United States
Environmental Protection
Agency

DRAFT FINAL: Strategic Plan for Targeted Outreach to Populations Affected by Lead Water Infrastructure Improvements for the Nation (WIIN) Act

Safe Drinking Water Act 1414 (c)(5)

DRAFT FINAL

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Executive Summary

The Water Infrastructure Improvements for the Nation (WIIN) Act, enacted on December 16, 2016, is a comprehensive legislation to address the needs of America's harbors, dams, flood protection, and other water resources and infrastructure critical to the Nation's economic growth, health and competitiveness. The WIIN includes the Water Resource Development Act (WRDA) of 2016, which includes provisions to improve water infrastructure around the country. The Act specifically authorizes $100 million for communities facing drinking water emergencies, including helping communities recover from lead contamination. In addition, WIIN amended several parts of the Safe Drinking Water Act including provisions regarding the Drinking Water State Revolving Fund program, the Tribal Drinking Water Infrastructure Grants funds, and aspects of public notification.

The WIIN Act added section 1414(c)(5), "Exceedance of Lead Level at Households," to section 1414(c) of the Safe Drinking Water Act. This Section requires EPA to develop a Strategic Plan that identifies how EPA, primacy agencies, and owners and operators of public water systems will provide targeted outreach, education, technical assistance, and risk communication to populations affected by lead in drinking water, including dissemination of information specified in Section 1414(c)(5)(C). The Strategic Plan provides:

- An understanding of the required elements documented in "Exceedance of Lead Level at Households" section of the WIIN Act.
- An easy-to-follow workflow illustrating the roles and responsibilities of EPA, the primacy agencies, and public water systems.
- Standard forms and templates to assist in data evaluation, targeted outreach to household, and notification confirmation.

Primacy agencies and public water systems already collaborate to provide prompt notification about lead contamination for samples analyzed under the Lead and Copper Rule. This Strategic Plan outlines standard operating procedures, as required by the WIIN amendments, regarding how EPA will interact with the primacy agencies and the owners/operators of public water systems upon developing or receiving data from a source other than a state or public water system, that indicates one or more households served by a public water system have drinking water with lead concentrations s that exceed the lead action level. Upon receiving this data, EPA will document sampling protocols and analytical methods used to collect and analyze the data. EPA will work collaboratively with the primacy agencies and public water system to disseminate information in a timely and effective manner to the affected households.

The Strategic Plan provides resources to support effective communication with consumers about the potential adverse health effects of drinking water that contains a concentration of lead that exceeds the action level under section 141.80(c) of title 40, *Code of Federal Regulations*. In addition, the plan also includes templates and suggested language that cover what information should be collected about samples, the required information that needs to be included when notifying households affected by lead, and the confirmation process., This Strategic Plan is a resource for EPA, primacy agencies, and public water systems, to implement effective targeted outreach to populations affected by lead in drinking water.

Background

The WIIN Act was enacted on December 16, 2016. The WIIN Act amended Section 1414(c) of the Safe Drinking Water Act, ("Notice to Persons Served"), by adding a new Section 1414(c)(5) "Exceedance of Lead Level at Households" (see Appendix A). This section directs EPA to develop a strategic plan within 180 days after enactment, in collaboration with public water systems and states with primary enforcement responsibility (primacy agencies). The purpose of the strategic plan is to identify how EPA, primacy agencies, and owners and operators of public water systems will provide targeted outreach, education, technical assistance, and risk communication to populations affected by the concentration of lead in a public water system, including dissemination of information specified in Section 1414(c)(5)(C). The deadline to complete the strategic plan is June 14, 2017.

Section 1414(c)(5)(B) requires EPA to forward data and information to the owner/operator of a public water systems and the primacy agency when EPA develops, or receives certain data from a source other than a state or public water system, indicating that the drinking water of a household exceeds the action level for lead (See Figure 1 for a flow diagram of the process).[1] If the public water system receives the data, and has not, since the date of the test, notified the affected household(s), of the concentration of lead and that it exceeds the action level, then, the public water system is required to disseminate information on (1) the potential adverse effects of lead on human health, (2) the steps that the public water system is taking to mitigate the concentration of lead, and (3) the necessity of seeking alternative water supplies until the concentration of lead is mitigated. The public water system must disseminate that information by a deadline established by EPA. If, the system does not meet that deadline, then no later than 24 hours after EPA learns that the system has not met the deadline, EPA must consult with the applicable Governor, within a 24-hour period, to develop a plan to disseminate the required information no later than 24 hours after the consultation period ends. In those instances, where the public water system does not disseminate the information and EPA and the Governor do not agree on a plan to disseminate the information, EPA is required to disseminate the information as soon as practicable.

In addition to the requirement to disseminate the required information, EPA strongly recommends notifying the affected households of the sampling results with a statement explaining that the results exceed the action level (see Appendix B). The information that must be distributed under the WIIN Act is similar to some of the information that systems must distribute under the Lead and Copper Rule (LCR) public education requirements, although the triggering events and timelines are different.

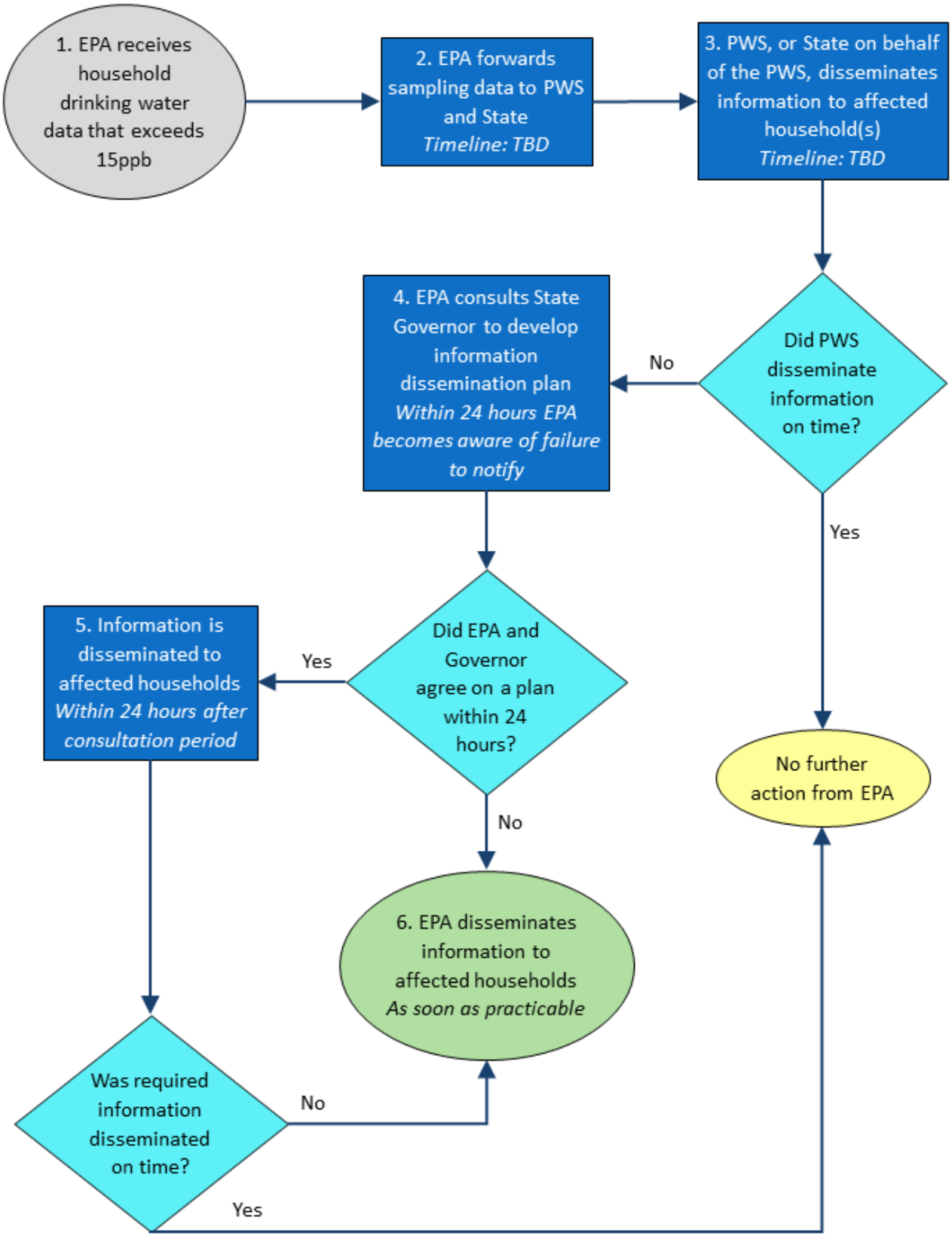
Both WIIN and the LCR require outreach containing public education materials on:

- adverse health effects,
- public water system actions to reduce lead levels, and
- options consumers may take to reduce exposure.

In general, the public education and notification requirements in the LCR are triggered by action level exceedances of the concentration of lead in more than 10% of tap samples collected, whereas the information dissemination requirements in section 1414(c)(5)(B) are triggered by an action level exceedance in individual households.

[1] Lead action level is currently set at 0.015 mg/L (40 CFR 141.80(c)(1))

Figure 1.Flow Diagram Illustrating 1414(c)(5)(B) – Click on numbered steps to go to associated discussion and find more detailed information.



Steps to Disseminate Information to Households

In the event that EPA develops, or receives from a source other than from a primacy agency or public water system, data that meets the requirements of SDWA Section 1412(b)(3)(A)(ii), the steps listed below will need to be taken.

1. EPA Develops or Receives Data

Requirements: EPA develops or receives data[2], other than from a primacy agency or a public water system, indicating that one or more households that are served drinking water by a public water system contain lead in their drinking water that exceeds the lead action level[3] ("applicable data").

Any EPA employee that receives data indicating that one or more households that are served by a public water system contain lead in their drinking water that exceeds the lead action level, must send a notification to the manager responsible for the Public Water System Supervision (PWSS) program at the respective regional office. The EPA employee that receives the applicable data or a designated individual in the drinking water program, will, to the extent practicable, complete the *Data Submission* template provided in Appendix B. This template will be used to collect, share and create a record of the data EPA received, and will include the sampling protocols and analytical methods. EPA will complete this document as soon as practicable taking into account the number of households affected and the responsiveness of the person submitting the information. This template will be then sent to the primacy agency and the public water system.

In determining if the data was collected by "accepted methods or best available methods", EPA will consider those analytical methods that have been approved for drinking water compliance as accepted methods[4]. Other methods may also be considered best available and these will be determined on a case by case basis.

The WIIN Act amendments only apply to households served by public water systems. If the data received is associated with a household served by a private well, then the notification requirements of the WIIN Act amendments are not triggered. If EPA is able to determine that the household is served by a private well, EPA will still share this information with the primacy agency and determine appropriate next steps to inform the homeowner of the data collected and steps to take to minimize their exposure.

If the data provided fails to trigger the WIIN Act amendments because the result was below the action level or the method used was not an accepted or best available method (e.g., only a presence/absence test), then EPA will follow up with the individual who submitted the data and provide information regarding lead in drinking water, potential health risks, in addition to answering any questions the individual might have regarding lead exposure, sampling/testing, and ways to minimize lead exposure.

[2] Data must meet the requirements of section 1412(b)(3)(A)(ii), "data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies use of the data)."
[3] Lead action level, 40 CFR 141.80, or a prescribed level of lead established for public education or notification in section 1412.
[4] The current list of approved methods can be found in the Table in 40 CFR 141.23(k)(1) plus Appendix A to Subpart C of Part 141.

2. EPA Forwards Data to the Public Water System and Primacy Agency

Requirements: EPA will forward the applicable data and information on sampling and analytical techniques to the owner/operator of the public water system and the state primacy agency in which the affected household is located.

The WIIN Act requires an "appropriate employee of the Agency" to forward the data to the public water system and the state in which the affected household is located, within a time period determined by the Administrator. The EPA employee will send a copy of the completed Data Submission Template to the public water system and state primacy agency before the close of business the next day.

As identified in the previous section, the designated EPA employee sending the data will be the respective manager responsible for implementing the PWSS program in that office.

3. The Owner/Operator of Public Water System Shall Disseminate

Requirements: If a public water system receives the data referenced above and has not, since the date of the test, notified the affected households with respect to the concentration of lead in the drinking water, as well as indicating that the lead concentration exceeds the lead action level, the water system shall disseminate the required information.

The public water system will disseminate[5] the required information to the household as soon as practicable, but no later than the timeline determined by EPA at the time of the event. EPA will determine the timeline based on the number of households that must be notified. For example, if only one household must be notified, EPA will suggest that the notification be done in the determined timeframe.

The possible timeframes include:

- 24 hours for one household.
- 48 hours for two to nine households.
- 72 hours for 10 or more households.

EPA will maintain flexibility if it's a situation that merits a longer period of time. These extensions will be made on a case by case basis.

According to WIIN, the following information must be sent to the affected households:

> (i) a clear explanation of the potential adverse effects on human health of drinking water that contains a concentration of lead that exceeds the lead action level under section 141.80(c) of title 40, Code of Federal Regulations (or a prescribed level of lead that the Administrator establishes for public education or notification in a successor regulation promulgated pursuant to section 1412);
>
> (ii) the steps that the owner or operator of the public water system is taking to mitigate the concentration of lead; and
>
> (iii) the necessity of seeking alternative water supplies until the date on which the concentration of lead is mitigated.

EPA has developed example templates for public water systems, states or EPA employees that are disseminating information to the affected households as outlined in SDWA Section 1414(c)(5)(B). There are

[5] Determined timelines are met when the information is disseminated. It will not include any additional time for the homeowner to receive the information.

two versions of the templates. One for the situation when the household's lead sample result and the 90th percentile value for the water system are greater than 15 ppb. The other is for when the water system's 90th percentile level is below the action level and household's lead sample result that is greater than 15 ppb. EPA's example notification templates have a section for sample results compared to the lead action level, and provide general information on lead in drinking water, potential health effects explanation (required), how the consumers can reduce their exposure to lead/necessity of seeking alternate supply (required), what steps the water system is taking (required), and contact information. The templates are included in Appendix B.

In addition, the public water system may wish to include confirmation sampling guidance and resources for the household, including information about lead testing/results for the public water system (if available). The public water system should consider contacting other local agencies, including health departments, that may provide assistance or resources to help further educate the affected household(s).

Information should be delivered to the household(s) by email (with confirmation request), mail, or hand-delivered. If using email, a follow-up method (call, mail, hand-delivered) is strongly suggested. The information should be directed to the affected consumers, e.g., current occupants/renters. If the occupants are not the property owners, the public water system should also send a copy of the information to the owner or property manager. If the household tested is an apartment, the information should be sent to the unit(s) tested, and to the property owner or property manager. If the household is unoccupied, the information should be sent to the owner and the person that submitted the applicable data.

Once the public water system has disseminated the required information, they should notify EPA and the primacy agency with a confirmation. Appendix B has an example template of a confirmation of delivery. Confirmation may be submitted by email, fax, or mail, along with a copy of the information sent to the affected household.

The state primacy agency may disseminate the required information on behalf of the water system.

Steps to Disseminate Information to Households in the Event of Failure to Do So by the Primacy Agency or Public Water System

4. EPA Consultation with State Governor[6]

Requirements: If the public water system does not disseminate the required information within the time period established by EPA, not later than 24 hours after EPA becomes aware that the public water system did not notify the affected households, the EPA Administrator (or designated representative, see below) must consult with the State's Governor, within a period not to exceed 24 hours, to develop a plan, in accordance with the strategic plan to disseminate the required information to affected households no later than 24 hours after the end of the consultation period.

EPA has up to 24 hours to initiate consultation with the Governor after becoming aware of the public water system's failure to disseminate the information. The EPA representative and Governor will have 24 hours to develop a plan. The Administrator may delegate the duty to consult to an employee of the Agency who, as of the date of the delegation, works in the Office of Water at the headquarters of the Agency.

[6] Or other appropriate leader, e.g., the Mayor of the District of Columbia. For public water systems where EPA has direct implementation, this process will involve joint dissemination between the Regional Administrator and the appropriate head of government.

If EPA contacts the Governor's office by email, EPA will include the State's Drinking Water Administrator in the communication.

5. Dissemination of the Information Based on the Plan

Requirements: Within 24 hours of the conclusion of the consultation period, EPA expects the required information will be disseminated in accordance with the plan developed by the Governor and the EPA. EPA recommends that the State notify EPA that the required information has been disseminated by sending EPA a confirmation notice. (See Appendix B for template of certification.)

The plan developed by the Governor and EPA may allow another entity (e.g., primacy agency, county environmental or health department) to disseminate the information.

6. EPA to Disseminate Information

Requirements: If the public water system does not disseminate the information within the time period determined by EPA and EPA and the Governor do not agree on a plan during the consultation period, or the Governor does not disseminate the information within 24 hours of the end of the consultation period, EPA is required to distribute information to the affected households as soon as practicable.

If EPA and the Governor do not come to an agreement in the established timeline regarding the notifications, then EPA will provide the required information to the affected households. EPA will utilize the templates developed in Appendix B. EPA will utilize the same strategy described in Step 3, with respect to determining the timeline to send the notifications based on the number of affected households requiring notification.

Appendix A: Water Infrastructure Improvements for the Nation (WIIN) Act

(5) EXCEEDANCE OF LEAD LEVEL AT HOUSEHOLDS. —

(A) STRATEGIC PLAN.—Not later than 180 days after the date of enactment of this paragraph, the Administrator shall, in collaboration with owners and operators of public water systems and States, establish a strategic plan for how the Administrator, a State with primary enforcement responsibility, and owners and operators of public water systems shall provide targeted outreach, education, technical assistance, and risk communication to populations affected by the concentration of lead in a public water system, including dissemination of information described in subparagraph (C).

(B) EPA INITIATION OF NOTICE. —

(i) FORWARDING OF DATA BY EMPLOYEE OF THE AGENCY.—If the Agency develops, or receives from a source other than a State or a public water system, data that meets the requirements of section 1412(b)(3)(A)(ii) that indicates that the drinking water of a household served by a public water system contains a level of lead that exceeds the lead action level under section 141.80(c) of title 40, Code of Federal Regulations (or a prescribed level of lead that the Administrator establishes for public education or notification in a successor regulation promulgated pursuant to section 1412) (referred to in this paragraph as an 'affected household'), the Administrator shall require an appropriate employee of the Agency to forward the data, and information on the sampling techniques used to obtain the data, to the owner or operator of the public water system and the State in which the affected household is located within a time period determined by the Administrator.

(ii) DISSEMINATION OF INFORMATION BY OWNER OR OPERATOR. —The owner or operator of a public water system shall disseminate to affected households the information described in subparagraph (C) within a time period established by the Administrator, if the owner or operator—

(I) receives data and information under clause (i); and

(II) has not, since the date of the test that developed the data, notified the affected households—

(aa) with respect to the concentration of lead in the drinking water of the affected households; and

(bb) that the concentration of lead in the drinking water of the affected households exceeds the lead action level under section 141.80(c) of title 40, Code of Federal Regulations (or a prescribed level of lead that the Administrator establishes for public education or notification in a successor regulation promulgated pursuant to section 1412).

(iii) CONSULTATION. —

(I) DEADLINE.—If the owner or operator of the public water system does not disseminate to the affected households the information described in subparagraph (C) as required under clause (ii) within the time period established by the Administrator, not later than 24 hours

after the Administrator becomes aware of the failure by the owner or operator of the public water system to disseminate the information, the Administrator shall consult, within a period not to exceed 24 hours, with the applicable Governor to develop a plan, in accordance with the strategic plan, to disseminate the information to the affected households not later than 24 hours after the end of the consultation period.

(II) DELEGATION. —The Administrator may only delegate the duty to consult under subclause (I) to an employee of the Agency who, as of the date of the delegation, works in the Office of Water at the headquarters of the Agency.

(iv) DISSEMINATION BY ADMINISTRATOR. —The Administrator shall, as soon as practicable, disseminate to affected households the information described in subparagraph (C) if—

(I) the owner or operator of the public water system does not disseminate the information to the affected households within the time period determined by the Administrator, as required by clause (ii); and

(II) (aa) the Administrator and the applicable Governor do not agree on a plan described in clause (iii)(I)2 during the consultation period under that clause; or

(bb) the applicable Governor does not disseminate the information within 24 hours after the end of the consultation period.

(C) INFORMATION REQUIRED. —The information described in this subparagraph includes—

(i) a clear explanation of the potential adverse effects on human health of drinking water that contains a concentration of lead that exceeds the lead action level under section 141.80(c) of title 40, Code of Federal Regulations (or a prescribed level of lead that the Administrator establishes for public education or notification in a successor regulation promulgated pursuant to section 1412);

(ii) the steps that the owner or operator of the public water system is taking to mitigate the concentration of lead; and

(iii) the necessity of seeking alternative water supplies until the date on which the concentration of lead is mitigated.

Appendix B: Templates and Resources

Required Information

Information and language to include when notifying households impacted by elevated lead.

- A clear explanation of the potential adverse effects on human health of drinking water that contains a concentration of lead that exceeds the lead action level; should include the following:
    - Example: Standard Health Effects Language for Public Notification (from Appendix B of 40 CFR 141): 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.
- The steps that the owner or operator of the public water system is taking to mitigate the concentration of lead; and
- The necessity of seeking alternative water supplies until the date on which the concentration of lead is mitigated.

Data Submission Template

Template for when EPA receives sampling data from a source other than a state or public water system. EPA can complete the form and send it to the public water system and state so they can disseminate required information to the household and take any follow-up steps.

United States Environmental Protection Agency

Safe Drinking Water Act 1414(c)(5) Data Submission Form For Exceedance of Lead Level at Household(s)

This form is to be completed when EPA receives sampling data from a source other than a state or public water system (PWS). The purpose is to collect information so EPA can send it to the PWS/state so they can disseminate required information to the household and take any follow-up steps.

Contact Information

1. Name of contact providing the information:	2. EPA Contact Reviewing the Information:
1A. Contact Email:	2A. EPA Contact Email:
1B. Contact Phone Number:	2B. EPA Contact Phone Number:
1C. Contact Address:	

Household Information

3. Enter the sample address below.

3A. Street house & Number:

3B. City or Town:	3C. State:	3D. Zip Code:

4. Describe the reason for the sample collection (e.g., received consumer notice that water system exceeded lead action level, nearby school conducted sampling and I wanted to check my water):

5. Indicate the type of household where the sample was collected (e.g., single family, multifamily home, apartment complex):	6. Enter the age of the building/home:
7. Is the household occupied? ☐ Yes ☐ No	7A. If not, how long has it been unoccupied?

8. Enter contact information for the resident or owner/property manager (if a rental property) below.

8A. Name of Contact:	8B. Contact Email:
8C. Contact Phone Number:	8D. Address (If different from Contact Information section above):

9. Name of the public water system:

Plumbing Information

10. Indicate the water pipe material from where the sample was collected (e.g., lead, copper, plastic, PEX):

11. Explain any recent changes to the household plumbing (e.g., replaced pipes, fixed leak):

12. Does the household have a point of use (POU)/point of entry (POE) water treatment system?

☐ Yes ☐ No ☐ Unknown

12A. If yes, indicate the type of treatment (e.g., reverse osmosis, water softener, etc.):	12B. If yes, was the water filter bypassed when the sample was collected? ☐ Yes ☐ No

Sample Collection Information

13. Enter the date and time of the sample collection:	14. Where was the sample collected? (e.g., kitchen, bathroom, drinking fountain):

15. Describe the sampling protocols that were followed (e.g., first draw, flush, stagnation period, etc.):

16. What is the size of the sampling container?

17. Describe what was done to preserve the sample after collection (e.g., immediately sealed containers, left sealed samples out in room temperature, sent samples to lab in timely manner, etc.):

Analytical Results Information

18. Enter contact information for the laboratory that is analyzing the sample below.

18A. Name of the laboratory:

18B. Name of contact:	18C. Contact Email:
18D. Contact Phone Number:	18E. Contact Address:
19. Is the laboratory EPA certified for lead analysis? ☐ Yes ☐ No	20. What analytical method did the laboratory use to analyze the sample?
21. What is the laboratory hold time?	22. Is there a copy of the laboratory report? ☐ Yes ☐ No

Education Templates

Template for public water system to send notice to households of their lead results.

- For households where the public water system's 90th percentile level is below the action level and the public water system becomes aware of a household's lead sample result that is greater than 15 ppb.
- For households where the public water system becomes aware of a household's lead sample result and that sample result and the 90th percentile value for the public water system are greater than 15 ppb.

Safe Drinking Water Act 1414(c)(5)

Template for Public Water Systems: Notice to Affected Households of Lead Tap Water Results

Instructions: Fill in the correct case-specific information in sections highlighted and marked with brackets. EPA recommends that you remove the brackets and highlighting and de-italicize the text before distributing the letter. Section in italics are required. These include:

- A clear explanation of the potential adverse effects on human health of drinking water that contains a concentration of lead that exceeds the lead action level;
- The steps that the owner or operator of the public water system is taking to mitigate the concentration of lead; and
- The necessity of seeking alternative water supplies until the date on which the concentration of lead is mitigated.

For households where the public water system's 90th percentile level is below the action level and the public water system becomes aware of a household's lead sample result that is greater than 15 ppb

Important Information About Your Drinking Water

Lead Sample Results for Your Home

Dear [Consumer's Name],

EPA has received information regarding a lead sample of drinking water taken at your home. This sample was collected by [sampler information] on [sample date]. The sample shows lead levels that are greater than the lead action level of 15 ppb. However, the 90th percentile value for our water system is below the lead action level. [Water System] strongly urges you to take the steps listed on the next page to reduce your exposure to lead in drinking water.

The following table shows the results of the water sample:

Sample Collected	Lab Results Received	Lead Test Results	Action Level at 90th Percentile Level	MCLG
[Date]	[Date]	[x] ppb	15 ppb	0 ppb

What Does This Mean?

Drinking water that is tested for lead is compared to standards set by the U.S. Environmental Protection Agency (EPA). These standards include:

- **90th percentile value:** The value that separates the bottom 90 percent of sample results from the top 10 percent. Utilities must ensure that 90 percent of the lead samples collected for compliance are below the action level for lead.
- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Under the authority of the Safe Drinking Water Act, the EPA set the action level for lead in drinking water at 15 ppb. Water systems are required to act if the sample results are greater than 15 ppb in more 10 percent of the samples collected for compliance.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. MCLGs are set low enough that drinking water is safe even if its contaminant levels are slightly above the MCLG. Because lead may pose serious health risks, the EPA set an MCLG of 0 ppb for lead.

How Does Lead Enter Drinking Water?

Lead is a toxic heavy metal that is harmful if inhaled or swallowed. The primary sources of lead exposure from the environment are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil.

Lead typically enters drinking water through plumbing materials. All homes, regardless of their age, may have plumbing that contains lead. However, homes built before 1986 are more likely to have lead pipes, fixtures, and solder. Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows pipes, fittings, and fixtures with up to 0.25 percent weighted average of lead to be identified as "lead-free." Brass faucets and fittings and lead solder can leach lead into water, especially hot water.

For households where the public water system's 90th percentile level is below the action level and the public water system becomes aware of a household's lead sample result that is greater than 15 ppb

What Are the Health Effects of Lead?

Lead can cause serious health problems if too much enters the body from drinking water or other sources of lead. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead is stored in the bones and can be released later in life.

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. Pregnant women, infants, and young children have the highest risks of negative health effects from lead exposure. During pregnancy, the fetus can receive lead from the mother's bones, which may affect brain development. Lead exposure in children under the age of six has been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, impaired formation and function of blood cells, and lowered IQ.

If you are concerned about lead exposure, you may want to ask your health care provider about testing children to determine the levels of lead in their blood.

How Can I Reduce Exposure to Lead from Drinking Water?

As a concerned resident, there are several steps that you can take to reduce your and your family's exposure to lead from drinking water. [Water System] recommends that you:

- **Run your water to flush out lead.** The longer water sits in your home piping; the more lead may leach from lead-containing fixtures. Run water for [30 seconds to 2 minutes or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the state primacy agency approves the wording] until it becomes cold or reaches a steady temperature before using it for drinking or cooking, especially if you have not used your water for an extended period of time.
- **Use cold water to cook and to prepare baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula. Remember, **boiling water DOES NOT remove lead** from water.
- **Identify and replace plumbing fixtures that contain lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows pipes, fittings, and fixtures with up to 0.25 percent weighted average of lead to be identified as "lead-free. Plumbing materials that are lead free can also be identified by looking for lead free certification marks (http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt).
- ***Use an alternative source or treatment of drinking water.*** *Until the concentration of lead in drinking water is mitigated, you should use a different source of drinking water for the home. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead. Verify the claims of manufacturers by checking with independent certifying organizations that provide lists of treatment devices that they have certified.*
- **Regularly clean faucet aerators**. Aerators, the screens at the end of faucets, can collect debris. Rinse out collected materials to reduce debris accumulation.

For households where the public water system's 90th percentile level is below the action level and the public water system becomes aware of a household's lead sample result that is greater than 15 ppb

- **Periodically re-test your water for lead.** Call [Water System] at [phone number] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free follow-up testing? What labs in your area are certified to do lead in water testing?]

What Steps Is My Water System Taking?

Water systems in the United States are not required to take additional action if the 90th percentile value is below the action level. However, [Water System] is taking the following steps to keep your drinking water safe:

- [We will work to keep drinking water corrosivity as low as possible because corrosive water can cause lead to leach from plumbing materials that contain lead.]
- *We will continue to monitor lead levels in consumers' homes to ensure that the 90th percentile value remains below the action level.*
- [Insert additional steps that your system is taking here.]

Contact Information

Please contact [Water System] with questions at [phone number], [email address], or [mailing address]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

For households where the public water system becomes aware of a household's lead sample result and that sample result and the 90th percentile value for the public water system are greater than 15 ppb

Important Information About Your Drinking Water

Lead Sample Results for Your Home

Dear [Consumer's Name],

EPA has received information regarding a lead sample of drinking water taken at your home. This sample was collected by [sampler information] on [sample date]. The sample shows lead levels that are greater than the lead action level of 15 ppb. The 90th percentile value for our water system is also greater than the lead action level. [Water System] strongly urges you to take the steps listed on the next page to reduce your exposure to lead in drinking water.

The following table shows the results of the water sample:

Sample Collected	Lab Results Received	Lead Test Results	Action Level at 90th Percentile Level	MCLG
[Date]	[Date]	[x] ppb	15 ppb	0 ppb

What Does This Mean?

Drinking water that is tested for lead is compared to standards set by the U.S. Environmental Protection Agency (EPA). These standards include:

- **90th percentile value:** The value that separates the bottom 90 percent of sample results from the top 10 percent. Utilities must ensure that 90 percent of the lead samples collected for compliance are below the action level for lead.
- **Action Level:** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow. Under the authority of the Safe Drinking Water Act, the EPA set the action level for lead in drinking water at 15 ppb. Water systems are required to act if the sample results are greater than 15 ppb in more 10 percent of the samples collected for compliance.
- **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. MCLGs are set low enough that drinking water is safe even if its contaminant levels are slightly above the MCLG. Because lead may pose serious health risks, the EPA set an MCLG of 0 ppb for lead.

How Does Lead Enter Drinking Water?

Lead is a toxic heavy metal that is harmful if inhaled or swallowed. The primary sources of lead exposure from the environment are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil.

Lead typically enters drinking water through plumbing materials. All homes, regardless of their age, may have plumbing that contains lead. However, homes built before 1986 are more likely to have lead pipes, fixtures, and solder. Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows pipes, fittings, and fixtures with up to 0.25 percent weighted average of lead to be identified as "lead-free." Brass faucets and fittings and lead solder can leach lead into water, especially hot water.

For households where the public water system becomes aware of a household's lead sample result and that sample result and the 90th percentile value for the public water system are greater than 15 ppb

What Are the Health Effects of Lead?

Lead can cause serious health problems if too much enters the body from drinking water or other sources of lead. Adults who drink this water over many years could develop kidney problems or high blood pressure. Lead is stored in the bones and can be released later in life.

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. Pregnant women, infants, and young children have the highest risks of negative health effects from lead exposure. During pregnancy, the fetus can receive lead from the mother's bones, which may affect brain development. Lead exposure in children under the age of six has been linked to damage to the central and peripheral nervous system, learning disabilities, shorter stature, impaired hearing, impaired formation and function of blood cells, and lowered IQ.

If you are concerned about lead exposure, you may want to ask your health care provider about testing children to determine the levels of lead in their blood.

How Can I Reduce Exposure to Lead from Drinking Water?

As a concerned resident, there are several steps that you can take to reduce your and your family's exposure to lead from drinking water. [Water System] recommends that you:

- **Run your water to flush out lead.** The longer water sits in your home piping; the more lead may leach from lead-containing fixtures. Run water for [30 seconds to 2 minutes or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the state primacy agency approves the wording] until it becomes cold or reaches a steady temperature before using it for drinking or cooking, especially if you have not used your water for an extended period of time.
- **Use cold water to cook and to prepare baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula. Remember, **boiling water DOES NOT remove lead** from water.
- **Identify and replace plumbing fixtures that contain lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows pipes, fittings, and fixtures with up to 0.25 percent weighted average of lead to be identified as "lead-free. Plumbing materials that are lead free can also be identified by looking for lead free certification marks (http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100LVYK.txt).
- ***Use an alternative source or treatment of drinking water.*** *Until the concentration of lead in drinking water is mitigated, you should use a different source of drinking water for the home. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead. Verify the claims of manufacturers by checking with independent certifying organizations that provide lists of treatment devices that they have certified.*
- **Regularly clean faucet aerators**. Aerators, the screens at the end of faucets, can collect debris. Rinse out collected materials to reduce debris accumulation.

For households where the public water system becomes aware of a household's lead sample result and that sample result and the 90th percentile value for the public water system are greater than 15 ppb

- **Periodically re-test your water for lead.** Call [Water System] at [phone number] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]

What Steps Is My Water System Taking?

Because the 90th percentile value for the water system is above the action level, [Water System] is actively working to mitigate the problem. We are taking the following steps to keep your drinking water safe:

- ***Increased sampling**: We will begin sampling for lead every 6 months so we can closely monitor the lead levels in our water system. Your continued participation and support in our lead tap monitoring program is very important.*
- ***Public Education campaign**: We will initiate a public education campaign to ensure all our customers know about the water system 90th percentile value exceeding the action level, the health effects of lead, the sources of lead in drinking water, and actions they can take to reduce exposure to leads in drinking water.*
- ***Source water monitoring**: We will conduct monitoring in our source water to ensure that lead is not entering our water system from the source water.*
- ***Corrosivity control**: We will [initiate controls or improve on our controls] to reduce the corrosivity of our water. Corrosive water can cause lead to leach from plumbing materials that contain lead.*
- ***[Lead service line replacement**: We will initiate lead service line replacement programs in our water system. **This only applies to systems with lead service lines.]***
- *[Insert additional steps that your system is taking here.]*

Although we are acting to reduce lead levels, your elevated lead level may also be due to conditions unique to your home such as the presence of lead soldier or brass faucets, fittings, and valves that may contain lead. Please see the strategies listed on the previous page to reduce lead exposure.

Contact Information

Please contact [Water System] with questions at [phone number], [email address], or [mailing address]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Confirmation Template

Template for primacy agency/public water system to send confirmation to EPA after disseminating information.

Safe Drinking Water Act 1414(c)(5) Exceedance of Lead Level at Households

Information Delivery Confirmation

Public Water System Name: _____

Point of contact: _____ Phone: _____

Date PWS received data and information: _____

Date information was distributed to affected household(s): _____

Deadline to disseminate the information: _____

Delivery method (check all that apply):

☐ **Mail** ☐ **Certified mail** ☐ **Hand delivery** ☐ **Email**

☐ Other (e.g., posting): _____

Required information (SDWA 1414(c)(5)(C):

- Explanation of potential adverse human health effects
- Steps the PWS is taking to mitigate the concentration of lead
- The necessity of seeking alternative water supplies

The public water system indicated above hereby affirms that the required information listed above has been provided to the affected household(s) within the timeline assigned.

_____ _____

Signature of owner or operator Date

More Information

Lead and Cooper Rule: https://www.epa.gov/dwreginfo/lead-and-copper-rule

Appendix C: Stakeholder engagement

This appendix will summarize stakeholder engagement.