radio
- Television
- Newspaper
- Hand or direct delivery
- Posting in conspicuous locations

You may wish to use additional methods (e.g., delivery of multiple copies to hospitals, clinics, or apartment buildings) if necessary to reach all persons served. If you post or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is very general and can be used for any violation or situation. However, to help restore consumers’ confidence in the water system, you should modify the notice to fit your situation. Although the public should have seen your initial notice, there may be additional information you learned after the notice was issued. Therefore, you should describe the violation or situation again and discuss how the problem was solved.

## DRINKING WATER PROBLEM CORRECTED

Customers of [system] were notified on [give date] of a problem with our drinking water and were advised to [describe recommended action]. We are pleased to report that the problem has been corrected and that it is no longer necessary to [describe recommended action]. We apologize for any inconvenience and thank you for your patience.

[Add further details here when appropriate.]

As always, you may contact [contact name] at [phone number] or [mailing address] with any comments or questions.

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## **6. Tier 2 Notice Requirements and Suggestions**

Tier 2 notices must meet the content, format, and multilingual requirements described in detail in Chapter 3 and are required for the following violations or situations (141.203(a)):

- ▶ Maximum contaminant level (**MCL**), maximum residual disinfectant level (**MRDL**), and **treatment technique** requirement violations, except where Tier 1 notification is required by regulation or by the primacy agency;
- ▶ **Monitoring or testing procedure violations (if required by the primacy agency)**; and
- ▶ **Failure to comply** with the terms and conditions of a **variance or exemption**.

Tier 2 violations are considered less urgent than Tier 1 violations or situations because there is little immediate risk to consumers, or because the system may have already returned to compliance by the time the notice is issued. Primacy agencies may have more stringent requirements.

### **What is the deadline for issuing a Tier 2 notice?**

Tier 2 notices must be issued as soon as practical but within 30 days after a violation is discovered (141.203(b)).

For any unresolved violation, following an initial Tier 2 notice, you must **repeat the notice every three months** for as long as the violation persists. You are not in compliance again until your primacy agency determines you are. Posted notices must remain posted for as long as the violation persists. If the violation is already resolved when you post the notice, you must post the notice for at least seven days (141.203(b)). You must also **notify new billing customers or units** of any ongoing violations for which you have previously provided notice prior to or at the time their service begins (141.206).

Remember to **send a copy of the notice and a certification statement** to your primacy agency within ten days after providing the initial and any repeat notice to the public (141.31(d)).

#### **Required Elements of a Public Notice (141.205(a))**

1. A description of the violation;
2. When the violation occurred;
3. Potential adverse health effects, using language in Appendix B or language for monitoring violations;
4. Population(s) at risk;
5. Whether alternative water supplies should be used;
6. Actions consumers should take, including when they should seek medical help, if known;
7. What you are doing to correct the violation;
8. When you expect to return to compliance;
9. Name, business address, and phone number for additional information; and
10. Standard language encouraging distribution to all persons served, where applicable.



## When might a Tier 2 violation be elevated to Tier 1?

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Every violation is unique, and primacy agencies will consider several factors in deciding whether a violation should be elevated. For example, cases where a turbidity exceedance is significantly higher than the limit or exceeds the limit over the course of multiple measurements are more likely to be elevated to Tier 1.

Primacy agencies may also review the amount of disinfection that occurs after filtration and the current and historical quality of your source water. The determination may also depend on the type of filtration in place and your system's turbidity limits.

The primacy agency may also elevate Tier 2 violations to Tier 1 based on the results of consultations required under other rules, such as the Total Coliform Rule and Surface Water Treatment Rule. (These rules require you to report coliform MCLs and treatment technique violations to your primacy agency as soon as possible but no later than the end of the next business day. These reporting requirements are separate from those in the Public Notification Rule and are intended to allow primacy agencies to oversee corrective actions, but states may also use these conditions to elevate Tier 2 violations to Tier 1.) For coliform violations, if the percentage of samples testing positive for coliform is significantly higher than the MCL, if coliform is present in multiple areas of the distribution system, or if coliforms are linked to a break in distribution system integrity, primacy agencies will be more likely to require Tier 1 notice.

### **24-Hour Consultation for Turbidity**

Systems with certain violations involving exceedance of turbidity limits must consult with their primacy agencies as soon as practical but no later than 24 hours after learning of the violation (141.203(b)). This requirement applies to: (1) treatment technique violations resulting from single exceedances of turbidity limits (5 NTU) under the Surface Water Treatment Rule (SWTR), (2) treatment technique violations resulting from single exceedances of turbidity limits (1 NTU) under the Interim Enhanced SWTR or the Long Term 1 Enhanced SWTR, and (3) turbidity MCL violations determined by the average of turbidity measurements over two consecutive days (5 NTU). It does not apply to violations of monthly turbidity requirements. As a result of this consultation, primacy agencies may decide to elevate such violations to Tier 1. If consultation does not occur, the violation automatically is elevated to Tier 1. You have 24 hours from the time the violation is elevated to issue the notice.

Remember, as the system operator, you are a guardian of the quality of your water supply and of public health. If you believe that a violation or situation warrants 24-hour notice, you can issue a notice at any time, elevating the violation to Tier 1 yourself. You do not have to wait for the primacy agency to make a determination. Depending on the severity of the violation or situation, you may also choose to issue a Tier 2 notice in much less than 30 days.

## Which methods of delivery must I use?

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Unless directed otherwise by the primacy agency, if you operate a **community water system**, you must provide notice by (141.203(c)):

1. Mail or other direct delivery to each customer receiving a bill and other service connections to which water is delivered, and
2. Any other method reasonably calculated to reach others regularly served, if they would not normally be reached by the method above. Such people include those who do not pay water bills or do not have

service connection addresses, (e.g., tenants, college students, nursing home patients, prison inmates). Methods may include publication in a local newspaper, posting in public places, delivery of multiple copies to landlords or office building managers, or delivery to community organizations.

Unless directed otherwise by the primacy agency, if you operate a **non-community water system**, you must provide notice by the following methods (141.203(c):

1. Posting the notice in conspicuous locations throughout the system or by direct delivery or mail to each customer and known service connection, and
2. Any other method reasonably calculated to reach others served, if they would not normally be reached by the method above. Such people may include those who may not see a posted notice because it is not in a location they routinely pass by. Methods may include publication in a local newspaper or newsletter distributed to consumers, use of e-mail to notify employees or students, or delivery of multiple copies in central locations (e.g., community centers).

If you are a transient system, you may also refer to the “Public Notification Handbook for Transient Non-Community Water Systems” (EPA 816-R-07-004) for information specific to transient water systems.

For **both system types**, there may be a few cases where you would be able to reach all persons served with the first method you choose. In such cases, you may not need to use additional methods. At a gas station, for instance, posting would probably be sufficient to reach all persons served. Consult your primacy agency if there are other delivery methods you believe would be more effective in your situation; they may allow alternate methods of delivery.

## **Suggestions for Effective Public Notification Delivery**

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If you **mail** the notice, send it to all service connections, if possible, and not just billing customers, since there may be many people in addition to your billing customers who drink your water. Billing customers can be reached via inserts in their water bills, if the bills are distributed and received within 30 days of the violation. Be sure to tell owners or managers of businesses, home-owners’ associations, apartment buildings, or resort rental properties to pass the information along to their employees and tenants. You may wish to send multiple copies of the notice to building managers. See Chapter 3 for a discussion of standard language to encourage distribution to all persons served.

If you **post a notice**, be sure it is durable. It should not blow away if posted outdoors. Consider laminating notices that will be placed over sinks or outside, especially if they are likely to remain there for an extended time.

Notices in **newspapers** may be in the form of an article or a paid advertisement. However, articles are more effective than paid notices because they are more likely to be noticed and read. Work with the local newspaper to write an article on the violation and what the system is doing to correct it. Be sure that anyone at the paper who writes or edits an article knows what items must be included to meet the requirements for public notification. If your system is located in the suburban area of a large city, you should request that your notice be placed in the weekly community news section. Also, focus on getting articles published in smaller **community newspapers, homeowners’ association newsletters**, or similar publications.

**E-mail** is an effective way to contact most of the students at a college or university.



**Paid advertisements** offer an advantage because you are guaranteed the notice will appear exactly as you write it. Try to purchase ad space in the front section of the paper. Legal notices tend to get lost in the back of the paper where few people read them. If your notice must appear with other paid notices, a descriptive title becomes very important. The header “notice” may be overlooked, but the mention of the community’s drinking water supply gets people’s attention.

Consider holding **public meetings** in neighborhoods throughout your service area. This is especially beneficial for ongoing situations, or where additional treatment may be needed (and could impact their water rates). Coordinate with churches, civic centers, and local politicians to secure space and recruit attendees.

### **Tips for Very Small Community Systems**

- ▶ Compare the costs of mailing and labor for hand delivery before choosing a method.
- ▶ Hand delivery may not be necessary to meet your deadline, but it may be cheaper or less time-consuming than putting together a mailing.
- ▶ Alternatively, if your notice deadline coincides with your billing schedule, you may be able to include your notice in the bill at no extra cost.
- ▶ Supplement with posting in common areas and gathering places, such as banks, grocery stores, and restaurants.
- ▶ Ask your local newspaper to write a story on the violation (let the reporter know which elements must be included), or purchase an ad to publish the notice.

## **Suggestions for Layout of the Notice**

Tier 2 notices should answer the most common questions people will have about the violation: What does this mean to me? What should I do? What happened and why? What is the water system doing? The tone of a Tier 2 notice is less urgent than that of a Tier 1 notice. A question and answer format that anticipates consumers’ concerns is recommended for each section. Templates 2-1 through 2-14 at the end of this chapter offer sample language and instructions for preparing Tier 2 public notices.

1. **Title** – The notice should have a descriptive title but should not be overly alarming. The title “Drinking Water Notice” or “Important Information about Your Drinking Water” would be more appropriate than “Drinking Water Alert.” Follow with a subtitle describing the situation, such as: “Tests Show Levels of [Contaminant] Above Drinking Water Standards.”
2. **Describe What Happened** – The notice should briefly describe what happened and give some background as to how the violation was discovered. For example, suppose you routinely test the water and that the most recent samples showed a violation. Provide a context for the exceedance by giving the applicable drinking water standard and whether the exceedance is a monthly, quarterly, or other type of average. If the problem has already been corrected, be sure to communicate this clearly. If this is a repeat notice, explain why the violation continues (e.g., you are in the process of installing new treatment). If the violation is intermittent, explain that the water is in and out of compliance with standards, or (if appropriate) that the contamination levels are only slightly above allowable standards.



The message should also vary depending on the contaminant. For instance, several inorganic and radioactive chemicals, such as arsenic and radium, are naturally occurring. This fact can help in explaining the options for treatment. For example, it may be difficult to drill a new well if high contaminant levels occur throughout an aquifer. Disinfection byproducts, on the other hand, form when naturally occurring organic matter combines with disinfectants added to kill microorganisms. You should explain that the risk of disease from drinking water that is not disinfected is more immediate than that of getting cancer from drinking water containing disinfection byproducts. For turbidity exceedances, discuss the possible causes of high turbidity. A frequent cause is heavy rain, which washes large amounts of soil into rivers and lakes. The rain may also wash animal wastes into the water supply.

3. **Explain What Consumers Should Do** – Next, the notice should tell customers what they need to do, even if no action is necessary. This will usually be: “You do/do not need to seek other sources of drinking water.” Since people’s first reaction may be to boil their water, explain the effect of boiling (i.e., whether boiling is necessary, has no effect, or is harmful). Tell consumers that if they have specific health concerns, especially for the young, old, or people with compromised immune systems (undergoing chemotherapy, HIV-positive, or other immune system problems), they may wish to consult their doctors.
4. **Explain How the Violation Affects Consumers** – Be clear that the situation is not an emergency and that consumers would have been notified immediately if it had been. Consumers may wonder why they are getting a notice, especially if the problem is resolved or not serious; it may help to explain that you are informing them because you are required to do so and that they have the right to know about problems with their water even if there is no immediate (or any) health threat. In the case of filtration treatment technique violations, explain that treatment is important to preventing disease outbreaks but that there is no evidence of disease or bacteria in the water. For turbidity exceedances, explain how high turbidity levels may be related to the presence of organisms in drinking water.
5. **Describe What You Are Doing to Correct the Problem** – Inform consumers of the steps you are taking to correct the problem, such as the installation of new treatment, increased frequency or type of monitoring, or your collaboration with the appropriate state agency. Tell them when you expect the drinking water to again meet the standard. Although you probably will be unable to give an exact date, you can give your customers a general idea of how long it will take (e.g., a few days for a coliform MCL, several months for a chemical MCL). Provide the name, address, and telephone number of someone who can answer any questions consumers may have.
6. **Optional Elements** — If you know the source of the contamination, include it in the notice. This helps reassure consumers that you have investigated the problem and are taking steps to address it. It also reinforces the fact that drinking water is a vulnerable resource that must be protected. If you do not know the actual source, you should at least provide common or possible sources such as those listed in the guidance for the Consumer Confidence Report.
7. **Public Water System ID Number/Date of Distribution**— You should include your PWS ID number at the bottom of the notice. This will help your primacy agency track compliance and prevent tracking errors between systems with similar names. Include the date you distributed the notice.

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## Tier 2 Templates

Tier 2 notices are required for the following violations or situations:

- ▶ Maximum contaminant level (**MCL**), maximum residual disinfectant level (**MRDL**), and **treatment technique** requirement violations, except where Tier 1 notification is required by regulation or by the primacy agency;
- ▶ **Monitoring or testing procedure violations (if required by the primacy agency)**; and
- ▶ **Failure to comply** with the terms and conditions of a **variance or exemption**.

The pages that follow contain templates for these Tier 2 violations or situations, as listed below. Along with each template are instructions, including the required method of delivery and suggestions for completing individual sections of the notice. These instructions are designed to supplement Chapter 6, so you may see much of the information repeated here.

**Mandatory language on health effects, which must be included as written with blanks filled in, is presented in italics (141.205(d)).**

You must also include the following italicized language in all notices, where applicable (141.205(d)). Use of this language does not relieve you of your obligation to take steps reasonably calculated to notify all persons served:

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

### **Templates**

- Unresolved Total Coliform Notice–Template 2-1
- Resolved Total Coliform Notice–Template 2-2
- Chemical or Radiological MCLs Notice–Template 2-3
- Fluoride MCL Notice–Template 2-4
- SWTR Failure to Filter Notice–Template 2-5
- SWTR Turbidity Exceedance Notice–Template 2-6
- SWTR Disinfection Treatment Notices–Template 2-7
- LCR Failure to Install Corrosion Control Notice–Template 2-8
- LT2ESWTR Failure to Install Treatment Notice–Template 2-9a
- LT2ESWTR Uncovered Finished Water Reservoir Treatment Notice–Template 2-9b
- LT2ESWTR Unfiltered System Failure to Install Treatment Notice–Template 2-9c
- LT2ESWTR Failure to Conduct Source Water Monitoring (Initial or Second Round) Notice–Template 2-9d
- Stage 1 DBPR TTHM or HAA5 MCL Violation Notice–Template 2-10
- Stage 2 DBPR TTHM or HAA5 MCL Violation Notice–Template 2-11
- Filter Backwash Recycling Rule Treatment Technique Violation Notice–Template 2-12
- Failure to Comply with the Conditions of an Exemption Notice – Template 2-13
- Monitoring Violation Elevated to Tier 2 Notice – Template 2-14



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# Instructions for Unresolved Total Coliform Notice – Template 2-1

## Template on Reverse

Since exceeding the total coliform bacteria maximum contaminant level is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). Persistent total coliform problems can be serious. Some states have more stringent requirements for coliform violations. Check with your primacy agency to make sure you meet all requirements. You must issue a repeat notice every three months for as long as the violation persists.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. If you modify the notice, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Description of the Violation

The description of the violation and the MCL vary depending on the number of samples you take. The following table should help you complete the second paragraph of the template.

<b><u>If You Take Less Than 40 Samples a Month</u></b>	<b><u>If You Take More Than 40 Samples a Month</u></b>
State the number of samples testing positive for coliform. The standard is that no more than one sample per month may be positive.	State the percentage of samples testing positive for coliform. The standard is that no more than five percent of samples may test positive each month.

### Corrective Action

In your notice, describe corrective actions you are taking. If you know what is causing the coliform problem, explain this in the notice. Listed below are some steps commonly taken by water systems with total coliform violations. Use one or more of the following actions, if appropriate, or develop your own:

- We are chlorinating and flushing the water system.
- We are increasing sampling for coliform bacteria.
- We are investigating the source of contamination.
- We are repairing the wellhead seal.
- We are repairing the storage tank.
- We will inform you when additional samples show no coliform bacteria.

Make sure to send a copy of each type of notice and a certification that you have met all the public notice requirements to your primacy agency within ten days after issuing the notice (141.31(d)). It is a good idea to inform your consumers when the violation has been resolved. See Template 1-8 for a "problem corrected" notice template.

## Unresolved Total Coliform Notice – Template 2-1

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Tests Show Coliform Bacteria in [System] Water

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

We routinely monitor for the presence of drinking water contaminants. We took [number] samples for coliform bacteria during [month]. [Number/percentage] of those samples showed the presence of coliform bacteria. The standard is that no more than [1 sample per month/5 percent of our samples] may do so.

#### 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.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

#### 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 treatment or distribution system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **We did not find any of these bacteria in our subsequent testing.** If we had, we would have notified you immediately. However, we are still finding coliforms in the drinking water.

#### What is being done?

[Describe corrective action.]

We are still detecting coliform bacteria. We will inform you when our sampling shows that no bacteria are present. We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



## Instructions for Resolved Total Coliform Notice – Template 2-2

### Template on Reverse

Since exceeding the total coliform bacteria maximum contaminant level is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). Some states have more stringent requirements for coliform violations. Check with your primacy agency to make sure you meet all its requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Description of the Violation

Make sure that the notice is clear about the fact that the coliform problem has been resolved, and there is no current cause for concern. The description of the violation and the MCL vary depending on the number of samples you take. The following table should help you complete the second paragraph of the template.

<b><u>If You Take Less Than 40 Samples a Month</u></b>	<b><u>If You Take More Than 40 Samples a Month</u></b>
State the number of samples testing positive for coliform. The standard is that no more than one sample per month may be positive.	State the percentage of samples testing positive for coliform. The standard is that no more than five percent of samples may test positive each month.

### Corrective Action

In your notice, describe corrective actions you have taken. Listed below are some steps commonly taken by water systems with total coliform violations. Use one or more of the following actions, if appropriate, or develop your own:

- We have increased sampling for coliform bacteria to catch the problem early if it happens again.
- The well and/or distribution system has been disinfected and additional samples do not show the presence of coliform bacteria.

### After Issuing the Notice

Make sure to send a copy of each type of notice along with a certification that you have met all the public notice requirements to your primacy agency within ten days after issuing the notice (141.31(d)).

## Resolved Total Coliform Notice – Template 2-2

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER Tests Showed Coliform Bacteria in [System] Water

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did to correct this situation.

We routinely monitor for drinking water contaminants. We took [number] samples to test for the presence of coliform bacteria during [month]. [Number/percentage] of our samples showed the presence of total coliform bacteria. The standard is that no more than [1 sample per month/5 percent of samples] may do so.

#### 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.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. 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 system (pipes). Whenever we detect coliform bacteria in any sample, we do follow-up testing to see if other bacteria of greater concern, such as fecal coliform or *E. coli*, are present. **We did not find any of these bacteria in our subsequent testing.**

#### What is being done?

[Describe corrective action.] Further testing shows that this problem has been resolved.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



## Instructions for Chemical or Radiological MCLs Notice – Template 2-3

### Template on Reverse

Since exceeding chemical or radiological maximum contaminant levels (MCLs) is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for MCL violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements. **Use Template 2-4 for fluoride MCL violations.**

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and you may not modify the mandatory health effects language (141.205(d)).

### Corrective Action

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

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

### Repeat Notices

If this is an ongoing violation and/or you fluctuate above and below the MCL, you should give the history behind the violation, including the source of contamination, if known. List the date of the initial detection, as well as how levels have changed over time. If levels are changing as a result of treatment, you can indicate this.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all public notification requirements within ten days after issuing the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### [System] Has Levels of [Contaminant] Above Drinking Water Standards

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

We routinely monitor for the presence of drinking water contaminants. Testing results we received on [give date] show that our system exceeds the standard, or maximum contaminant level (MCL), for [contaminant]. The standard for [contaminant] is [MCL]. The average level of [contaminant] over the last year has been [level]. or [Contaminant] was found at [level].

#### 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 does this mean?

This is not an immediate risk. If it had been, you would have been notified immediately. However, [Insert relevant health effects language from Appendix B.]

#### What is being done?

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for Fluoride MCL Notice – Template 2-4

### Template on Reverse

Since exceeding the fluoride maximum contaminant level (MCL) is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. If you exceed the secondary maximum contaminant level of 2 milligrams per liter but not the MCL of 4 milligrams per liter, you must issue a special notice with different health effects language. See Chapter 3 or Template 3-5 for more information.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and you may not modify the mandatory health effects language (141.205(d)).

### Corrective Action

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

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

### Repeat Notices

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

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all public notification requirements within ten days after issuing the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

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

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

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

### What should I do?

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

### What does this mean?

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

### What is being done?

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for SWTR Failure to Filter Notice – Template 2-5

### Template on Reverse

Since surface water treatment technique violations require Tier 2 notification, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with surface water treatment technique violations. You can use one or more of the following actions, if appropriate, or develop your own:

- Our treatment plant needs upgrades to meet the requirements.
- We are installing filtration. We expect that the filtration system will be operational by [month, year].
- We are monitoring for turbidity (cloudiness), disinfectant levels, and the presence of bacteria.
- We continue to meet the standards for these measurements.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing filtration, describe it. Alternatively, if funding or other issues are delaying installation, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### [System] Does Not Meet Treatment Requirements

Our water system recently violated a drinking water standard. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

On [give date], the [primacy agency] ordered us to filter the water in addition to disinfecting. We are required to install this filtration because we do not have an adequate watershed control program in place. However, we have not yet installed a filtration system.

#### What should I do?

- You do not need to boil your water. However, if you have specific health concerns, consult your doctor. A home filter will not necessarily solve the problem, because not all home filters protect against parasites. Call NSF International at 1(800) NSF-8010 or the Water Quality Association at 1(800) 749-0234 for information on appropriate filters.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

#### What does this mean?

This is not a situation requiring that you take immediate action. If it had been you would have been notified immediately. We do not know of any cases of contamination. However, until improvements are made, there is an increased chance that disease-causing organisms could contaminate the water supply.

*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. If you experience any of these symptoms and they persist, you may want to seek medical advice.*

#### What is being done?

Filtration is the best method for removing these organisms. [Describe corrective action.]

We anticipate resolving the problem within [estimated time frame]. Until filtration is installed, you will receive a notice similar to this every three months.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



## Instructions for SWTR Turbidity Exceedance Notice – Template 2-6

### Template on Reverse

Since surface water treatment filtration treatment technique violations require Tier 2 notification, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). This template may also be adapted for use with turbidity MCL violations. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

<u>For Exceedances of Single Turbidity Limits</u>	<u>For Exceedances of Monthly Turbidity Limits</u>
<p><b>You must consult with your primacy agency as soon as practical but within 24 hours of learning of the violation.</b> During the consultation, the agency may choose to elevate your turbidity exceedance to Tier 1. If consultation does not occur, the violation is automatically elevated to Tier 1 (use Template 1-6). For a Tier 2 notice, describe your violation as follows in the second paragraph of the notice:</p> <p>"Normal turbidity levels at our plant are [number] turbidity units. A water sample taken [date] showed levels of [number] turbidity units. This was above the standard of [standard] units. Because of these high levels of turbidity, there is an increased chance that the water may contain disease-causing organisms."</p>	<p>Use the following language to describe your violation and insert into the second paragraph of the template:</p> <p>"Water samples for [month] showed that [percentage] percent of turbidity measurements were over [standard] turbidity units – the standard is that no more than 5 percent of samples may exceed [standard] turbidity units per month. The turbidity levels are relatively low. However, their persistence is a concern. Normal turbidity levels at our plant are [number] units."</p>

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with filtration treatment technique violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We added chemicals that reduce turbidity.
- We sampled both untreated and treated water for the presence of coliform bacteria.
- We monitored chlorine levels and adjusted them as needed to compensate for the filtration problems.
- We inspected and cleaned the filters.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## SWTR Turbidity Exceedance Notice – Template 2-6

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### [System] Did Not Meet Treatment Requirements

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

We routinely monitor your water for turbidity (cloudiness). This tells us whether we are effectively filtering the water supply. [Insert appropriate description of the violation from instructions.]

#### What should I do?

- You do not need to boil your water or take other actions. We do not know of any contamination, and none of our testing has shown disease-causing organisms in the drinking water.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. *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. If you experience any of these symptoms and they persist, you may want to seek medical advice.

#### What is being done?

[Describe the corrective actions and when the system returned or expects to return to compliance.]

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

## Instructions for SWTR Disinfection Treatment Notices – Template 2-7

### Template on Reverse

Since surface water treatment disinfection treatment technique violations require Tier 2 notification, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). Some disinfection problems may be serious. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available. If you modify the notice, you must leave the mandatory health effects language in italics unchanged (141.205(d)).

### Description of the Violation

Choose from the following descriptions of violations, and modify to fit your situation.

Not Enough Disinfection During Treatment - In order to ensure proper disinfection, water in the treatment plant must be in contact with enough chlorine or a similar disinfectant for a minimum amount of time. On [give date], this did not occur.

Although chlorine quickly kills most bacteria, it is less effective against organisms such as viruses and parasites. For this reason, water needs to mix with chlorine for a longer time period to kill such organisms. The amount of time necessary, or the "contact time," depends on the amount of disinfectant in the water and the temperature of the water.

Disinfectant Residual - 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 grow in the pipes.

Monthly exceedance - During the months of \_\_\_\_\_, disinfectant residual was undetectable in more than 5% of samples. The standard is that disinfectant may be undetectable in no more than 5% of samples each month for two months in a row.

Single exceedance - On [give date], disinfectant levels dropped below 0.2 milligrams per liter for \_\_\_ hours. The standard is that levels may not drop below 0.2 for more than four hours.

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with disinfection treatment technique violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We are sampling/we sampled both untreated and treated water for the presence of coliform bacteria.
- We are sampling/we sampled disinfectant levels and will adjust/adjusted the amount of disinfectant added as necessary to maintain adequate levels.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## SWTR Disinfection Treatment Notices – Template 2-7

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER [System] Does/Did Not Meet Treatment Requirements

Our water system recently violated a drinking water standard. Although this situation does not require that you take immediate action, as our customers, you have a right to know what happened, what you should do, and what we did (are doing) to correct this situation.

[Describe the violation - use descriptions from instructions on reverse.]

#### 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.
- People with severely compromised immune systems, infants, and some elderly may be at increased risk. These people should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791.

#### What does this mean?

This situation does not require that you take immediate action. 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.*

#### What is being done?

[Describe corrective action.]

[Disinfectant residual levels/contact times] so far this month have met all requirements.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for LCR Failure to Install Corrosion Control Notice – Template 2-8

### Template on Reverse

Since lead and copper treatment technique violations are included in Tier 2, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Explaining the Violation

If the delay in installation is related to outside circumstances, such as funding, you should explain these. Consumers may be more supportive of rate increases or may pressure local authorities to provide funds if they understand the circumstances.

This template is written for systems which are required to install corrosion control after exceeding lead action levels. The Lead and Copper Rule requires some large systems to install corrosion control even if they have never exceeded the lead action level. You may need to modify the template if this applies to you. The following may help you explain the violation:

- This is a treatment violation, but it does not mean there is lead in your drinking water. However, it is important that we take measures to control lead levels in the water, because ingesting lead can cause serious health consequences.

### Corrective Action

In your notice, describe corrective actions you are taking. You can use the following language, if appropriate, or develop your own:

- We conducted a lead public education program in [month, year]. You should have received a brochure explaining in more detail steps you can take to reduce exposure until corrosion control is in place.

If consumers ask for information on testing their water, you should have on hand the names of laboratories consumers can call. Tell consumers to call NSF International at 1(800) NSF-8010 or the Water Quality Association at 1(800) 749-0234 for information on appropriate filters. For more information on lead, have consumers call the EPA Safe Drinking Water Hotline at 1-800-426-4791 or the National Lead Information Center Hotline 1(800) LEAD-FYI.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### [System] Water Contains High Levels of Lead

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

We routinely sample water at consumers' taps for lead. The tests show lead levels in the water above the limit, or "action level," so 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 [give date], but installation is incomplete.

#### What should I do?

Listed below are some steps you can take to reduce your exposure to lead:

- Call us at the number below to find out how to get your water tested for lead.
- Find out whether your pipes contain lead or lead solder.
- Run your water for 15-30 seconds or until it becomes cold before using it for drinking or cooking. This flushes any standing lead from the pipes.
- Don't cook with or drink water from the hot water tap; lead dissolves more easily into hot water.
- **Do not boil your water to remove lead.** Excessive boiling water makes the lead more concentrated – the lead remains when the water evaporates.

#### What does this mean?

This is not an emergency. If it had been, you would have been notified immediately. Typically, lead enters water supplies by leaching from lead or brass pipes and plumbing components. New lead pipes and plumbing components containing lead are no longer allowed for this reason; however, many older homes may contain lead pipes. Your water is more likely to contain high lead levels if water pipes in or leading to your home are made of lead or contain lead solder.

*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 or high blood pressure.*

#### What is being done?

[Describe corrective action.] Corrosion control will be in place by [give date].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_.



## Instructions for LT2ESWTR Failure to Install Treatment Notice– Template 2-9a

### Template on Reverse

A system's failure to provide the level of treatment appropriate for its LT2ESWTR bin classification by the required treatment date is a treatment technique violation and requires Tier 2 notification. You must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with LT2ESWTR treatment technique violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We will install treatment by [provide date] that will satisfy this requirement.
- We are currently working with state health department officials and our engineers to finalize plans for additional water treatment that will satisfy this requirement once it is installed.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing treatment, describe it. Alternatively, if funding or other issues are delaying installation of treatment, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### [Name of System] Failed to Provide the Appropriate Level of Treatment Within Required Timeframe.

Our water system [give system name] was required to provide additional treatment for *Cryptosporidium* by [provide date]. *Cryptosporidium* is a disease-causing microorganism that may occur in our raw water source.

We failed to provide the required treatment by the required date. Although this situation is not an emergency, as our customers, you have a right to know what happened and what we are doing to correct this situation.

#### What should I do?

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791. If you have specific health concerns, consult your doctor.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

#### What does this mean?

This is not an emergency. If it had been, you would have been notified within 24 hours.

*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.

#### What is being done?

[Describe corrective action.] We expect to have the additional treatment installed by [give date].

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

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

This notice is being sent to you by [system name]. State Water System ID# \_\_\_\_\_.  
Date distributed: \_\_\_\_\_

## Instructions for LT2ESWTR Uncovered Finished Water Reservoir Treatment Notice – Template 2-9b

### Template on Reverse

A system's failure to cover an uncovered finished water reservoir, provide treatment of the reservoir's discharge, or be in compliance with a state-approved schedule to cover the reservoir(s) or treat the reservoir(s) discharge by April 1, 2009 is a treatment technique violation and requires Tier 2 notification. You must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with this type of LT2ESWTR treatment technique violation. You can use one or more of the following actions, if appropriate, or develop your own:

- We are developing plans to cover our uncovered finished water storage reservoir. We expect to have the reservoir covered by [give date]. Until our finished water reservoir is covered, you will receive a notice similar to this every 3 months.
- We are developing plans to treat the water when it leaves our uncovered finished water storage reservoir. We expect to have the treatment in place by [give date]. Until the water leaving our finished water reservoir is treated, you will receive a notice similar to this every 3 months.
- We are currently working with state health department officials to revise our schedule for covering our uncovered finished water storage reservoir. We expect to have the state-approved schedule in place by [give date] and the reservoir covered by [give date]. Until our schedule receives state approval, you will receive a notice similar to this every 3 months.
- We are currently working with state health department officials to revise our schedule for treating the discharge from our uncovered finished water storage reservoir. We expect to have the state-approved schedule in place by [give date] and treatment in place by [give date]. Until the schedule receives state approval, you will receive a notice similar to this every 3 months.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in covering your reservoirs or providing treatment, describe it. Alternatively, if funding or other issues are delaying coverage, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## Uncovered Finished Water Reservoir Violation at [System]

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

Water systems with uncovered finished water reservoirs are required to cover these reservoirs, treat the discharge from these reservoirs, or be in compliance with a state-approved schedule to cover the reservoir(s) or provide treatment by April 1, 2009. We have failed to meet this requirement.

### What should I do?

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791. If you have specific health concerns, consult your doctor.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified with 24 hours.

### What does this mean?

This situation does not require that you take immediate action. If it had been, you would have been notified immediately.

*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.*

### What is being done?

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed:



## Instructions for LT2ESWTR Unfiltered System Failure to Install Treatment Notice – Template 2-9c

### Template on Reverse

An unfiltered system's failure to install a second disinfectant to treat for *Cryptosporidium* by the required date is a treatment technique violation and requires Tier 2 notification. You must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by unfiltered water systems with LT2ESWTR treatment technique violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We will install treatment by [provide date] to satisfy this requirement.
- We are currently working with state health department officials and our engineers to finalize plans for water treatment that will satisfy this requirement once it is installed.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing treatment, describe it. Alternatively, if funding or other issues are delaying installation of treatment, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### **[Name of System] Failed to Provide the Appropriate Level of Treatment Within Required Timeframe.**

Our unfiltered water system [give system name] was required to use a minimum of two disinfectants to meet our treatment requirement by [give date].

We failed to have the new ultraviolet light (U.V.) disinfection system installed by the required date. Although this situation is not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

#### **What should I do?**

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791. If you have specific health concerns, consult your doctor.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

#### **What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours.

*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.*

#### **What is being done?**

We expect to have the U.V. disinfection system installed by [give date]. We continue to disinfect the water with chlorine as we have in the past.

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

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

This notice is being sent to you by [system name]. State Water System ID# \_\_\_\_\_.

Date distributed: \_\_\_\_\_



## Instructions for LT2ESWTR Failure to Conduct Source Water Monitoring (Initial or Second Round) Notice –Template 2-9d

### Template on Reverse

A system's failure to conduct an initial or second round of *Cryptosporidium* monitoring by the required date is a monitoring violation that requires Tier 2 notification. You must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for this monitoring violation; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below are some steps commonly taken by water systems with LT2ESWTR monitoring violations. You can use one or more of the following actions, if appropriate, or develop your own:

- We will begin collecting the required source water monitoring samples on [give date].
- We have since taken the required samples for initial monitoring and will begin collecting our second round of sampling on [give date].

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing treatment, describe it. Alternatively, if funding or other issues are delaying installation of treatment, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



**LT2ESWTR Failure to Conduct Source Water Monitoring (Initial or Second Round)  
Notice –Template 2-9d**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Monitoring and Reporting Requirements Not Met for [Name of System]**

We are required to monitor the source of your drinking water for *Cryptosporidium*. Results of the monitoring are to be used to determine whether [name of treatment plant] is sufficient to adequately treat the water for *Cryptosporidium*. We are required to complete this monitoring and make this determination by [give date]. We did not monitor or test on schedule and, therefore, we may not be able to determine by the required date what treatment modifications, if any, must be made. Missing this deadline may, in turn, jeopardize our ability to have the required treatment modifications, if any, completed by the deadline required, [give date].

**What should I do?**

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

**What does this mean?**

This is not an emergency. If it had been, you would have been notified within 24 hours. Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

**What is being done?**

[Describe corrective action.]

For more information, please contact [provide contact name] at [provide contact phone number] or write to [provide address].

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

This notice is being sent to you by [system name]. State Water System ID# \_\_\_\_\_.  
Date distributed: \_\_\_\_\_

### Template on Reverse

If your system's running annual average for Total Trihalomethanes (TTHM) exceeds the MCL of 0.080 mg/L or the running annual average for Haloacetic Acid 5 (HAA5) exceeds the MCL of 0.060 mg/L, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below is one step commonly taken by water systems with TTHM or HAA5 MCL violations. You can use the following action, if appropriate, or develop your own:

- We are pilot testing [name treatment type] treatment to ensure it will reduce concentrations of [Contaminant, i.e., Total Trihalomethanes or Haloacetic Acid 5] in our finished water. Testing will be completed by [provide date] at which time we will evaluate effectiveness and begin installation.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing treatment, describe it. Alternatively, if funding or other issues are delaying coverage, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### **[Contaminant, i.e., Total Trihalomethanes or Haloacetic Acid 5] MCL Violation at [System]**

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from [date range] show that our system exceeds the standard, or maximum contaminant level (MCL), for [contaminant]. The standard for [contaminant] is [MCL]. It is determined by averaging all samples collected by our system for the last 12 months. The level of [contaminant] averaged at our system for [date range] was [level].

#### **What should I do?**

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

#### **What does this mean?**

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours.

*[People who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.] Or*

*[People who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.]*

#### **What is being done?**

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_



### Template on Reverse

If your system's locational running annual average for Total Trihalomethanes (TTHM) exceeds the MCL of 0.080 mg/L or the locational running annual average for Haloacetic Acid 5 (HAA5) exceeds the MCL of 0.060 mg/L at one or more sampling locations, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below is one step commonly taken by water systems with TTHM or HAA5 MCL violations. You can use the following action, if appropriate, or develop your own:

- [TTHM are four volatile organic chemicals] [HAA5 are five haloacetic acid compounds] which form when disinfectants react with natural organic matter in the water. We are working to minimize the formation of [TTHM or HAA5] while ensuring we maintain an adequate level of disinfectant. We have taken additional samples at this location and throughout the system to determine if our efforts have been effective. The samples show that we now meet the standards.

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. If you are making progress in installing treatment, describe it. Alternatively, if funding or other issues are delaying coverage, let consumers know.

### After Issuing the Violation

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### **[Contaminant, i.e., Total Trihalomethanes or Haloacetic Acid 5] MCL Violation at [System]**

Our water system recently violated a drinking water standard. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

We routinely monitor for the presence of drinking water contaminants. Testing results from [date range] show that our system exceeds the standard, or maximum contaminant level (MCL), for [contaminant]. The standard for [contaminant] is [MCL]. It is determined by averaging all the samples collected at each sampling location for the past 12 months. The level of [contaminant] averaged at one of our system's locations for [date range] was [level].

#### **What should I do?**

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

#### **What does this mean?**

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours.

*[People who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.] Or*

*[People who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.]*

#### **What is being done?**

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame] (or the problem was resolved on [give date]).

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_



## Instructions for Filter Backwash Recycling Rule Treatment Technique Violation Notice – Template 2-12

### Template on Reverse

Since failure to recycle spent filter backwash, thickener supernatant, and liquids from dewatering processes before all processes of the direct filtration treatment train, failure to obtain state approval for the use of an alternative recycle location, or failure to pursue capital improvements is a Tier 2 violation, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent requirements for treatment technique violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and you may not modify the mandatory health effects language (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Do not use overly technical terminology when describing treatment methods. You can use one or more of the following actions, if appropriate, or develop your own:

- As of [give date], we will no longer recycle our filter backwash and will not be in violation of this standard.
- As of [give date], the filter backwash will be piped to the beginning of our water treatment process and we will no longer be in violation of this standard.
- As of [give date], the filter backwash and all other current recycle flows will be discharged to waste as approved by the primacy agency.

### Repeat Notices

If this is an ongoing violation, you should give the history behind the violation, if known.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all public notification requirements within ten days after issuing the notice (141.31(d)).



**Filter Backwash Recycling Rule  
Treatment Technique Violation Notice – Template 2-12**

## **IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

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

The Filter Backwash Recycling Rule requires water systems that recycle liquids used for water treatment to recycle these liquids through the system's existing filtration system or to an alternate location approved by the state. Our system did not return its water treatment recycle flows to the required location or a state-approved location by the required date of [give date].

### **What should I do?**

- There is nothing you need to do unless you have a severely compromised immune system, have an infant, or are elderly. These people may be at increased risk and should seek advice about drinking water from their health care providers. General guidelines on ways to lessen the risk of infection by microbes are available from EPA's Safe Drinking Water Hotline at 1-800-426-4791. If you have specific health concerns, consult your doctor.
- You do not need to boil your water or take other corrective actions. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

### **What does this mean?**

This is not an immediate risk. If it had been, you would have been notified immediately.

*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.*

### **What is being done?**

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame].

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.

Date distributed: \_\_\_\_\_

## Instructions for Failure to Comply with the Conditions of an Exemption Notice – Template 2-13

### Template on Reverse

Since failure to comply with the conditions of an exemption requires Tier 2 notification, you must provide public notice to persons served as soon as practical but within 30 days after you learn of the violation (141.203(b)). You must issue a repeat notice every three months for as long as the violation persists. Your primacy agency may have more stringent or alternative requirements for exemption violations; e.g., it may require you to provide water from an alternate source. Check with your agency to make sure you meet all requirements.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and leave the health effects language in italics unchanged. This language is mandatory (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you are taking. Listed below is an example of a step that might be taken in response to this violation. You can use the following action, if appropriate, or develop your own:

- We have agreed upon a new deadline of [give date] to secure the funding needed in order to purchase [contaminant] removal treatment equipment. Once we have secured funding, we will purchase and begin installation of the selected treatment technology by [estimated time frame].

### Repeat Notices

For repeat notices, you should state how long the violation has been ongoing and remind consumers of when you sent out the previous notice. Include updated information regarding meeting the measures and schedules in your corrective action plan. Alternatively, if funding or other issues are delaying your progress, let consumers know.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met the public notice requirements within ten days after you issued the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### [System] Failed to Meet the Conditions of a [contaminant] Exemption.

Our water system recently violated one of the conditions of our [contaminant] exemption. An exemption allows eligible systems additional time to build capacity in order to comply with a drinking water standard. [Name of system] was granted an exemption for the [contaminant] standard so that we could raise funds for a new treatment process to remove [contaminant]. As a condition of the exemption, we agreed to secure funding by [give date]. We did not meet this deadline.

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information]. We will also post this information on our web site at [www.ourwatersystem.com](http://www.ourwatersystem.com).

#### What does this mean?

This is not an emergency. If it had been an emergency, you would have been notified within 24 hours.

(Example language provided for arsenic. Enter appropriate language for your specific contaminant.)

*[Some people who drink water containing arsenic in excess of the MCL over many years may have an increased risk of getting cancer.]*

#### What is being done?

[Describe corrective action.] We anticipate resolving the problem within [estimated time frame] (or the problem was resolved on [give date]).

For more information, please contact [name of contact] at [phone number] or [mailing address]. You can also visit our web site at [www.ourwatersystem.com](http://www.ourwatersystem.com).

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_



## Instructions for Monitoring Violation Elevated to Tier 2 Notice – Template 2-14

If your primacy agency has designated a failure to monitor as a Tier 2 violation (141.203(a)), you must provide public notice to persons served within 30 days after it has been designated Tier 2 (141.203(b)). Monitoring violations are Tier 3 by default, but may be elevated to Tier 2 by your primacy agency. You may elevate the violation to Tier 2 yourself as well. You must issue a repeat notice every three months for as long as the violation persists.

Community systems must use one of the following methods (141.203(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following methods (141.203(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use *another* method reasonably calculated to reach others if they would not be reached by the first method (141.203(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for hand delivery or mail. However, you may wish to modify it before using it for posting. If you do, you must still include all the required elements and you may not modify the mandatory health effects language (141.205(d)).

### Corrective Action

In your notice, describe corrective actions you took or are taking. Listed below are some steps commonly taken by water systems with monitoring violations. You can use the following language, if appropriate, or develop your own:

- We have since taken the required samples, as described in the last column of the table above. The samples showed we are meeting drinking water standards.
- We have since taken the required samples, as described in the last column of the table above. The sample for [contaminant] exceeded the limit. [Describe corrective action; use information from public notice prepared for violating the limit.]
- We plan to take the required samples soon, as described in the last column of the table above.

### Repeat Notices

If this is an ongoing violation, you should give the history behind the violation, if known.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all public notification requirements within ten days after issuing the notice (141.31(d)).

## Monitoring Violation Elevated to Tier 2 Notice – Template 2-14

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Monitoring Requirements Not Met for [System]

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards.

During [compliance period] we ['did not monitor or test' or 'did not complete all monitoring or testing'] for [contaminant(s)] and, therefore, cannot be sure of the quality of our drinking water during that time. Even though this is not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

#### What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for, how often we are supposed to sample for [this contaminant/these contaminants] and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
Nitrate (example)	One sample annually	0	2006	February 2007

#### What is being done?

[Describe corrective action.]

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## 7. Tier 3 Notice Requirements and Suggestions

Tier 3 notices must meet the content (including mandatory language), format, and multilingual requirements described in Chapter 3, and are required for the following violations or situations (141.204(a)):

- ▶ **Monitoring violations** (except for the following: failure to monitor for fecal coliform or *E. coli* when repeat samples are positive for coliform, failure to take a confirmation sample for nitrate or nitrite within 24 hours, and failure to take required samples for chlorine dioxide in the distribution system, which require Tier 1 notice; and any monitoring violations elevated to Tier 1 or 2 by the primacy agency);
- ▶ **Testing procedure violations**, except where elevated to Tier 2 by the primacy agency;
- ▶ Operation under a **variance or exemption**;
- ▶ Special notice for **availability of unregulated contaminant monitoring data**; and
- ▶ Special notice for **fluoride** secondary maximum contaminant level (SMCL) exceedances.

Remember that notices for variances or exemptions, fluoride SMCL exceedances, and availability of unregulated contaminant monitoring data have different content requirements than notices for violations. (See Chapter 3.)

### What is the deadline for issuing a Tier 3 notice?

You must issue a public notice for a Tier 3 violation or situation **within 12 months** of learning of the violation or situation (141.204(b)). Keep in mind that your primacy agency may require earlier notice for some monitoring violations, especially if it believes such violations could affect public health.

Remember to **send a copy of the notice and a certification statement** to your primacy agency within ten days after providing an initial or repeat notice to the public (141.31(d)).

Following the initial notice, you must **repeat the notice annually** for as long as the violation or situation persists (141.204(b)). You are not in compliance again until your primacy agency determines so. You must also **notify new billing customers or units**, prior to or at the time their service begins, of any ongoing violations or situations for which you have previously provided notice (141.206).

#### **Required Elements of a Public Notice (141.205(a))**

1. A description of the violation;
2. When the violation occurred;
3. Potential adverse health effects; using mandatory language for monitoring violations in Chapter 3;
4. Population(s) at risk;
5. Whether alternative water supplies should be used;
6. Actions consumers should take, including when they should seek medical help, if known;
7. What you are doing to correct the violation;
8. When you expect to return to compliance;
9. Name, business address, and phone number for additional information; and
10. Standard language encouraging distribution to all persons served, where applicable.



## Which methods of delivery must I use?

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Unless directed otherwise by the primacy agency, if you operate a **community water system**, you must provide notice by (141.204(c)):

1. Mail or other direct delivery to each customer receiving a bill and other service connections to which water is delivered, and
2. Any other method reasonably calculated to reach others regularly served, if they would not normally be reached by the method above. Such people include those who do not pay water bills or do not have service connection addresses, (e.g., tenants, college students, nursing home patients, prison inmates). Methods may include publication in a local newspaper, posting in public places, delivery of multiple copies to landlords or office building managers, or delivery to community organizations.

Unless directed otherwise by the primacy agency, if you operate a **non-community water system**, you must provide notice by the following methods (141.204(c)):

1. Posting the notice in conspicuous locations throughout the system or by direct delivery or mail to each customer and known service connection, and
2. Any other method reasonably calculated to reach others served, if they would not normally be reached by the method above. Such people may include those who may not see a posted notice because it is not in a location they routinely pass by. Methods may include publication in a local newspaper or newsletter distributed to consumers, use of e-mail to notify employees or students, or delivery of multiple copies in central locations (e.g., community centers).

Refer to the “Public Notification Handbook for Transient Non-Community Water Systems” (EPA 816-R-07-004) for more information.

If you post a notice, it must remain posted for as long as the violation or situation persists. If the violation or situation is already resolved by the time you write the notice, you must post the notice for at least seven days (141.204(b)). **Be sure that the notice is durable.** It should not blow away if posted outdoors. Consider laminating notices that will be placed over sinks or outside, especially if they are likely to remain there for an extended time.

For **both system types**, there may be a few cases where you were able to reach all persons served with the first method you choose. In such cases, you may not need to use additional methods. In a community water system, such as a small town, a second method would be necessary to reach non-resident employees or restaurant customers. At a gas station, on the other hand, posting would be sufficient to reach all persons served.

### Suggestions for Effective Public Notification Delivery

If you **mail** the notice, send it to all service connections, if possible, and not just billing customers, since there are many people in addition to your billing customers who drink your water. Billing customers can be reached via inserts in their water bills. **E-mail** may be appropriate to contact most of the students at a college or university.

Community water systems whose consumers do not have service connections, such as nursing homes or prisons, should notify all those drinking the water.

Notices in **newspapers** may be in the form of an article or a paid advertisement. Also, try to get articles published in smaller **community newspapers, homeowners' association newsletters**, or similar publications. **Paid advertisements** offer an advantage because you are guaranteed the notice will appear exactly as you write it. Try to purchase ad space in the front section of the paper. Legal notices tend to get lost in the back of the paper where few people read them.

## **May I combine notices for multiple Tier 3 violations or situations?**

If you have multiple monitoring or testing procedure violations or other situations within a 12-month period, you should strongly consider combining notification for them into a **single annual Tier 3 notice** (141.204(d)). An annual notice can help you save preparation, delivery, and printing costs. You can issue such a notice at any time, as long as the earliest violation included occurred less than 12 months before the notice is provided to consumers. For example, if your water system violates the monitoring requirement for VOCs on March 31 and also violates the monitoring requirements for the Total Coliform Rule in January, August, and December, you may issue a single notice on January 1 of the subsequent year listing all the violations since the previous January 1.

### **Tips for Very Small Community Systems**

- ▶ Consider combining notices for multiple Tier 3 violations and situations into one annual notice.
- ▶ Compare mailing and labor costs before selecting a delivery method. Hand delivery may be cheaper and faster than preparing a mailing. However, you may be able to include your notice with the bill at no extra cost.
- ▶ Supplement your chosen delivery method by posting in banks, grocery stores, town halls, and restaurants, or by publishing in a newspaper.

If you are a community water system, you may also wish to **consider using the Consumer Confidence Report (CCR)** for Tier 3 notices. Unlike a separate annual notice, however, using the CCR to meet the public notification obligation requires that you tailor the release of your CCR to meet the unique PN requirements. Using the CCR may reduce some production costs and may reduce redundancy since the violations and situations requiring public notice must also eventually be included in the CCR.

Including your Tier 3 public notice as part of the CCR could also provide the context that more accurately describes what has happened. Before you decide, however, remember that the **timing and delivery requirements for CCRs differ from those for PNs**. If you use the CCR for public notification, be very careful to adhere to the PN requirement that public notice for Tier 3 violations be completed no later than 12 months from the date the violation occurred. In addition, if you use the CCR, it must be provided to persons served that are not necessarily only the billing customers who would receive the CCR. Keep in mind, small community water systems that have a mailing waiver for CCR will not satisfy PN delivery requirements.

An example illustrates the coordination challenge that water systems will face in using the CCR as the vehicle for the annual Tier 3 notice. CCRs must be published by July 1 of every year and must include information from the previous calendar year, according to the CCR regulation. A CCR published in July 2000 must include violations or situations that occurred between January 1, 1999 and December 31, 1999. Under this schedule, public notice requirements for Tier 3 violations or situations that occurred between



January and June 1999 could not be met since the CCR would reach consumers more than a year after they occurred. Any violations or situations that occur more than one year before the CCR is published must be reported in a separate PN notice. To minimize the timing conflict, you can:

- ▶ Publish the CCR early—as soon after the end of the calendar year as possible, or
- ▶ Mail a separate public notice for the violations occurring in January through June of the *current* year in the same envelope as your CCR covering the *previous* calendar year's violations.

## **Suggestions for the Layout of the Notice**

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The format of a Tier 3 notice depends on your circumstances and on the number of violations or situations you are reporting. If you have multiple monitoring violations, it may be simpler and shorter to list them in a table. The table could include columns for the required sampling frequency, the number of samples taken, when the samples should have been taken, and when the samples were or will be taken. However, not all monitoring violations are the same. A coliform monitoring violation in which one of 100 samples was missed is less serious than missing one of two required samples. You may feel it is more appropriate to describe each violation in a paragraph. Templates 3-1A and 3-1B at the end of this chapter offers sample language and instructions for preparing public notices for monitoring violations.

In a notice for monitoring violations, it is important to tell consumers the implications of the violation. They may wonder why they weren't told earlier, whether there is any health risk, and why the samples were not taken. You should respond to their concerns. A statement clarifying that no emergency exists, that the notice is for informational purposes, and that subsequent monitoring showed no problems will help reassure consumers.

A notice for a fluoride SMCL exceedance need only contain the mandatory language found in Template 3-5 with the blanks filled in appropriately (141.208). You should also include the language that encourages distribution. Notices must be provided as soon as practical but no later than 12 months after you learn of the exceedance. Due to the staining effect of fluoride at levels above the SMCL on the teeth of children under nine, consider issuing these notices quickly to prevent damage to their teeth.

A notice of the availability of unregulated contaminant data need only state that the monitoring results are available and provide a phone number to call to obtain them (141.207). You may use an annual notice or insert this notice into your CCR, provided public notification timing and delivery requirements can be met. You do not need to include the results themselves, unless you are a community water system using the CCR to provide the notice. CCR regulations require systems to include data on all detected contaminants.

You should include your PWS ID number at the bottom of any notice. This will help your primacy agency track compliance and prevent tracking errors between systems with similar names. Also include the date on which you distributed the notice.



## **Tier 3 Templates**

Tier 3 notices are required for the following violations or situations:

- ▶ **Monitoring violations** (except for the following: failure to monitor for fecal coliform or *E. coli* when repeat samples are positive for coliform, failure to take a confirmation sample for nitrate or nitrite within 24 hours, and failure to take required samples for chlorine dioxide in the distribution system, which require Tier 1 notice; failure to collect 3 or more samples for *Cryptosporidium*, which requires Tier 2 notice; and any monitoring violations elevated to Tier 1 or 2 by the primacy agency);
- ▶ **Testing procedure violations**, except where elevated to Tier 2 by the primacy agency;
- ▶ Operation under a **variance or exemption**;
- ▶ Special notice for **availability of unregulated contaminant monitoring data**; and
- ▶ Special notice for **fluoride** secondary maximum contaminant level (SMCL) exceedances.

The pages that follow contain templates for Tier 3 violations and situations. Along with the templates are instructions, including the required method of delivery and suggestions for completing individual sections of the notices. These instructions are designed to supplement Chapter 7, so you may see much of the information repeated here.

**Mandatory language on unknown risk for monitoring violations, which must be included as written with blanks filled in, is presented in italics (141.205(d)). All the language in the fluoride SMCL template (except the language discussed below) is mandatory (141.208).**

You must also include the following italicized language in all notices, where applicable (141.205(d)). Use of this language does not relieve you of your obligation to take steps reasonably calculated to notify all persons served:

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

### **Templates**

Monitoring Violations Annual Notice—Template 3-1A

Monitoring Violations Annual Notice—Template 3-1B

Failure to Comply with a Testing Procedure Notice – Template 3-2

Operating Under an Exemption Notice – Template 3-3

Special Notice for Availability of Unregulated Contaminant Monitoring Data – Template 3-4

Fluoride SMCL Notice—Template 3-5

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## Instructions for Monitoring Violations Annual Notice – Template 3-1A

### Template on Reverse

If you are required to provide Tier 3 notification, you must provide public notice to persons served within one year after you learn of the violation (141.204(b)). Multiple monitoring violations can be serious, and your primacy agency may have more stringent requirements. Check with your primacy agency to make sure you meet its requirements.

Community systems must use one of the following (141.204(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following (141.204(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.204(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you post the notice, it must remain posted until the violation is resolved. If the violation has been resolved, you must post the notice for at least seven days (141.204(b)). If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for insertion in an annual notice or the Consumer Confidence Report (CCR), as long as public notification timing and delivery requirements are met (141.204(d)). You may need to modify the template for a notice for individual monitoring violations. This example presents violations in a table; however, you may write out an explanation for each violation if you wish. For any monitoring violation for volatile organic compounds (VOCs) or other groups, you may list the group name in the table, but you must provide the name of every chemical in the group on the notice, e.g., in a footnote.

You may need to modify the notice if you had any monitoring violations for which monitoring later showed a maximum contaminant level or other violation. In such cases, you should refer to the public notice you issued at that time.

Include in your notice the standard language for monitoring and testing procedure violations in italics (141.205(d)(2)). If you modify the notice, you may not alter this mandatory language.

### Corrective Actions

In your notice, describe corrective actions you took or are taking. Listed below are some steps commonly taken by water systems with monitoring violations. You can use the following language, if appropriate, or develop your own:

- We have since taken the required samples, as described in the last column of the table above. The samples showed we are meeting drinking water standards.
- We have since taken the required samples, as described in the last column of the table above. The sample for [contaminant] exceeded the limit. [Describe corrective action; use information from public notice prepared for violating the limit.]
- We plan to take the required samples soon, as described in the last column of the table above.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)).



## Monitoring Violations Annual Notice – Template 3-1A

### IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

#### Monitoring Requirements Not Met for [System]

Our water system violated drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we [‘did not monitor or test’ or ‘did not complete all monitoring or testing’] for [contaminant(s)] and therefore cannot be sure of the quality of our drinking water during that time.*

#### What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for [this contaminant/these contaminants] and how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When samples should have been taken	When samples were taken
VOCs <sup>1</sup> (example)	1 sample every three years	0	2000-2002	February 2003

#### What is being done?

[Describe corrective action.]

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

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

## Instructions for Monitoring Violations Annual Notice – Template 3-1B

### Template on Reverse

The template on reverse is another example of a monitoring violation. The example in this template is for Bromate under the Stage 2 DBPR. All the instructions of Template 3-1A apply.

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Monitoring Requirements Not Met for [System]

On [give date] we became aware that our system recently failed to collect the correct number of drinking water samples. Although this incident was not an emergency, as our customers, you have a right to know what happened and what we did (are doing) to correct this situation.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we ['did not monitor or test' or 'did not complete all monitoring or testing'] for bromate and therefore cannot be sure of the quality of our drinking water during that time. We were allowed to take 1 sample per quarter rather than 1 sample per month. In [give date], we no longer qualified for reduced quarterly bromate monitoring. Beginning in [give date], we failed to begin monitoring monthly for bromate.*

#### What should I do?

There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information]. We will also post this information on our web site at [www.ourwatersystem.com](http://www.ourwatersystem.com).

#### What is being done?

[Describe corrective action.] We began monitoring monthly for bromate on [give date] and will continue to monitoring on this schedule until (unless) we qualify for reduced monitoring.

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

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

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for Failure to Comply with a Testing Procedure Notice – Template 3-2

### Template on Reverse

Failure to comply with a testing procedure requires Tier 3 notification. You must provide public notice to persons served within one year after you learn of the violation (141.204(b)). Multiple testing violations can be serious, and your primacy agency may have more stringent requirements. Check with your primacy agency to make sure you meet its requirements.

Community systems must use one of the following (141.204(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following (141.204(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.204(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you post the notice, it must remain posted until the violation is resolved. If the violation has been resolved, you must post the notice for at least seven days (141.204(b)). If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for insertion in an annual notice or the Consumer Confidence Report (CCR), as long as public notification timing and delivery requirements are met (141.204(d)).

This example is for a holding time violation. It will need to be modified for other types of testing violations. However, you must include in your notice the standard language for monitoring and testing procedure violations (141.205(d)(2)). If you modify the notice, you may not alter this mandatory language.

### Corrective Actions

In your notice, describe corrective actions you took or are taking. Listed below is a step commonly taken by water systems with a holding time violation. You can use the following language, if appropriate, or develop your own that is specific to your testing violation:

- On (date) we collected (will collect) a new sample of our finished water in order to have it analyzed for (contaminant). We sent (will send) the sample to the certified laboratory via courier to ensure that the sample arrived within the allowed holding time.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Failure to Comply With a Testing Procedure

Our water system [name of system] recently failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

*We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During [compliance period] we did not complete all monitoring or testing for [contaminant(s)] and therefore cannot be sure of the quality of our drinking water during that time. Any sample we collect must be sent and analyzed by a certified laboratory within a specified amount of time. We collected the sample on [give date], but did not get our sample to the laboratory within the allowed holding time.*

#### What should I do?

- There is nothing you need to do. You do not need to boil your water or take other corrective actions. You may continue to drink the water and use it for cooking and bathing. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours. We will announce any emergencies on [give TV and/or radio stations where they can get additional information].

#### What is being done?

On (date) we collected (will collect) a new sample of our finished water in order to have it analyzed for (contaminant). We sent (will send) the sample to the certified lab via courier to ensure that the sample arrived within the allowed holding time. (The sample was analyzed and (contaminant) was not found at detectable levels.)

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

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

This notice is being sent to you by [system name]. State Water System ID# \_\_\_\_\_.

Date distributed: \_\_\_\_\_



## Instructions for Operating Under an Exemption Notice – Template 3-3

### Template on Reverse

If you are operating under a variance or exemption, you are required to provide Tier 3 notification. You must provide public notice to persons served within one year after you begin operating under a variance or exemption (141.204(b)). Systems operating under a variance or exemption are required to include the following information in their notice (141.205(b)):

- An explanation for the reasons for the variance or exemption;
- The date on which the variance or exemption was issued;
- A brief status report on the steps the system is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and
- A notice of any opportunity for public input in the review of the variance or exemption.

Your primacy agency may require additional information. Check with your primacy agency to make sure you meet its requirements. Failure to comply with a variance or exemption is a Tier 2 violation. Use Template 2-13 for this type of violation.

Community systems must use one of the following (141.204(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following (141.204(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.204(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you post the notice, it must remain posted until the violation is resolved. If the violation has been resolved, you must post the notice for at least seven days (141.204(b)). If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for insertion in an annual notice or the Consumer Confidence Report (CCR), as long as public notification timing and delivery requirements are met (141.204(d)).

### Corrective Actions

In your notice, describe corrective actions you took or are taking. Listed below is one action commonly taken by water systems that have been granted an exemption. You can use the following language, if appropriate, or develop your own:

- We have begun the process to secure the necessary funding for a new treatment process. We have [explain steps taken thus far] and anticipate having funding secured by [date]. At that time we will [explain the next step, such as purchase and begin installation of the selected treatment technology].

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)).



## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Operating Under an Exemption

Our water system has been granted an exemption from [primacy agency] for [contaminant] on [give date]. An exemption allows eligible systems additional time to comply with a drinking water standard. [Name of system] was granted an exemption for (contaminant) so that we could raise funds for a new treatment process to remove (contaminant) from our drinking water.

#### What should I do?

[Provide information about any actions customers or you are required to take as a condition of the exemption. For example if you are required to provide bottled water explain where, when and how customers will receive bottled water. If you are not required to provide bottled water or there are no corrective actions customers should take, you may state that here].

#### What does this mean?

This is not an emergency. If it had been, you would have been informed within 24 hours.

[Consider including health effects language specific to the contaminant for which the exemption applies]

#### What is being done?

We have begun the process to secure the necessary funding for a new treatment process. We have [explain steps taken thus far] and anticipate having funding secured by [date]. At that time we will [explain the next step, such as purchase and begin installation of the selected treatment technology].

[Our exemption will be reviewed by [primacy agency] on [date]. As our customer you have the opportunity to provide input if you wish.]

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

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

This notice is being sent to you by [system name]. State Water System ID# \_\_\_\_\_.  
Date distributed: \_\_\_\_\_

## Instructions for Special Notice for Availability of Unregulated Contaminant Monitoring Data— Template 3-4

### Template on Reverse

If you are required to monitor under 141.40 for unregulated contaminants, you must provide Tier 3 notification to persons served within one year after you receive the monitoring results (141.207(a)). Check with your primacy agency to make sure you meet its requirements.

Community systems must use one of the following (141.204(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

Non-community systems must use one of the following (141.204(c)):

- Posting in conspicuous locations
- Hand delivery
- Mail

In addition, both community and non-community systems must use another method reasonably calculated to reach others if they would not be reached by the first method (141.204(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for insertion in an annual notice or the Consumer Confidence Report (CCR), as long as public notification timing and delivery requirements are met (141.207(a)).

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)).

**Special Notice for Availability of Unregulated Contaminant Monitoring Data-  
Template 3-4**

**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**Availability of Monitoring Data for Unregulated Contaminants for [System]**

Our water system has sampled for a series of unregulated contaminants. Unregulated contaminants are those that don't yet have a drinking water standard set by USEPA. The purpose of monitoring for these contaminants is to help EPA decide whether the contaminants should have a standard. As our customers, you have a right to know that this data is available. If you are interested in examining the results, please contact [name of contact] at [phone number] or [mailing address].

This notice is being sent to you by [system]. State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.



## Instructions for Fluoride SMCL Notice – Template 3-5

### Template on Reverse

For any exceedance of the fluoride secondary maximum contaminant level SMCL, you must provide public notice to persons served as soon as practical but within 12 months after you learn of the exceedance (141.208), using the provided mandatory language and filling in the blanks. Your primacy agency may have more stringent deadlines or other requirements. Because fluoride at levels above the SMCL can permanently discolor children's teeth, you are urged to issue this notice as soon as practical. Non-community systems that monitor for fluoride (federal law does not require non-community systems to monitor) are encouraged to notify their consumers if they exceed the SMCL, especially at water systems serving children. If you exceed the MCL of 4 mg/l, you must provide notice within 30 days of learning of the violation (141.203(a)). See Template 2-4.

Community systems must use one of the following (141.204(c)):

- Hand or direct delivery
- Mail, as a separate notice or included with the bill

In addition, you must use another method reasonably calculated to reach others if they would not be reached by the first method (141.204(c)). Such methods could include newspapers, e-mail, or delivery to community organizations. If you post the notice, it must remain posted until the exceedance is resolved. If the exceedance has been resolved, you must post the notice for at least seven days (141.204(b)). If you mail, post, or hand deliver, print your notice on letterhead, if available.

The notice on the reverse is appropriate for insertion in an annual notice or the CCR, as long as public notification timing and delivery requirements are met (141.204(d)), as well as for a separate individual notice. The language on the template is mandatory and may not be modified, although you may add to the notice, as suggested below (141.208).

### Explaining the Situation

Use the following language, if applicable:

- Fluoride contamination is rarely due to human activity. Fluoride occurs naturally in some areas and is found in high concentrations in the aquifer in our source water.

If the fluoride levels in the water have returned to below the SMCL, be sure to make this clear in your notice.

### Corrective Actions

In your notice, you should describe corrective actions you took or are taking, if any. The bullet below describes one action commonly taken by water systems with fluoride SMCL exceedances. You can use this language, or develop your own:

- We are continuing to monitor fluoride levels. We will inform you if they exceed the limit of 4 mg/l.

### After Issuing the Notice

Make sure to send your primacy agency a copy of each type of notice and a certification that you have met all the public notice requirements within ten days after issuing the notice (141.31(d)).

## IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

### Elevated Fluoride Levels Detected

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system [name] has a fluoride concentration of [insert value] mg/l.

Dental fluorosis in its moderate or severe forms, may result in a brown staining and or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/l of fluoride (the U.S. Environmental Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

For more information, please call [name of water system contact] of [name of community water system] at [phone number]. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP.

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

This notice is being sent to you by [system]: \_\_\_\_\_.  
State Water System ID#: \_\_\_\_\_.  
Date distributed: \_\_\_\_\_.

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# Appendices

Appendix A: Sample Public Notification





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**Appendix A**  
**NPDWR Violations and Other Situations Requiring Public Notice<sup>1</sup>**  
(From Appendix A of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCL/MRDL/TT Violations <sup>2</sup>		Monitoring & Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
<b>I. Violations of National Primary Drinking Water Regulations (NPDWR):<sup>3</sup></b>				
<b>A. Microbiological Contaminants</b>				
1. Total coliform	2	141.63(a)	3	141.21(a)-(e)
2. Fecal coliform/ <i>E. coli</i>	1	141.63(b)	1 <sup>4</sup> , 3	141.21(e)
3. Turbidity MCL	2	141.13(a)	3	141.22
4. Turbidity MCL (average of 2 days' samples >5 NTU)	2 <sup>5</sup> , 1	141.13(b)	3	141.22
5. Turbidity (for TT violations resulting from a single exceedance of maximum allowable turbidity level)	2 <sup>6</sup> , 1	141.71(a)(2), 141.71(c)(2)(i), 141.73(a)(2), 141.73(b)(2), 141.73(c)(2), 141.73(d), 141.173(a)(2), 141.173(b), 141.551(b)	3	141.74(a)(1), 141.74(b)(2), 141.74(c)(1), 141.174, 141.560(a)-(c), 141.561
6. Surface Water Treatment Rule violations, other than violations resulting from single exceedance of max. allowable turbidity level (TT)	2	141.70-141.73	3	141.74
7. Interim Enhanced Surface Water Treatment Rule violations, other than violations resulting from single exceedance of max. turbidity level (TT)	2 <sup>7</sup>	141.170- 141.173, 141.500- 141.553	3	141.172, 141.174, 141.530- 141.544, 141.560- 141.564
8. Filter Backwash Recycling Rule violations	2	141.76(c)	3	141.76(b), (d)
9. Long Term 1 Enhanced Surface Water Treatment Rule violations	2	141.500- 141.553	3	141.530- 141.544, 141.560- 141.564
10. LT2ESWTR violations	2	141.710- 141.720	2 <sup>22</sup> , 3	141.701- 141.705 and 141.708- 141.709
<b>B. Inorganic Chemicals (IOCs)</b>				
1. Antimony	2	141.62(b)	3	141.23(a), (c)
2. Arsenic	2	141.62(b) <sup>8</sup>	3	141.23(a), (c) <sup>11</sup>
3. Asbestos (fibers >10 µm)	2	141.62(b)	3	141.23(a)-(b)

**Appendix A**  
**NPDWR Violations and Other Situations Requiring Public Notice**  
(From Appendix A of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCL/MRDL/TT Violations <sup>2</sup>		Monitoring & Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
4. Barium	2	141.62(b)	3	141.23(a), (c)
5. Beryllium	2	141.62(b)	3	141.23(a), (c)
6. Cadmium	2	141.62(b)	3	141.23(a), (c)
7. Chromium (total)	2	141.62(b)	3	141.23(a), (c)
8. Cyanide	2	141.62(b)	3	141.23(a), (c)
9. Fluoride	2	141.62(b)	3	141.23(a), (c)
10. Mercury (inorganic)	2	141.62(b)	3	141.23(a), (c)
11. Nitrate	1	141.62(b)	1, 3 <sup>12</sup>	141.23(a), (d) 141.23(f)(2)
12. Nitrite	1	141.62(b)	1, 3 <sup>12</sup>	141.23(a), (e) 141.23(f)(2)
13. Total Nitrate and Nitrite	1	141.62(b)	3	141.23(a)
14. Selenium	2	141.62(b)	3	141.23(a), (c)
15. Thallium	2	141.62(b)	3	141.23(a), (c)
<b>C. Lead and Copper Rule</b> (Action Level for lead is 0.015 mg/L, for copper is 1.3 mg/L)				
1. Lead and Copper Rule (TT)	2	141.80-141.85	3	141.86-141.89
<b>D. Synthetic Organic Chemicals (SOCs)</b>				
1. 2,4-D	2	141.61(c)	3	141.24(h)
2. 2,4,5-TP (Silvex)	2	141.61(c)	3	141.24(h)
3. Alachlor	2	141.61(c)	3	141.24(h)
4. Atrazine	2	141.61(c)	3	141.24(h)
5. Benzo(a)pyrene (PAHs)	2	141.61(c)	3	141.24(h)
6. Carbofuran	2	141.61(c)	3	141.24(h)
7. Chlordane	2	141.61(c)	3	141.24(h)
8. Dalapon	2	141.61(c)	3	141.24(h)
9. Di (2-ethylhexyl) adipate	2	141.61(c)	3	141.24(h)
10. Di (2-ethylhexyl) phthalate	2	141.61(c)	3	141.24(h)
11. Dibromochloropropane	2	141.61(c)	3	141.24(h)
12. Dinoseb	2	141.61(c)	3	141.24(h)
13. Dioxin (2,3,7,8-TCDD)	2	141.61(c)	3	141.24(h)
14. Diquat	2	141.61(c)	3	141.24(h)
15. Endothall	2	141.61(c)	3	141.24(h)
16. Endrin	2	141.61(c)	3	141.24(h)
17. Ethylene dibromide	2	141.61(c)	3	141.24(h)
18. Glyphosate	2	141.61(c)	3	141.24(h)
19. Heptachlor	2	141.61(c)	3	141.24(h)
20. Heptachlor epoxide	2	141.61(c)	3	141.24(h)
21. Hexachlorobenzene	2	141.61(c)	3	141.24(h)



**Appendix A**  
**NPDWR Violations and Other Situations Requiring Public Notice**  
(From Appendix A of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCL/MRDL/TT Violations <sup>2</sup>		Monitoring & Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
22. Hexachlorocyclopentadiene	2	141.61(c)	3	141.24(h)
23. Lindane	2	141.61(c)	3	141.24(h)
24. Methoxychlor	2	141.61(c)	3	141.24(h)
25. Oxamyl (Vydate)	2	141.61(c)	3	141.24(h)
26. Pentachlorophenol	2	141.61(c)	3	141.24(h)
27. Picloram	2	141.61(c)	3	141.24(h)
28. Polychlorinated biphenyls (PCBs)	2	141.61(c)	3	141.24(h)
29. Simazine	2	141.61(c)	3	141.24(h)
30. Toxaphene	2	141.61(c)	3	141.24(h)
<b>E. Volatile Organic Chemicals (VOCs)</b>				
1. Benzene	2	141.61(a)	3	141.24(f)
2. Carbon tetrachloride	2	141.61(a)	3	141.24(f)
3. Chlorobenzene (monochlorobenzene)	2	141.61(a)	3	141.24(f)
4. <i>o</i> -Dichlorobenzene	2	141.61(a)	3	141.24(f)
5. <i>p</i> -Dichlorobenzene	2	141.61(a)	3	141.24(f)
6. 1,2-Dichloroethane	2	141.61(a)	3	141.24(f)
7. 1,1-Dichloroethylene	2	141.61(a)	3	141.24(f)
8. <i>cis</i> -1,2-Dichloroethylene	2	141.61(a)	3	141.24(f)
9. <i>trans</i> -1,2-Dichloroethylene	2	141.61(a)	3	141.24(f)
10. Dichloromethane	2	141.61(a)	3	141.24(f)
11. 1,2-Dichloropropane	2	141.61(a)	3	141.24(f)
12. Ethylbenzene	2	141.61(a)	3	141.24(f)
13. Styrene	2	141.61(a)	3	141.24(f)
14. Tetrachloroethylene	2	141.61(a)	3	141.24(f)
15. Toluene	2	141.61(a)	3	141.24(f)
16. 1,2,4-Trichlorobenzene	2	141.61(a)	3	141.24(f)
17. 1,1,1-Trichloroethane	2	141.61(a)	3	141.24(f)
18. 1,1,2-Trichloroethane	2	141.61(a)	3	141.24(f)
19. Trichloroethylene	2	141.61(a)	3	141.24(f)
20. Vinyl chloride	2	141.61(a)	3	141.24(f)
21. Xylenes (total)	2	141.61(a)	3	141.24(f)
<b>F. Radioactive Contaminants</b>				
1. Beta/photon emitters	2	141.66(d)	3	141.25(a) 141.26(b)
2. Alpha emitters	2	141.66(c)	3	141.25(a) 141.26(a)
3. Combined radium (226 and 228)	2	141.66(b)	3	141.25(a) 141.26(a)

**Appendix A**  
**NPDWR Violations and Other Situations Requiring Public Notice**  
(From Appendix A of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCL/MRDL/TT Violations <sup>2</sup>		Monitoring & Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
4. Uranium	2 <sup>9</sup>	141.66(e)	3 <sup>10</sup>	141.25(a) 141.26(a)
<b>G. Disinfection Byproducts (DBPs), Byproduct Precursors, Disinfectant Residuals.</b> Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THMs) and haloacetic acids (HAAs). <sup>13</sup>				
1. Total trihalomethanes (TTHMs)	2	141.64(b) <sup>14</sup>	3	141.132(a)-(b) 141.600- 141.605, 141.620- 141.629
2. Haloacetic Acids (HAA5)	2	141.64(b)	3	141.132(a)-(b) 141.600- 141.605, 141.620- 141.629
3. Bromate	2	141.64(a)	3	141.132(a)-(b)
4. Chlorite	2	141.64(a)	3	141.132(a)-(b)
5. Chlorine (MRDL)	2	141.65(a)	3	141.132(a), (c)
6. Chloramine (MRDL)	2	141.65(a)	3	141.132(a), (c)
7. Chlorine dioxide (MRDL), where any 2 consecutive daily samples at entrance to distribution system only are above MRDL	2	141.65(a), 141.133(c)(3)	2 <sup>15</sup> , 3	141.132(a), (c) 141.133(c)(2)
8. Chlorine dioxide (MRDL), where sample(s) in distribution system the next day are also above MRDL	1 <sup>16</sup>	141.65(a), 141.133(c)(3)	1	141.132(a), (c) 141.133(c)(2)
9. Control of DBP precursors—TOC (TT)	2	141.135(a)-(b)	3	141.132(a), (d)
10. Benchmarking and disinfection profiling	N/A	N/A	3	141.172, 141.530- 141.544
11. Development of monitoring plan	N/A	N/A	3	141.132(f)
<b>H. Other Treatment Techniques</b>				
1. Acrylamide (TT)	2	141.111	N/A	N/A
2. Epichlorohydrin (TT)	2	141.111	N/A	N/A
<b>II. Unregulated Contaminant Monitoring.<sup>17</sup></b>				
A. Unregulated contaminants	N/A	N/A	3	141.40
B. Nickel	N/A	N/A	3	141.23(c), (k)



**Appendix A**  
**NPDWR Violations and Other Situations Requiring Public Notice**  
(From Appendix A of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCL/MRDL/TT Violations <sup>2</sup>		Monitoring & Testing Procedure Violations	
	Tier of Public Notice Required	Citation	Tier of Public Notice Required	Citation
<b>III. Public Notification for Variances and Exemptions:</b>				
A. Operation under a variance or exemption	3	1415, 1416 <sup>18</sup>	N/A	N/A
B. Violation of conditions of a variance or exemption	2	1415, 1416, 142.307 <sup>19</sup>	N/A	N/A
<b>IV. Other Situations Requiring Public Notification:</b>				
A. Fluoride secondary maximum contaminant level (SMCL) exceedance	3	143.3	N/A	N/A
B. Exceedance of nitrate MCL for non-community systems, as allowed by primacy agency	1	141.11(d)	N/A	N/A
C. Availability of unregulated contaminant monitoring data	3	141.40	N/A	N/A
D. Waterborne disease outbreak	1	141.2, 141.71(c)(2)(ii)	N/A	N/A
E. Other waterborne emergency <sup>20</sup>	1	N/A	N/A	N/A
F. Other situations as determined by primacy agency	1, 2, 3 <sup>21</sup>	N/A	N/A	N/A



## Appendix A Endnotes

1. Violations and other situations not listed in this table (e.g., failure to prepare Consumer Confidence Reports), do not require notice, unless otherwise determined by the primary agency. Primacy agencies may, at their option, also require a more stringent public notice tier (e.g., Tier 1 instead of Tier 2 or Tier 2 instead of Tier 3) for specific violations and situations listed in this Appendix, as authorized under §141.202(a) and §141.203(a).

2. MCL—Maximum contaminant level, MRDL—Maximum residual disinfectant level, TT—Treatment technique.

3. The term Violations of National Primary Drinking Water Regulations (NPDWR) is used here to include violations of MCL, MRDL, treatment technique, monitoring, and testing procedure requirements.

4. Failure to test for fecal coliform or *E. coli* is a Tier 1 violation if testing is not done after any repeat sample tests positive for coliform. All other total coliform monitoring and testing procedure violations are Tier 3.

5. Systems that violate the turbidity MCL of 5 NTU based on an average of measurements over two consecutive days must consult with the primacy agency within 24 hours after learning of the violation. Based on this consultation, the primacy agency may subsequently decide to elevate the violation to Tier 1. If a system is unable to make contact with the primacy agency in the 24-hour period, the violation is automatically elevated to Tier 1.

6. Systems with treatment technique violations involving a single exceedance of a maximum turbidity limit under the Surface Water Treatment Rule (SWTR), the Interim Enhanced Surface Water Treatment Rule (IESWTR), or the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) are required to consult with the primacy agency within 24 hours after learning of the violation. Based on this consultation, the primacy agency may subsequently decide to elevate the violation to Tier 1. If a system is unable to make contact with the primacy agency in the 24-hour period, the violation is automatically elevated to Tier 1.

7. Most of the requirements of the Interim Enhanced Surface Water Treatment Rule (63 FR 69477) (§§141.170–141.171, 141.173–141.174) become effective January 1, 2002 for Subpart H systems (surface water systems and ground water systems under the direct influence of surface water) serving at least 10,000 persons. However, §141.172 has some requirements that become effective as early as April 16, 1999. The Surface Water Treatment Rule remains in effect for systems serving at least 10,000 persons even after 2002; the Interim Enhanced Surface Water Treatment Rule adds additional requirements and does not in many cases supersede the SWTR.

8. The arsenic MCL citations are effective January 23, 2006. Until then, the citations are §141.11(b) and §141.23(n).

9. The uranium MCL Tier 2 violation citations are effective December 8, 2003 for all community water systems.

10. The uranium Tier 3 violation citations are effective December 8, 2000 for all community water systems.

11. The arsenic Tier 3 violation MCL citations are effective January 23, 2006. Until then, the citations are §141.23(a), (l).

12. Failure to take a confirmation sample within 24 hours for nitrate or nitrite after an initial sample exceeds the MCL is a Tier 1 violation. Other monitoring violations for nitrate are Tier 3.
13. Subpart H community and non-transient non-community systems serving  $\geq 10,000$  must comply with new DBP MCLs, disinfectant MRDLs, and related monitoring requirements beginning January 1, 2002. All other community and non-transient non-community systems must meet the MCLs and MRDLs beginning January 1, 2004. Subpart H transient non-community systems serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Subpart H transient non-community systems serving fewer than 10,000 persons and using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.
14. §§141.64(b)(1) 141.132(a)–(b) apply until §§141.620–141.630 take effect under the schedule in §141.620(c).
15. Failure to monitor for chlorine dioxide at the entrance to the distribution system the day after exceeding the MRDL at the entrance to the distribution system is a Tier 2 violation.
16. If any daily sample taken at the entrance to the distribution system exceeds the MRDL for chlorine dioxide and one or more samples taken in the distribution system the next day exceed the MRDL, Tier 1 notification is required. Failure to take the required samples in the distribution system after the MRDL is exceeded at the entry point also triggers Tier 1 notification.
17. Some water systems must monitor for certain unregulated contaminants listed in §141.40.
18. This citation refers to §§1415 and 1416 of the Safe Drinking Water Act. §§1415 and 1416 require that “a schedule prescribed. . . for a public water system granted a variance [or exemption] shall require compliance by the system. . .”
19. In addition to §§1415 and 1416 of the Safe Drinking Water Act, 40 CFR 142.307 specifies the items and schedule milestones that must be included in a variance for small systems.
20. Other waterborne emergencies require a Tier 1 public notice under §141.202(a) for situations that do not meet the definition of a waterborne disease outbreak given in 40 CFR 141.2 but that still have the potential to have serious adverse effects on health as a result of short-term exposure. These could include outbreaks not related to treatment deficiencies, as well as situations that have the potential to cause outbreaks, such as failures or significant interruption in water treatment processes, natural disasters that disrupt the water supply or distribution system, chemical spills, or unexpected loading of possible pathogens into the source water.
21. Primacy agencies may place other situations in any tier they believe appropriate, based on threat to public health.
22. Failure to collect three or more samples for *Cryptosporidium* analysis is a Tier 2 violation requiring special notice as specified in §141.211. All other monitoring and testing procedure violations are Tier 3.

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**Appendix B**  
**Standard Health Effects Language for Public Notification**  
 (From Appendix B of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
<b>National Primary Drinking Water Regulations (NPDWR):</b>			
<b>A. Microbiological Contaminants</b>			
1a. Total coliform	Zero	See footnote <sup>3</sup>	Coliforms are bacteria that 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.
1b. Fecal coliform/ <i>E. coli</i>	Zero	Zero	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, some of the elderly and people with severely compromised immune systems.
2a. Turbidity (MCL) <sup>4</sup>	None	1 NTU <sup>5</sup> / 5 NTU	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 that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
2b. Turbidity (SWTR TT) <sup>6</sup>	None	TT <sup>7</sup>	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 that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.
2c. Turbidity (IESWTR and LT1ESWTR TT) <sup>8</sup>	None	TT	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 that can cause symptoms such as nausea, cramps, diarrhea and associated headaches.

**Appendix B**  
**Standard Health Effects Language for Public Notification**  
(From Appendix B of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
<b>B. Surface Water Treatment Rule (SWTR), Interim Enhanced Surface Water Treatment Rule (IESWTR), Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) and the Filter Backwash Recycling Rule (FBRR) violations</b>			
3. <i>Giardia lamblia</i> (SWTR/IESWTR/LT1ESWTR) 4. Viruses (SWTR/IESWTR/LT1ESWTR) 5. Heterotrophic plate count (HPC) bacteria <sup>9</sup> (SWTR/IESWTR/LT1ESWTR) 6. Legionella (SWTR/IESWTR/LT1ESWTR) 7. <i>Cryptosporidium</i> (IESWTR/FBRR/LT1ESWTR)	Zero	TT <sup>10</sup>	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.
<b>C. Inorganic Chemicals (IOCs)</b>			
8. Antimony	0.006	0.006	Some people who drink water containing antimony well in excess of the MCL over many years could experience increases in blood cholesterol and decreases in blood sugar.
9. Arsenic <sup>11</sup>	0	0.010	Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.
10. Asbestos (10 µm)	7 MFL <sup>12</sup>	7 MFL	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps.
11. Barium	2	2	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
12. Beryllium	0.004	0.004	Some people who drink water containing beryllium well in excess of the MCL over many years could develop intestinal lesions.
13. Cadmium	0.005	0.005	Some people who drink water containing cadmium in excess of the MCL over many years could experience kidney damage.
14. Chromium (total)	0.1	0.1	Some people who use water containing chromium well in excess of the MCL over many years could experience allergic dermatitis.
15. Cyanide	0.2	0.2	Some people who drink water containing cyanide well in excess of the MCL over many years could experience nerve damage or problems with their thyroid.
16. Fluoride	4.0	4.0	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth, before they erupt from the gums.



**Appendix B**  
**Standard Health Effects Language for Public Notification**  
 (From Appendix B of 40 CFR 141, Subpart Q dated July 1, 2006)

Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
17. Mercury (inorganic)	0.002	0.002	Some people who drink water containing inorganic mercury well in excess of the MCL over many years could experience kidney damage.
18. Nitrate	10	10	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.
19. Nitrite	1	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.
20. Total Nitrate and Nitrite	10	10	Infants below the age of six months who drink water containing nitrate and nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.
21. Selenium	0.05	0.05	Selenium is an essential nutrient. However, some people who drink water containing selenium in excess of the MCL over many years could experience hair or fingernail losses, numbness in fingers or toes, or problems with their circulation.
22. Thallium	0.0005	0.002	Some people who drink water containing thallium in excess of the MCL over many years could experience hair loss, changes in their blood, or problems with their kidneys, intestines, or liver.
<b>D. Lead and Copper Rule</b>			
23. Lead	Zero	TT <sup>13</sup>	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 or high blood pressure.
24. Copper	1.3	TT <sup>14</sup>	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.
<b>E. Synthetic Organic Chemicals (SOCs)</b>			
25. 2,4-D	0.07	0.07	Some people who drink water containing the weed killer 2,4-D well in excess of the MCL over many years could experience problems with their kidneys, liver, or adrenal glands.
26. 2,4,5-TP (Silvex)	0.05	0.05	Some people who drink water containing silvex in excess of the MCL over many years could experience liver problems.
27. Alachlor	Zero	0.002	Some people who drink water containing alachlor in excess of the MCL over many years could have problems with their eyes, liver, kidneys, or spleen, or experience anemia, and may have an increased risk of getting cancer.
28. Atrazine	0.003	0.003	Some people who drink water containing atrazine well in excess of the MCL over many years could experience problems with their cardiovascular system or reproductive difficulties.



**Appendix B**  
**Standard Health Effects Language for Public Notification**  
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Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
29. Benzo(a)pyrene (PAHs)	Zero	0.0002	Some people who drink water containing benzo(a)pyrene in excess of the MCL over many years may experience reproductive difficulties and may have an increased risk of getting cancer.
30. Carbofuran	0.04	0.04	Some people who drink water containing carbofuran in excess of the MCL over many years could experience problems with their blood, or nervous or reproductive systems.
31. Chlordane	Zero	0.002	Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver, or nervous system, and may have an increased risk of getting cancer.
32. Dalapon	0.2	0.2	Some people who drink water containing dalapon well in excess of the MCL over many years could experience minor kidney changes.
33. Di (2-ethylhexyl) adipate	0.4	0.4	Some people who drink water containing di (2-ethylhexyl) adipate well in excess of the MCL over many years could experience toxic effects such as weight loss, liver enlargement or reproductive difficulties.
34. Di(2-ethylhexyl) phthalate	Zero	0.006	Some people who drink water containing di (2-ethylhexyl) phthalate in excess of the MCL over many years may have problems with their liver, or experience reproductive difficulties, and may have an increased risk of getting cancer.
35. Dibromochloropropane (DBCP)	Zero	0.0002	Some people who drink water containing DBCP in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
36. Dinoseb	0.007	0.007	Some people who drink water containing dinoseb well in excess of the MCL over many years could experience reproductive difficulties.
37. Dioxin (2,3,7,8-TCDD)	Zero	3x10 <sup>-8</sup>	Some people who drink water containing dioxin in excess of the MCL over many years could experience reproductive difficulties and may have an increased risk of getting cancer.
38. Diquat	0.02	0.02	Some people who drink water containing diquat in excess of the MCL over many years could get cataracts.
39. Endothall	0.1	0.1	Some people who drink water containing endothall in excess of the MCL over many years could experience problems with their stomach or intestines.
40. Endrin	0.002	0.002	Some people who drink water containing endrin in excess of the MCL over many years could experience liver problems.
41. Ethylene dibromide	Zero	0.00005	Some people who drink water containing ethylene dibromide in excess of the MCL over many years could experience problems with their liver, stomach, reproductive system, or kidneys, and may have an increased risk of getting cancer.
42. Glyphosate	0.7	0.7	Some people who drink water containing glyphosate in excess of the MCL over many years could experience problems with their kidneys or reproductive difficulties.
43. Heptachlor	Zero	0.0004	Some people who drink water containing heptachlor in excess of the MCL over many years could experience liver damage and may have an increased risk of getting cancer.

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Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
44. Heptachlor epoxide	Zero	0.0002	Some people who drink water containing heptachlor epoxide in excess of the MCL over many years could experience liver damage, and may have an increased risk of getting cancer.
45. Hexachlorobenzene	Zero	0.001	Some people who drink water containing hexachlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys, or adverse reproductive effects, and may have an increased risk of getting cancer.
46. Hexachlorocyclopentadiene	0.05	0.05	Some people who drink water containing hexachlorocyclopentadiene well in excess of the MCL over many years could experience problems with their kidneys or stomach.
47. Lindane	0.0002	0.0002	Some people who drink water containing lindane in excess of the MCL over many years could experience problems with their kidneys or liver.
48. Methoxychlor	0.04	0.04	Some people who drink water containing methoxychlor in excess of the MCL over many years could experience reproductive difficulties.
49. Oxamyl (Vydate)	0.2	0.2	Some people who drink water containing oxamyl in excess of the MCL over many years could experience slight nervous system effects.
50. Pentachlorophenol	Zero	0.001	Some people who drink water containing pentachlorophenol in excess of the MCL over many years could experience problems with their liver or kidneys, and may have an increased risk of getting cancer.
51. Picloram	0.5	0.5	Some people who drink water containing picloram in excess of the MCL over many years could experience problems with their liver.
52. Polychlorinated biphenyls (PCBs)	Zero	0.0005	Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland, immune deficiencies, or reproductive or nervous system difficulties, and may have an increased risk of getting cancer.
53. Simazine	0.004	0.004	Some people who drink water containing simazine in excess of the MCL over many years could experience problems with their blood.
54. Toxaphene	Zero	0.003	Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have an increased risk of getting cancer.
<b>F. Volatile Organic Chemicals (VOCs)</b>			
55. Benzene	Zero	0.005	Some people who drink water containing benzene in excess of the MCL over many years could experience anemia or a decrease in blood platelets, and may have an increased risk of getting cancer.
56. Carbon tetrachloride	Zero	0.005	Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.
57. Chlorobenzene (monochlorobenzene)	0.1	0.1	Some people who drink water containing chlorobenzene in excess of the MCL over many years could experience problems with their liver or kidneys.



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Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
58. <i>o</i> -Dichlorobenzene	0.6	0.6	Some people who drink water containing <i>o</i> -dichlorobenzene well in excess of the MCL over many years could experience problems with their liver, kidneys, or circulatory systems.
59. <i>p</i> -Dichlorobenzene	0.075	0.075	Some people who drink water containing <i>p</i> -dichlorobenzene in excess of the MCL over many years could experience anemia, damage to their liver, kidneys, or spleen, or changes in their blood.
60. 1,2-Dichloroethane	Zero	0.005	Some people who drink water containing 1,2-dichloroethane in excess of the MCL over many years may have an increased risk of getting cancer.
61. 1,1-Dichloroethylene	0.007	0.007	Some people who drink water containing 1,1-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
62. <i>cis</i> -1,2-Dichloroethylene	0.07	0.07	Some people who drink water containing <i>cis</i> -1,2-dichloroethylene in excess of the MCL over many years could experience problems with their liver.
63. <i>trans</i> -1,2-Dichloroethylene	0.1	0.1	Some people who drink water containing <i>trans</i> -1,2-dichloroethylene well in excess of the MCL over many years could experience problems with their liver.
64. Dichloromethane	Zero	0.005	Some people who drink water containing dichloromethane in excess of the MCL over many years could have liver problems and may have an increased risk of getting cancer.
65. 1,2-Dichloropropane	Zero	0.005	Some people who drink water containing 1,2-dichloropropane in excess of the MCL over many years may have an increased risk of getting cancer.
66. Ethylbenzene	0.7	0.7	Some people who drink water containing ethylbenzene well in excess of the MCL over many years could experience problems with their liver or kidneys.
67. Styrene	0.1	0.1	Some people who drink water containing styrene well in excess of the MCL over many years could have problems with their liver, kidneys, or circulatory system.
68. Tetrachloroethylene	Zero	0.005	Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver, and may have an increased risk of getting cancer.
69. Toluene	1	1	Some people who drink water containing toluene well in excess of the MCL over many years could have problems with their nervous system, kidneys, or liver.
70. 1,2,4-Trichlorobenzene	0.07	0.07	Some people who drink water containing 1,2,4-trichlorobenzene well in excess of the MCL over many years could experience changes in their adrenal glands.
71. 1,1,1-Trichloroethane	0.2	0.2	Some people who drink water containing 1,1,1-trichloroethane in excess of the MCL over many years could experience problems with their liver, nervous system, or circulatory system.
72. 1,1,2-Trichloroethane	0.003	0.005	Some people who drink water containing 1,1,2-trichloroethane well in excess of the MCL over many years could have problems with their liver, kidneys, or immune systems.
73. Trichloroethylene	Zero	0.005	Some people who drink water containing trichloroethylene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.



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Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
74. Vinyl chloride	Zero	0.002	Some people who drink water containing vinyl chloride in excess of the MCL over many years may have an increased risk of getting cancer.
75. Xylenes (total)	10	10	Some people who drink water containing xylenes in excess of the MCL over many years could experience damage to their nervous system.
<b>G. Radioactive Contaminants</b>			
76. Beta/photon emitters	Zero	4 mrem/yr <sup>15</sup>	Certain minerals are radioactive and may emit forms of radiation known as photons and beta radiation. Some people who drink water containing beta and photon emitters in excess of the MCL over many years may have an increased risk of getting cancer.
77. Alpha emitters	Zero	17 pCi/L <sup>17</sup>	Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
78. Combined radium (226 & 228)	Zero	5 pCi/L	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
79. Uranium <sup>16</sup>	Zero	30 µg/L	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
<b>H. Disinfection Byproducts (DBPs), Byproduct Precursors, and Disinfectant Residuals: Where disinfection is used in the treatment of drinking water, disinfectants combine with organic and inorganic matter present in water to form chemicals called disinfection byproducts (DBPs). EPA sets standards for controlling the levels of disinfectants and DBPs in drinking water, including trihalomethanes (THMs) and haloacetic acids (HAAs)<sup>18</sup></b>			
80. Total trihalomethanes (TTHMs)	N/A	0.080 <sup>19,20</sup>	Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.
81. Haloacetic Acids (HAA)	N/A	0.060 <sup>21</sup>	Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.
82. Bromate	Zero	0.010	Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.
83. Chlorite	0.08	1.0	Some infants and young children who drink water containing chlorite in excess of the MCL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorite in excess of the MCL. Some people may experience anemia.
84. Chlorine	4 (MRDLG) <sup>22</sup>	4.0 (MRDL) <sup>23</sup>	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort.
85. Chloramines	4 (MRDLG)	4.0 (MRDL)	Some people who use water containing chloramines well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chloramines well in excess of the MRDL could experience stomach discomfort or anemia.

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Contaminant	MCLG <sup>1</sup> mg/L	MCL <sup>2</sup> mg/L	Standard Health Effects Language for Public Notification
86a. Chlorine dioxide, where any 2 consecutive daily samples taken at the entrance to the distribution system are above the MRDL.	0.8 (MRDLG)	0.8 (MRDL)	<p>Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.</p> <p><i>Add for public notification only:</i> The chlorine dioxide violations reported today are the result of exceedances at the treatment facility only, not within the distribution system which delivers water to consumers. Continued compliance with chlorine dioxide levels within the distribution system minimizes the potential risk of these violations to consumers.</p>
86b. Chlorine dioxide, where one or more distribution system samples are above the MRDL.	0.8 (MRDLG)	0.8 (MRDL)	<p>Some infants and young children who drink water containing chlorine dioxide in excess of the MRDL could experience nervous system effects. Similar effects may occur in fetuses of pregnant women who drink water containing chlorine dioxide in excess of the MRDL. Some people may experience anemia.</p> <p><i>Add for public notification only:</i> The chlorine dioxide violations reported today include exceedances of the EPA standard within the distribution system which delivers water to consumers. Violations of the chlorine dioxide standard within the distribution system may harm human health based on short-term exposures. Certain groups, including fetuses, infants, and young children, may be especially susceptible to nervous system effects from excessive chlorine dioxide exposure.</p>
87. Control of DBP precursors (TOC)	None	TT	<p>Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.</p>
<b>I. Other Treatment Techniques</b>			
88. Acrylamide	Zero	TT	<p>Some people who drink water containing high levels of acrylamide over a long period of time could have problems with their nervous system or blood, and may have an increased risk of getting cancer.</p>
89. Epichlorohydrin	Zero	TT	<p>Some people who drink water containing high levels of epichlorohydrin over a long period of time could experience stomach problems, and may have an increased risk of getting cancer.</p>



## Appendix B Endnotes

1. MCLG - Maximum contaminant level goal
2. MCL - Maximum contaminant level
3. For water systems analyzing at least 40 samples per month, no more than 5.0 percent of the monthly samples may be positive for total coliforms. For systems analyzing fewer than 40 samples per month, no more than one sample per month may be positive for total coliforms.
4. There are various regulations that set turbidity standards for different types of systems, including 40 CFR 141.13, and the 1989 Surface Water Treatment Rule, the 1998 Interim Enhanced Surface Water Treatment Rule and the 2002 Long Term 1 Enhanced Surface Water Treatment Rule. The MCL for the monthly turbidity average is 1 NTU; the MCL for the 2-day average is 5 NTU for systems that are required to filter but have not yet installed filtration (40 CFR 141.13).
5. NTU - Nephelometric turbidity unit
6. There are various regulations that set turbidity standards for different types of systems, including 40 CFR 141.13, and the 1989 Surface Water Treatment Rule, the 1998 Interim Enhanced Surface Water Treatment Rule and the 2001 Long Term 1 Enhanced Surface Water Treatment Rule. Systems subject to the Surface Water Treatment Rule (both filtered and unfiltered) may not exceed 5 NTU. In addition, in filtered systems, 95 percent of samples each month must not exceed 0.5 NTU in systems using conventional or direct filtration and must not exceed 1 NTU in systems using slow sand or diatomaceous earth filtration or other filtration technologies approved by the primacy agency.
7. TT - Treatment technique
8. There are various regulations that set turbidity standards for different types of systems, including 40 CFR 141.13, the 1989 Surface Water Treatment Rule (SWTR), the 1998 Interim Enhanced Surface Water Treatment Rule (IESWTR) and the 2002 Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR). For systems subject to the IESWTR (systems serving at least 10,000 people, using surface water or ground water under the direct influence of surface water), that use conventional filtration or direct filtration, after January 1, 2002, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent must not exceed 1 NTU at any time. Systems subject to the IESWTR using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration must meet turbidity limits set by the primacy agency. For systems subject to the LT1ESWTR (systems serving fewer than 10,000 people, using surface water or ground water under the direct influence of surface water) that use conventional filtration or direct filtration, after January 1, 2005, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent must not exceed 1 NTU at any time. Systems subject to the LT1ESWTR using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration must meet turbidity limits set by the primacy agency.
9. The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.



10. SWTR, IESWTR, and LT1ESWTR treatment technique violations that involve turbidity exceedances may use the health effects language for turbidity instead.
11. These arsenic values are effective January 23, 2006. Until then, the MCL is 0.05 mg/L and there is no MCLG.
12. Millions fibers per liter.
13. Action Level = 0.015 mg/L
14. Action Level = 1.3 mg/L
15. Millirems per years
16. The uranium MCL is effective December 8, 2003 for all community water systems.
17. Picocuries per liter
18. Surface water systems and ground water systems under the direct influence of surface water are regulated under subpart H of 40 CFR 141. Subpart H community and non-transient non-community systems serving  $\geq 10,000$  must comply with subpart L DBP MCLs and disinfectant maximum residual disinfectant levels (MRDLs) beginning January 1, 2002. All other community and non-transient non-community systems must comply with subpart L DBP MCLs and disinfectant MRDLs beginning January 1, 2004. Subpart H transient non-community systems serving  $\geq 10,000$  that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. All other transient non-community systems that use chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.
19. Community and non-transient non-community systems must comply with subpart V TTHM and HAA5 MCLs of 0.080 mg/L and 0.060 mg/L, respectively (with compliance calculated as a locational running annual average) on the schedule in §141.620.
20. The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.
21. The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.
22. MRDLG - Maximum residual disinfectant level goal.
23. MRDL - Maximum residual disinfectant level.

**Appendix C  
Translated Phrases**

From: Washington Department of Health (DOH PUB. # 331-246, February 2004) [http://www.doh.wa.gov/ehp/dtw/programs/public\\_notification.htm](http://www.doh.wa.gov/ehp/dtw/programs/public_notification.htm)

<b>English</b>	This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.	Boil your water before using.	Don't drink the water.	Children under 12 months old should not drink the water. Don't use the water to make formula.
<b>Amharic</b>	ይህ ዘገባ ስለሚጠብቁት ውሃ ጠቃሚ መረጃዎችን ይዟል ። ሌላ ጉዳዩን የሚረዱሎት ለገብሎት ምሳሌ ወይም ለገዳዳዎች ያደርጉ ።	ውሃዎን ከመቀምም በፊት ያፍሉት ።	ውሃውን ስይጠቡ ።	ዕድሜያቸው ከ12 ወራት በጥቅ የሆኑ ልጆች ውሃውን መጠባት የለባቸውም ። የልጆቹን ምግብ (ፎርሙላ) ለማስፈን ውሃውን ስይጠቀሙ ።
<b>Arabic</b>	هذا التقرير يحتوي على معلومات مهمة عن ماء الشرب الذي تستخدمه. اطلب من شخص ما ان يترجمه لك لو يستطيع فهمه.	إغلي الماء قبل استعماله	لا تشرب الماء.	يجب ان لا يشرب الأطفال الذين اعمارهم اقل من 12 سنة هذا الماء. لا تستخدم هذا الماء لتخصير الفورمولا (طبيب الأطفال).
<b>Cambodian (Khmer)</b>	របាយការណ៍នេះ មានសារៈសំខាន់ណាស់ គឺជូនព័ត៌មានអំពីសុវត្ថិភាពនៃទឹកផ្ទះលោក-អ្នក ឬក៏ផ្ទះលោក-អ្នក ។ ចូររកជនណាម្នាក់ឱ្យបកប្រែជូនលោក-អ្នក ឬក៏ជួយជាមួយជនណាម្នាក់ ដែលយល់នូវន័យនេះច្បាស់ណាស់ ។	ចូរដាំទឹកឱ្យរះសិន មុននឹងប្រើប្រាស់ ។	ចូរកុំទទួលទានទឹក ។	កុំដាំក្រោមអាជ្ញាធរ ១២ខែ មិនគួរឱ្យប្រើទឹកនេះ ។ ចូរកុំប្រើទឹកលាបជាមួយឱ្យប្រើទឹកផ្ទះ ។
<b>Chinese Simplified</b>	此报告包含有关您的饮用水的重要信息。请人帮您翻译出来，或请看懂此报告的人将内容说给您听。	将水煮开后才使用。	不要喝这些水。	不满 12 个月大的小孩不应该喝这些水。 不要用这些水做配方。
<b>Chinese Traditional</b>	此報告包含有關您的飲用水的重要資訊。請人幫您翻譯出來，或請能看懂此報告的人將內容說給您聽。	將水煮開後才使用。	切勿喝這些水。	不滿 12 個月大的小孩不應該喝這些水。 切勿用這些水做配方。
<b>Farsi</b>	این گزارش شامل اطلاعات مهمی در مورد آب آشامیدنی شما میباشد. از شخصی بخواهید که به شما ترجمه کند و یا با شخصی که این موضوع را میفهمد صحبت کنید.	قبل از استفاده آب اشامیدنیتان را به جوش بیاورید.	اب را نخورید.	کودکان زیر ۱۲ ماهه نیاستی اب را بخورند. اب را برای درست کردن غذای بچه ( فرمولا ) استفاده نکند.
<b>French</b>	Ce rapport contient des informations importantes à propos de votre eau potable. Demander à quelqu'un de traduire ces informations pour vous ou discuter avec une personne qui comprend ces informations.	Faire bouillir l'eau avant de l'utiliser.	Ne pas boire l'eau.	Les enfants des moins de 12 mois ne doivent pas boire l'eau. Ne pas utiliser l'eau dans une préparation lactée pour nourrisson.



**Appendix C**  
**Translated Phrases**



<b>English</b>	This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.	Boil your water before using.	Don't drink the water.	Children under 12 months old should not drink the water. Don't use the water to make formula.
<b>Greek</b>	Αυτή η αναφορά περιλαμβάνει σημαντικές πληροφορίες σχετικά με το πόσιμο νερό σας. Ζητήστε από κάποιον να σας τη μεταφράσει, ή μιλήσετε με κάποιον που την καταλαβαίνει.	Βράζετε το νερό πριν το χρησιμοποιήσετε.	Μην πίνετε το νερό.	Τα παιδιά κάτω των 12 μηνών δεν θα πρέπει να πίνουν το νερό. Μην χρησιμοποιήσετε το νερό για να φτιάξετε κάποια συνταγή.
<b>Hebrew</b>	זוהו מידע חשוב בנוגע למי השתייה שלכם. בקשו ממשהו שיתרגם אותו עבורכם, או שוחחו עם משהו שמבין את הנכון.	יש להרתיח את המים לפני השימוש.	אין לשותות את המים.	12 חודשים או פחות לילדים לא לשתות מים ללא מתחמת.
<b>Hindi</b>	यह रिपोर्ट में आपके पीने वाले पानी के बारे में जरूरी जानकारी है। किसी से इससे इसका अनुवाद करना आता हो उस से बात करें।	पानी इसतेमाल करने से पहिले उबाल लें।	पानी न पीएं।	12 महिने से कम उमर के बच्चों को पानी नहीं पीना चाहिए। फारमूला बनाने के लिए पानी का इस्तेमाल न करें।
<b>Hmong</b>	Dlaim ntaawv tshaabxub nuav muaj lug tseemceeb heev nyob rua huv kws has txug cov dlej mej haus. Kuas ib tug paab txhais rua koj, los nrug ib tug kws paub lug thaam.	Uantej kws yuav siv mej cov dlej nuav yuav tau muab nwg rhaub kuas npau.	Tsi txhob haus cov dlej nuav.	Cov mivnyuas kws tsi tau muaj 12 xyoo tsi txhob haus cov dlej nuav. Txhob muab cov dlej nuav moog tov mig.
<b>Japanese</b>	このレポートには飲料水に関する重要な情報が記載されています。この英文を訳してもらおうか、またはどなたか英語が分かる方にたずねてください。	水は使用前前に煮沸してください。	水を飲まないでください。	12か月未満のお子様には水を飲ませないでください。水を使って乳児用ミルクを作らないでください。
<b>Korean</b>	이 보고서에는 귀하의 식수에 대한 중요한 내용이 실려 있습니다. 그러므로 이 보고서를 이해할 수 있는 사람한테 번역해 달라고 부탁하시기 바랍니다.	사용하기 전에 물을 끓이십시오.	물을 마시지 마십시오.	12세 미만의 아이들에게 물을 마시게 하지 마십시오. 취물타를 섞을 때 물을 사용하지 마십시오.
<b>Laotian</b>	ໃບລາຍງານນີ້ມີຂໍ້ມູນສຳຄັນກ່ຽວກັບນ້ຳດື່ມຂອງທ່ານ. ໃຫ້ຄົນອື່ນມີຄວາມເຂົ້າໃຈກ່ຽວກັບນ້ຳດື່ມຂອງທ່ານ. ຫາຄົນອື່ນທີ່ຮູ້ເວົ້າໄດ້ຮູ້ມັນ.	ຕ້ອງປັ່ນນ້ຳດື່ມກ່ອນດື່ມ.	ຢ່າສູ້ດື່ມນ້ຳ.	ຕ້ອງບໍ່ອາດຊາກວ່າ 12 ຄົນເດີມອາດຈະບໍ່ດື່ມນ້ຳ. ຢ່າສູ້ໃຫ້ນ້ຳດື່ມອາດຈະເຮັດບໍ່ດື່ມນ້ຳ.
<b>Oromo</b>	Gabaasii kun odeeffanno barbachisa wa'ee bisaan dhugaatii qaba. Akkaa isinii turjumaa'uu gaafadhaa yokaan nama afaan keessan dubbatuu dubbisaa.	Bisaan oso hindhugneen duraa akka danffistan.	Bisaan kan hindhuginaa.	Daa'imman baatii(ji'aa) 12 hingahiin bisaan kan dhugmuulaa(Nyaata Ijoollee) qopheessuf itii hinfaayadamina.



### Appendix C Translated Phrases

<b>English</b>	This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.	Boil your water before using.	Don't drink the water.	Children under 12 months old should not drink the water. Don't use the water to make formula.
<b>Polish</b>	Następujący raport zawiera ważną informację na temat wody pitnej. Proszę poprosić kogoś o przetłumaczenie lub porozmawiać z kimś kto rozumie.	Należy przegotować wodę przed spożyciem.	Proszę nie pić wody.	Dzieci w wieku poniżej 12 miesięcy nie powinny pić tej wody. Proszę nie używać tej wody do przygotowywania formuły.
<b>Punjabi</b>	ਇਸ ਰੀਪੋਰਟ ਵਿਚ ਤੁਹਾਡੇ ਪੀਣ ਵਾਲੇ ਪਾਣੀ ਬਾਰੇ ਜ਼ਰੂਰੀ ਜਾਣਕਾਰੀ ਹੈ। ਕਿਸੇ ਕੋਲੋਂ, ਜਿਸ ਨੂੰ ਸਮਝ ਆਉਂਦੀ ਹੋਵੇ ਇਸ ਦਾ ਅਨੁਵਾਦ ਕਰਵਾ ਲਵੋ ਜਾਂ ਉਸ ਨਾਲ ਗੱਲ ਕਰੋ।	ਪਾਣੀ ਨੂੰ ਇਸਤੇਮਾਲ ਕਰਨ ਤੋਂ ਪਹਿਲਾਂ ਉਬਾਲ ਲਵੋ।	ਪਾਣੀ ਨਾ ਪੀਓ।	12 ਮਹੀਨੇ ਤੋਂ ਘੱਟ ਉਮਰ ਦੇ ਬੱਚਿਆਂ ਨੂੰ ਪਾਣੀ ਨਹੀਂ ਪੀਣਾ ਚਾਹੀਦਾ। ਫਾਰਮੂਲਾ ਬਣਾਉਣ ਵਾਸਤੇ ਪਾਣੀ ਦਾ ਇਸਤੇਮਾਲ ਨਾ ਕਰੋ।
<b>Russian</b>	В этом сообщении содержится важная информация о воде, которую вы пьёте. Попросите кого-нибудь перевести для вас это сообщение или поговорите с человеком, который понимает его содержание.	Кипятите воду, прежде чем пользоваться ею.	Не пейте воду.	Детям в возрасте до 12 месяцев не следует пить воду. Не используйте воду для приготовления адаптированной детской смеси ("формулы").
<b>Samoan</b>	O le lipoti lenei o lo'o iai ni mea e sili ona taua e uiga i le vai o lo'o e taumafaina nei. Su'e se tagata e fa'aliliuina mo oe, po'o lou talatalanoa i seisi e iai sona malamalama e leni mataupu.	Tunu le vai ia pupuna ona fa'atua inu lea.	Aua le inuina le vai.	Tamaiti uma lava e i lalo o le 12 tausaga e le tatau ona inuina le vai. Aua le fa'aaogaina le vai e sui ai ni vaiala'au po'o le palu ai o ni mea tausama.
<b>Serbo-Croatian</b>	Ovaj izvještaj sadrži važnu informaciju u vašoj vodi za piće. Neka vam neko prevede, ili popitčajte sa nekim ko se u ovo razumije.	Prokjučajte vodu prije upotrebe.	Ne pijte vodu.	Djeca ispod 12 mjeseci starosti ne bi trebala piti vodu. Ne koristite vodu za pripravljanje hrane u flašici za bebe.
<b>Somali</b>	Warbixintan waxay wadataa macluumaad muhiim ah ee la xiriira biyaha aad cabtid. Cid ha kuu tarjunto ama la hadi cid fahmaysa.	Karkari biyaha inta aadan isticmaalin.	Ha cabin biyaha.	Carruurta sannad jir ka yar ma aha inay biyaha cabaan. Ha u isticmaalin biyaha inaad kula qastid caanaha ama raashinka la qaso ee carruurta.
<b>Spanish</b>	Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, o hable con alguien que lo entienda.	Haga hervir el agua antes de usarla.	No beba el agua.	Los niños menores de 12 meses de edad no deben beber el agua. No use el agua para preparar la fórmula para bebés (biberón).
<b>Tagalog</b>	Naglalaman ang report na ito ng importanteng impormasyon tungkol sa iyong ininom na tubig. Magkaroon ng isang tao na isasalin ito sa iyong wika para sa iyo, o makipag-usap sa isang tao na nakakaintindi dito.	Pakuluin ang inyong tubig bago gagamitin.	Huwag inumin ang tubig.	Ang mga bata na kulang sa 12 na buwan ang gulang ay hindi dapat na iinumang tubig. Huwag gagamitin ang tubig sa paggawa ng pormula.

**Appendix C  
Translated Phrases**

<b>English</b>	This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.	Boil your water before using.	Don't drink the water.	Children under 12 months old should not drink the water. Don't use the water to make formula.
<b>Thai</b>	รายงานนี้ข้อมูลสำคัญเกี่ยวกับน้ำดื่มของท่านโปรดขอให้บุคคลอื่นแปลหรือพูดความให้ท่าน หรือปรึกษาผู้ที่เข้าใจความนี้	ต้มน้ำให้เดือดก่อนนำไปใช้	อย่าดื่มน้ำนี้	เด็กที่อายุต่ำกว่า 12 ปี ต้องไม่ดื่มน้ำนี้ อย่าใช้ น้ำนี้ ในการผสมนมเลี้ยงเด็ก
<b>Tigrigna</b>	እዚ ደቡብ-ፍብዳኒ ተሰተደዎ ማይ አገዳሲ ሓበሬታ አለዎ። ዘተርጉሙልኩም ወይ ዘረዳኩም ሰብ ድለዎ።	ማይ አፍሊሕኩም ስተዩ።	ካብዚ ማይ አይተስተዩ።	ተሕቲ 12 ወርሒ ዝኮኑ ሕጻናት ካብዚ ማይ ክስተዩ የብሎምዮ፡ በዚ ማይ ነሕጻን ጸባ ንምብጻብጽ አይተጠቀሙ።
<b>Ukrainian</b>	Це повідомлення містить важливу інформацію про воду, яку ви п'єте. Попросіть кого-небудь перекласти вам це повідомлення або поговоріть з людиною, яка розуміє його зміст.	Кип'ятіть воду до користування.	Не пийте воду.	Діти у віці до 12 місяців в не повинні пити воду. Не користуйтеся водою для приготування адаптованої дитячої суміші ("формули").
<b>Vietnamese</b>	Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.	Đun sôi nước trước khi dùng.	Đừng uống nước này.	Trẻ em dưới 12 tháng không nên uống nước này. Đừng dùng nước này để pha sữa formula.
The water glass and faucet may be useful in a posted notice that would be seen by many non-English speaking people to illustrate that they should not drink the water.				



## Appendix D

### The Public Notification Rule (40 CFR Part 141, Subpart Q)

Federal Register / Vol. 65, No. 87 / Thursday, May 4, 2000 / Rules and Regulations

26035

#### Appendices B and C to Subpart O [Removed]

15. Appendices B and C to Subpart O are removed.

16. Section 141.175 is amended by revising paragraphs (c)(1) and (c)(2) to read as follows:

#### § 141.175 Reporting and record keeping requirements.

\* \* \* \* \*

(c) \* \* \*

(1) If at any time the turbidity exceeds 1 NTU in representative samples of filtered water in a system using conventional filtration treatment or direct filtration, the system must consult with the primacy agency as soon as practical, but no later than 24 hours after the exceedance is known, in accordance with the public notification requirements under § 141.203(b)(3).

(2) If at any time the turbidity in representative samples of filtered water exceed the maximum level set by the State under § 142.173(b) for filtration technologies other than conventional filtration treatment, direct filtration, slow sand filtration, or diatomaceous earth filtration, the system must consult with the primacy agency as soon as practical, but no later than 24 hours after the exceedance is known, in accordance with the public notification requirements under § 141.203(b)(3).

17. Part 141 is amended by adding Subpart Q, to read as follows:

#### Subpart Q—Public Notification of Drinking Water Violations

Sec.

- 141.201 General public notification requirements.
- 141.202 *Tier 1 Public Notice*—Form, manner, and frequency of notice.
- 141.203 *Tier 2 Public Notice*—Form, manner, and frequency of notice.
- 141.204 *Tier 3 Public Notice*—Form, manner, and frequency of notice.
- 141.205 Content of the public notice.
- 141.206 Notice to new billing units or new customers.
- 141.207 Special notice of the availability of unregulated contaminant monitoring results.
- 141.208 Special notice for exceedance of the SMCL for fluoride.
- 141.209 Special notice for nitrate exceedances above MCL by non-community water systems (NCWS), where granted permission by the primacy agency under § 141.11(d).
- 141.210 Notice by primacy agency on behalf of the public water system.

Appendix A to Subpart Q of Part 141—NPDWR Violations and Situations Requiring Public Notice

Appendix B to Subpart Q of Part 141—Standard Health Effects Language for Public Notification

#### Appendix C to Subpart Q of Part 141—List of Acronyms Used in Public Notification Regulation

#### Subpart Q—Public Notification of Drinking Water Violations

##### § 141.201 General public notification requirements.

Public water systems in States with primacy for the public water system supervision (PWSS) program must comply with the requirements in this subpart no later than May 6, 2002 or on the date the State-adopted rule becomes effective, whichever comes first. Public water systems in jurisdictions where EPA directly implements the PWSS program must comply with the requirements in this subpart on October 31, 2000. Prior to these dates, public water systems must continue to comply with the public notice requirements in § 141.32 of this part. The term “primacy agency” is used in this subpart to refer to either EPA or the State or the Tribe in cases where EPA, the State, or the Tribe exercises primary enforcement responsibility for this subpart.

(a) *Who must give public notice?* Each owner or operator of a public water system (community water systems, non-transient non-community water systems, and transient non-community water systems) must give notice for all violations of national primary drinking water regulations (NPDWR) and for other situations, as listed in Table 1. The term “NPDWR violations” is used in this subpart to include violations of the maximum contaminant level (MCL), maximum residual disinfection level (MRDL), treatment technique (TT), monitoring requirements, and testing procedures in this part 141. Appendix A to this subpart identifies the tier assignment for each specific violation or situation requiring a public notice.

#### TABLE 1 TO § 141.201.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A PUBLIC NOTICE

- (1) NPDWR violations:
- Failure to comply with an applicable maximum contaminant level (MCL) or maximum residual disinfectant level (MRDL).
  - Failure to comply with a prescribed treatment technique (TT).
  - Failure to perform water quality monitoring, as required by the drinking water regulations.
  - Failure to comply with testing procedures as prescribed by a drinking water regulation.
- (2) Variance and exemptions under sections 1415 and 1416 of SDWA:
- Operation under a variance or an exemption.

#### TABLE 1 TO § 141.201.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A PUBLIC NOTICE—Continued

- Failure to comply with the requirements of any schedule that has been set under a variance or exemption.
- (3) Special public notices:
- Occurrence of a waterborne disease outbreak or other waterborne emergency.
  - Exceedance of the nitrate MCL by non-community water systems (NCWS), where granted permission by the primacy agency under 141.11(d) of this part.
  - Exceedance of the secondary maximum contaminant level (SMCL) for fluoride.
  - Availability of unregulated contaminant monitoring data.
  - Other violations and situations determined by the primacy agency to require a public notice under this subpart, not already listed in Appendix A.

(b) What type of public notice is required for each violation or situation? Public notice requirements are divided into three tiers, to take into account the seriousness of the violation or situation and of any potential adverse health effects that may be involved. The public notice requirements for each violation or situation listed in Table 1 of this section are determined by the tier to which it is assigned. Table 2 of this section provides the definition of each tier. Appendix A of this part identifies the tier assignment for each specific violation or situation.

#### TABLE 2 TO § 141.201.—DEFINITION OF PUBLIC NOTICE TIERS

- Tier 1 public notice*—required for NPDWR violations and situations with significant potential to have serious adverse effects on human health as a result of short-term exposure.
- Tier 2 public notice*—required for all other NPDWR violations and situations with potential to have serious adverse effects on human health.
- Tier 3 public notice*—required for all other NPDWR violations and situations not included in Tier 1 and Tier 2.

(c) Who must be notified?

(1) Each public water system must provide public notice to persons served by the water system, in accordance with this subpart. Public water systems that sell or otherwise provide drinking water to other public water systems (i.e., to consecutive systems) are required to give public notice to the owner or operator of the consecutive system; the consecutive system is responsible for



providing public notice to the persons it serves.

(2) If a public water system has a violation in a portion of the distribution system that is physically or hydraulically isolated from other parts of the distribution system, the primacy agency may allow the system to limit distribution of the public notice to only persons served by that portion of the system which is out of compliance. Permission by the primacy agency for limiting distribution of the notice must be granted in writing.

(3) A copy of the notice must also be sent to the primacy agency, in accordance with the requirements under § 141.31(d).

**§ 141.202 Tier 1 Public Notice—Form, manner, and frequency of notice.**

(a) Which violations or situations require a Tier 1 public notice? Table 1 of this section lists the violation categories and other situations requiring a Tier 1 public notice. Appendix A to this subpart identifies the tier assignment for each specific violation or situation.

TABLE 1 TO § 141.202.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 1 PUBLIC NOTICE

- (1) Violation of the MCL for total coliforms when fecal coliform or E. coli are present in the water distribution system (as specified in § 141.63(b)), or when the water system fails to test for fecal coliforms or E. coli when any repeat sample tests positive for coliform (as specified in § 141.21(e));
- (2) Violation of the MCL for nitrate, nitrite, or total nitrate and nitrite, as defined in § 141.62, or when the water system fails to take a confirmation sample within 24 hours of the system's receipt of the first sample showing an exceedance of the nitrate or nitrite MCL, as specified in § 141.23(f)(2);
- (3) Exceedance of the nitrate MCL by non-community water systems, where permitted to exceed the MCL by the primacy agency under § 141.11(d), as required under § 141.209;
- (4) Violation of the MRDL for chlorine dioxide, as defined in § 141.65(a), when one or more samples taken in the distribution system the day following an exceedance of the MRDL at the entrance of the distribution system exceed the MRDL, or when the water system does not take the required samples in the distribution system, as specified in § 141.133(c)(2)(i);
- (5) Violation of the turbidity MCL under § 141.13(b), where the primacy agency determines after consultation that a Tier 1 notice is required or where consultation does not take place within 24 hours after the system learns of the violation;

TABLE 1 TO § 141.202.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 1 PUBLIC NOTICE—Continued

- (6) Violation of the Surface Water Treatment Rule (SWTR) or Interim Enhanced Surface Water Treatment rule (IESWTR) treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit (as identified in Appendix A), where the primacy agency determines after consultation that a Tier 1 notice is required or where consultation does not take place within 24 hours after the system learns of the violation;
- (7) Occurrence of a waterborne disease outbreak, as defined in § 141.2, or other waterborne emergency (such as a failure or significant interruption in key water treatment processes, a natural disaster that disrupts the water supply or distribution system, or a chemical spill or unexpected loading of possible pathogens into the source water that significantly increases the potential for drinking water contamination);
- (8) Other violations or situations with significant potential to have serious adverse effects on human health as a result of short-term exposure, as determined by the primacy agency either in its regulations or on a case-by-case basis.

(b) *When is the Tier 1 public notice to be provided? What additional steps are required? Public water systems must:*

- (1) Provide a public notice as soon as practical but no later than 24 hours after the system learns of the violation;
- (2) Initiate consultation with the primacy agency as soon as practical, but no later than 24 hours after the public water system learns of the violation or situation, to determine additional public notice requirements; and
- (3) Comply with any additional public notification requirements (including any repeat notices or direction on the duration of the posted notices) that are established as a result of the consultation with the primacy agency. Such requirements may include the timing, form, manner, frequency, and content of repeat notices (if any) and other actions designed to reach all persons served.

(c) What is the form and manner of the public notice? Public water systems must provide the notice within 24 hours in a form and manner reasonably calculated to reach all persons served. The form and manner used by the public water system are to fit the specific situation, but must be designed to reach residential, transient, and non-transient users of the water system. In order to reach all persons served, water systems are to use, at a minimum, one

or more of the following forms of delivery:

- (1) Appropriate broadcast media (such as radio and television);
- (2) Posting of the notice in conspicuous locations throughout the area served by the water system;
- (3) Hand delivery of the notice to persons served by the water system; or
- (4) Another delivery method approved in writing by the primacy agency.

**§ 141.203 Tier 2 Public Notice—Form, manner, and frequency of notice.**

(a) Which violations or situations require a Tier 2 public notice? Table 1 of this section lists the violation categories and other situations requiring a Tier 2 public notice. Appendix A to this subpart identifies the tier assignment for each specific violation or situation.

TABLE 1 TO § 141.203.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 2 PUBLIC NOTICE

- (1) All violations of the MCL, MRDL, and treatment technique requirements, except where a Tier 1 notice is required under § 141.202(a) or where the primacy agency determines that a Tier 1 notice is required;
- (2) Violations of the monitoring and testing procedure requirements, where the primacy agency determines that a Tier 2 rather than a Tier 3 public notice is required, taking into account potential health impacts and persistence of the violation; and
- (3) Failure to comply with the terms and conditions of any variance or exemption in place.

(b) *When is the Tier 2 public notice to be provided?*

(1) Public water systems must provide the public notice as soon as practical, but no later than 30 days after the system learns of the violation. If the public notice is posted, the notice must remain in place for as long as the violation or situation persists, but in no case for less than seven days, even if the violation or situation is resolved. The primacy agency may, in appropriate circumstances, allow additional time for the initial notice of up to three months from the date the system learns of the violation. It is not appropriate for the primacy agency to grant an extension to the 30-day deadline for any unresolved violation or to allow across-the-board extensions by rule or policy for other violations or situations requiring a Tier 2 public notice. Extensions granted by the primacy agency must be in writing.

(2) The public water system must repeat the notice every three months as



long as the violation or situation persists, unless the primacy agency determines that appropriate circumstances warrant a different repeat notice frequency. In no circumstance may the repeat notice be given less frequently than once per year. It is not appropriate for the primacy agency to allow less frequent repeat notice for an MCL violation under the Total Coliform Rule or a treatment technique violation under the Surface Water Treatment Rule or Interim Enhanced Surface Water Treatment Rule. It is also not appropriate for the primacy agency to allow through its rules or policies across-the-board reductions in the repeat notice frequency for other ongoing violations requiring a Tier 2 repeat notice. Primacy agency determinations allowing repeat notices to be given less frequently than once every three months must be in writing.

(3) For the turbidity violations specified in this paragraph, public water systems must consult with the primacy agency as soon as practical but no later than 24 hours after the public water system learns of the violation, to determine whether a Tier 1 public notice under § 141.202(a) is required to protect public health. When consultation does not take place within the 24-hour period, the water system must distribute a Tier 1 notice of the violation within the next 24 hours (*i.e.*, no later than 48 hours after the system learns of the violation), following the requirements under § 141.202(b) and (c). Consultation with the primacy agency is required for:

- (i) Violation of the turbidity MCL under § 141.13(b); or
- (ii) Violation of the SWTR or IESWTR treatment technique requirement resulting from a single exceedance of the maximum allowable turbidity limit.

(c) *What is the form and manner of the Tier 2 public notice?* Public water systems must provide the initial public notice and any repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. 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 the following requirements:

- (1) Unless directed otherwise by the primacy agency in writing, community water systems must provide notice by:
  - (i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system; and
  - (ii) Any other method reasonably calculated to reach other persons

regularly served by the system, if they would not normally be reached by the notice required in paragraph (c)(1)(i) of this section. Such persons may include those who do not pay water bills or do not have service connection addresses (*e.g.*, house renters, apartment dwellers, university students, nursing home patients, prison inmates, etc.). Other methods may include: Publication in a local newspaper; delivery of multiple copies for distribution by customers that provide their drinking water to others (*e.g.*, apartment building owners or large private employers); posting in public places served by the system or on the Internet; or delivery to community organizations.

(2) Unless directed otherwise by the primacy agency in writing, non-community water systems must provide notice by:

(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or by mail or direct delivery to each customer and service connection (where known); and

(ii) Any other method reasonably calculated to reach other persons served by the system if they would not normally be reached by the notice required in paragraph (c)(2)(i) of this section. Such persons may include those served who may not see a posted notice because the posted notice is not in a location they routinely pass by. Other methods may include: Publication in a local newspaper or newsletter distributed to customers; use of E-mail to notify employees or students; or, delivery of multiple copies in central locations (*e.g.*, community centers).

**§ 141.204 Tier 3 Public Notice—Form, manner, and frequency of notice.**

(a) Which violations or situations require a Tier 3 public notice? Table 1 of this section lists the violation categories and other situations requiring a Tier 3 public notice. Appendix A to this subpart identifies the tier assignment for each specific violation or situation.

**TABLE 1 TO § 141.204.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 3 PUBLIC NOTICE**

- (1) Monitoring violations under 40 CFR part 141, except where a Tier 1 notice is required under § 141.202(a) or where the primacy agency determines that a Tier 2 notice is required;

**TABLE 1 TO § 141.204.—VIOLATION CATEGORIES AND OTHER SITUATIONS REQUIRING A TIER 3 PUBLIC NOTICE—Continued**

- (2) Failure to comply with a testing procedure established in 40 CFR part 141, except where a Tier 1 notice is required under § 141.202(a) or where the primacy agency determines that a Tier 2 notice is required;
- (3) Operation under a variance granted under Section 1415 or an exemption granted under Section 1416 of the Safe Drinking Water Act;
- (4) Availability of unregulated contaminant monitoring results, as required under § 141.207; and
- (5) Exceedance of the fluoride secondary maximum contaminant level (SMCL), as required under § 141.208.

(b) *When is the Tier 3 public notice to be provided?*

(1) Public water systems must provide the public notice not later than one year after the public water system learns of the violation or situation or begins operating under a variance or exemption. Following the initial notice, the public water system must repeat the notice annually for as long as the violation, variance, exemption, or other situation persists. If the public notice is posted, the notice must remain in place for as long as the violation, variance, exemption, or other situation persists, but in no case less than seven days (even if the violation or situation is resolved).

(2) (2) Instead of individual Tier 3 public notice, public water systems may use an annual report detailing all violations and situations that occurred during the previous twelve months, as long as the timing requirements of paragraph (b)(1) of this section are met.

(c) *What is the form and manner of the Tier 3 public notice?* Public water systems must provide the initial notice and any repeat notices in a form and manner that is reasonably calculated to reach persons served in the required time period. 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 the following requirements:

- (1) Unless directed otherwise by the primacy agency in writing, community water systems must provide notice by:
  - (i) Mail or other direct delivery to each customer receiving a bill and to other service connections to which water is delivered by the public water system; and
  - (ii) Any other method reasonably calculated to reach other persons regularly served by the system, if they would not normally be reached by the notice required in paragraph (c)(1)(i) of



this section. Such persons may include those who do not pay water bills or do not have service connection addresses (e.g., house renters, apartment dwellers, university students, nursing home patients, prison inmates, etc.). Other methods may include: Publication in a local newspaper; delivery of multiple copies for distribution by customers that provide their drinking water to others (e.g., apartment building owners or large private employers); posting in public places or on the Internet; or delivery to community organizations.

(2) Unless directed otherwise by the primacy agency in writing, non-community water systems must provide notice by:

(i) Posting the notice in conspicuous locations throughout the distribution system frequented by persons served by the system, or by mail or direct delivery to each customer and service connection (where known); and

(ii) Any other method reasonably calculated to reach other persons served by the system, if they would not normally be reached by the notice required in paragraph (c)(2)(i) of this section. Such persons may include those who may not see a posted notice because the notice is not in a location they routinely pass by. Other methods may include: Publication in a local newspaper or newsletter distributed to customers; use of E-mail to notify employees or students; or, delivery of multiple copies in central locations (e.g., community centers).

(d) In what situations may the Consumer Confidence Report be used to meet the Tier 3 public notice requirements? For community water systems, the Consumer Confidence Report (CCR) required under Subpart O of this part may be used as a vehicle for the initial Tier 3 public notice and all required repeat notices, as long as:

(1) The CCR is provided to persons served no later than 12 months after the system learns of the violation or situation as required under § 141.204(b); and

(2) The Tier 3 notice contained in the CCR follows the content requirements under § 141.205; and

(3) The CCR is distributed following the delivery requirements under § 141.204(c).

#### § 141.205 Content of the public notice.

(a) What elements must be included in the public notice for violations of National Primary Drinking Water Regulations (NPDWR) or other situations requiring a public notice? When a public water system violates a NPDWR or has a situation requiring public notification, each public notice must include the following elements:

(1) A description of the violation or situation, including the contaminant(s) of concern, and (as applicable) the contaminant level(s);

(2) When the violation or situation occurred;

(3) Any potential adverse health effects from the violation or situation, including the standard language under paragraph (d)(1) or (d)(2) of this section, whichever is applicable;

(4) The population at risk, including subpopulations particularly vulnerable if exposed to the contaminant in their drinking water;

(5) Whether alternative water supplies should be used;

(6) What actions consumers should take, including when they should seek medical help, if known;

(7) What the system is doing to correct the violation or situation;

(8) When the water system expects to return to compliance or resolve the situation;

(9) The name, business address, and phone number of the water system owner, operator, or designee of the public water system as a source of additional information concerning the notice; and

(10) A statement to encourage the notice recipient to distribute the public notice to other persons served, using the standard language under paragraph (d)(3) of this section, where applicable.

(b) What elements must be included in the public notice for public water systems operating under a variance or exemption?

(1) If a public water system has been granted a variance or an exemption, the public notice must contain:

(i) An explanation of the reasons for the variance or exemption;

(ii) The date on which the variance or exemption was issued;

(iii) A brief status report on the steps the system is taking to install treatment, find alternative sources of water, or otherwise comply with the terms and schedules of the variance or exemption; and

(iv) A notice of any opportunity for public input in the review of the variance or exemption.

(2) If a public water system violates the conditions of a variance or exemption, the public notice must contain the ten elements listed in paragraph (a) of this section.

(c) How is the public notice to be presented?

(1) Each public notice required by this section:

(i) Must be displayed in a conspicuous way when printed or posted;

(ii) Must not contain overly technical language or very small print;

(iii) Must not be formatted in a way that defeats the purpose of the notice;

(iv) Must not contain language which nullifies the purpose of the notice.

(2) Each public notice required by this section must comply with multilingual requirements, as follows:

(i) For public water systems serving a large proportion of non-English speaking consumers, as determined by the primacy agency, the public notice must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the notice or to request assistance in the appropriate language.

(ii) In cases where the primacy agency has not determined what constitutes a large proportion of non-English speaking consumers, the public water system must include in the public notice the same information as in paragraph (c)(2)(i) of this section, where appropriate to reach a large proportion of non-English speaking persons served by the water system.

(d) What standard language must public water systems include in their public notice? Public water systems are required to include the following standard language in their public notice:

(1) Standard health effects language for MCL or MRDL violations, treatment technique violations, and violations of the condition of a variance or exemption. Public water systems must include in each public notice the health effects language specified in Appendix B to this subpart corresponding to each MCL, MRDL, and treatment technique violation listed in Appendix A to this subpart, and for each violation of a condition of a variance or exemption.

(2) Standard language for monitoring and testing procedure violations. Public water systems must include the following language in their notice, including the language necessary to fill in the blanks, for all monitoring and testing procedure violations listed in Appendix A to this subpart:

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During [compliance period], we "did not monitor or test" or "did not complete all monitoring or testing" for [contaminant(s)], and therefore cannot be sure of the quality of your drinking water during that time.

(3) Standard language to encourage the distribution of the public notice to all persons served. Public water systems must include in their notice the following language (where applicable):



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

**§ 141.206 Notice to new billing units or new customers.**

(a) What is the requirement for community water systems? Community water systems must give a copy of the most recent public notice for any continuing violation, the existence of a variance or exemption, or other ongoing situations requiring a public notice to all new billing units or new customers prior to or at the time service begins.

(b) What is the requirement for non-community water systems? Non-community water systems must continuously post the public notice in conspicuous locations in order to inform new consumers of any continuing violation, variance or exemption, or other situation requiring a public notice for as long as the violation, variance, exemption, or other situation persists.

**§ 141.207 Special notice of the availability of unregulated contaminant monitoring results.**

(a) When is the special notice to be given? The owner or operator of a community water system or non-transient, non-community water system required to monitor under § 141.40 must notify persons served by the system of the availability of the results of such sampling no later than 12 months after the monitoring results are known.

(b) What is the form and manner of the special notice? The form and manner of the public notice must follow the requirements for a Tier 3 public notice prescribed in §§ 141.204(c), (d)(1), and (d)(3). The notice must also identify a person and provide the telephone number to contact for information on the monitoring results.

**§ 141.208 Special notice for exceedance of the SMCL for fluoride.**

(a) When is the special notice to be given? Community water systems that exceed the fluoride secondary maximum contaminant level (SMCL) of 2 mg/l as specified in § 143.3 (determined by the last single sample taken in accordance with § 141.23), but

do not exceed the maximum contaminant level (MCL) of 4 mg/l for fluoride (as specified in § 141.62), must provide the public notice in paragraph (c) of this section to persons served. Public notice must be provided as soon as practical but no later than 12 months from the day the water system learns of the exceedance. A copy of the notice must also be sent to all new billing units and new customers at the time service begins and to the State public health officer. The public water system must repeat the notice at least annually for as long as the SMCL is exceeded. If the public notice is posted, the notice must remain in place for as long as the SMCL is exceeded, but in no case less than seven days (even if the exceedance is eliminated). On a case-by-case basis, the primacy agency may require an initial notice sooner than 12 months and repeat notices more frequently than annually.

(b) What is the form and manner of the special notice? The form and manner of the public notice (including repeat notices) must follow the requirements for a Tier 3 public notice in § 141.204(c) and (d)(1) and (d)(3).

(c) What mandatory language must be contained in the special notice? The notice must contain the following language, including the language necessary to fill in the blanks:

This is an alert about your drinking water and a cosmetic dental problem that might affect children under nine years of age. At low levels, fluoride can help prevent cavities, but children drinking water containing more than 2 milligrams per liter (mg/l) of fluoride may develop cosmetic discoloration of their permanent teeth (dental fluorosis). The drinking water provided by your community water system [*name*] has a fluoride concentration of [*insert value*] mg/l.

Dental fluorosis, in its moderate or severe forms, may result in a brown staining and/or pitting of the permanent teeth. This problem occurs only in developing teeth, before they erupt from the gums. Children under nine should be provided with alternative sources of drinking water or water that has been treated to remove the fluoride to avoid the possibility of staining and pitting of their permanent teeth. You may also want to contact your dentist about proper use by young children of fluoride-containing products. Older children and adults may safely drink the water.

Drinking water containing more than 4 mg/L of fluoride (the U.S. Environmental

Protection Agency's drinking water standard) can increase your risk of developing bone disease. Your drinking water does not contain more than 4 mg/l of fluoride, but we're required to notify you when we discover that the fluoride levels in your drinking water exceed 2 mg/l because of this cosmetic dental problem.

For more information, please call [name of water system contact] of [name of community water system] at [phone number]. Some home water treatment units are also available to remove fluoride from drinking water. To learn more about available home water treatment units, you may call NSF International at 1-877-8-NSF-HELP."

**§ 141.209 Special notice for nitrate exceedances above MCL by non-community water systems (NCWS), where granted permission by the primacy agency under § 141.11(d)**

(a) When is the special notice to be given? The owner or operator of a non-community water system granted permission by the primacy agency under § 141.11(d) to exceed the nitrate MCL must provide notice to persons served according to the requirements for a Tier 1 notice under § 141.202(a) and (b).

(b) What is the form and manner of the special notice? Non-community water systems granted permission by the primacy agency to exceed the nitrate MCL under § 141.11(d) must provide continuous posting of the fact that nitrate levels exceed 10 mg/l and the potential health effects of exposure, according to the requirements for Tier 1 notice delivery under § 141.202(c) and the content requirements under § 141.205.

**§ 141.210 Notice by primacy agency on behalf of the public water system.**

(a) May the primacy agency give the notice on behalf of the public water system? The primacy agency may give the notice required by this subpart on behalf of the owner and operator of the public water system if the primacy agency complies with the requirements of this subpart.

(b) What is the responsibility of the public water system when notice is given by the primacy agency? The owner or operator of the public water system remains responsible for ensuring that the requirements of this subpart are met.



systems, including 40 CFR 141.13, the 1989 Surface Water Treatment Rule (SWTR), and the 1998 Interim Enhanced Surface Water Treatment Rule (IESWTR). For systems subject to the IESWTR (systems serving at least 10,000 people, using surface water or ground water under the direct influence of surface water), that use conventional filtration or direct filtration, after January 1, 2002, the turbidity level of a system's combined filter effluent may not exceed 0.3 NTU in at least 95 percent of monthly measurements, and the turbidity level of a system's combined filter effluent must not exceed 1 NTU at any time. Systems subject to the IESWTR using technologies other than conventional, direct, slow sand, or diatomaceous earth filtration must meet turbidity limits set by the primacy agency.

9. The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.

10. SWTR and IESWTR treatment technique violations that involve turbidity exceedances may use the health effects language for turbidity instead.

11. The bacteria detected by heterotrophic plate count (HPC) are not necessarily harmful. HPC is simply an alternative method of determining disinfectant residual levels. The number of such bacteria is an indicator of whether there is enough disinfectant in the distribution system.

12. Millions fibers per liter.

13. Action Level = 0.015 mg/L

14. Action Level = 1.3 mg/L

15. Millirems per year

16. Picocuries per liter

17. Surface water systems and ground water systems under the direct influence of surface water are regulated under Subpart H of 40 CFR 141. Subpart H community and non-transient non-community systems serving  $\geq 10,000$  must comply with DBP MCLs and disinfectant maximum residual disinfectant levels (MRDLs) beginning January 1, 2002. All other community and non-transient non-community systems must meet the MCLs and MRDLs beginning January 1, 2004. Subpart H transient non-community systems serving 10,000 or more persons and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2002. Subpart H transient non-community systems serving fewer than 10,000 persons and systems using only ground water not under the direct influence of surface water and using chlorine dioxide as a disinfectant or oxidant must comply with the chlorine dioxide MRDL beginning January 1, 2004.

18. The MCL of 0.10 mg/l for TTHMs is in effect until January 1, 2002 for Subpart H community water systems serving 10,000 or more. This MCL is in effect until January 1, 2004 for community water systems with a population of 10,000 or more using only ground water not under the direct influence of surface water. After these deadlines, the MCL will be 0.080 mg/l. On January 1, 2004, all systems serving less than 10,000 will have to comply with the new MCL as well.

19. The MCL for total trihalomethanes is the sum of the concentrations of the individual trihalomethanes.

20. The MCL for haloacetic acids is the sum of the concentrations of the individual haloacetic acids.

21. MRDLG—Maximum residual disinfectant level goal.

22. MRDL—Maximum residual disinfectant level.

#### Appendix C to Subpart Q of Part 141—List of Acronyms Used in Public Notification Regulation

CCR	Consumer Confidence Report
CWS	Community Water System
DBP	Disinfection Byproduct
EPA	Environmental Protection Agency
HPC	Heterotrophic Plate Count
IESWTR	Interim Enhanced Surface Water Treatment Rule
IOC	Inorganic Chemical
LCR	Lead and Copper Rule
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MRDL	Maximum Residual Disinfectant Level
MRDLG	Maximum Residual Disinfectant Level Goal
NCWS	Non-Community Water System
NPDRW	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
NTU	Nephelometric Turbidity Unit
OGWDW	Office of Ground Water and Drinking Water
OW	Office of Water
PN	Public Notification
PWS	Public Water System
SDWA	Safe Drinking Water Act
SMCL	Secondary Maximum Contaminant Level
SOC	Synthetic Organic Chemical
SWTR	Surface Water Treatment Rule
TCR	Total Coliform Rule
TT	Treatment Technique
TWS	Transient Non-Community Water System
VOC	Volatile Organic Chemical

#### PART 142—[AMENDED]

1. The authority citation for Part 142 continues to read as follows:

**Authority:** 42 U.S.C. 300f, 300g-1, 300g-2, 300 g-3, 300g-4, 300 g-5, 300 g-6, 300 j-4, 300 j-9, and 300 j-11.

2. Section 142.10 is amended by revising paragraph (b)(6)(v) to read as follows:

#### § 142.10 Requirements for a determination of primary enforcement responsibility.

(b) \* \* \*

(6) \* \* \*

(v) Authority to require public water systems to give public notice that is no less stringent than the EPA requirements in Subpart Q of Part 141 of this chapter and § 142.16(a).

3. Section 142.14 is amended by redesignating paragraph (f) as (g) and adding a new (f), to read as follows:

#### § 142.14 Records kept by States.

\* \* \* \* \*

(f) Public notification records under Subpart Q of Part 141 of this chapter received from public water systems (including certifications of compliance and copies of public notices) and any state determinations establishing alternative public notification requirements for the water systems must be retained for three years.

\* \* \* \* \*

4. Section 142.15 is amended by revising paragraph (a)(1), to read as follows:

#### § 142.15 Reports by States.

\* \* \* \* \*

(a) \* \* \*

(1) New violations by public water systems in the State during the previous quarter of State regulations adopted to incorporate the requirements of national primary drinking water regulations, including violations of the public notification requirements under Subpart Q of Part 141 of this chapter;

\* \* \* \* \*

5. Section 142.16 is amended by revising paragraph (a), to read as follows:

#### § 142.16 Special primacy requirements.

(a) *State public notification requirements.*

(1) Each State that has primary enforcement authority under this part must submit complete and final requests for approval of program revisions to adopt the requirements of Subpart Q of Part 141 of this chapter, using the procedures in § 142.12(b) through (d). At its option, a State may, by rule, and after notice and comment, establish alternative public notification requirements with respect to the form and content of the public notice required under Subpart Q of Part 141 of this chapter. The alternative requirements must provide the same type and amount of information required under Subpart Q and must meet the primacy requirements under § 142.10.

(2) As part of the revised primacy program, a State must also establish enforceable requirements and procedures when the State adds to or changes the requirements under:

(i) *Table 1 to 40 CFR 141.201(a)(Item (3)(v))*—To require public water systems to give a public notice for violations or situations other than those listed in Appendix A of Subpart Q of Part 141 of this chapter;

(ii) *40 CFR 141.201(c)(2)*—To allow public water systems, under the specific circumstances listed in § 141.201(c)(2),



to limit the distribution of the public notice to persons served by the portion of the distribution system that is out of compliance;

(iii) *Table 1 of 40 CFR 141.202(a) (Items (5), (6), and (8))*—To require public water systems to give a Tier 1 public notice (rather than a Tier 2 or Tier 3 notice) for violations or situations listed in Appendix A of Subpart Q of Part 141 of this chapter;

(iv) *40 CFR 141.202(b)(3)*—To require public water systems to comply with additional Tier 1 public notification requirements set by the State subsequent to the initial 24-hour Tier 1 notice, as a result of their consultation with the State required under §§ 141.202(b)(2);

(v) *40 CFR 141.202(c), 141.203(c) and 141.204(c)*—To require a different form and manner of delivery for Tier 1, 2 and 3 public notices.

(vi) *Table 1 to 40 CFR 141.203(a) (Item (2))*—To require the public water

systems to provide a Tier 2 public notice (rather than Tier (3)) for monitoring or testing procedure violations specified by the State;

(vii) *40 CFR 141.203(b)(1)*—To grant public water systems an extension up to three months for distributing the Tier 2 public notice in appropriate circumstances (other than those specifically excluded in the rule);

(viii) *40 CFR 141.203(b)(2)*—To grant a different repeat notice frequency for the Tier 2 public notice in appropriate circumstances (other than those specifically excluded in the rule), but no less frequently than once per year;

(ix) *40 CFR 141.203(b)(3)*—To respond within 24 hours to a request for consultation by the public water system to determine whether a Tier 1 (rather than a Tier 2) notice is required for a turbidity MCL violation under § 141.13(b) or a SWTR/IESWTR TT violation due to a single exceedance of the maximum allowable turbidity limit;

(x) *40 CFR 141.205(c)*—To determine the specific multilingual requirement for a public water system, including defining “large proportion of non-English-speaking consumers.”

\* \* \* \* \*

#### § 142.16 [Amended]

6. Section 142.16(e) introductory text is amended by removing “§ 141.32”.

#### PART 143—[AMENDED]

1. The authority citation for Part 143 continues to read as follows:

*Authority:* 42 U.S.C. 300f *et seq.*

#### § 143.5 [Removed]

2. Part 143 is amended by removing § 143.5.

[FR Doc. 00-9534 Filed 5-3-00; 8:45 am]

BILLING CODE 6560-50-P

## **APPENDIX R**

**Sumner City Council Meeting  
Minutes (January 7, 2008) and  
2009 Annual Water Use  
Efficiency Report Form**

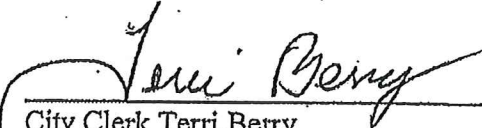


**PUBLIC HEARING NOTICE  
CITY OF SUMNER**

**NOTICE IS HEREBY GIVEN** that the City of Sumner City Council will be conducting a public hearing regarding the setting of water use efficiency goals in accordance with the requirements established in the Water Use Efficiency Rule. The hearing will commence at approximately 7:00 p.m. on Monday, January 7, 2008, in the Council Chambers located at 1104 Maple Street, Sumner, WA. Rate Payers of the Sumner Water Utility are invited to respond orally or with written comments during the hearing.

*Dated this 19th day of December, 2007*

*Published December 21, 2007*

  
\_\_\_\_\_  
City Clerk Terri Berry



## SUMNER CITY COUNCIL MEETING

January 7, 2008 – 7:00 p.m.

Sumner City Hall – 1104 Maple Street  
Council Chambers

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### CALL TO ORDER

Invocation: Joe Hibbard, Sumner Presbyterian Church  
Pledge of Allegiance

### COUNCILMEMBER SWEARING IN

Roll Call: Allsop, Brown, Goff, Hannus, Hynek, Hochstatter and Richardson

### CONSENT AGENDA

1. Approval of the minutes of the regular Council meeting of December 17, 2007
2. Approval of the 2007 business claims in the amount \$384,696.66 of voucher/warrant nos. 69543-69666
3. Approval of the 2008 business claims in the amount \$441,868.31 of voucher/warrant nos. 69667-69686
4. Resolution No. 1233: Jail Services Contract with the City of Fife (*Committee Do Pass*)

### PUBLIC HEARING: Water Use Efficiency Goals

### REGULAR BUSINESS

1. Public Comment (*Limit 5 minutes*)
2. Unfinished and/or New Business
  - a. Election of Deputy Mayor
  - b. Council Committee Assignments
  - c. #08-01 Resolution No. 1232: Establishing Water Use Efficiency Goals (*Committee Do Pass*)
3. Reports
  - a. Committees
  - b. Mayor/City Administrator
4. Council/Mayor Comments
5. Executive Session
6. Reconvene
7. Adjournment

*This meeting is accessible to persons with disabilities. For individuals who may require special accommodations, please contact the City Clerk at (253) 299-5500, 24 hours in advance.*





CITY OF SUMNER  
City Council  
AGENDA BILL

SUBJECT: Water Use Efficiency Rule Goal Setting

CATEGORY:

- |  |  |
|--|--|
| <input type="checkbox"/> CONSENT               | <input type="checkbox"/> ORDINANCE                 |
| <input checked="" type="checkbox"/> RESOLUTION | <input checked="" type="checkbox"/> PUBLIC HEARING |
| <input type="checkbox"/> MOTION                | <input type="checkbox"/> OTHER                     |

BUDGET IMPACT: None

Amount Budgeted:	\$None
Expenditure Amt.:	\$None
Contingency Req'd:	\$None

ATTACHMENTS: Resolution No. 1232

STAFF CONTACT: Public Works Director William J. Shoemaker

**SUMMARY/BACKGROUND:** The Water Use Efficiency Rule required under the Municipal Water Conservation Act of 2003 became effective on January 22, 2007. Under this rule promulgated by the State Department of Health, municipal water suppliers must set water efficiency goals through a public process within one year and report annually on their performance to customers, the DOH and the general public.

Sumner established conservation measures as a part of the Water Comprehensive Plan of March, 2005. Sumner's Water Utility: 1) does meter all services and all sources; 2) has a program to meter water used for construction purposes; 3) has a leak detection program that checks the entire system over a three-year cycle; 4) has a progressive rate structure to discourage excessive use of water; and 5) provides a bar chart on billings to show customers their historic use.

Although water use is far from excessive in the City of Sumner, four goals are proposed which will assure that water is not wasted. To meet these goals the utility will: 1) provide customers with information on how to conserve water; 2) promote the use of low use fixtures and appliances; 3) provide customers information on proper use of water for irrigation and provide them rain gages to measure their irrigation usage; and 4) improve our inspection of illegal use of water by contractors and others.

**CITY COUNCIL COMMITTEE RECOMMENDATION:** "Do Pass" recommendation from the Public Works Committee, after consideration of public comment at Public Hearing. Reviewed by Council at study session.

**STAFF RECOMMENDATION:** Adopt Resolution No. 1232: Setting water use efficiency goals for reducing water consumption.

(BELOW TO BE COMPLETED BY CITY CLERKS OFFICE)

COUNCIL ACTION:

- APPROVED
- DENIED
- TABLED/DEFERRED/NO ACTION
- MOVED TO SECOND READING (*ordinances only*)

COUNCIL BILL #	08-01
1 <sup>ST</sup> reading	
Enactment reading	01/07/08
ORDINANCE #	
RESOLUTION #	1232

*We will set the standard of excellence for a progressive small city.*

**SUMNER CITY COUNCIL**

**Minutes - Regular Meeting  
January 7, 2008**

**CALL TO ORDER**

The Sumner City Council met in regular session at 7:02 p.m. with Mayor David Enslow presiding.

Judge Steve Shelton administered the oath of office to Councilmembers Hochstatter, Brown, Richardson and Goff.

Councilmembers Present: Allsop, Brown, Goff, Hannus, Hochstatter, Hynek and Richardson.

Staff Present: Deputy City Administrator Diane Supler, City Attorney Brett Vinson, Public Works Director Bill Shoemaker, Community Development Director Paul Rogerson, City Engineer Mike Dahlem, Communications Director Carmen Palmer, Police Chief John Galle, Fire Chief Dan Packer, and City Clerk Terri Berry.

**CONSENT AGENDA**

MOVED BY RICHARDSON, SECONDED BY GOFF, to approve the Consent Agenda consisting of: 1) Approval of the minutes of the regular Council meeting of December 17, 2007; 2) Approval of the 2007 business claims in the amount \$384,696.66 of voucher/warrant nos. 69543-69666; 3) Approval of the 2008 business claims in the amount \$441,868.31 of voucher/warrant nos. 69667-69686; and 4) Resolution No. 1233: Jail Services Contract with the City of Fife. Deputy Mayor Goff noted the City of Fife jail contract received a do pass recommendation from the Public Safety Committee. MOTION CARRIED UNANIMOUSLY.

**PUBLIC HEARING**

**Water Use Efficiency Goals:** Public Works Director Shoemaker briefed attendees on the item. Mayor Enslow opened the public hearing at 7:18 p.m.

Pete Hochstatter, 15324 63<sup>rd</sup> Street Court East, asked about what appeared to be a remote control meter reader that was installed on his home's meter. Public Works Director Shoemaker explained that new meters are being installed at a rate of about 700 per year.

Mayor Enslow closed the hearing at 7:22 p.m.

**PUBLIC COMMENT**

Mary Lou Tkach, 7703 146<sup>th</sup> Avenue Court East, thanked the Council for their efforts to lead the Puyallup River project. She noted the residents would appreciate continued communication with the City and invited Council to visit the area of concern. She stated they are very willing to work with the City on the project.

Mayor Enslow clarified the City's role and the efforts being made in support of the project to deal with the flooding issue. Councilmember Richardson noted a meeting will be set up for early February to bring the various elected officials and representatives together to work on a solution. Councilmember Allsop noted the group is welcome at all City meetings and concurred that communication is key. Councilmember Hynek stated the City is working on some temporary flood control measures.

**REGULAR BUSINESS**

**Election of Deputy Mayor:** Mayor Enslow opened the floor to nominations for Deputy Mayor. Councilmember Hannus nominated Councilmember Goff. Councilmember Allsop seconded the



nomination. UPON ROLL CALL VOTE, COUNCILMEMBER GOFF WAS UNANIMOUSLY RE-ELECTED DEPUTY MAYOR.

**Council Committee Assignments:** Mayor Enslow briefed attendees on the process for Committee assignments and discussed the commitment Councilmembers are making by their choices to serve. The Council selected their committees based on a seniority system. The following are the 2008-2009 committee assignments:

CD/Parks: Allsop, Hochstatter, Hynek, Alt. Goff

Finance/Personnel: Brown, Hynek, Richardson, Alt. Goff

Public Safety: Brown, Goff, Hannus, Alt. Allsop

Public Works: Hannus, Hochstatter, Richardson, Alt. Brown

Mayor Enslow requested Committee members caucus as soon as possible to elect their chairs and inform the Clerk.

**#08-01 Resolution No. 1232: Establishing Water Use Efficiency Goals:** MOVED BY HANNUS, SECONDED GOFF, TO ADOPT RESOLUTION NO. 1232 – ESTABLISHING WATER USE EFFICIENCY GOALS. Public Works Director Shoemaker briefed attendees on the motion. UPON ROLL CALL VOTE, THE MOTION CARRIED UNANIMOUSLY.

### COMMITTEE REPORTS

Council consensus was to have Committee meeting dates, times and locations remain on the current schedule, with the exception of the Finance Committee who will meet at 5 p.m. on January 22 in the main conference room, and any deviation from that schedule be discussed at the committees' next meeting.

Deputy Mayor Goff shared the recent Police activity statistics.

Councilmember Richardson, noted the next PCRC meeting will be held on January 25 at the Pierce County annex. He stated that he believes the ecology block proposal for the Puyallup River flood control project looks like the most feasible. That recommendation will go to the task force meeting in the first week of February and then will come to Council for consideration.

Mayor Enslow noted that the storage facility that had graciously offered to store the float barn has been determined to be inadequate for this purpose. There is research being done on other proposals.

### COUNCIL COMMENTS

Councilmember Goff noted the next Public Safety Committee meeting is scheduled for January 17, at which time they will decide on chair, date, time and location of meetings. He thanked staff for installing devices to discourage skateboarding in the wrong areas of the park.

Councilmember Hynek noted his goal to better himself as a Councilmember in 2008 and welcomed Councilmember Hochstatter to the Council.

Councilmember Brown welcomed new Councilmember Hochstatter and wished all a happy new year.

Councilmember Hochstatter thanked citizens for their support in the recent election.

Councilmember Richardson welcomed Councilmember Hochstatter to the dais.

Councilmember Hannus wished all a happy new year.

Councilmember Allsop welcomed Councilmember Hochstatter and noted he is pleased to have a person with many great ideas at the dais.

Mayor Enslow welcomed Councilmember Hochstatter to the Council and wished all a happy new year.

**EXECUTIVE SESSION**

Mayor Enslow recessed the meeting into executive session at 7:57 p.m. for a period not to exceed twenty minutes to discuss potential litigation. He noted no action would be taken in executive session or to follow.

Mayor Enslow reconvened the meeting at 8:15 p.m.

**ADJOURNMENT**

When there was no further business to come before the Council, Mayor Enslow adjourned the meeting at 8:15 p.m.

\_\_\_\_\_  
Terri Berry, CMC, City Clerk

Attest:

\_\_\_\_\_  
Mayor David L. Enslow



RESOLUTION NO. 1232  
CITY OF SUMNER, WASHINGTON

A RESOLUTION OF THE CITY OF SUMNER, WASHINGTON, ESTABLISHING WATER USE EFFICIENCY GOALS AS REQUIRED BY THE WATER USE EFFICIENCY RULE PROMULGATED BY THE STATE DEPARTMENT OF HEALTH AS SET FORTH IN WAC 246-290-830.

WHEREAS, the City's Water Comprehensive Plan, dated March, 2005 sets forth a Water Conservation Program that it follows; and

WHEREAS, the City's Water Utility strives to provide high quality potable water to adequately meet the needs of the community; and

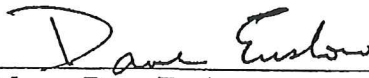
WHEREAS, the City's Water Utility makes good effort to assure that water is not wasted.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SUMNER, WASHINGTON DOES RESOLVE AS FOLLOWS:

Section 1. The Mayor and City Council for the City of Sumner adopt the following goals to effectively and efficiently use the water resources of the City:

1. Reduce single-family annual average daily water consumption from 283 gallons per day (2005 Comprehensive Plan) to 260 gallons per day within five years.
2. Reduce the peak monthly average daily flow to no more than twice the base winter average daily flow or 1500 cubic feet per month within 5 years.
3. Reduce unaccounted hydrant use by 50% within five years.


APPROVED AND ADOPTED this 7<sup>th</sup> day of January 2008.

  
Mayor Dave Enslow

ATTEST:

  
Terri Berry, CMC, City Clerk

APPROVED AS TO FORM:

  
Brett Vinson, City Attorney

# Annual Water Use Efficiency Performance Report Form



**You must submit this report by email.**

Save the completed form with your water system's name and email it to [WUE@doh.wa.gov](mailto:WUE@doh.wa.gov) by July 1.

## General Water System Information:

System Name: City of Sumner

System ID #: 851207

County: Pierce

Your Name: Tony Utanis

Your Title: Operator III

Your email address: tonyu@ci.sumner.wa.us

Your Phone Number: (253) 299-5740 Enter without dashes. Example: 3601234567

Today's Date: 07/07/09 Enter as mm/dd/yy. Example: 01/01/09

### Who should we contact if we have questions about this report?

Name: Tony Utanis

Phone Number: (253) 255-6319 Enter without dashes. Example: 3601234567

## Meter Installation Information:

Is your water system fully metered? Yes

If Yes, continue to next page.

### If not fully metered:

Current status of meter installation:

Describe efforts to minimize leakage:



**Production, Authorized Consumption, and Distribution System Leakage Information:**

**Reporting Year: 2008**

12-Month WUE Reporting Period:

01/01/08 to 12/31/08 Enter as mm/dd/yy. Example: 07/01/08

Incomplete or missing data for the year? No

**If yes, explain:**

<b>Distribution System Leakage Summary:</b>	
Total Water Produced and Purchased (TP) – Annual Volume	574,180,000 gallons
Authorized Consumption (AC) – Annual Volume	463,850,000 gallons
Distribution System Leakage – Annual Volume <b>TP - AC</b>	11,033,000 gallons
Distribution System Leakage – Percent <b>DSL = [(TP - AC) / TP] x 100</b>	19.2 %

**Goal Setting Information:**

**Date of Most Recent Public Forum:** 01/07/08 Enter as mm/dd/yy.  
Example: 10/01/08

*Goals must be established through a public process.*

**Has goal been changed since last annual WUE report?** No





### **Additional Information Regarding Supply and Demand Side WUE Efforts**

- If you established a goal to maintain a historic level (such as maintaining daily consumption at 65 gallons per person per day), you must explain why you are unable to reduce water use below that level.
- Include any other information that describes how you and your customers use water efficiently.

The City has seen a spike in DSL in the past year. After the City recognized the problem, the source meters were checked and the County Springs meter was found to be sending information approximately 50 gpm to high. This accounts for approximately 25 million gallons over the year. Other leaks, unauthorized consumption, and usage that was not metered increased in 2008. The average DSL since 1997 is still under 16% but the City is working diligently to get the three year running average below 10%.

City bills are based on a graduated rate structure for all customer classes. The rates increase will higher usage totals. The typical bills also consumption history on a month-to-month basis over the past year. This shows the individual water service usage so increases or decreases in consumption can be tracked by the property owner.

More educational efforts will be made to educate the public about efficient water usage. The City will also be looking at production and consumption comparisons amounts more frequently this year and in years to come. This will aid in recognizing meter calibration issues and potential leak detection efforts.

For more information, visit our Web at <http://www.doh.wa.gov/ehp/dw/programs/wue.htm> or contact a regional planner:

**Eastern Regional Office—Spokane—Main Office: (509) 456-3115**

**Southwest Regional Office—Tumwater—Main Office: (360) 236-3030**

**Northwest Regional Office—Kent—Main Office: (253) 395-6750**

The Department of Health is an equal opportunity agency. For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TTY 1-800-833-6388).

## **APPENDIX S**

### **Radionuclide Analysis Reports**



Washington State Public Health Laboratory  
 1610 NE 150th Street, Shoreline WA. 98155-9701  
 Phone (206) 418-5486 FAX (206) 418-5465

**RADIONUCLIDE ANALYSES REPORT**

System ID No.: 851207		System Name: City of Sumner			
Lab/Sample No: 023613229		Date Collected: 10/17/05 11:15		DOH Source No: S06	
Multiple Source Nos:		Sample Type: A		Sample Purpose: C	
Date Received: 10/18/05		Date Reported: 11/3/06		Supervisor: <i>RR / ECOM</i>	
		Date Analyzed: 9/7/06		Analyst: SEO	
County: Pierce			Group: A		
Sample Location: South well pump station					
Send Report To: City of Sumner, Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390			Bill To: City of Sumner, Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390		

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	ANALYST'S INITIALS & METHOD USED
EPA/STATE REGULATED (These analyses should be performed in order as listed)							
165	Gross Alpha			pCi/L		--	
166	Radium 228	0.9	ND	pCi/L	9/7/06		SEO/3M DISK
<i>Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L*</i>							
39	Radium 226*			pCi/L		--	
<i>Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L**</i>							
105	Uranium** (mass)			µg/L		30	
105	Uranium** (activity)			pCi/L		20**	
<i>Depending on the foregoing data determine the following (must be completed if data is available):</i>							
40	Radium 226 + 228			pCi/L		5	
40	Gross Alpha*** + Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	
<i>Do the following only if specifically requested by the client or the state</i>							
42	Gross Beta****			pCi/L		50	
43	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

**Comments:**

**MCL (Maximum Contaminant Level):** If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.  
**MDA: Minimum Detectable Amount.**  
**NA (Not Analyzed):** use in the results column for compounds not included in the current analysis.  
**ND (Not Detected):** use in the results column for compounds analyzed and not detected at a level greater than or equal to the MDA.  
 \* If Gross Alpha is less than , or equal to, 5 pCi/L, it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 activity is greater than 5 pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)  
 \*\*Uranium's MCL is given in mass terms (µg/L). When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/l per µg/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/L.  
 \*\*\* Use Gross Alpha in lieu of Radium 226 when the Gross Alpha is less than, or equal to, 5.0 pCi/L  
 \*\*\*\* The MCL for beta particle and photon radioactivity from man-made radionuclides is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.  
 Charge Amount: \$78.00

Washington State Public Health Laboratory  
 1610 NE 150th Street, Shoreline WA. 98155-9701  
 Phone (206) 418-5486 FAX (206) 418-5465

**RADIONUCLIDE ANALYSES REPORT**

System ID No.: 851207		System Name: City of Sumner					
Lab/Sample No: 023613225			Date Collected: 10/17/05 13:20			DOH Source No: S05	
Multiple Source Nos:			Sample Type: B			Sample Purpose: C	
Date Received: 10/18/05		Date Reported: 10/17/06			Supervisor: <i>RR / JOM</i>		
			Date Analyzed: 9/12/06			Analyst: SEO	
County: Pierce					Group: A		
Sample Location: West well pump station							
Send Report To: City of Sumner Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390				Bill To: City of Sumner Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390			

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	ANALYST'S INITIALS & METHOD USED
EPA/STATE REGULATED (These analyses should be performed in order as listed)							
165	Gross Alpha			pCi/L		--	
166	Radium 228	0.6	ND	pCi/L	9/12/06		SEO/3M DISK

*Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L\**

39	Radium 226*			pCi/L		--	
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*Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L\*\**

105	Uranium** (mass)			µg/L		30	
105	Uranium** (activity)			pCi/L		20**	

*Depending on the foregoing data determine the following (must be completed if data is available):*

40	Radium 226 + 228			pCi/L		5	
40	Gross Alpha*** + Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	

*Do the following only if specifically requested by the client or the state*

42	Gross Beta****			pCi/L		50	
43	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

**Comments:** No treatment-equipment shut down for season

**MCL (Maximum Contaminant Level):** If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

**MDA: Minimum Detectable Amount.**

**NA (Not Analyzed):** use in the results column for compounds not included in the current analysis.

**ND (Not Detected):** use in the results column for compounds analyzed and not detected at a level greater than or equal to the MDA.

\* If Gross Alpha is less than, or equal to, 5 pCi/L, it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 activity is greater than 5 pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)

\*\*Uranium's MCL is given in mass terms (µg/L). When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/l per µg/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/L.

\*\*\* Use Gross Alpha in lieu of Radium 226 when the Gross Alpha is less than, or equal to, 5.0 pCi/L

\*\*\*\* The MCL for beta particle and photon radioactivity from man-made radionuclides is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.

Charge Amount: \$78.00



Washington State Public Health Laboratory  
1610 NE 150th Street, Shoreline WA. 98155-9701  
Phone (206) 418-5486 FAX (206) 418-5465

**RADIONUCLIDE ANALYSES REPORT**

System ID No.: 851207		System Name: City of Sumner			
Lab/Sample No: 023613224		Date Collected: 10/17/05 09:34		DOH Source No: S96	
Multiple Source Nos: S02, S04		Sample Type: A		Sample Purpose: C	
Date Received: 10/18/05		Date Reported: 10/17/06		Supervisor: <i>RR / JAM</i>	
		Date Analyzed: 9/12/06		Analyst: SEO	
County: Pierce			Group: A		
Sample Location: Crystal /County Springs Cl2 station					
Send Report To: City of Sumner Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390			Bill To: City of Sumner Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390		

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	ANALYST'S INITIALS & METHOD USED
<i>EPA/STATE REGULATED (These analyses should be performed in order as listed)</i>							
165	Gross Alpha			pCi/L		--	
166	Radium 228	0.7	ND	pCi/L	9/12/06		SEO/3M DISK
<i>Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L*</i>							
39	Radium 226*			pCi/L		--	
<i>Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L **</i>							
105	Uranium** (mass)			µg/L		30	
105	Uranium** (activity)			pCi/L		20**	
<i>Depending on the foregoing data determine the following (must be completed if data is available):</i>							
40	Radium 226 + 228			pCi/L		5	
40	Gross Alpha*** + Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	
<i>Do the following only if specifically requested by the client or the state</i>							
42	Gross Beta****			pCi/L		50	
43	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

**Comments:**

**MCL (Maximum Contaminant Level):** If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

**MDA: Minimum Detectable Amount.**

**NA (Not Analyzed):** use in the results column for compounds not included in the current analysis.

**ND (Not Detected):** use in the results column for compounds analyzed and not detected at a level greater than or equal to the MDA.

**\* If Gross Alpha is less than , or equal to, 5 pCi/L,** it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 activity is greater than 5 pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)

**\*\*Uranium's MCL is given in mass terms (µg/L).** When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/l per µg/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/L.

**\*\*\* Use Gross Alpha in lieu of Radium 226 when the Gross Alpha is less than, or equal to, 5.0 pCi/L**

**\*\*\*\* The MCL for beta particle and photon radioactivity from man-made radionuclides is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.**

Charge Amount: \$78.00



Washington State Public Health Laboratory  
 1610 NE 150th Street, Shoreline WA. 98155-9701  
 Phone (206) 418-5486 FAX (206) 418-5465

**RADIONUCLIDE ANALYSES REPORT**

System ID No.: 851207		System Name: City of Sumner			
Lab/Sample No: 023613230		Date Collected: 10/17/05 09:05		DOH Source No: S01	
Multiple Source Nos:		Sample Type: A		Sample Purpose: C	
Date Received: 10/18/05		Date Reported: 11/3/06		Supervisor: <i>PR LCOM</i>	
		Date Analyzed: 9/8/06		Analyst: SEO	
County: Pierce			Group: A		
Sample Location: Sumner Springs sample station					
Send Report To: City of Sumner, Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390			Bill To: City of Sumner, Attn: Tony Utanis 1104 Maple Street Sumner, WA 98390		

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	ANALYST'S INITIALS & METHOD USED
EPA/STATE REGULATED (These analyses should be performed in order as listed)							
165	Gross Alpha			pCi/L		--	
166	Radium 228	1.0	ND	pCi/L	9/8/06		SEO/3M DISK

*Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L\**

39	Radium 226*			pCi/L		--	
----	-------------	--	--	-------	--	----	--

*Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L\*\**

105	Uranium** (mass)			µg/L		30	
105	Uranium** (activity)			pCi/L		20**	

*Depending on the foregoing data determine the following (must be completed if data is available):*

40	Radium 226 + 228			pCi/L		5	
40	Gross Alpha*** + Radium 228			pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	

*Do the following only if specifically requested by the client or the state*

42	Gross Beta****			pCi/L		50	
43	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

**Comments:**

**MCL (Maximum Contaminant Level):** If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

**MDA: Minimum Detectable Amount.**

**NA (Not Analyzed):** use in the results column for compounds not included in the current analysis.

**ND (Not Detected):** use in the results column for compounds analyzed and not detected at a level greater than or equal to the MDA.

\* If Gross Alpha is less than , or equal to, 5 pCi/L, it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 activity is greater than 5 pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)

\*\*Uranium's MCL is given in mass terms (µg/L). When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/l per µg/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/L.

\*\*\* Use Gross Alpha in lieu of Radium 226 when the Gross Alpha is less than, or equal to, 5.0 pCi/L

\*\*\*\* The MCL for beta particle and photon radioactivity from man-made radionuclides is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.

Charge Amount: \$78.00

Washington State Public Health Laboratory  
1610 NE 150th Street, Shoreline WA. 98155-9701  
Phone (206) 418-5486 FAX (206) 418-5465

**RADIONUCLIDE ANALYSES REPORT**

System ID No.: 851207		System Name: City of Sumner					
Lab/Sample No: 023613834			Date Collected: 04/07/06 09:30			DOH Source No: S03	
Multiple Source Nos:			Sample Type: A			Sample Purpose: C	
Date Received: 04/10/06		Date Reported:			Supervisor: <i>B7 4-26-07</i>		
			Date Analyzed: 05/23/06, 04/13/07			Analyst: JFR, SEO	
County: Pierce					Group: A		
Sample Location: Elhi Springs							
Send Report To: City of Sumner 1104 Maple Street Sumner, WA 98390				Bill To: City of Sumner 1104 Maple Street Sumner, WA 98390			

DOH #	ANALYTES	LAB MDA	RESULTS	UNITS	DATE ANALYZED	MCL	ANALYST'S INITIALS & METHOD USED
EPA/STATE REGULATED (These analyses should be performed in order as listed)							
165	Gross Alpha	2	ND	pCi/L	05/23/06	--	JFR/EPA 900.0
166	Radium 228	1.0	ND	pCi/L	04/13/07		SEO/3M DISK

*Determine Radium 226 activity if Gross Alpha is greater than 5.0 pCi/L\**

39	Radium 226*			pCi/L		--	
----	-------------	--	--	-------	--	----	--

*Determine Uranium activity if Gross Alpha is greater than 15.0 pCi/L \*\**

105	Uranium** (mass)			µg/L		30	
105	Uranium** (activity)			pCi/L		20**	

*Depending on the foregoing data determine the following (must be completed if data is available):*

40	Radium 226 + 228			pCi/L		5	
40	Gross Alpha*** + Radium 228		ND	pCi/L		5	
41	Gross Alpha minus Uranium			pCi/L		15	

*Do the following only if specifically requested by the client or the state*

42	Gross Beta****			pCi/L		50	
43	Tritium****			pCi/L		20,000	
44	Strontium 90****			pCi/L		8	
107	Cesium 134****			pCi/L		***	
108	Iodine 131****			pCi/L		***	

**Comments:**

**MCL (Maximum Contaminant Level):** If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

**MDA: Minimum Detectable Amount.**

**NA (Not Analyzed):** use in the results column for compounds not included in the current analysis.

**ND (Not Detected):** use in the results column for compounds analyzed and not detected at a level greater than or equal to the MDA.

\* **If Gross Alpha is less than, or equal to, 5 pCi/L,** it may be assumed that the Alpha activity is entirely due to Radium 226 (i.e., Radium 226 would not need to be run). The Alpha activity is then added to the Radium 228 activity (i.e., Beta activity) for MCL determinations. If the sum of the Alpha activity plus the Radium 228 activity is greater than 5 pCi/L, Radium 226 activity must then be determined for water system compliance purposes (i.e., Radium 226 + Radium 228 activity)

\*\***Uranium's MCL is given in mass terms (µg/L).** When Uranium is determined by mass methods, it must be converted to activity levels (pCi/L) for calculation of the MCL (Gross Alpha less Uranium). A conversion factor of 0.67 pCi/l per µg/L should be used. Uranium needs to be determined only when the Gross Alpha exceeds 15 pCi/L.

\*\*\* Use Gross Alpha in lieu of Radium 226 when the Gross Alpha is less than, or equal to, 5.0 pCi/L

\*\*\*\* **The MCL for beta particle and photon radioactivity from man-made radionuclides** is the average annual concentration which shall not produce an annual dose equivalent to the total body or any internal organ greater than four millirem/yr.

Charge Amount: \$135.00





1515 80th St. E.  
Tacoma, WA 98404  
(253) 531-3121

**RADIONUCLIDE ANALYSIS REPORT  
TEST METHOD - RA-05  
RADIUM 228**

System ID No.: 851207		System Name: City of Sumner	
Lab/Sample No.: 08990165		Date Collected: 10/22/07	DOH Source No.: S03
Multiple Source Nos.: NA		Sample Type: B	Sample Purpose: C
Date Received: 10/23/07	Date Reported: 11/27/07		Supervisor: <i>W.H.H.</i>
Date Extracted: NA	Date Analyzed: 11/07/07		Analyst: ELI
County: Pierce		Group: A	
Sample Location: Pump Room			
Send To: City of Sumner 1104 Maple St; Suite 260 Sumner, WA 98390			Remarks:

S03 = Elhi Springs

DOH #	ANALYTES	RESULTS	UNITS	SRL	TRIGGER	MCL	EXCEEDS	
EPA REGULATED							Trigger?	MCL?
NA	Radium 228	3.4	pCi/L	1.0	1.0	5.0	YES	NO

NOTES:

SRL (State Reporting Level): Indicates the minimum reporting level required by the Washington Department of Health (DOH).

Trigger Level: DOH Drinking Water response level.

MCL (Federal Maximum Contaminant Level): If the contaminant amount exceeds the MCL, immediately contact your regional DOH office.

NA (Not Analyzed): In the RESULTS column indicates this compound was not included in the current analysis.

ND (Not Detected): In the RESULTS column indicates this compound was analyzed and not detected at a level greater than or equal to the SRL.

< : Indicates less than.

Comments:

ELI: C07101432-006

WA LAB NO: 142

**Method RA-05: Radium 228**

## **APPENDIX T**

### **Municipal Water Law Attachment 2: General Approval Checklist**



## Attachment 2: Municipal Water Law Water System Plan/Small Water System Management Program General Approval Checklist

For each element, please identify where in your Water System Plan (WSP) or Small Water System Management Program (SWSMP) submittal the requirements of the Municipal Water Law identified in the column labeled “Element” are addressed.

The “Application” column identifies the type of plan (WSP or SWSMP) and the size of system the element applies to.

Application	Element	Addressed in plan on pages indicated	Documentation Attached
<b>Water rights and system capacity</b>			
WSP and SWSMP All size systems	The water rights self-assessment you have included in your WSP and SWSMP must be complete and must adequately reflect your water right status. Please review your self-assessment for completeness, accuracy and consistency with your water rights. If there are factors (i.e. supplemental, seasonal, etc.) to your water right that are not addressed in the self-assessment format, provide additional statements on how those factors affect your self-assessment.	Page(s) 5-1 to 5-31 <u>Appendix E</u>	
WSP and SWSMP All size systems	The system capacity analysis must incorporate the water right quantity parameters (QaQi) found in your water rights self-assessment. Identify the number of connections, population served, and/or Equivalent Residential Units (ERUs) that you are currently serving and identify your current instantaneous and annual water usage. Water use demand should not exceed existing water right QaQi.	Page(s) 3-1 to 3-12 5-1 to 5-31	
WSP All size systems	The system capacity analysis must incorporate the water right quantity parameters (QaQi) found in your water rights self-assessment. For a 6-year planning horizon, evaluate the number of connections, population served, and/or Equivalent Residential Units (ERUs) that you are planning on serving, utilizing historical water usage and future population projections. Water use demand projections should not exceed existing water right QaQi.	Page(s) 3-1 to 3-12 5-1 to 5-31	
<b>Service Area Delineation</b>			
WSP and SWSMP All size systems	Provide a map and description of the water system service area. The map must delineate your retail service area (existing and future) as well as any other service area (existing and future) you wish to include in your water right place of use. Provide clear differentiation between the two boundaries.	Page(s) 1-7, 1-8	
WSP and SWSMP All size systems	Provide a copy of the land use map(s) for jurisdictions served by your system.	Page(s) 1-5, 1-6	
<b>Conservation</b>			
WSP and SWSMP All size systems	New language has been added to RCW 70.119A, which states, “...municipal water suppliers shall continue to meet the existing conservation requirements of the department and shall continue to implement their current water conservation programs.” Describe what, if any, previous efforts will be discontinued. For discontinued efforts, identify why continuation of these efforts would be ineffective or provide documentation that the discontinued program had a prescribed end date or savings level.	Page(s) 5-16 to 5-25	

Application	Element	Addressed in plan on pages indicated	Documentation Attached
WSP All size systems	Must meet current conservation requirements. Please review the requirements (attached) and provide identification of where in your current WSP each of the elements is included.	Page(s) 5-16 to 5-25	
SWSMP All size systems	Provide a completed Water Conservation Program (Element 14 of the SWSMP).	Page(s) N/A	
WSP Systems serving 1000 or more connections	Describe the projects, technologies, and other cost-effective measures that comprise your water conservation program.	Must be attached	Attachment A WSP Update pages 5-16 to 5-26, 8-5
WSP Systems serving 1000 or more connections	Describe the improvements in the efficiency of water system use resulting from implementation of your water conservation program over the last six years.	Page(s) 5-16	
WSP Systems with inchoate water rights serving 1000 or more connections	Provide a demand forecast for the next 6-years based on the water savings expected from the planned conservation measures.	Page(s) 5-22, 5-24, 5-26	N/A
WSP Systems with inchoate water rights serving 1000 or more connections	Provide a demand forecast for the next 6-years based on the water savings expected if implementing additional conservation measures that were considered cost-effective, including those that were not chosen to be implemented at this time.	Must be attached	N/A. City does not have inchoate water rights
<b>Reclaimed Water</b>			
WSP Systems with greater than 1000 connections	Exploring opportunities for water reclamation is an element of the Municipal Water Law that must be addressed in this plan Systems > 1000 Connections must complete Attachment 9: Water Reclamation Checklist for Systems with 1,000 or more Connections or provide comparable documentation.	Page(s) 5-24, 5-26 Appendix N	



Application	Element	Addressed in plan on pages indicated	Documentation Attached
<b>Duty to Serve</b>  WSP All size systems	Describe how your system responds to requests for new water service by providing: <ol style="list-style-type: none"> <li>The process for service requests, including timeframes</li> <li>How you determine that your system's capacity is adequate to provide new water service (including sufficient water rights)</li> <li>Conditions of a non-technical nature that may affect your ability to provide new water service (annexation procedures, water rights issues, local ordinances, etc.)</li> <li>Your system's procedures for granting or requesting extensions of time during a water service related project, and describe your procedure for handling disputes and appeals when water service requests are denied</li> </ol>	Must be attached	Attachment B
<b>Local Government Consistency</b>			
WSP or SWSMP All size systems	<i>Consistency with applicable adopted local plans, regulations and policies must be determined prior to plan submittal. For each appropriate planning agency provide a completed "Consistency Statement Checklist" or analogous documentation.</i>	Must be attached	Municipal Water Law Attachment 5
<b>Watershed Coordination</b>			
WSP or SWSMP All size systems In Watershed Planning Process per RCW 90.82	If your system is located in an area developing a watershed plan per RCW 90.82, describe your efforts to coordinate with the local planning unit. We have attached a list of Water Resource Inventory Areas (WRIA) where watershed plans are currently in development along with contact names for each area.	May need to be attached.	N/A

## ATTACHMENT A

### 3.4.1 Water Loss Control Action Plan (WLCAP)

The City's DSL average (from 1998 to 2008) of 15.8 percent is above the DSL standard of 10 percent threshold designated by DOH's, Water Use Efficiency Program, and therefore requires the City to implement a Water Loss Control Action Plan (WLCAP). The plan is outlined as follows:

- Conduct a regular and systematic program of locating and repairing leaks in system mains and laterals, including on-site testing using computer-assisted leak-detection equipment on water-distribution mains, valves, services, and meters.
- Develop procedures to account for billing errors, both in the financial records and water use records.
- Conduct station and master meter calibration to verify that accurate system production is recorded.
- Conduct a quarterly review of water production and consumption.
- Standardize and organize the record keeping procedures between City departments including Shops, Public Works, and Finance in regards to water consumption
- Establish a policy (through SMC or city council-approved resolution) for water used during the testing, disinfection, and flushing procedures at construction sites that measures the authorized consumption for recording and billing purposes.

These actions will be ongoing and continue until (and likely after) the City reaches an allowable DSL average based on a 3-year period. This plan includes costs for the WLCAP in the Capital Improvement Plan outlined in Chapter 8.



## 5.4 WATER USE EFFICIENCY (WUE) PROGRAM

### 5.4.1 Background

The Sumner Water Utility goal is to provide adequate, high quality, potable water for economic growth and use by its customers at a reasonable price. In general, in an area where there is adequate rainfall, recharge, and water resource, this is attainable. The utility follows the old adage, “Waste not, want not.” The utility does not wish to put undue pressure on its citizens to not use water, but neither do we believe in wasting water. The programs discussed in this chapter constitute the utility’s efforts in meeting the objectives of a sound water conservation plan.

The population of Sumner has increased from 7,200 residents in 1991 to approximately 9,881 residents in 2009. The annual water use has increased only slightly over this period of time, partially due to the closure of Beatrice Cheese. When in operation, Beatrice Cheese consumed more water than the remaining top 14 water users combined. Other reasons for the slight increase in water use can be attributed to water conservation measures that the City has utilized. The average billed water use per residential connection (prior to increase to account for DSL) was 226 gpd from 1997 to 2008. This is a significant drop considering the average from 1997 to 2003 was 283 gpd. Average daily residential use for nearby purveyors is listed in Table 5-4. It is apparent that residential consumption is comparable in Sumner with that of adjacent purveyors but there is still room to conserve more water.

**Table 5-1. Water Use per Residential Connection in Nearby Purveyors**

Purveyor	Average Daily Demand (gpd per connection)
City of Sumner	226
City of Puyallup	240
City of Orting	223
City of Pacific	259
Fruitland Mutual Water Company	252
City of Bonney Lake	248
City of Auburn	260

### 5.4.2 Water Use Efficiency Program

The Municipal Water Law was passed in the 2003 legislative session. It requires municipal water suppliers to more efficiently use their water supplies. The water use efficiency rules required by the municipal water law are being implemented by the DOH and Ecology. The water use efficiency rules establish:

- Requirements for water use efficiency programs for municipal water suppliers.
- A distribution system leakage (DSL) standard.
- Requirements and processes for water use efficiency goal setting.
- Requirements for water use efficiency performance reporting.

The DOH guidebook, *Getting Started: Water Use Efficiency Guidebook*, was published in July 2007 (the second edition was published in January 2009) as an aid to municipal water suppliers to meet the requirements of the Water Use Efficiency (WUE) program and is the basis for this section.

#### **5.4.2.1 Required Measures**

The WUE program requires implementation of the following elements:

- Water Meters and Data Collection:
  - Production meter installation was required on or before January 22, 2007.
  - Begin collecting production and consumption data was required on or before January 1, 2007.
  - Service meter installation is required for all water services to track consumption within the system and DSL. The installation schedule was required by July 1, 2008, and the complete installation will be required by January 22, 2017.
- Demand Forecasting and WUE Program:
  - A WUE Program is required to be included in planning documents submitted after January 22, 2008. Requirements of the WUE program are explained in the WUE Guidebook from DOH (Publication No. 331-375).
- Distribution System Leakage (DSL):
  - Meet distribution leakage standard (based on 3-year rolling average) by July 1, 2010, or 3 years after installing all service meters.
  - Develop and implement a Water Loss Control Action Plan (WLCAP) to control leakage. This includes a regular and systematic program of locating and repairing leaks in system mains and laterals, including on-site testing using computer-assisted leak-detection equipment on water-distribution mains, valves, services, and meters.
- Goal Setting and Public Forum:
  - The City was required to set its own WUE goals on or before January 22, 2008. This documentation is available in Appendix R.
- Annual Performance Report:
  - The first annual performance report was required to be submitted on July 1, 2008. This documentation is available in Appendix R.

#### **5.4.2.2 Water Conservation Program**

Water conservation programs are composed of demand-side strategies and supply-side strategies. Demand-side strategies are those that lessen demand (e.g., a showerhead and toilet retrofit program). Supply-side strategies are those that supply demand from an alternative source or improve system efficiency, but in which demand is not actually reduced (e.g., water reuse and use of nonpotable water sources—including exempt wells—satisfies existing demand with an alternative source). Both strategies allow water systems the ability to supply more users with a fixed amount of supply.

Water-demand management includes the implementation of comprehensive long-term conservation programs, short-term emergency response plans, and peak-use management. In



considering measures in a demand-side strategy for water conservation, it is necessary to distinguish a permanent reduction in average-per-capita demand from a temporary reduction in demand resulting from short-term or mandatory measures. Short-term regulatory or mandatory measures more associated with drought or other emergency conditions of water shortage are not considered elements of conservation. Instead, these conditions are elements of an emergency response plan that result in reduced use and a corresponding reduction in service by the public water system.

Peak-flow management, such as use of impoundments to capture excess flows for supply use, or operational programs, such as every-other-day lawn watering, can be an integral measure of an emergency-response plan, a conservation plan, or a supply strategy.

The City set forth goals in a public forum before the City Council that are listed in Section 5.4.2.3. Other measures the City is considering implementing in the coming years are as follows:

1. The City will consider providing cash rebates for residential, commercial, and/or industrial customers purchasing new high-efficiency toilets/urinals and clothes washers.

Research states ultra-low-flow (ULF) and high-efficiency toilets reduce water consumption by approximately 2.5 gallons per flush (gpf), saving an estimated 9 gallons per capita per day. Using an estimate of 50 percent implementation among Sumner's population during the 20-year planning period, this equates to an average demand reduction of over 30 gpm, or 16.4 million gallons per year. This represents a reduction of about 2.62 percent of Sumner's 2009 ADD (2009 ADD is ~1.71 mgd).

Other Municipalities, such as Pullman, Seattle, and Kent, have rebate programs for low-flow and high-efficiency toilets with incentives ranging from \$50 to \$150. Cascade Water Alliance (CWA) also offers \$100 rebates for new residential customer purchases of low-flow toilets labeled as, "WaterSense." WaterSense is the water efficiency equivalent to EnergyStar for energy savings among household appliances.

#### WashWise

Many local municipalities and water distributing authorities are offering rebates for high-efficiency clothes washers and toilets through the WashWise Rebate Program. These organizations include: PSE, CWA, City of Bonney Lake, Tacoma Water, City of Renton, etc. Basically, WashWise processes the rebates and distributes the funds for the program, and municipalities or other organizations in the program pay WashWise a process fee on a per unit basis.

There are three tiers of rebates that range from \$50 to \$100 based on the annual water savings for the new appliance. The three tiers are as follows: \$50 rebate for an appliance that saves an average of 5,962 gallons/year; \$75 for an appliance that saves an average of 7,693 gallons/year; and \$100 for an appliance that saves an average of 9,433 gallons per year.

The City of Sumner will further explore their potential participation in the WashWise program in 2010.

2. The City will consider implementing a program that would grant participants free fixtures or discounts on purchases of faucet aerators, low-flow showerheads, and toilet displacement devices.

Faucet aerators reduce flow and the cost is relatively cheap (\$0.33 to \$1.39 each). The effectiveness in reducing overall consumption has not been researched enough to make any assumptions on the total or even per capita water demand reduction.

Research states low-flow showerheads can reduce average consumption from over 5 gpm to 2.5 gpm, and eventually saving approximately 5.5 gpd per installation. If Sumner has 3,100 residential connections, and half participate with 1.5 showerheads per participant, that equals 2,325 showerheads. If each showerhead saves 5.5 gpd, there is potentially almost 13,000 gpd savings. This represents a reduction of about 0.74 percent of Sumner's 2009 ADD. Low-flow showerhead kits cost approximately \$2 each.

Toilet displacement devices can save 4.2 gpd per installation. However, any savings is contingent on proper installation and no increase in the average number of flushes per day. Once again, research has not determined how effective these devices are because there is a relatively high rate of removal, and toilet design often is not compatible with less flow, leading to double-flushing, which negates any savings.

3. Sumner will internally discuss landscaping and irrigation practices with the Parks department, including the cemetery staff. The City will consider additional equipment purchases and installation of moisture sensors, timers, weather stations, etc. to reduce consumption during peak periods.

Improving efficiency of irrigation for landscaping can decrease water demand during the peak consumption periods and directly aid the City during the toughest times for the water system. Research states that moisture sensors, that can be set up to automatically adjust irrigation controllers, can save an average of 5 to 10 percent in overall outdoor use when used in conjunction with a conventional watering timer. It is unknown how much of Sumner's water use is for outdoor landscaping, so estimates for total reduction cannot be made. The cost for moisture sensors and tensiometers is between \$35 and \$125, and the total lifecycle costs, including replacement and repair, is approximately \$270 per each installation.

Large landscaping areas can see significant reduction in water consumption after equipment upgrades, timer adjustment, leak repair, and operator training. Research states reduction can be as much as 50 percent after these changes are made. When extra devices, such as rain shut-off switches and wireless connections to weather/irrigation information systems are added, costs can be significantly higher than other WUE measures. Research recommends that landscaping areas over 2 acres get evaluated for potential upgrades, as it can cost several hundred to several thousand dollars to implement effective changes to large landscaping/irrigation areas, depending on the options available.

4. The City will adopt language in their code that gives the City authority to fine people for illegal hydrant use or even metered hydrant use that is not reported on a monthly basis to the City. This will likely be similar to the policy of the City of Puyallup, but details for the code revision will be completed in early 2010.



City of Tacoma charges a \$1,000 fine for using a fire hydrant without a permit. The permit cost is \$100, and the meter deposit is an additional \$1,000. Deposits are returned after meter readings and payment for water is made.

City of Puyallup charges a permit fee of \$25 for hydrant use. A deposit for the meter is an additional \$1,000 for a 3-inch meter or \$300 for a 3/4-inch meter. There is a flat fee of \$200 for water usage if hydrant meters are not brought to the City for a “check-up” to read the meter bimonthly and meters are then revoked.

5. In addition to the fines, Sumner will consider implementing a program to install hydrant locks which would prevent illegal connections at problem locations.

Hydrant locks can cost in the area of \$100 to \$175. This is a significant investment considering Sumner has approximately 900 hydrants, but would likely only install locks on 50 to 100 of the highest theft risk hydrants. Potentially, this program could be somewhat self-sustaining if the money collected from fines described in item #4 were directly funneled into investing in hydrant locks. Also, the City will have to coordinate any changes to the hydrants with East Pierce Fire and Rescue.

6. An inherent goal of the WUE program is reducing the 3-year running average DSL to 10 percent or less. The City would like to take the first step in doing this by reducing a single-year DSL to 10 percent or less within in 3 years.

The City already has a leak detection program, but expanding the program may be an investment to consider. Other sources of DSL/reducing DSL, such as reducing the system pressure, loss from evaporation, and accounting errors are not feasible or have already been addressed. The City needs to continue to research and implement the most effective measures based on their existing customers and sources of DSL.

Below in Table 5-5 is a summary of the additional measures described above with an anticipated savings and cost.

**Table 5-2. Projected Demand Reduction and Costs of Additional WUE Measures**

Measure	ADD Demand Reduction <sup>a</sup> (%)	Approximate Cost/Each (\$)	Approximate Total Cost (\$)
1) Toilets and Clothes Washers – WashWise <sup>b</sup>	~3.00%	\$34	\$51,000
2) Faucet Aerators, Showerheads, and Toilet Displacement <sup>c</sup>	~0.75%	\$5	\$35,000
3) Landscaping <sup>c</sup>	~1.50%	\$270	\$27,000
4) Fees and Fines <sup>d</sup>	~0.75%	-\$500	-\$50,000
5) Hydrant Locks <sup>e</sup>	~1.00%	\$125	\$37,500
<b>Total</b>	<b>~7.00%</b>		<b>~\$100,500</b>

<sup>a</sup> Based on estimated 2009 ADD of 1.71 mgd.

<sup>b</sup> Assumes 50 percent of Sumner's residential population will implement this measure.

<sup>c</sup> Based on 100 landscaping areas.

<sup>d</sup> Based on 100 fees and fines averaging \$100/each.

<sup>e</sup> Based on the installation of 300 hydrant locks.

With the City's continuing educational efforts and other existing measures, this projected demand reduction will be a conservative estimate of the total demand reduction from the City's WUE program. These measures will also need time to be implemented and utilized by Sumner's residential, commercial, and industrial customers, so the reduction will not be realized for quite some time.

#### **5.4.2.3 Goals**

City of Sumner Resolution number 1232, in Appendix R, established initial goals for the City's WUE program on January 7th, 2008. These goals included:

1. Reduce single-family annual average daily water consumption from 283 gallons per day (2005 Comprehensive Plan) to 260 gallons per day within five years.
2. Reduce the peak monthly average daily flow to no more than twice the base winter average daily flow or 1500 cubic feet per month within 5 years.
3. Reduce unaccounted hydrant use by 50 percent within five years.

This plan represents the City's adoption of the following goals, replacing the goals listed above:

1. Reduce the 3-year running average DSL to 10 percent or less by 2016.
2. Reduce demand single-family annual average daily water consumption from 262 gallons per day to 250 gallons per day by 2014.
3. Decrease demand by 7 percent per ERU within the 20-year planning period.

#### **5.4.2.4 Cost-Effectiveness Evaluation**

The WUE Program requires evaluation or implementation of WUE measures. Each measure evaluated must consider the following three perspectives:

1. Water System Perspective – This evaluation looks to see if the measure is cost-effective for the water system.
2. Cost-Sharing Perspective – This evaluation looks to see if the measure is cost-effective if the implementation costs are shared with other nearby entities.
3. Societal Perspective – This evaluation looks to see if the measure is cost-effective if all the costs and benefits are included.

The City of Sumner had over 3,600 connections in 2008. This number of connections requires the City to evaluate or implement six (6) WUE measures. Any measure that is implemented, the WUE Guidebook states, does not have to be evaluated for cost-effectiveness.

Sumner is required to implement or evaluate six measures, and the following section describes two measures that each cover four customer classes; meaning the City has implemented eight measures. Therefore, no other measures will be evaluated for cost-effectiveness.



### 5.4.2.5 **Implementation**

The following WUE measures are mandatory:

1. Install production (source) meters – WAC 246-290-496(1).
2. Install consumption (service) meters – WAC 246-290-496(2).
3. Perform meter calibration – WAC 246-290-496(3).
4. Implement a water loss control action plan (WLCAP) to control leakage – WAC 246-290-820(4).
5. Educate customers about water use efficiency practices – WAC 246-290-810(4)(f).

Because these measures are mandatory, they cannot be counted as one of the six minimum evaluated or implemented measures under WAC 246-290-810(4)(d)(i). All of the above measures have been implemented, including the WLCAP (as discussed in Section 3.4.1) and education efforts (described in the following section).

Below are the measures that have been implemented for all customer classes. There are four customer classes that the City distinguishes, meaning the following measures each count for four measures towards the City's WUE Program goals. The customer classes are residential, commercial, industrial, and other. The "other" class includes schools, churches, motels/hotels, and multifamily connections.

1. Conservation rates – Conservation rate structures are set up for all customer classes in Sumner Municipal Code 13.24.300. The rates are changed on a yearly basis based on the CPI-U Index for the Seattle-Puget Sound area. The thresholds for the graduated rates remain the same, lowest rate for consumption up to 1,000 cubic feet per month, increased rate for water used between 1,000 and 2,000 cubic feet per month, and the highest rate for water used in excess of 2,000 cubic feet per month.
2. Water bill showing consumption history – The City's current water bills show customer consumption history over the past year on a month-to-month basis.

As stated in Section 5.4.2.2, there are several other goals/measures that the City will evaluate and consider implementing in the future. Below are educational efforts the City will promote in the coming years.

### 5.4.2.6 **Education**

The following sections describe the City's educational programs separated by target customer class.

#### All Customer Classes

- Publicize the need for water conservation through television and radio public-service announcements, news articles, public-water-systems bill inserts, or other means. This includes promoting efficient indoor and outdoor water usage; distribution of Ecology/Health conservation brochures or other printed material informing customers, builders, and contractors of new plumbing code regulations requiring efficient plumbing fixtures; and other efforts.

## Industrial and Commercial Customer Classes

- Provide assistance to wholesale suppliers that will aid wholesale customers to develop and implement conservation programs tailored to their needs, and provide assistance to wholesale suppliers that will help them carry out their own conservation programs.

## Nurseries/Agriculture Customers

- Encourage the application of current water-conservation techniques for large agriculture/irrigation operations. Examples include nurseries and commercial agriculture. Moisture sensors, flow timers, low-volume sprinklers, drip irrigation, weather monitoring, and other practices to increase irrigation efficiency could be installed.

## Landscape Management/Playfields – Xeriscaping

- Promote low-water-demand landscaping in all retail customer classes (private, public, commercial, industrial, etc.). Work with local nurseries to ensure the availability of plants that achieve this objective.

Table 5-5 shows the City's required and WUE program measures.

### **5.4.2.7** *Estimated Water Savings*

The projected water savings from the City's WUE program can be attributed to goal setting and implementation of the education and other efforts described above. The City has decreased the single-family annual average daily water consumption from 283 gallons per day (2005) to approximately 262 gallons per day through 2008. This represents an approximate 3 percent decrease in total consumption for the Sumner water system (this is a per capita comparison, which does not take the City's population growth into account).

The demand forecasts shown previously in this chapter assume there are no projected water savings from WUE program measures. Over the coming years, the goals and measures the City will continue to implement are the basis for projected water savings described in Section 5.4.3.

### **5.4.2.8** *Measure Effectiveness*

The goal of the WUE program is to measure water production and consumption and use this information to track reduction in the demands in the system. Reduction of water demand will be aided by the WUE program measures.

The water use production and consumption demands have and will continue to be tracked over the coming years. These demands will be looked at on an annual basis to help evaluate the effectiveness of the WUE program and help with future projections of the water system.

The Annual Water Use Efficiency Performance Reports, due to DOH each calendar year, summarize water production, DSL, and demand. This information will be analyzed to track progress toward the WUE program goals within the planning period. The 2009 Annual Water Use Efficiency Performance Report is shown in Appendix R.



### 5.4.3 Water Use Savings Projections

Water usage for a single-family residence in Sumner averages 226 gpd, not accounting for DSL within the system between the source and the service connection. To be conservative, it is assumed that Water Use Efficiency efforts by the City of Sumner will result in a 7 percent decrease in total gallons per ERU during the 20-year planning period. These savings are shown in Table 5-6.

Table 5-3. Evaluation of WUE Measures

Required Measures	Benefits			Costs			Level of Implementation			Year of Implementation <sup>a, b</sup>
	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High	
Production Meter Installation		X			X				X	-
Service Meter Installation (and schedule)		X			X				X	-
Collect Production/Consumption Data and Forecast Demands		X			X				X	-
WUE Program in Planning Document		X			X			X		2009
Meet DSL Standard /Implement WLCAP		X			X			X		2009
Set WUE Goals		X		X				X		-
Submit Annual Performance Report		X			X			X		-
<b>WUE Program Measures (Implemented)</b>										
Education		X			X			X		2009
Bill Showing Consumption History		X			X			X		-
Conservation Pricing			X	X			X			-
Reclaimed Water			X			X		X		#

<sup>a</sup> "-" indicates conservation measures already in effect.

<sup>b</sup> "#" indicates conservation measures not being implemented by the City of Summer.



**Table 5-4. Projected Demands with WUE Program Savings <sup>a</sup>**

<b>Year</b>	<b>Average Daily Demand (ADD) (mgd)</b>	<b>Maximum Day Demand (MDD) (mgd)</b>	<b>WUE Program Savings (%)</b>
2008 <sup>b</sup>	1.68	3.15	–
2009	1.74	3.36	2.00
2010	1.80	3.48	2.25
2011	1.86	3.60	2.50
2012	1.91	3.71	2.75
2013	1.96	3.82	3.00
2014	1.68	3.92	3.25
2019	2.19	4.39	4.50
2024	2.39	4.78	5.75
2029	2.55	5.10	7.00

<sup>a</sup> The ADD and MDD values shown here are presented to demonstrate how implementation of small conservation measures can affect total system consumption. These conservation savings are theoretical and should not be used for planning purposes.

<sup>b</sup> The actual ADD and MDD for 2008 are shown here as a baseline for the projected WUE savings.

## ATTACHMENT B

### 1. The process for service requests, including timeframes.

Water service with meters is processed through the permit process.

- Apply for SFR, multifamily, commercial permit.
- Permit review.
- Permit approval.
- Applicant pays for fees.
- Issue permit (typically 4–5 weeks).
- Build appropriate infrastructure:
  - Request for meter installation initiates inspection of meter box.
  - If complete then paperwork sent to PW shop for meter installation.

### 2. How you determine that your system's capacity is adequate to provide new water service (including sufficient water rights).

The current Sumner sources are unable to maximize their existing water rights, so there is never a question as to whether sufficient rights are available. The City continually maintains and updates a water model in WaterCAD, and references this model to verify sufficient system capacity prior to starting the permitting process.

### 3. Conditions of a nontechnical nature that may affect your ability to provide new water service (annexation procedures, water rights issues, local ordinances, etc.).

Water service is not provided outside the water service area boundary identified in the Water System Plan.

### 4. Your system's procedures for granting or requesting extensions of time during a water service related project, and describe your procedure for handling disputes and appeals when water service requests are denied.

Time extensions are granted upon request with submittal of justification and payment of additional permit fees. The City is not obligated to service developments outside its water service area boundary. To date, the City has yet to deny a request for water service within its approved water service area.

## **APPENDIX U**

### **Municipal Water Law Attachment 5: Water System Plan and Small Water System Management Program Consistency Statement Checklist**





## Local Government Consistency Review Checklist

A consistency review between DOH planning and engineering documents and adopted comprehensive plans and development regulations is required in certain situations. This checklist may be used to document the consistency review as required in WAC 246-290-108. A consistency review is required for each local government with jurisdiction over the applicable service area.

Water System Name: City of Sumner PWS ID: 85120

Planning Document Title: Water System Plan Plan Date: October 2009

Local Government with Jurisdiction: Pierce County

Consistency Statement	Page(s) in Planning Document	Yes – No – Not Applicable
The applicable service area is consistent with the land use and zoning in the adopted comprehensive plan and adopted development regulations.	Chapter 1	Yes
<b>For Water System Plans:</b> The six-year growth projection used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection was used, the alternative growth projection and methodology proposed is acceptable based on explanation given.	3-1	Yes
<b>For Water System Plans:</b> Provisions of water service for new service connections are consistent with the adopted comprehensive plan and adopted development regulations.	2-1	Yes
<b>For city-owned systems only:</b> All utility service extension ordinances regarding water service are included in the plan. These policies are consistent with the adopted comprehensive plan and adopted development regulations.	Appendix A&B	Yes
Other relevant elements related to water supply (as determined by DOH) is consistent with the adopted comprehensive plan and adopted development regulations.	2-1	Yes
<b>Where the local government with jurisdiction did not provide a Consistency Review:</b> Provide documentation of efforts taken and amount of time provided. Include: name of contact, date, type of effort attempted, and response from local agency.		Not Applicable

I certify that the above statements are true to the best of my knowledge and that these statements support the conclusion that the subject-planning document is consistent with adopted comprehensive plans, development regulations, and other policies.

\_\_\_\_\_  
Signature  
Bill Pugh, P.E., Public Works Director, City of Sumner  
\_\_\_\_\_  
Printed Name, Title, & Jurisdiction

\_\_\_\_\_  
Date

**\*\*For any issues of inconsistency, please document the inconsistency, including the citation from the comprehensive plan or development regulation. Provide direction on how this inconsistency can be resolved.\*\***

## Consistency Review Guidance

This checklist may be used to meet the requirements of WAC 246-290-108.

For water system plans, a consistency review is required for the retail service area and any additional areas where a municipal water supplier wants to expand their water right's place of use.

For small water system management programs, a consistency review is only required for areas where a municipal water supplier wants to expand its water right's place of use. If no water right place of use expansion is requested, a consistency review is not required.

For engineering documents, a consistency review is only required for areas where a municipal water supplier wants to expand its water right's place of use. This is only allowed for non-community water systems.

### **Documenting consistency:**

- Provide a copy of the adopted land use/zoning map that corresponds to the service area. The uses provided in the WSP should be consistent with the adopted land use/zoning map.
- Include a copy of service area policies on how new water service will be provided to new customers. Cities and towns must include all service extension ordinances.
- Include a copy of the growth projections that corresponds to the service area. If the local population growth rate projections are not used, provide a detailed explanation on why the projections chosen more accurately describe the expected growth rate. Explain how it is consistent with the adopted land use.
- Include any other portions of comprehensive plans or development regulations which are related to water supply.

The Department of Health is an equal opportunity agency. For persons with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TTY 1-800-833-6388).



**Attachment 5: Water System Plan and Small Water System Management Program Consistency Statement Checklist**

This checklist is intended to ensure consistency of water system planning documents with adopted local comprehensive plans and development regulations. Each local planning jurisdiction in which the water utility provides service will review the relevant water system planning information and provide a signed consistency statement to the utility for submittal to the Department of Health. If the local planning agency will not respond, the highest authority within the utility (chair of governing body, executive director of private companies, etc.) must sign to verify consistency of the plan information.

Water System Name: City of Sumner PWS ID: 85120

Planning Document Title: Water System Plan Update Plan Date: March 2005

Local Planning Jurisdiction: Pierce County

<b>Consistency Statement</b> (Reference Municipal Water Law Section 5 and 8, amendment to chapter 90.03.386 and chapter 43.20 RCW)	Page(s) in Planning Document (completed by utility)	Yes – No – Not Applicable
The retail service area, and any other areas not served by a separate public water system, and land use identified in the WSP is consistent with the <i>adopted comprehensive plan and adopted development regulations and policies</i> .	1-4, 2-1 to 2-3	YES
<b>For WSPs only:</b> The growth projection used to forecast water demand for the retail service area is consistent with the adopted city/county's population growth projections (and commercial development projection if applicable). If a different growth projection was used, the alternative growth projection and methodology proposed is acceptable based on explanation given.	3-1	YES
<b>For WSPs only:</b> New potential large water users (that may have a significant impact on the water system) that the city/county is aware of have been identified in the WSP.		N/A
<b>For city-owned systems only:</b> All policies regarding water service outside the corporate boundaries are included in this WSP. These policies are consistent with the adopted <i>comprehensive plan and development regulations</i> .	Appendix B	YES
<b>Where the local planning agency is unable to sign a Consistency Statement:</b> Provide documentation of efforts to coordinate with local agencies with a 60-day timeline for local agency to respond. Include: name of contact, date, type of effort attempted, and response from local agency.		

I certify that the above statements are true to the best of my knowledge and that these statements support the conclusion that the subject-planning document is consistent with adopted comprehensive plans, development regulations, and other policies.

William J. Shoemaker  
Signature

March 23, 2005  
Date

Public Works Director, William J. Shoemaker  
Printed Name, Title, & Jurisdiction City of Sumner

**\*\*For any issues of inconsistency, please provide comments on how they can be resolved. \*\***



## EXECUTIVE SUMMARY

The 2009 Sumner Water System Plan has been developed in compliance with the requirements of the Washington State Department of Health (DOH), including the applicable Washington Administrative Code (WAC) 246-290 sections and the Municipal Water Supply – Efficiency Requirements Act of 2003 Interim Direction Water System Plan/Small Water System Management Program Approvals (Municipal Water Law). This summary is meant to provide a brief description of the key elements discussed in the plan.

### Service Area

The Sumner water utility service area is situated in the Puyallup/White River basin, and is adjoined by the water services areas of the City of Bonney Lake, Mountain View-Edgewood, the City of Puyallup, Valley Water District, the City of Auburn, Tacoma Water, and the City of Pacific. The Sumner water system has interties with both the Pacific and Puyallup water infrastructure. These interties are meant to be utilized during emergencies only and do not provide additional water for daily demands. The future of the Sumner water service area, which is discussed in Section 1.4, is consistent with the Pierce County Coordinated Water System Plan and is located entirely within the Urban Growth Area Boundary established by Pierce County.

### System Inventory

The Sumner water infrastructure consists of approximately 85 miles of transmission mains ranging from 2-inch diameter to 18-inch diameter. Sumner currently utilizes seven potable water sources, including four springs (County Springs, Sumner Springs, Weber Springs, and Elhi Springs) and three wells (South Well, Dieringer Well, and West Well). Sumner potable water sources are inventoried in Table ES-1.

**Table ES-1. Sumner Potable Water Sources**

DOH ID Number	Source Name	Source Type	Source Capacity (mgd)
SO 1	Sumner Springs	Free-Flowing Spring	1.15
SO 2	Weber Springs	Free-Flowing Spring	a
SO 3	Elhi Springs	Free-Flowing Spring	0.13
SO 4	County Springs	Free-Flowing Spring	0.71
SO 5	West Well	Artesian Well	0.36
SO 6	South Well	Artesian Well	1.01
SO 7	Dieringer Well	Artesian Well	0.36

<sup>a</sup> Flow from Weber Springs combines with Sumner and County Springs.

The Sumner Water System currently has a source capacity of approximately 3.72 million gallons per day (mgd) and storage capacity of 5.07 million gallons (mg).

### Demand Projections

Water demand projections in the plan are based on historic water usage per Equivalent Residential Unit (ERU) and the projected population growth within the water service area during the 6-year and 20-year planning period. Population growth within the Sumner water service area is projected to increase based on info provided by the City's Community Development department and described in Section 3.2 of this Plan.

Using historical data from 1997 through 2007, the average consumption per day per ERU was estimated to be 262 gpd/ERU. Water-use projections are outlined in Table ES-2:

**Table ES-2. Water Demand Projections**

Year	Population <sup>a</sup>	Average Day Demand (mgd) <sup>b</sup>	Peak Day Demand (mgd) <sup>c</sup>
2008	9,465	1.57	3.15
2009	9,881	1.71	3.43
2010	10,285	1.78	3.56
2011	10,677	1.85	3.69
2012	11,057	1.91	3.82
2013	11,426	1.97	3.94
2014	11,785	2.03	4.05
2019	13,435	2.30	4.60
2024	14,879	2.53	5.07
2029	16,153	2.74	5.49

<sup>a</sup> Based on annual population increase described in Section 3.2.

<sup>b</sup> Based on average demand requirement for 2008 and proposed population growth rate.

<sup>c</sup> Based on 2.00 peaking factor.

The Sumner water system has a current source capacity of approximately 3.72 mgd. Based on water demand projections, the instantaneous capacity of the existing City sources may be insufficient to meet the projected peak-day demand by the year 2012 if the City does not pursue modifications to water rights and/or sources to increase the instantaneous capacity of the water system. This information is presented in Table ES-3.

**Table ES-3. Existing Source Capacity Versus Projected Peak-Day Demand**

	2008	2009	2014	2019	2029
Projected Peak-Day Demand (mgd)	3.15	3.43	4.05	4.60	5.49
Existing Source Capacity (mgd)	3.72	3.72	3.72	3.72	3.72
Source Deficit/Surplus	+0.57	+0.29	(0.33)	(0.88)	(1.77)

The current sources can, however, meet the projected average daily demands through the 20-year planning period.

## Water Resources

The Sumner potable water sources have a combined instantaneous water right of approximately 7.6 mgd, including rights for Weber Springs No. 1 and No. 2 and not including any rights for the West Well. This right is sufficient to meet the projected peak-day demand throughout the 20-year planning period. However, the water rights at the springs and South Well are currently greater than the production capacity at those sources. Improvements need to be made to these sources to see the full water right, or the right may be transferred to other sources capable of producing greater flow than allowed under the individual water-right certificates such as the West Well and Dieringer Well.

The City is planning to redevelop the spring sources. With some improvements to the existing setups, the spring sources could increase instantaneous flow capacity by approximately



500 gpm in 2010. In addition, the City is planning to improve/construct interties with City of Pacific and Mountain View – Edgewood (in 2010) and develop a new well (in 2011). Table ES-4 outlines the estimated combined capacity of Sumner sources assuming that the water-right applications are approved by the Washington State Department of Ecology and that the source improvements outlined in the plan are constructed.

**Table ES-4 Projected Source Capacity Versus Projected Peak-Day Demand**

	2008	2009	2010 <sup>a</sup>	2011 <sup>b</sup>	2019	2029
Projected Maximum Day Demand (mgd)	3.15	3.43	3.56	3.69	4.60	5.49
Source Capacity (mgd)	3.72	3.72	3.72	4.87	7.03	7.03
Additional Source Capacity (mgd)	–	–	+1.15	+2.16	–	–
Source Deficit/Surplus	+0.57	+0.16	+1.31	+3.34	+2.43	+1.54

<sup>a</sup> Additional source capacity from intertie with City of Pacific (450 gpm) and intertie with Mountain View – Edgewood (347 gpm).

<sup>b</sup> Additional source capacity from improvements at springs (500 gpm) and a new well (1000 gpm).

Based on the population and water-use projections developed for this plan, the City has sufficient instantaneous water rights to meet the peak-day demands through the 20-year planning period if the water-right applications and the new well source are successful. The Sumner water system currently has 5.07 mg of storage capacity. This storage capacity is sufficient to supply the City through the 20-year planning period.

## Water Quality

The Sumner sources produce very high quality water and conformance with water quality rules and regulations is generally not an issue. Water quality regulations recently implemented, or currently under development, that will likely be applicable to the City of Sumner are:

- **Arsenic Rule:** Reduced the Arsenic Maximum Contaminant Limit (MCL) from 50 parts per billion (ppb) to 10 ppb. Water systems were required to demonstrate compliance with this rule beginning January 23, 2006. Based on monitored data, this rule has not affected the Sumner Water System.
- **Radon Rule:** Establishes a general Radon-222 MCL of 300 picocuries per liter (pCi/L) for all Class A water systems. The Radon Rule was originally scheduled for adoption in 2001. It is unknown when this rule will be finalized.
- **Groundwater Rule:** The Groundwater Rule is based on the need to protect the public against bacteria, viruses, or contaminants in groundwater sources. Based on the requirements outlined in the draft rule, promulgation of the Groundwater Rule would require the City to increase disinfection dosage to maintain a log-4 inactivation (dose needed to neutralize viruses) and retrofit the existing chlorination facilities to allow continuous chlorine-residual monitoring. The final Groundwater Rule was published in the Federal Register on November 8, 2006, and the deadline for compliance is December 1, 2009. The City of Sumner currently has chlorine-residual monitors on their chlorine disinfection and monitors the system via sampling at 10 locations each month. This rule should not affect the Sumner Water System.
- **Stage 2 Disinfectants and Disinfection Byproducts Rule (Stage 2 D/DBPR):** This rule was published on January 4, 2006, to expand on the requirements outlined in the Stage 1 Rule, which established a maximum disinfectant residual allowed within the water system and MCLs for disinfection byproducts. Stage 2 D/DBPR strengthens



public health protection by tightening compliance monitoring requirements for two groups of disinfection byproducts (DBPs), trihalomethanes (TTHM), and haloacetic acids (HAA5). The City of Sumner received 40/30 Certification from the EPA on September 20, 2007 (as shown in Appendix I) and additional monitoring for Stage 2 D/DBPR begins in October 2013.

## **Capital Improvement Plan**

This plan proposes approximately \$25 million in capital improvements and operation and maintenance programs over the 20-year planning period, approximately \$22 million of which the City is responsible for, with the balance being funded by development. Improvements outlined in the plan are categorized as follows:

- Distribution System Improvements.
- Source Improvements.
- Storage Improvements.
- Operation and Maintenance.

Distribution, source, and storage improvements are further separated into improvements required for future growth and improvements required to address existing infrastructure deficiencies. Table 8-1 in the plan provides a comprehensive capital improvement list, including estimated project costs and implementation schedule.

## **Financial Review**

The water utility fund revenues expected during the 6-year planning period were estimated based on the City's actual budget for 2009-2010 and a projected annual 3.5 percent growth rate and an annual average rate adjustment of approximately 3.06 percent for inflation based on the average annual increase of the CCI for the Seattle area since 1995. Based on the existing and projected financial data, it appears that the existing monthly fees and system development charges (SDC) will be insufficient to cover both the existing expenditures and the future expenditures proposed in the Capital Improvement Plan. Future fund revenues will continue to be increased through a combination of monthly fee/SDC increases and low interest loans. A detailed rate study will be conducted to determine the extent of monthly fee/SDC increases required to enable the City to continue to meet the water utility's financial obligations.