

**PANEL REPORT**

**of the**

**Small Business Advocacy Review Panel on**

**EPA's Planned Proposed Rule**

**Lead and Copper Rule Improvements (LCRI)  
National Primary Drinking Water Regulation**

**May 31, 2023**

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## LIST OF ACRONYMNS

AL	Action Level
AWWA	American Water Works Association
BIL	Bipartisan Infrastructure Law
CCT	Corrosion Control Treatment
CWS	Community Water System
GRR	Galvanized Requiring Replacement
LCR	Lead and Copper Rule
LCRI	Lead and Copper Rule Improvements
LCRMR	Lead and Copper Rule Minor Revisions
LCRR	Lead and Copper Rule Revisions
LSL	Lead Service Line
LSLR	Lead Service Line Replacement
MCLG	Maximum Contaminant Level Goal
NPDES	National Pollutant Discharge Elimination System
NDWAC	National Drinking Water Advisory Council
NPDWR	National Primary Drinking Water Regulation
NTNCWS	Non-Transient Non-Community Water System
OCCT	Optimized Corrosion Control Treatment
OGWDW	Office of Ground Water and Drinking Water
OMB	Office of Management and Budget
POTW	Publicly Owned Treatment Work
POU	Point-of-Use
PWS	Public Water System
RFA	Regulatory Flexibility Act
RLDWA	Reduction of Lead in Drinking Water Act
SAB	Science Advisory Board
SBA	Small Business Administration
SBAR	Small Business Advocacy Review
SBREFA	Small Business Regulatory Enforcement Fairness Act
SDWA	Safe Drinking Water Act
SER	Small Entity Representative
TL	Trigger Level
WQP	Water Quality Parameter

# 1. INTRODUCTION

This report is presented by the Small Business Advocacy Review Panel (SBAR Panel or Panel) that the U.S. Environmental Protection Agency (EPA) convened to review the planned proposed rulemaking on the Lead and Copper Rule Improvements (LCRI) National Primary Drinking Water Regulation (NPDWR). Section 609(b) of the Regulatory Flexibility Act (RFA), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires EPA to convene a Panel prior to publication of the initial regulatory flexibility analysis (IRFA) that EPA may be required to prepare under the RFA. In addition to EPA's Small Business Advocacy Chairperson, the Panel members are the Director of the Standards and Risk Management Division of the EPA Office of Ground Water and Drinking Water (OGWDW), the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget (OMB), and the Chief Counsel for Advocacy of the Small Business Administration (SBA).

This report includes the following:

- Background information on the proposed rule being developed;
- Information on the types of small entities that may be subject to the proposed rule;
- A description of the efforts made to obtain advice and recommendations from the representatives of those small entities; and
- A summary of the comments that have been received to date from those representatives.

Section 609(b) of the RFA directs the Panel to consult with and report on the comments of small entity representatives (SERs) and make findings on issues related to elements of an IRFA under Section 603 of the RFA. Those elements of an IRFA are:

- A description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- A description of projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;
- An identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule;
- A description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and minimize any significant economic impact of the proposed rule on small entities. This analysis shall discuss any significant alternatives, such as:
  - The establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
  - The clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
  - The use of performance rather than design standards; and
  - An exemption from coverage of the rule, or any part thereof, for such small entities.

Once completed, the Panel Report is included in the rulemaking record. EPA is to consider the Panel's findings when completing the draft of the proposed rule. In light of the Panel Report, and where appropriate, EPA is also to consider whether changes are needed to the IRFA for the proposed rule or the decision on whether an IRFA is required.

The Panel’s findings and discussion will be based on the information available at the time the final Panel Report is drafted. EPA will continue to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during the remainder of the rule development process.

Any options identified by the Panel for reducing the rule’s regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound, and consistent with the Safe Drinking Water Act (SDWA) and its amendments.

## 2. BACKGROUND AND DESCRIPTION OF RULEMAKING

### 2.1 Regulatory History

SDWA is the core statute addressing drinking water at the federal level. Under SDWA, EPA sets public health goals and enforceable standards for drinking water quality. In 1991, EPA promulgated the Lead and Copper Rule (LCR), which requires public water systems (PWSs) to minimize lead and copper in drinking water by reducing water corrosivity and preventing lead and copper from leaching from premise plumbing and drinking water distribution system components. The rule established an NPDWR for lead and copper that consists of a treatment technique<sup>1</sup> requirement, including but not limited to action levels (ALs) for the 90<sup>th</sup> percentile values of lead and copper, routine monitoring and sampling, corrosion control treatment (CCT), lead service line replacement (LSLR), and public education.

In 2000, EPA promulgated the Lead and Copper Rule Minor Revisions (LCRMR). These minor revisions streamlined requirements, promoted consistent national implementation, and in many cases, reduced burden for water systems. One of the provisions of the LCRMR required States<sup>2</sup> to report the 90<sup>th</sup> percentile lead level to EPA’s Safe Drinking Water Information System (SDWIS) database for all water systems serving greater than 3,300 people. States must report the 90<sup>th</sup> percentile value for water systems serving 3,300 people or fewer if the water system exceeds the AL. The new reporting requirements became effective in 2002.

In 2004, EPA published minor corrections to the LCR to reinstate text that was inadvertently dropped from the rule during previous revisions. In addition, EPA collected and analyzed lead concentration data and other information required by regulations, carried out review of implementation in states, held four expert workshops to further discuss elements of the regulations, and worked to better understand local and state efforts to monitor for lead in drinking water in schools, including holding a national meeting to discuss challenges and needs.

In 2007, EPA promulgated a set of short-term regulatory revisions and clarifications. The goals of the revisions were to (1) strengthen implementation of the LCR in the areas of monitoring, treatment, customer awareness, and LSLR, and to (2) improve compliance with the public education requirements. Public education helps to ensure drinking water consumers receive meaningful, timely, and useful information needed to help them limit their exposure to lead in drinking water. In developing the 2007

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<sup>1</sup> EPA sets a “treatment technique” in lieu of a maximum contaminant level “if the Administrator makes a finding that it is not economically or technologically feasible to ascertain the level of the contaminant” (SDWA 1412(b)(7)(A)). A treatment technique is an enforceable procedure or level of technological performance that PWSs must follow to ensure control of a contaminant.

<sup>2</sup> “State” means a state, tribe, or other primacy agency with primary responsibility for implementing SDWA.

revisions, EPA identified several regulatory changes that required additional data collection, research, analysis, and stakeholder involvement.

On January 15, 2021, EPA promulgated the Lead and Copper Rule Revisions (LCRR), which added new provisions for lead sampling for schools and childcare facilities, a mandate that water systems create an inventory of service line materials, and an expansion of public education and notification requirements. The final rule also added a trigger level (TL) for lead to require mitigation protocols earlier and in more communities as well as an updated tap sampling protocol to be more representative of water that has sat stagnant in the lead service line (LSL).

EPA extended the effective date of the LCRR to December 16, 2021, to conduct a review of the LCRR in accordance with Executive Order 13990 and to obtain public input by holding a series of virtual public engagements from April to August 2021. The review included two public listening sessions, ten roundtables with communities who are underserved or experience disproportionate impacts from drinking water lead exposure, a tribal roundtable, a national stakeholder association roundtable, a national co-regulator meeting, and a meeting with organizations representing elected officials. EPA also delayed the LCRR compliance date until October 16, 2024, to maintain the same time period between the effective date and the compliance date in the LCRR and to provide drinking water systems with adequate time to take actions needed to assure compliance with the LCRR after it takes effect.

## 2.2 Description and Scope of Existing Rule

The LCRR includes several new and updated requirements for water systems, including small water systems, as described below. Note that in the LCRR Review (EPA, 2021),<sup>3</sup> EPA announced that it does not expect to propose changes to the requirements related to the information to be submitted in the initial LSL inventory by October 16, 2024, and urged continued progress to identify and replace LSLs regardless of potential revisions to the rule.

***LSL Inventory.*** The LCRR requires that, by October 16, 2024, all water systems must submit an inventory of service line materials connected to its distribution system, regardless of whether the service lines are owned or controlled by the water system. Each service line, or portion of the service line where ownership is split, must be categorized as lead, galvanized requiring replacement (GRR), non-lead, or lead status unknown.

***LSLR Plan.*** The LCRR requires all water systems with one or more lead, GRR, or lead status unknown service line in their distribution system to also develop and submit an LSLR plan. In the LCRR Review (EPA, 2021), EPA announced that the agency intends to revise the deadline for the submission of the LSLR Plan. The plan must include a description of the following:

- A strategy for determining the composition of lead status unknown service lines in the inventory;
- A procedure for conducting full LSLR;
- A strategy for informing customers before a full or partial LSLR;
- For systems that service more than 10,000 persons, an LSLR goal rate recommended by the system in the event of a lead TL exceedance;
- A procedure for customers to flush service lines and premise plumbing of particulate lead;

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<sup>3</sup> United States Environmental Protection Agency (EPA). (2021). Review of the national primary drinking water regulation: Lead and copper rule revisions (LCRR). Federal Register. 86 FR 71574.

- An LSLR prioritization strategy based on factors including but not limited to the targeting of known LSLs, LSLR for disadvantaged consumers, and populations most sensitive to the effects of lead; and
- A funding strategy for conducting LSLRs that considers ways to accommodate customers that are unable to pay to replace the portion they own.

EPA intends to change the deadline for the submission of the LSLR plan (EPA, 2021).

**Tap Sampling.** The LCRR requires systems to follow new tap sampling procedures to better locate elevated lead levels in drinking water. At LSL sample sites, the LCRR requires a fifth-liter sample to be analyzed for lead and a first-liter sample to be analyzed for copper. Compared to the 1991 LCR sampling procedure, the fifth liter approximates water that has stagnated in the service line and is more likely to capture higher lead levels than a first-liter sample could miss. At non-LSL sample sites, a first-liter sample is analyzed for both lead and copper, which is more representative of water that has stagnated in the premise plumbing.

The 1991 LCR established a tiering system for prioritizing the selection of sampling sites based on the likelihood of finding the highest lead levels. The LCRR updated that tiering system from three tier sites to five tier sites for CWSs, where Tier 1 is the highest priority and Tier 5 is the lowest priority:

- *Tier 1.* Single-family structures that are served by an LSL. When multiple-family residences comprise at least 20 percent of the structures served by the water system, the system may include these types of structures in its Tier 1 sampling pool, if served by an LSL.
- *Tier 2.* Multiple-family residences that are served by an LSL.
- *Tier 3.* Single-family structures that contain galvanized lines identified as being downstream of an LSL (currently or in the past) or downstream of a lead gooseneck, pigtail, or connector.
- *Tier 4.* Single-family structures that contain copper pipes with lead solder installed before the effective date of the State's applicable lead ban.
- *Tier 5.* Representative sites where the plumbing materials used at the site would be commonly found at other sites served by the water system. These sites are comprised of single-family structures, but they may include multiple-family sites or non-residential buildings, if those sites are representative of the entire system.

Note that NTNCWSs compile a sampling pool with Tier 1, Tier 3, and then Tier 5 sampling sites, depending on the availability of these sites.

The frequency of monitoring and number of samples is based on the population size served by a water system and the system's tap water monitoring results. Systems must collect a minimum of samples from sites based on system size (**Exhibit 1**).



**Exhibit 1.** The Number of Samples Collected by Water Systems

<b>System Size</b> (number of people served)	<b>Number of Sites</b> (standard monitoring)	<b>Number of Sites</b> (reduced monitoring)
>100,000	100	50
10,001 – 100,000	60	30
3,301 – 10,000	40	20
501 – 3,300	20	10
101 – 500	10	5
≤100	5	5

**Action and Trigger Level.** Several of the LCRR requirements are prompted when a water system’s 90<sup>th</sup> percentile lead level exceeds the lead or copper ALs or the lead trigger level (TL). The rule maintains the LCR’s AL of 0.015 milligrams per liter (mg/L) or 15 parts per billion (ppb) for lead and 1.3 mg/L or 1,300 ppb for copper. The rule establishes a TL of 0.010 mg/L or 10 ppb for lead to compel water systems to take a progressive set of actions before the lead AL is exceeded. The actions required by a TL exceedance improve public health protection by (1) increasing monitoring frequency so potential elevated lead levels throughout the system can be detected sooner and by (2) reducing lead levels at small systems that currently have CCT in place by requiring re-optimization. If a water system’s 90<sup>th</sup> percentile level is greater than the TL or AL, they must take the required actions specified for a TL or AL exceedance.

Following a TL exceedance, a small system without CCT in place is subject to the small system flexibility, in which the system must recommend to the State one of four compliance options that would allow it to prepare and more quickly implement lead-reducing compliance requirements if the lead AL is exceeded. These compliance options are described in greater detail in the section below.

**Small System Flexibility.** The LCRR includes specific compliance options for small community water systems serving 10,000 or fewer persons and all non-transient non-community water systems. If the system’s 90<sup>th</sup> percentile lead level exceeds the lead TL, the system must recommend a compliance option to the State within six months of the end of the tap sampling period in which the exceedance occurred. The State must approve the recommendation or designate an alternative compliance option within six months of the recommendation by the water system. If the water system subsequently exceeds the lead AL, it must implement the approved compliance option. Systems must select one of the following compliance options:

- *LSLR.* A water system must implement a LSLR program which results in the full replacement of all LSLs on a schedule approved by the State but not to exceed 15 years. For more information, see the LSLR section below.
- *CCT.* A water system must install and maintain optimized corrosion control treatment (OCCT) in perpetuity. Any system that has CCT installed must re-optimize CCT following a TL exceedance. For more information, see the CCT section below.

- *Point-of-Use (POU) devices.* A water system must install, maintain, and monitor POU devices in each household or building regardless of the systems 90<sup>th</sup> percentile in future monitoring periods.<sup>4</sup>
- *Replacement of lead-bearing plumbing.* A water system that has control over all plumbing in its buildings and has no unknown, GRR, or LSLs in its inventory must replace all plumbing that is not lead free in accordance with Section 1417 of SDWA, as amended by the Reduction of Lead in Drinking Water Act and any future amendments applicable at the time of replacement.

**LSLR.** The LCRR requires all medium and large systems to conduct a goal-based LSLR program following a lead TL exceedance and a mandatory replacement program following a lead AL exceedance. Systems of all sizes and regardless of their 90<sup>th</sup> percentile lead level must replace the system-owned portion of an LSL when the customer chooses to replace their portion of the line. Following the completion of any LSLR (including customer-initiated LSLR), the LCRR requires systems to provide notice to the owner of the affected service line and non-owner resident served by the line within 24 hours. The system must also provide the consumer with information about service line flushing, a pitcher filter or POU device along with six months of replacement cartridges, and an offer to take a follow-up tap sample between three and six months after full LSLR.

Under the LCRR small system flexibility, small systems that exceed the lead TL may select LSLR as one of their compliance options. A water system that selects the LSLR compliance option must implement a full LSLR program on a schedule approved by the State that does not exceed 15 years.<sup>5</sup> A system must begin LSLR within one year after the State's approval or designation of the compliance option. The system must continue LSLR even if their 90<sup>th</sup> percentile lead level is at or below the AL in future tap sampling monitoring periods. To be considered complete, the water system must have no LSLs, GRRs, or lead status unknown service lines in its inventory by the end of its LSLR program.

**CCT.** Under the LCRR, a TL exceedance requires systems with CCT to re-optimize their treatment. If the system does not have OCCT, the system must make a treatment recommendation to the State within six months of the exceedance, and the State may require the system to conduct a study to identify the treatment that optimizes corrosion control. If the AL is subsequently exceeded, the system must install optimized OCCT.

CCT is one of the compliance options under the LCRR small system flexibility. For small systems that select CCT as their compliance option, CCT studies are required for small systems with LSLs that exceed the lead TL and select the CCT compliance option.

Systems with CCT that are required to conduct CCT studies to determine re-optimized OCCT must also follow the required process outlined in the rule and summarized below. All systems that optimize or re-optimize CCT must continue to operate and maintain OCCT, including maintaining water quality parameters at or above minimum values or within ranges designated by the State. To conduct a CCT study, a water system must follow the below process to identify the OCCT for the system.

- Evaluate the effectiveness of each of the following treatments:
  - Alkalinity and pH adjustment; and

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<sup>4</sup> Note that, upon receiving State approval, a water system that operates and maintains POU devices may select one of the other compliance options and implement it (40 CFR 141.93(a)(3)(vi)).

<sup>5</sup> The 1991 LCR preamble establishes a 15-year maximum for LSLR (56 FR 26507 - 26508).

- Addition of an orthophosphate- or silicate-based corrosion inhibitor under different circumstances specified in 40 CFR §141.82(c)(1)(i).
- Evaluate each of the CCTs using either pipe rig or loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry, and distribution system configurations.
- Measure several water quality parameters before and after each evaluation of CCT listed in the first bullet, *i.e.*, lead, copper, pH, alkalinity, orthophosphate as PO<sub>4</sub>, and silicate (when a silicate-based inhibitor is used).
- Document all the chemical or physical constraints that limit or prohibit the use of a particular CCT and the effects of the chemicals used for each CCT.
- Evaluate the effect of the chemicals used for CCT on other drinking water quality treatment processes.
- Submit an OCCT recommendation to the State for review.

Note that a small system with a 90<sup>th</sup> percentile lead level between the TL and AL and no copper AL exceedance can recommend an existing CCT modification to the State to be approved without needing a CCT study (see 40 CFR §141.81(d)(1)(i)). This provision applies to systems with LSLs as well. The State can also require a CCT study or approve a recommended treatment without a CCT study for both optimization and re-optimization for small systems without LSLs (see 40 CFR §141.81(d)(2)(ii) and §141.81(e)(2)).

**Public Education and Notification.** If an individual compliance tap sample tests over 15 ppb, the water system must notify occupants of the home within three days, so that the customer can take steps to reduce lead exposure. Water systems must notify occupants of a home within 30 days if the individual compliance sample does not exceed 15 ppb and no later than three days for individual samples exceeding 15 ppb. If there is a systemwide lead AL exceedance, water systems must notify all customers within 24 hours and provide educational materials within 60 days. Water systems must also notify homeowners and building owners about opportunities to replace LSLs, including information about financial assistance programs, if available, to help pay for replacing the customer-owned side of the line.

**Find and Fix.** When an individual compliance tap sample site exceeds 15 ppb, water systems must attempt to determine the likely cause of the elevated lead level as well as to identify a potential solution to decrease lead levels. Water systems must test nearby water quality parameters and conduct follow up tap sampling at the site. Water systems may determine that localized or centralized adjustments to OCCT is needed and submit this recommendation to the State. If the identified fix is outside of the system's control, such as premise plumbing, remedial action by the system is not required but the system is required to provide documentation to the State.

**Lead in Schools.** The LCRR includes new provisions for lead monitoring in schools and child care facilities. The LCRR requires community water systems to identify schools and child care facilities in their service area and to offer to conduct sampling at least once at every elementary school and child care facility they serve within the first five years following the LCRR compliance date of October 16, 2024, and then to provide sampling upon request of the school or child care facility thereafter. Systems must collect samples from at least 20 percent of elementary schools and 20 percent of child care facilities served by the system per year, or according to a schedule approved by the State, until all identified schools and child care facilities have been sampled or have declined to participate. Systems must conduct lead

sampling at secondary schools that they serve upon request by those entities. When sampling is on request, a school or child care facility may request sampling once every five years, and if more than 20 percent of the identified schools and child care facilities request sampling in a given year, a system may defer the rest of the requests to the following year. The system is required to provide results to the school or child care facility within 30 days of receiving the results along with information about the actions they can take to reduce lead in drinking water. Systems must also report results annually to the State and local and state health departments.

## 2.3 Overview of Revisions under Consideration

On December 17, 2021, EPA published the findings of its review of the LCRR, in which EPA identified significant opportunities to improve the LCRR. EPA announced its intention to propose and finalize a new NPDR: the LCRI, stating the agency's intention to finalize the LCRI prior to October 16, 2024, which is the compliance date of the LCRR. EPA stated that all rule areas except for the initial inventory requirements of the LCRR would be subject to change under the LCRI. The initial inventories are due by the compliance date of October 16, 2024. EPA identified the following priority areas for improvement:

- Proactive and equitable LSLR,
- Strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions, and
- Reducing the complexity of the regulation through improvement of the action and trigger level construct.

The following provides an overview of some of the priority regulatory revisions currently being considered and evaluated by EPA. These considerations are not final at this time.

**LSLR.** EPA is considering many improvements to the LSLR requirements from the LCRR, primarily a requirement that, along with other non-regulatory actions, could result in the replacement of all LSLs in the nation. As part of the analysis for the LCRR rulemaking, EPA projected that only 339,000 to 555,000 LSLs (out of 6.3 to 9.3 million LSLs) would be replaced over a 35-year period under LCRR requirements (EPA, 2020).<sup>6</sup> For small water systems, only those who exceed the lead AL and have selected LSLR under the small system flexibility option are required to replace LSLs unless the LSLR is customer-initiated. For the LCRI, EPA is considering a requirement to replace all LSLs as quickly as feasible. As defined in SDWA 1412(b)(4)(D), "feasible" means feasible with the use of the best technology, treatment techniques, and other means which the Administrator finds after examination for efficacy.

Additionally, EPA intends to propose LCRI requirements that incorporate equity, including for LSLR requirements. Due to the cost of replacing the customer-portion of an LSL, underserved communities could potentially experience disproportionate exposure to lead from LSLs if equity is not built into the rule. Under the LCRR, EPA estimated that between 21 percent and 28 percent of the anticipated LSLRs required would be customer-initiated replacements (EPA, 2020),<sup>2</sup> likely initiated by the customers who are able to afford to pay to replace their portion of the line. The remaining LSLs predicted to be replaced under the LCRR would be performed following an AL or TL exceedance, where systems could prioritize those communities with the ability to afford to replace their portion in order to ensure compliance with

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<sup>6</sup> United States Environmental Protection Agency (EPA). (2020). Economic analysis for the final lead and copper rule revisions. Office of Water. Document ID EPA-HQ-OW-2017-0300-1769. Retrieved from <https://www.regulations.gov/document/EPA-HQ-OW-2017-0300-1769>

the full LSLR rate. Therefore, EPA is exploring ways to ensure that equity is prioritized in the LSLR requirements.

**Tap Sampling.** In the LCRR review, EPA concluded that there are opportunities to better identify the communities that are most at risk of elevated drinking water lead levels. For the LCRI, EPA is evaluating alternative tap sampling protocols that may better identify higher lead levels. While the LCRR included a requirement for LSL sites to sample at the fifth liter, which approximates water that has stagnated in the service line, EPA is aware of alternative sampling protocols that can likely better identify higher lead levels. For example, the State of Michigan revised its Lead and Copper Rule in 2018 to require testing for lead in the first- and fifth-liter samples at LSL sites, where the higher of the two results is used for the 90<sup>th</sup> percentile calculation. The Association of State Drinking Water Administrators, in their May 21, 2021, comments, summarized data from the initial round of sampling in Michigan, which showed that more systems had a lead AL exceedance using the revised sample protocol (EPA, 2021). Therefore, updating the tap sample protocol to this or another method could ensure that elevated lead levels are missed less frequently.

**Action and Trigger Level Construct.** EPA is evaluating options for utilities to address lead contamination at lower levels and improve sampling methods to provide better health protection and more effective implementation of the rule. The agency is exploring different options, including whether to eliminate the TL and to lower the AL to compel action by more water systems sooner to reduce the health risks in more communities, and whether the TL requirements of the LCRR will still be necessary if improved proactive LSLR and a more aggressive lower AL are adopted. Additionally, EPA is considering potential revisions to the LCRR to reduce complexity of the lead AL and TL construct, and to ensure that the rule is simpler and triggers appropriate and feasible corrective actions.

**Other Rule Areas.** While EPA focuses its rulemaking process in the priority areas discussed above, EPA is also considering additional changes to equitably improve public health protection and improve implementation of the rule to ensure that it prevents adverse health effects of lead to the extent feasible. Specifically, in the LCRR review notice, EPA stated that improvements could be made in the areas of school and child care sampling, CCT, risk communication, and provisions of the LCRR small system flexibility. For example, if EPA mandates LSLR for all systems regardless of tap sampling results, EPA will evaluate if the current compliance options offered under the small system flexibility are still applicable to small systems that exceed the AL and what other flexibilities may be provided.

## 2.4 Related Federal Rules

There are NPDWRs for over 90 contaminants and when developing drinking water regulations, the agency factors in the water quality impacts of compliance with a new regulation on the system's compliance with existing drinking water regulations. EPA will continue to consider and evaluate how water systems will need to manage simultaneous compliance with the LCRI requirements and other EPA drinking water regulations. The proposed LCRI NPDWR is not anticipated to duplicate, overlap, or conflict with any other federal rules.

Reducing lead exposures through drinking water is also addressed in additional congressional actions and EPA regulations. In 1988, Congress enacted the Lead Contamination Control Act (LCCA) to reduce lead exposure and associated health risks by decreasing lead levels in drinking water at schools and child care centers. The focus of the LCCA is to remove drinking water coolers with lead-lined tanks, but it also includes non-enforceable monitoring and reporting requirements for schools.

In 2011, Congress passed the Reduction of Lead in Drinking Water Act (RLDWA), revising the definition of “lead-free” by lowering the maximum lead content of the wetted surfaces of plumbing products (such as pipes, pipe fittings, plumbing fittings, and fixtures) from 8 percent to a weighted average of 0.25 percent. The RLDWA established a statutory method of the calculation of lead content and eliminated the requirement that lead-free products comply with voluntary standards established in accordance with SDWA Section 1417(e) for leaching of lead from new plumbing fittings and fixtures. The RLDWA went into effect in 2014.

In 2020, EPA published the final regulation, “Use of Lead Free Pipes, Fittings, Fixtures, Solder, and Flux for Drinking Water.” In the final rule, EPA makes conforming changes to existing regulations based on the RLDWA and the Community Fire Safety Act enacted by Congress. The final rule also requires that manufacturers or importers certify that new plumbing products meet the requirements using a consistent verification process by 2023. As a result, this new rule will reduce new sources of lead in drinking water and assure that states, manufacturers, inspectors, and consumers have a common understanding of “Lead Free” plumbing.

### 3. APPLICABLE SMALL ENTITY DEFINITIONS

The RFA defines small entities as including “small businesses,” “small governments,” and “small organizations” (5 USC 601). The regulatory revisions being considered by EPA for this rulemaking are expected to affect a variety of small businesses as well as any small governments or small organizations that own and/or operate public water systems. The RFA references the definition of “small business” found in the Small Business Act, which authorizes the SBA to further define “small business” by regulation. The SBA definitions of small business by size standards using the North American Industry Classification System (NAICS) can be found at 13 CFR 121.201.

To assess the impacts of the proposed NPDWR, EPA considers small entities to be PWSs serving 10,000 people or fewer. As required by the RFA, EPA proposed using this alternative definition in the Federal Register, (63 FR 7620, February 13, 1998), requested public comment, consulted with the SBA Office of Advocacy, and finalized the alternative definition in the Consumer Confidence Reports rulemaking (63 FR 44511, August 19, 1998). This is consistent with the SBA Office of Advocacy agreement with the EPA alternative definition used for most drinking water regulations. As stated in that final rule, the alternative definition would be applied to future drinking water regulations.

The LCRI will regulate PWSs, including many PWSs serving 10,000 persons or fewer. A PWS provides water for human consumption through pipes or other constructed conveyances to at least 15 service connections or serves an average of at least 25 people for at least 60 days a year. Some PWSs are owned and operated by municipalities, whereas other PWSs are owned and operated by private companies and organizations. Systems that serve populations smaller than 25 people or have fewer than 15 service connections are not considered PWSs and are therefore not subject to SDWA requirements. EPA defines three types of PWSs:

- Community Water System (CWS): A PWS that supplies water to the same population year-round.
- Non-Transient Non-Community Water System (NTNCWS): A PWS that regularly supplies water to at least 25 of the same people at least six months per year. Some examples are schools, factories, office buildings, and hospitals which have their own water systems.

- Transient Non-Community Water System (TNCWS): A PWS that provides water in a place such as a gas station or campground where people do not remain for long periods of time.

EPA does not anticipate that the LCRI will affect TNCWSs as those systems will likely not be subject to the rule requirements.<sup>7</sup> All CWSs and NTNCWSs are subject to the existing LCR requirements. There are approximately 45,000 CWSs and 17,000 NTNCWSs defined as small (serving 10,000 people or less).

**Exhibit 2** provides the number of CWSs and NTNCWSs for the size categories of 25 to 500, 501 to 3,300, and 3,301 to 10,000 people served. The percentage of the total number of CWSs or NTNCWSs that each of these categories comprise is also provided. Small CWSs make up 91.1 percent of all CWSs, and small NTNCWSs make up 99.8 percent of all NTNCWSs. Approximately 38 percent of active NTNCWSs are schools or daycare facilities (SDWIS/Fed, data retrieved August 2022). Other water systems may service schools or daycare facilities in their service areas, but they are not primarily listed as schools or daycare facilities.

**Exhibit 2.** The Universe of “Small” Public Water Systems Subject to Possible Rule Revisions<sup>8</sup>

System Size (number of people served)	Number of Small CWSs (total universe of all CWSs = 49,529)	Percent of All CWSs	Number of Small NTNCWSs (total universe of all CWSs = 17,418)	Percent of All NTNCWSs
3,301 – 10,000	5,026	10.1%	162	0.9%
501 – 3,300	13,297	26.8%	2,449	14.1%
≤500	26,816	54.1%	14,768	84.8%
<b>Total</b>	<b>45,139</b>	<b>91.1%</b>	<b>17,379</b>	<b>99.8%</b>

## 4. LIST OF SMALL ENTITY REPRESENTATIVES

EPA consulted with SBA’s Office of Advocacy to develop the list of SERs in **Exhibit 2**. EPA issued a press release inviting self-nominations by affected small entities to serve as potential SERs. The press release directed interested small entities to a web page where they could indicate their interest in serving as a SER. EPA launched the website on May 4, 2022, and accepted self-nominations until May 18, 2022. In addition, EPA supplemented the self-nominations by conducting direct outreach to relevant stakeholders as well as through incorporating SER nomination recommendations from Advocacy. EPA sent Advocacy a Formal Notification with the suggested list of potential SERs on July 28, 2022, and Advocacy responded on August 2, 2022.

<sup>7</sup> EPA considers lead to be a chronic contaminant and regulates it as such. Contaminants are considered “chronic contaminants” because adverse human health effects generally have been associated with extended periods of exposure. TNCWSs are typically only included if there are acute health effects associated with the contaminant. Therefore, the agency does not believe it is necessary to regulate water systems that only serve transient populations for chronic contaminants, including lead, because the exposure to these contaminants is only for brief periods of time. **Source:** EPA. (2000). National Primary Drinking Water Regulations for Lead and Copper. Federal Register. 65 FR 1950.

<sup>8</sup> **Source:** The federal version of EPA’s Safe Drinking Water Act Information System (SDWIS/Fed), current through December 31, 2020.

**Exhibit 2.** List of Small Entity Representatives

Name	Affiliation
Jeff Cook	Idaho Rural Water Association
Scott Hamilton	Village of Lockland Water System (OH)
Reece Jensen	City of Sargent (NE)
Casey Junck	City of Wayne (NE)
Steve Kelley	Village of Plymouth; City of Beatrice (NE)
Daryn Martin	Butler County Rural Water District 7; Kansas Rural Water Association
Steve McIntosh	Salt Lake Co. Service Area 3 (UT)
Bill Miller	City of Bloomer Water/Sewer Department (WI)
Rob Nelson	City of Mauston (WI)
Jeff Oxenford	Rural Community Assistance Partnership
Brandon Patrick	Town of West Jefferson (NC)
Randy Pleima	Mahaska Rural Water System (IA)
Sharon L. Schmeling	Wisconsin Council of Religious & Independent Schools
Steve Via	American Water Works Association

## 5. SUMMARY OF EPA SMALL ENTITY AND OTHER OUTREACH

**LCRR Review Virtual Engagements.** Between April and August 2021, EPA conducted a series of virtual engagements to obtain public input on the review of the LCRR. The virtual engagements included two public listening sessions, ten community roundtables (Pittsburgh, PA; Newark, NJ; Malden, MA; Washington, DC; Newburgh, NY; Benton Harbor and Highland Park, MI; Flint and Detroit, MI; Memphis, TN; Chicago, IL; and Milwaukee, WI), a tribal roundtable, a national stakeholder association roundtable, a national co-regulator meeting, and a meeting with organizations representing elected officials. EPA specifically sought engagement with communities that have been disproportionately impacted by lead in drinking water, especially low-income people and communities of color that have been underrepresented in past rulemaking efforts. A diverse group of individuals and associations provided feedback through these meetings and the docket, including people from communities impacted by lead in drinking water, local governments, water utilities, tribal communities, public health organizations, environmental groups, environmental justice organizations, and co-regulators. More information on virtual engagements can be found on EPA’s LCRR Review Virtual Engagements website.<sup>9</sup>

<sup>9</sup> <https://www.epa.gov/ground-water-and-drinking-water/lead-and-copper-rule-revisions-virtual-engagements>



## 5.1 LCRI Consultations

Concurrent to gathering input from small entities through the SBAR Panel process, EPA is seeking advice and recommendations to inform the proposed LCRI through several other consultations and engagements. These include consultations with the EPA Science Advisory Board, the National Drinking Water Advisory Council, state and local governments, federally recognized tribal governments, and meetings focused on environmental justice.

**Science Advisory Board.** In 1978, Congress established the EPA Science Advisory Board (SAB) to provide scientific advice to the EPA Administrator. The SAB's principal mission includes reviewing the quality and relevance of the scientific and technical information being used or proposed as the basis for agency regulations. SDWA requires EPA to request comments from the SAB prior to proposing a maximum contaminant level goal (MCLG) and NPDWR. EPA sought SAB input for the proposed LCRI and held a publicly accessible meeting on November 3, 2022.

**National Drinking Water Advisory Council.** Another mechanism by which EPA works with its stakeholders is through the National Drinking Water Advisory Council (NDWAC). SDWA requires consultation with the NDWAC regarding NPDWRs. The Council, comprised of members of the general public, state and local agencies, and private groups concerned with safe drinking water, advises the EPA Administrator on drinking water policy, programs, guidance, and rules. OGWDW consulted with the NDWAC on November 30, 2022, and OGWDW will consult the NDWAC again prior to promulgating a NPDWR for LCRI.

**Tribal Consultation.** EPA is coordinating and consulting with federally recognized Indian tribes on the proposed LCRI NPDWR. LCRI rule requirements may impact tribal governments that operate a PWS or that has primary enforcement authority (primacy) for PWS on tribal lands. EPA requested input from tribal governments on considerations related to the potential regulatory requirements in two virtual meetings held on October 27 and November 9 of 2022.

**Federalism.** EPA held a Federalism consultation on October 13, 2022, with representatives from state and local government organizations to solicit feedback on potential regulatory requirements of the proposed LCRI NPDWR, pursuant to Executive Order 13132. The agency will take any comments into consideration during the regulatory development process. EPA has held one additional meeting with representatives of state and local governments as requested.

**Environmental Justice.** As mentioned above, EPA specifically sought engagement for the LCRR Review with communities that have been disproportionately impacted by lead in drinking water, especially low-income people and communities of color that have been underrepresented in past rulemaking efforts. In addition, as part of the LCRI regulatory development process, EPA held two environmental justice virtual meetings on October 25 and November 1 of 2022. EPA solicited input from the public regarding ways in which the agency can ensure that disadvantaged communities impacted by lead are fully engaged in solutions.

## 5.2 Small Entity Outreach

**Pre-Panel Outreach Meeting.** EPA conducted a meeting/teleconference with potential SERs on September 12, 2022. To help SERs prepare for the meeting/teleconference, on August 29, 2022, EPA sent materials to each of the potential SERs via email. A list of the materials shared with the potential

SERs during the pre-Panel outreach meeting is contained in **Appendix A1**. For the September 12, 2022, pre-Panel outreach meeting with the potential SERs, EPA also invited representatives from the Office of Advocacy of the Small Business Administration and the Office of Information and Regulatory Affairs within the Office of Management and Budget. A total of 11 out of 14 potential SERs participated in the meeting. EPA presented an overview of the SBREFA process, an explanation of the planned rulemaking, and technical background.

This outreach meeting was held to solicit feedback from the potential SERs on the outreach materials and their suggestions for the upcoming rulemaking. EPA asked the potential SERs to provide written comments by September 26, 2022. Comments raised during the September 12, 2022, outreach meeting and written comments submitted by the potential SERs are summarized in **Section 6** of this document. Written comments are included in their entirety as **Appendix B1**.

**Panel Outreach Meeting.** The Panel conducted a virtual meeting with SERs on November 29, 2022. To help SERs prepare for the meeting/teleconference, EPA sent materials to each of the SERs via email on November 15, 2022. The materials shared with SERs during the Panel outreach meeting are included in **Appendix A2**. A total of 8 out of 14 SERs participated in the meeting. EPA presented background information regarding the original LCR, an overview of the LCRR, and the outcome of the LCRR review focusing on key areas for revision. A discussion session was held to obtain advice and recommendations from the individual SERs on key areas for revision and about the potential impacts of the proposed rule. EPA asked the SERs to provide written comments by December 13, 2022.

Comments and discussion during the Panel outreach meeting as well as written comments submitted by the SERs are summarized in **Section 7**. Written comments are included in their entirety in **Appendix B2**.

## 6. SUMMARY OF COMMENTS FROM POTENTIAL SMALL ENTITY REPRESENTATIVES

**Section 6** summarizes comments provided verbally by SERs during the pre-Panel outreach meeting and written comments submitted after the meeting. EPA received verbal comments from seven small entities and written comments from four small entities. SER comments that were repeated during the Panel outreach meeting are denoted in this section with an asterisk (\*) following the comment. See **Section 7** for a summary of unique verbal comments provided during the Panel outreach meeting and written comments submitted after the meeting.

### 6.1 Oral Comments from Potential SERs

#### 6.1.1 Number and Types of Entities Affected

No comments were made pertaining to this category.

#### 6.1.2 Potential Reporting, Recordkeeping, and Compliance Requirements

##### 6.1.2a Achieving 100 Percent LSLR in Small Systems

**Acquiring Contractor Support.** Three SERs discussed the typical length of time for small systems to acquire contractors to conduct physical line replacements. One SER noted that their water system's

contractors were able to complete the replacement of 100 LSLs within approximately 6 months of accepting the bid. Another SER explained that their water system has a contractor on retainer and was able to complete 11 LSLRs within 2 weeks. One SER added that in populated areas, finding sufficient contractor support is not an issue but that water systems in smaller, rural areas may face challenges receiving contractor bids for LSLR due to an insufficient number of local contractors and logistical issues that may arise (*i.e.*, a lack of overnight accommodations).

**Engaging Customers and Local Governments.** SERs discussed the barriers small systems face when engaging consumers about LSLR. A SER indicated that a major barrier small systems face is the system's lack of experience going door-to-door to talk to customers about their service lines. The SER added that the Rural Community Assistance Partnership (RCAP) has developed a toolkit in English and Spanish for customer communication related to technical assistance on LSLs. Two SERs noted that customer willingness to allow entry into their homes is a significant barrier to service line material identification and replacement. One of these SERs suggested the best way to engage smaller communities with a higher percentage of elderly people is through face-to-face contact because elderly people are less likely to use the internet and computers. A SER commented that some small systems experience changes in ownership, often to ad-hoc agencies, which can make proper maintenance and records management more challenging compared to larger systems with more consistent ownership and/or operation.

Two SERs discussed the important role of the city council for successful customer engagement and LSLR. One SER explained that there is sometimes a general distrust by customers of regulators at both the federal and local levels. Both SERs talked about situations in which the city council did not want to discuss federal regulations or wanted to "opt out" of the regulation, noting that effective customer engagement is more challenging without leadership from the city council. Another SER indicated that the city council's resistance also may be due to competing priorities in communities with limited budgets.

**Financial and Administrative Burden.** Several SERs raised questions and concerns about small water systems' abilities to achieve 100 percent LSLR. A few SERs commented on the financial and administrative barriers for small systems to achieve replacement of all LSLs in their service area. Some SERs noted that LSLR is expensive and small communities have limited manpower and budgets with competing priorities. One SER noted that EPA underestimated the cost of full LSLR in its economic analysis and that any attempt to increase the pace of LSLR would further increase costs.

One SER explained that the speed at which systems can replace LSLs is influenced by the federal funding available to small systems. Multiple SERs explained that the federal funding grant application system process is difficult because of limited staffing as well as time and money constraints within small systems. SERs suggested that EPA simplify the funding process for small systems. One SER gave an example using the State of Iowa, explaining that State Revolving Fund (SRF) grant applications require a financial survey or an outside company to conduct a financial analysis that evaluates the impacts of LSLR projects on customer rates. They explained that these outside analyses cost about \$8,000, which represents a significant financial barrier for many small systems. Another SER commented that only a subset of small water systems can access SRF loans in a timely fashion, noting that only 34 percent of SRF loans reach small systems based on analysis conducted by the Association of State Drinking Water Administrators (ASDWA).

A few SERs provided suggestions to streamline the grant process. One SER suggested a regional application in which multiple local systems could apply for one SRF grant for their collective LSLR

projects, allowing systems to advertise for a contractor together and, in turn, reduce individual system costs. Three other SERs agreed with this idea. Another SER suggested creating a grant application template specifically for small systems applying for LSLR projects.

One SER noted that new LCRI requirements for increased LSLR would lead to state agencies having to spread their resources even further, which may reduce oversight and technical assistance for small systems.

***Incorporating Equity in LSLR.*** A SER commented that they believe their LSLR program is equitable because they replace LSLs in the order in which they are found during scheduled main replacements.

***Service Line Ownership.*** One SER explained that a frequent discussion topic among the smaller communities he manages is LSL ownership, noting the diverse ownership dynamics that often exist between water systems and homeowners at the local level. The SER stated that ownership and financial responsibility questions appear to be more of an issue to smaller systems compared to larger systems. They noted that issues seem to arise when ownership is an equal split between the water system and the homeowner.

#### *6.1.2b Complying with a Revised Tap Sampling Protocol*

SERs discussed the compliance challenges that could arise for small systems in complying with a tap sampling protocol in which systems must collect both the first and fifth liter at LSL sites and collect samples in wide-mouth bottles. To assist homeowners who are conducting sampling, a SER recommended developing training videos on how to take a fifth liter sample, such as the State of Michigan has provided on YouTube. One SER commented on additional tap sampling costs that will be incurred by systems with LSLs, such as the charges associated with shipping multiple bottles.

#### *6.1.2c Complying with a Revised Action and Trigger Level Construct*

***Retaining the AL and TL.*** SERs discussed the benefits and challenges associated with retaining both the AL and TL. A SER indicated that additional numeric values in the regulation make it harder for water system personnel and the public to understand their meaning.

***Reducing the Lead AL Below 15 ppb.*** SERs discussed the potential impacts to their systems if the lead AL is reduced below 15 micrograms per liter ( $\mu\text{g}/\text{L}$ ). A SER commented that other changes in the rule accomplish the goal of reducing lead exposure without lowering the AL and recommended that EPA leave the AL at 15  $\mu\text{g}/\text{L}$  to reduce complexity.

A SER explained that their water system has no issues meeting the current AL using lime softening and was not sure of the best option in terms of changing the AL value. The same SER added that their water system's lead levels are generally non-detect, except for when partial LSLR can cause lead levels to be elevated. The SER expressed that systems need to better understand the importance of corrosion control when they exceed the AL and conduct service line replacements.

***Adjusting the AL during Construction Work.*** One SER explained that their system exceeded the lead AL due to the routine removal of LSLs and disruption of the water main during service line repair. The Department of Natural Resources required their system to continue with the steps triggered by an AL exceedance, despite re-testing showing lead levels had dropped below the AL. The SER recommended

raising the lead AL during construction work or creating other leniencies in the rule that would allow systems to avoid requirements triggered by a lead AL exceedance under these circumstances.

#### *6.1.2d National Training and Technical Assistance*

A SER questioned if EPA was considering conducting national-level training and technical assistance or if it will remain at the state level. They noted that technical assistance providers will represent a huge resource for small communities and that the more national programs that are available to help these small communities, the better.

### 6.1.3 Related Federal Rules

No comments were made pertaining to this category.

### 6.1.4 Regulatory Flexibility Alternatives

#### *6.1.4a Adding to or Changing the LCRR Small System Flexibilities*

SERs discussed the need for additional compliance options to be offered under the small system flexibility. One SER noted that the simplest way to ensure compliance by small systems is to make LSLR more affordable and the process for accessing funding easier. Another SER suggested EPA create a portal that water systems could use to advertise the need for LSLR services in their towns. The portal could be used by contractors to identify water systems that need LSLR support, allowing coordination for water systems and eliminating the need for contractors to bid on multiple jobs.

## 6.2 Written Comments from Potential SERs

### 6.2.1 Number and Types of Entities Affected

No comments were made pertaining to this category.

### 6.2.2 Potential Reporting, Recordkeeping, and Compliance Requirements

#### *6.2.2a Achieving 100 Percent LSLR in Small Systems*

**Engaging Customers.** A SER discussed how obtaining customer cooperation for service line inventory development is a barrier. The SER stated that they sent out surveys to customers to help identify service line material and received a response rate of less than five percent. The SER indicated they are now using records and other sources that do not require customer cooperation.

**Funding and Support.** One SER asked EPA to simplify the funding process for small systems. The SER stated that many small systems that require infrastructure funding have few employees and lack the time and resources to complete applications and apply for funding. The SER stated that many “Disadvantaged Communities” for whom EPA has set aside funds for, do not apply because they are intimidated by the application process.

Another SER commented that Infrastructure Investments and Jobs Act (IIJA) funds for which there is loan forgiveness will have been distributed before LSLR and treatment changes are triggered under the LCRR. The SER stated that the remaining SRF funding takes the form of loans that must be repaid. The

SER explained that while SRF and IIJA funds will reduce local rate increases to fund LCRR/LCRI rule implementation low-income and other disadvantaged households will bear implementation costs. They also noted that funds are not available for all small CWSs and NTNCWSs and that some states prohibit water systems from receiving SRF funds based on specific criteria (e.g., investor owned CWSs), which may limit which systems have access to SRF funds for LCRR and LCRI activities. The SER continued by stating that while EPA guidance allows for funds to be used for operational activities (e.g., developing service line inventories) noted that the decision to use funds for this purpose rather than capital expenditures is system specific. The SER commented that, while technical assistance under IIJA will improve rule understanding, systems will still need to pay for implementation, primarily through rate revenue and fees, which may be spread across a small service base. The SER concluded that EPA needs to allocate federal funding if small systems will be required to conduct full LSLR, noting that the American Water Works Association's (AWWA) preliminary estimate for replacement of 100 percent of the nation's LSLs is eight times more than the funding available in the IIJA.

***Incorporating Equity in LSLR.*** One SER suggested that to address equity, EPA should consider ways to make the rule construct work together with available federal and state subsidies. The SER added that preparing an equity analysis for small systems is challenging, stating that the LCRR/LCRI equity considerations do not consider whether the entire community is disadvantaged. Instead, the SER continued, the system is supposed to equitably allocate resources for LSLs among what is likely a limited number of households. A SER said that small systems will not be able to rely on data available from the state or federal government, stating that the data lacks the detail needed for in-depth analysis. A SER said that the resources needed for a system to collect data to construct a robust analysis (e.g., door-to-door surveys) would require substantially more resources than EPA anticipates in the LCRR economic analysis. The SER noted that tools that provide a basis for implementation at the small community scale are not available.

***Service Line Ownership and Private Property.*** A SER raised the question of who pays for replacement of customer-owned LSLs, stating that their town does not own any portion of the pipe, which would direct the financial burden entirely to the property owner.

Another SER noted that many utilities have limited rights for accessing private property, which could be necessary for LSL identification or replacement. The SER disagreed that public funds should be used for private-side LSLR stating that it is "irresponsible and corrupt" to spend public funds on improving private property. The SER raised concerns about "embezzlement and theft of public funds by elected officials and city employees".

### ***6.2.2b Complying with a Revised Tap Sampling Protocol***

A SER stated that research has shown that the highest lead levels in homes with LSLs are in the first and sixth liters (as opposed to the fifth liter required under the LCRR). The SER also indicated that, based on the Michigan Department of Environment, Great Lakes, and Energy's (EGLE's) lead sampling data, which use the higher of the first- and fifth-liter samples at LSL sites, more systems will exceed the AL. The SER stated two other factors will increase a system's likelihood of exceeding the lead AL. First, the use of a wide-mouth bottle will allow for a higher flow rate and will increase the odds of catching particulate lead in the sample. They explained that while CCT controls soluble lead, samples with particulate lead can yield very high lead levels. Secondly, the SER stated that systems with LSLs that are unable to collect all samples from LSL sites cannot use other samples in their 90<sup>th</sup> percentile calculation and thus, could base this calculation on a smaller number of samples. The SER provided the example of a system serving

100 or fewer people that could only obtain a sample from one household with LSLs, stating that the system would use the single sample for its 90<sup>th</sup> percentile level.

The same SER also stated that CWSs have historically had difficulty identifying customers willing to participate in the compliance monitoring program and, some CWSs have paid their customers to participate. The SER indicated that obtaining customer participation will be more difficult under the LCRR due to a more complicated sampling protocol, more stringent sample selection criteria (*i.e.*, homes with documented LSLs), and more systems returning to routine monitoring that will involve sampling more households.

The same SER indicated that the cost to supply and ship five bottles for sampling may be similar to the cost of analyzing one sample for lead and copper. They added that the laboratory costs provided by EPA in the pre-Panel materials of \$23.50 is an underestimation and a cost of \$25 per metal or \$50 for both lead and copper analysis per sample is more realistic. They noted that there are additional costs for sample bottles and shipping (which may be higher for small systems in remote areas) and for quick turnaround analyses. The SER also indicated that the LCRR is unclear on any requirements to ensure the LSL sampling protocol was properly followed, including whether documentation is needed for the three discarded liters (*i.e.*, the second through fourth liters). They stated that additional documentation or quality control/quality assurance requirements would also increase the cost of sampling.

The SER also stated that water systems will be collecting an increased number of samples under the LCRR requirements from compliance monitoring, school and child care facility monitoring, LSL identification and replacement, and find-and-fix provisions. The SER noted that small CWSs and NTNCWSs use certified contract laboratories almost exclusively, but they do not have a sufficient volume of samples to receive a discounted rate or expedited service. The SER added that small water systems are more likely to be in noncompliance because of their reliance on outside laboratories and the lack of the fiscal and technical capacity to negotiate needed contract laboratory services.

### *6.2.2c Complying with a Revised AL and TL Construct*

**Reducing the Lead AL Below 15 ppb.** A SER stated that the issue is not the value of 15 µg/L for the AL, but rather how to achieve OCCT under the new rule. The SER stated that if EPA were to lower the AL to 10 µg/L, the agency has not demonstrated that small water systems can achieve these levels. The SER noted that cost is a barrier to a long-term solution under the new rule, giving the example of the pilot plan process being longer than the OCCT compliance window, which would be even longer for small systems due to their increased need for assistance and difficulty obtaining the resources to properly conduct this piloting. The SER added that pipe rig testing to study CCT could take more than a year to conduct and cost hundreds of thousands of dollars. Further, the SER said that many small systems are ground water systems and use a sequestering agent for their treatment, meaning that they are moving towards orthophosphate or a blend but are also phasing out a sequestering agent over time. The SER noted that communicating long-term progression of water quality to customers can be challenging for small water systems and did not agree with a regulatory scheme that prohibits small systems from fairly conveying their success over what is a multi-year progression. The SER stated that, during this time, a small system's budget may not be able to sustain the permanent expense of orthophosphate treatment once it has been installed and the added costs of LSLR.

The same SER commented that having one regulatory level set at 10 µg/L as opposed to 15 µg/L may have benefits but could also create new and more challenging issues. The SER explained the systems



must provide an acute public notice within 24 hours of exceeding the lead AL. Reducing the AL to 10 µg/L, the SER said, would result in more systems having to provide these notices, conduct ongoing public education, as well undertake other state-required actions, such as providing filters or bottled water. The SER did not think EPA should reduce the AL to 10 µg/L, considering the difference in lead levels from the compliance monitoring dataset compared to consumers likely lead exposure and the possibility of a 90th percentile level being based on a very limited number of samples from LSL sites.

#### *6.2.2d Schools' Abilities to Comply with the Proposed Rule Requirements*

One SER raised concerns about the ability of schools to comply with the proposed LCRI using existing staff and expertise. They stated that school leaders cannot be realistically expected to quickly learn the rule requirements and the fundamentals of water quality and management. In addition, the SER stated that hiring an outside consultant is cost prohibitive. The SER suggested that responsibility for regulatory compliance should be the local, county, or state departments of natural resources, who would have the expertise to properly manage a school's water system. The SER noted that EPA also should be mindful of Amish and Mennonite schools nationwide that are located within closed communities and pose more of a compliance challenge as these communities do not have access to email or electronic notifications, requiring notices via U.S. mail.

#### *6.2.2e Opportunities to Reduce Burden on Small Systems through Clarifications*

A SER discussed opportunities to reduce burden on small systems through clarifications of the LCRR. They suggested modifications to the definitions in 40 CFR 141.2 for "wide-mouth bottles" and "lead status unknown service line." Specifically, The SER suggested modifying the definition of "wide-mouth bottles" to a standard laboratory bottle size that is generally more available than wide-mouth bottles. They noted that the definition "lead status unknown service lines" references SDWA Section 1417 definition of "lead free," which has changed over time. The SER suggested using the same construct used in the "full lead service line replacement" definition which specifies the "lead free" definition applicable at the time of replacement. The SER also proposed that EPA allow systems on reduced monitoring to not return to standard monitoring until their next scheduled monitoring period during the transition from LCRR to LCRI. The SER also recommended that EPA engage with drinking water professional associations to expedite the development and distribution of guidance on rapidly evolving corrosion control science and practices.

The SER also discussed a statement made by EPA in several documents that "lead service lines are the most significant source of lead in drinking water." The SER stated that where LSLs are present, they can be the most significant source of lead, but stated that for much of the U.S. legacy-plumbing materials in the home are more important than the service line-types emphasized in the LCRR/LCRI. The SER requested that the SBREFA panel correct this mischaracterization because there are thousands of small CWSs and the distribution of LSLs is highly community specific. The SER recognized the success of the LCR in lowering lead levels and noted that the goal of the LCRR and LCRI are to determine cost effective measures to provide additional reductions in lead exposure.

The same SER stated that EPA has historically used data to predict corrosion control treatment pattern and lead service line replacement in LCR analyses that are not representative of small CWSs or NTNCWSs. They stated that an LCRI proposal in 2023 would not provide an opportunity for EPA to compile data that are representative of the LCRR monitoring framework. The SER noted that, without data representative of small systems, EPA's evaluation of additional risk management measures post-



LCRR is “severely compromised”. They followed that EPA’s analysis to date is inadequate for demonstrating that the LCRR and future LCRI corrosion control requirements are feasible for small systems to implement and that EPA needs a dataset reflecting the result of the LCRR as finalized.

The SER stated that under the LCRR, EPA is setting unrealistic expectations for service line inventories. They noted that these expectations could increase the cost of compliance for small systems, lower actual risk reduction, defer other needed water system investments, and adversely impact customer trust. The SER stated that, at a minimum, EPA should establish and implement a consistent approach for developing inventories instead of allowing for state discretion. The SER added the EPA inventory guidance encourages water systems to verify service line materials to ensure that non-lead lines are not incorrectly identified and that additional measures, such as adding lead goosenecks to the definition of lead serve line, would “have a similar diluting effect” by focusing system efforts on resolving more lead status unknown service lines instead of focusing limited resources on lead risk reduction.

The same SER noted that the LCRR is primarily a “reactive regulatory framework” that requires water systems to conduct multiple tasks simultaneously and does not allow them to set long-term lead risk reduction objectives nor “organize resources.” They stated that a more stringent LCRI will be especially challenging and cause greater inequity for small CWSs that: (1) lack technical, managerial, and financial capability; (2) are disadvantaged communities that cannot build financial capability; and (3) do not have sufficient access to qualified consultants.

The same SER explained that full LSLR would help simplify small water systems’ sampling requirements and reduce their risk of triggering other rule requirements; however, the SER said that these systems lack the authority and resources to accomplish these replacements in a timely fashion. The SER added that the increasing number of small systems impacted by the rule will necessitate water system and state resources to be focused on LCRI compliance, making these water systems less able to invest in other areas such as compliance with other regulations and infrastructure. They suggested that the priority should be on sustainable risk reduction measures, and if the LCRI worsens this situation rather than fixes it, “non-productive noncompliance” will increase for small systems. Additionally, they commented that the “cumulative stress” on a small system’s viability will have the greatest impact on disadvantaged communities, stating that prioritizing health risk reduction is a better way to provide equity to disadvantaged communities than a rule with aggressive goals that are not achievable by small CWSs. The same SER noted that the number of service lines being replaced by small systems is already much higher under the LCRR than under the LCR due to the addition of GRR service lines, removal of test-out option, and shorter allowed timeframe. They added that any further expansion of the definition of service line would be well beyond what EPA has demonstrated to be economically feasible for small systems.

### *6.2.2f Public Notice Requirements of LCRR and LCRI*

A SER discussed issues related to the public notification requirements of the LCRR. They stated the LCRR requires Tier 1 public notice in the event of a lead AL exceedance but is unclear on how systems can discontinue this notice or how it should be implemented relative to public education. The SER added that the lack of a clear endpoint for discontinuing the notice complicates the development of an estimated cost of public notification and that the true cost is higher than the cost of posting a public notice. They also explained that small systems already experience challenges complying with the public education and public notification documentation requirements and stated that the complexity of the rule and any additional requirements would further add to the risk of their noncompliance.

### 6.2.3 Related Federal Rules

A SER stated that in addition to the LCRR and LCRI, other new EPA actions both individually and cumulatively will impact the resiliency of water systems and create simultaneous compliance issues, including:

- Requiring CWSs to implement the LCRR while simultaneously modifying it through the LCRI.
- Publishing health advisories that result in water systems (1) needing to find new water supplies if the existing one is taken offline or (2) adding new treatment technologies, such as CCT, when alternative supplies are not available.
- Developing new or revising existing regulations that will require treatments that will impact CCT. These regulations include new drinking water standards for PFOA and PFOS, the Surface Water Treatment Rule, disinfection byproduct rules, the use of asbestos for production of chlor-alkali products, and possibly the Ground Water Rule.
- Lowering the allowable levels of phosphate and metals in wastewater discharged to publicly owned treatment works (POTWs) or through individual National Pollutant Discharge Elimination System (NPDES) permits.

### 6.2.4 Regulatory Flexibility Alternatives

#### *6.2.4a Adding to or Changing the LCRR Small System Flexibilities*

A SER discussed how having the flexibility to use POU or point-of-entry (POE) devices is helpful for water non-community water systems and “very, very small CWSs”, noting that they are allowed this flexibility under the LCRR. The SER noted the challenges water systems are currently experiencing to obtain certified pitchers for customer use after lead service line replacement, and they expressed concern that the limited reliable supply certified pitcher filters and POU devices will place small systems at greater risk of noncompliance than larger systems.

The same SER indicated that the small system flexibility provisions under the LCRR could be characterized as a small system variance but that they are not presented as such. The SER stated that EPA did not prepare an evaluation of an appropriate small system variance technology under the LCRR as allowed under SDWA, nor include this topic as part of its SBREFA background materials. They added that “incorporating small system flexibility within the rule construct incorporates safeguards required of a variance while working within the administrative discretion the LCR has historically afforded state primacy agencies.”

## 7. SUMMARY OF COMMENTS FROM SMALL ENTITY REPRESENTATIVES

**Section 7** summarizes verbal comments provided during the Panel outreach meeting and written comments submitted after the meeting. EPA received verbal comments from six small entities and written comments from six small entities. See **Section 5.2** for meeting details.

## 7.1 Oral Comments from SERs

### 7.1.1 Number and Types of Entities Affected

No comments were made pertaining to this category.

### 7.1.2 Potential Reporting, Recordkeeping, and Compliance Requirements

#### 7.1.2a Achieving 100 Percent LSLR in Small Systems

**Incorporating Equity in LSLR.** Two SERs agreed that LSLR and other system repairs are based upon the infrastructure needs and what may fail first, rather than who the system is serving. One SER said that, in their experience as a rural water manager in Iowa who oversees 10 small systems, they do not see socioeconomic issues within the rural small systems. The SER said most of their user base consists of older populations on a fixed income and said that systems want to “do what is right” for their customers. The SER added that systems are likely to conduct LSLR where other infrastructure needs exist. Another SER stated that in Kansas, small systems serve households with a range of socioeconomic status. They explained that most LSLs in Kansas tend to be in older parts of older towns that are comprised of lower-income people and that certain small systems have a wide range of racial groups and cultures, depending on the town. This SER mentioned that these small systems base their decisions on the number of clamps already on the line and where work is already occurring, and whether an entire block or area can be completed at one time. A different SER stated that the communities that their organization tends to provide technical assistance to are the hardest hit and most disadvantaged communities, such as where there is a high rate of poverty.

Another SER referenced an AWWA document that describes community stewardship for utility managers. The SER explained that environmental justice is not only about providing financial subsidies, but that it also concerns populations where English is a second language or other factors that may impede proper communication during construction projects and cause negative impacts like preventing people from getting to work or accessing businesses. This SER also noted that the Bipartisan Infrastructure Law funding emphasizes federal assistance to low-income or environmental justice households. The SER stated that environmental justice is a place-based determination that becomes more acute for small systems that may serve as few as 30 people. The SER noted that those systems still need to comply with the rule, and it shouldn’t become a limit about how much a system advantages one household. They indicated that the focus should be on getting the job done efficiently.

**Funding and Support.** One SER discussed the speed at which a small system can achieve 100 percent LSLR and highlighted both time and fiscal restraints. The same SER also stated that the most important way to help small systems is to provide easy access to grant funds. They noted that budgeting the replacement of even one LSL can be more than a small system can handle. The SER stated that, if the goal is to get rid of all LSLs, then EPA needs to make incentives and money available for systems.

Two other SERs agreed that the main factor impacting a system’s rate of LSLR tends to be funding availability. One SER indicated that a major challenge facing small utilities is access to technical assistance for preparing grant applications and acquiring funding. The SERs noted that funding for small communities comes from states, which is “rolled out differently” in each state. They explained that this varied distribution makes it difficult for a national response to provide all systems the tools to move

forward. The SER noted that states provide the assistance grants and that not all states have active programs.

Another SER discussed the current cost of LSLR. They estimated that full LSLR costs more than \$12,000 per line. The SER noted that the estimate is approximately twice as high as the estimate EPA included within the meeting presentation. The SER warned that the cost of LSLR is substantial, even in a small community with only a few LSLs, because small systems have smaller revenue bases and have other needs that must be taken into consideration.

A SER explained that the small systems they work on (spanning 30 to 250 service connections each) are willing to replace their LSLs, but the SER expressed concern about the financial burden being placed on these systems. The SER noted that some systems in Utah have a budget of approximately \$20,000 per year and do not have the financial means to complete LSLR. The SER added that these are small, mostly private systems without political subdivisions. The SER indicated that they had started working with some of the systems they oversee to develop LSL inventories and does not anticipate that many service lines in those systems will require replacement.

***Service Line Ownership and Private Property.*** Two SERs noted that replacing privately-owned service lines will be the main challenge for most systems of any size. The homeowner will likely not complete an expensive LSLR if it is their financial responsibility. Another SER noted that the issue of who is required to pay for service line replacement, and if a water system is only responsible for paying for part of the cost (e.g., LSLR to the curb stop), is a recurring issue. The SER stated that the issue of “who pays for what” needs to be addressed, noting that grant money could be used to fund full LSLR, including the customer-owned portion of the service line.

### *7.1.2b Complying with a Revised Tap Sampling Protocol*

***First and Fifth Liter Sampling.*** Four SERs commented that it is difficult to obtain accurate first-liter samples and believe that it will be even more difficult to collect both first- and fifth-liter samples. One SER stated that it is already difficult to trust a homeowner to take a single sample correctly. They expressed concern that having a customer fill five bottles to collect both first- and fifth-liter samples will make it more difficult to get customer participation.

A different SER said that 808,495 water utilities of all system types have had monitoring and reporting (M&R) violations as of the most recent quarter. The SER stated that they believed these violations are partly due to difficulties in obtaining compliance samples which meet the LCR sampling requirements and difficulties submitting data on time. They expressed concern that first- and fifth-liter sampling requirements potentially could increase the risk of monitoring and reporting non-compliance. The SER recommended that EPA evaluate updated data from Michigan to understand the systems’ experience with achieving targeted lead levels given potential changes to the sampling requirements and the action level and trigger level construct. The SER stated that the available Michigan sampling datasets show that 25 percent to 50 percent of water systems would exceed the 15 µg/L AL using the higher of the first- and fifth-liter samples for calculation of the 90<sup>th</sup> percentile lead level. The SER added that if EPA reduced the AL to 10 µg/L, then 37 percent to 59 percent of systems would exceed the AL. The SER stated that the data raises the question: “What does it mean for small water systems moving through what becomes a very complicated analysis of corrosion control in the rule?”

Other SERs noted that sampling both the first and fifth liter will increase sampling costs. One SER stated that there have been constant changes to the rule to yield the lowest or highest results possible and expressed concern that operators are not well trained to identify issues within their systems. The SER recommended EPA come up with a monitoring strategy that would yield information that can be used to better assess water chemistry changes within the system rather than identifying “the worst number possible.”

**Water Chemistry and Quality.** A SER suggested a “utility-centric strategy” to address lead levels. The SER suggested that if no lead is detected at a home, then the system should sample in a different part of town until homes with most or all different plumbing scenarios have been tested. They stated that evaluating water chemistry is a better solution than “trying to force private property owners to spend money to replace their plumbing.” The SER added that if water chemistry and treatment problems are addressed, the system should not have any issues with lead or copper.

A different SER discussed the find-and-fix provision and water quality parameters (WQPs). The SER noted that find-and-fix is “good customer service,” but stated the provision is challenging when “its endpoint reaches back to systemwide corrosion control”. The SER noted that the find-and-fix requirements are based on a single sample and requested clarification on the requirements in LCRI. The SER also noted the importance of WQPs in managing corrosion control. The SER stated that find-and-fix is a distraction from a well-planned water quality monitoring program and recommended that EPA provide guidance (in addition to rule language) on effective WQP sample site selection and choosing the right parameters for a given system.

**Risk Communication in Tap Sampling.** One SER stated that the messaging on prioritizing LSLR needs to be clearer. The SER noted that the LCR has been tremendously successful and that lead levels have been reduced nationally. They stated that if LSLR is the priority in the LCRI then the rule should set a deadline by which all LSLs will be removed. The SER stated that EPA must focus on the long-term goal of replacing LSLs efficiently while implementing CCT in a broader way. They noted that communication to the public should be focused on explaining LSLR as a process for risk reduction that will take time, that federal funding is available, and that it is not a crisis. The SER stated that the last rulemaking established local processes to motivate rapid removal and that a more stringent sampling protocol with the addition of the fifth-liter sample is not needed to achieve LSLR.

The same SER stated that risk communication about exposure based on the sampling conducted in the LCR, LCRI, or a modified LCR is “not real risk communication.” The SER explained that statements about exposure should be based on flow-weighted sample or random daytime sampling, which are approaches the SER did not believe would be required. They stated that the LCR sampling construct is to trigger corrosion control activities and noted that current corrosion control addresses soluble lead. The SER stated that the fifth-liter sample is more likely to capture particulate lead release and that the fifth-liter sample is not needed if LSLs are going to be removed regardless of sample results. Another SER agreed that the fifth-liter sample may capture more particulate lead than the first liter and stated they think the goal is still to look at the corrosivity of the water and lead solubilizing in the water.

### *7.1.2c Complying with a Revised AL and TL Construct*

**The Effect of the AL on the Tier 1 Public Notice.** A SER mentioned that removing the TL and lowering the AL to 10 ppb will affect the requirement for Tier 1 public notice (PN). The SER stated that EPA has decided that a Tier 1 PN requirement cannot be set at a level other than the AL but that the statute

[Water Infrastructure Improvements for the Nation (WIIN) Act] says that Tier 1 is set where there is an acute risk. The SER added that acute risk does not occur at 15 or 10 µg/L, but that EPA policy has been to use the AL. They stated that if EPA continues to require Tier 1 PN notification for an AL exceedance, then the AL cannot be reduced to 10 µg/L without forcing 20 percent to 50 percent of communities with LSLs or GRRs to provide Tier 1 notices.

**Removing the TL.** Four SERs stated that the TL is confusing and should be removed. One of the SERs asked if EPA must lower the AL if the TL is removed. They explained that with all the other measures being taken on sampling, the 90<sup>th</sup> percentile lead levels will be lower because of the additional protective actions. Another SER expressed concern with trying to explain two numbers to parents of school children two numbers and added that making an announcement that lead in the service lines is already alarming enough. A different SER remarked that removing the TL and retaining the AL may not affect compliance in Kansas due to few action level exceedances in the last few years but that it would be simpler.

**Simplifying the Rule.** A SER identified opportunities to simply the rule. They noted that the LCRR appears to require all systems to change their monitoring practices in October 2024 for monitoring beginning in 2025. The SER stated that this is a lot of work and requested that EPA issue guidance prior to finalizing the rule. The SER noted that guidance documents have been released prior to other rules being finalized (*e.g.*, Stage 1 Disinfectants and Byproducts Rule), and that it would help systems with sampling plans and transitioning to new requirements. They also suggested that systems be allowed to transition gradually based on their existing schedule (*e.g.*, triennial) instead of all systems transitioning to the new sampling schedules simultaneously.

#### *7.1.2d Adding Protection from Sustained Levels of Lead Above the AL*

One SER recounted their experience with some small systems in Iowa, explaining that if the systems have issues or exceed the AL, they implement corrosion control and immediately address the problem. They noted that some systems can act quickly (*e.g.*, add orthophosphate or take a similar measure) and reduce lead levels within six months with corrosion control.

#### *7.1.2e Additional Comments*

**Concerns for Schools.** A SER wanted to alert EPA that schools will face challenges understanding the rule requirements and will likely have difficulty complying. The SER explained that many schools are located in agricultural areas and that a number of the schools in Wisconsin operate on private wells serving 25 children or more year-round. The SER explained that schools regulated as PWSs will require education about the regulations and wanted EPA to be aware that there are not always direct lines of communication to impacted populations (*e.g.*, Mennonite and Amish populations) and they may lack internet or have limited phone access.

**Difficulty Finding Qualified Water Operators.** One SER noted that treatment requirements may impact state operator certification requirements and, depending on the level of treatment needed, higher level certified operators may be needed. The SER explained that treatment addition may require a higher level of operator licensure in some states and noted that small systems are already struggling to finding operators. They added that higher salaries are needed to attract high-level operators. The SER stated that operator certification should be considered in the complexity of the rule and in cost calculations.



**Galvanized Lines and the Definition of LSLs.** One SER questioned EPA’s definition of an LSL in the LCRR and the estimated number of LSLs nationally. They stated that EPA’s presentation focused on lead and lead preceded by galvanized service lines. The SER noted that the number of LSLs indicated in the Cornwell *et al.* study does not adequately reflect the total amount of galvanized pipe preceded by lead as defined in the LCRR. They suggested that the LCRI include a different definition of LSL or service lines required to be replaced. They also asked that EPA increase the multiplier for total community cost in the LCRI Economic Analysis.

**Inventory Knowledge Constraints.** One SER noted that once inventories are complete, more will be known about the extent of the lead issue. The SER wondered if the inventories would show that LSLs can be replaced faster by prioritizing the “hardest hit areas” or if it is more cost-effective to achieve compliance by replacing lines in the “lesser hit areas.”

**“Lead-Free” in SDWA versus the LCRR.** A SER stated a need for clarity around the use of the SDWA definition of “lead-free” and the language currently used in the rule. One SER reiterated a comment on the definition of “lead free” used in the LCRR versus SDWA (see **Section 6.2.2e**) and stated that there is also a discrepancy in EPA’s LSL Inventory guidance that should be corrected.

### 7.1.3 Related Federal Rules

No comments were made pertaining to this category.

### 7.1.4 Regulatory Flexibility Alternatives

#### 7.1.4a Adding to or Changing the LCRR Small System Flexibilities

**Compliance Option for Water Corrosivity.** One SER stated that lead in drinking water is a symptom of water corrosivity and suggested that if EPA mandates LSLR for small systems with an AL exceedance, the systems be provided the option to assess water corrosivity. They stated that a system should not “just run out and buy orthophosphate”.

**Incentives for Low- or No-Lead Systems.** One SER requested that small systems without a history of lead should receive additional relief. They questioned, “at what point can a system say that they do not have a lead problem and that their water is safe?” and noted the burden of identifying the “worst possible case scenario.” The SER stated that LSLs need to be replaced but that some systems without lead issues (*e.g.*, no LSLs, no galvanized, all plastic plumbing) should be offered reduced or waived monitoring if their materials are non-lead and are not contributing to lead contamination.

**Removing LSLR from the Compliance Options.** Two SERs questioned why EPA would want to remove the LSLR option from the list of small system flexibility compliance options, considering EPA’s goal of 100 percent LSLR. One SER stated that, systems serving between 3,300 and 10,000 people are likely to implement corrosion control but that total LSLR would probably also be considered. Another SER stated that if very small systems are required to install corrosion control, it will exceed their budget and noted that many systems do not have trained operators available to make treatment adjustments if they do not meet their optimal WQPs. The SER expressed concern about situations where a system may run out of chemical additives and create further problems (*e.g.*, increased lead levels).

## 7.2 Written Comments from SERs

### 7.2.1 Number and Types of Entities Affected

No comments were made pertaining to this category.

### 7.2.2 Potential Reporting, Recordkeeping, and Compliance Requirements

#### 7.2.2a Achieving 100 Percent LSLR in Small Systems

**Better Communication Practices.** One SER commented on the need for better communication efforts from EPA. They noted that inventory development is progressing slowly and cited lack of utility and organization awareness of burden and time requirements of the LCRR. The SER also noted inadequate communication between the Department of Education, states, EPA, and water systems, noting that additional effort is needed to ensure that school districts and child care facilities are aware of the LCRR requirements that impact their facilities.

**The Cost of LSLR.** One SER provided two reports with information on LSLR. The SER provided a report prepared by CDM Smith for AWWA titled, “Considerations when Costing Lead Service Line Identification and Replacement” noting it reflects new information on the direct and indirect costs of LSL and GRR discovery, verification, and replacement. The SER stated that average direct costs for full LSLR are roughly \$1,000 greater than EPA’s estimates in the LCRR Economic Analysis. The SER also provided a report prepared by Jacobs for AWWA, titled “How Many Galvanized Service Lines are Being Found,” noting it provides new information on the number of service lines subject to LCRR or LCRI requirements.

**Incorporating Equity in LSLR.** One SER commented on resources, disadvantaged communities, and state response. The SER noted that small and disadvantaged communities will be less likely to receive funding than larger systems due to limited resources and inability to quickly respond to LSL requirements. The SER also commented that disadvantaged communities have limited resources and knowledge to conduct LSL inventories and complete paperwork for grants. They added that small staffing units have more immediate priorities than meeting a deadline in 2024. The SER also noted that metrics for identifying disadvantaged communities (*e.g.*, social vulnerability index) lead to the most distressed rural communities being considered as less disadvantaged than distressed suburban communities due to fewer indicators of stress. They added that many small rural communities have significant elderly populations with lower technology access, which makes it challenging to provide electronic resources. The SER also commented that equity varies by state due to state-specific responses and rulemaking which may lead to different health responses across states.

Another SER provided weblinks to the Lead Service Line Replacement Collaborative’s approach to developing place-based analyses for equitable LSL and GRR replacement. The SER noted that the guide is appropriate for all system sizes, but for small systems it emphasizes using available resources and tools to facilitate timely completion of an equity analysis such that the system can conduct service line replacement.

**Funding and Support.** Several SERs commented on resource needs for small systems to conduct LSLR. One SER commented that LSLR will not occur if there is no funding, noting that their system does not own the lead service line and that it is challenging to engage customers. The SER commented that when they mailed surveys to customers to identify service line material, fewer than 5 percent were returned



and 75 percent of them marked “unknown” for their material. The SER noted that their system does not have the staff to conduct 100 percent door-to-door inspections and indicated other operators felt similarly. They added that the system is planning on conducting water main replacement in the older parts of town where they know there are problems, but they are unsure they can replace all LSLs in 15 years.

Another SER stated that many systems serve 50 to 200 people and have annual budgets ranging from \$30,000 to \$125,000. The SER stated that if LCRI requires mandatory LSLR for all systems, very small systems may not have the financial capacity to accomplish 100 percent LSLR without financial assistance (e.g., grant funding).

A different SER commented that technical assistance is essential for guiding small systems through regulatory requirements, conducting LSL inventories, developing replacement plans, obtaining funding, managing replacement programs, and conducting follow-up post replacement actions. The SER stated that technical assistance to small systems has been significantly delayed as states are developing the process to support technical assistance through DWSRF capacity set asides. The SER noted that states may have different approaches to funding and proposal requirements, which can make it very difficult to develop a consistent national approach.

The same SER commented that state funding requirements may be barriers to timely LSLR. They provided the example of a state not awarding funding until the primacy agency has reviewed and approved a completed LSL inventory. The SER added that funding can only be used for full LSLR projects. They commented that, in combination, such requirements could lead to delays in utilities applying for funding.

***Role of Small Systems in Replacements.*** A SER commented that data from LSL inventories due in October 2024 could help EPA determine the fastest and most economical approach to LSLR with the fewest unintended consequences possible. The SER added that inventory information could also determine if conducting LSLR in small and very small systems would lead to more replacements or if other systems may have more replacements (e.g., systems constructed between 1960 and 1980).

***Service Line Ownership and Private Property.*** A SER mentioned that questions on the private ownership of service lines continues to make it challenging to replace LSL, noting that water system operators are unsure how to address issues involving privately-owned premise plumbing. The SER added that small communities may lack ordinances necessary to conduct private-side replacements to support a replacement program.

### *7.2.2b Complying with a Revised Tap Sampling Protocol*

***First- and Fifth-Liter Sampling.*** Two SERs expressed concerns with requiring systems to collect a fifth-liter sample. One SER stated that they already face challenges recruiting customers to participate in sampling and thinks they will no longer participate if they must collect multiple bottles. Another SER noted that they find the new sampling protocol confusing and stated that samples will be likely be collected incorrectly, analytical and collection costs will increase, and systems may incur costs associated with potential sampling violations. They stated that while they understand the intent of the fifth liter sample, they question if the public benefit justifies the challenges. The same SER also suggested that if both first- and fifth-liter samples are required at LSL sites, that the LCRI require the

sample bottles to be numbered one through five and specify that only the first and fifth bottled must be submitted for analysis.

### 7.2.2c *Complying with a Revised AL and TL Construct*

**Removing the TL.** A SER commented that the LCRR TL and AL should be maintained, stating that the TL is a precaution. Another SER disagreed, writing that two numbers will likely cause misunderstanding and recommended the TL be removed. The SER added that the AL should not be reduced, explaining that changes to tap sampling (e.g., fifth-liter sample, changes in tiering, prohibition on pre-stagnation flushing and aerator removal) will lead to increased public health protection for lead.

### 7.2.2d *Additional Comments*

**Concerns for Schools.** One SER reiterated comments on the impacts of the LCRR and proposed LCRI on schools, particularly rural schools regulated as public water systems. The SER also noted that many rural schools with private wells are located miles from municipal water sources and are unable to be connected to those systems. The SER expressed concern that K-12 schools would be unable to comply with the proposed regulations, citing lack of staff knowledge and technical training on water treatment.

**Risk Reduction through Filters and Bottled Water.** A SER provided a report prepared by Arcadis for AWWA titled, “Comparing the Cost of Bottled Water vs In-Home Filter Provision for a Lead Action Level Exceedance”, noting it illustrates substantial costs that may be incurred if EPA requires additional health risks reduction measures when a system exceed the AL. The SER indicated that in small systems decisions to take additional measures would depend on few samples from potentially unrepresentative homes using a “near-worst-case-sampling protocol.” The SER stated that the report found that a one-year filter distribution program for a system with 16,000 people would cost over \$1 million and a bottled water program would cost \$23.5 million. This SER commented that current requirements for additional risk reduction are decided by the states and that most primary drinking water standards focus on providing instructions to consumers. The SER also noted the public education and Tier 1 public notification requirements following an AL exceedance under LCRR.

**Rule Implementation Timeframe.** A SER stated that SDWA requires EPA to provide PWSs three years to comply with a new primary standard and allows states to grant another two years for major capital investments (42 US Code 300g-1(b)(10)). They indicated that if EPA makes significant changes to the LCRR that EPA will need to allow systems and states the SDWA-specified time to prepare to come into compliance.

## 7.2.3 *Related Federal Rules*

No comments were made pertaining to this category.

## 7.2.4 *Regulatory Flexibility Alternatives*

No comments were made pertaining to this category.

## 8. PANEL FINDINGS AND DISCUSSION

Pursuant to section 609(b) of the RFA, the Panel's most significant findings and discussion with respect to the issues related to sections 603(b)(3), (4), (5) and 603(c) of the RFA are summarized below. The Panel's findings are based on the information available at the time this report was drafted. EPA is continuing to conduct analyses relevant to the planned proposed rule, and additional information may be developed or obtained during this process and from public comment on the proposed rule. Any options the Panel identifies for reducing the planned rule's regulatory impact on small systems may require further analysis and data collection to ensure that the options are practical, enforceable, protective of public health, and consistent with SDWA.

SDWA requires that any revision of an NPDWR at least maintain or provide for greater protection of public health. Treatment technique-based rules like the LCRR are required to consider the feasible level of contaminant removal and to publish an analysis of the health risk reduction benefits and costs likely to be experienced because of compliance with the treatment technique. At the time EPA proposes an NPDWR, the Administrator must publish a determination as to whether the benefits of the regulation justify the costs.

### 8.1 Number and Types of Entities Affected

As discussed in **Section 3**, EPA considers small entities to be PWSs serving 10,000 people or fewer. EPA does not anticipate the LCRI to affect TNCWSs as those systems will likely not be subject to the rule requirements. However, all CWSs and NTNCWSs are subject to the existing LCR and LCRR requirements. As of December 2020, approximately 91.1 percent of all CWSs (45,000 systems) and 99.8 percent of all NTNCWSs (17,000 systems) serve 10,000 people or fewer.

While NPDWRs apply to all drinking water systems, SERs commented that some of the changes in the existing LCRR and proposed LCRI might pose problems for water systems serving fewer than 100 people and water systems that primarily serve schools and child care facilities. SERs discussed factors that may affect very small systems more than larger systems, such as financial burden of mandatory LSLR, difficulty complying with a new tap sampling protocol, the lack of resources and staff in small systems, and challenges with accessing available funds. A few SERs expressed additional concern for very small systems that must prioritize the most immediate tasks.

The Panel notes that the LCRR currently establishes different requirements based on system size and type and provides flexibilities for systems serving 10,000 people or fewer that exceed the TL or AL (see **Section 2.2**). The Panel recommends that EPA evaluate whether it is appropriate to further differentiate LCRI requirements based on the differences among smaller water systems (*e.g.*, flexibilities for very small systems serving fewer than 500 people, small systems serving between 501 and 3,300 people, and small systems serving between 3,301 and 10,000 people). The Panel also recommends that EPA consider the costs associated with multiple rule areas of the proposed LCRI requirements in the economic analysis and ways to reduce the burden on small systems including the interrelationship amongst the areas of the rule requirements.

### 8.2 Potential Reporting, Recordkeeping, and Compliance Requirements

Historically, EPA drinking water requirements have included requirements for PWS recordkeeping and reporting. The LCRR includes reporting and recordkeeping requirements for service line inventorying

and replacement, monitoring results, public notification, and sampling results. At the same time, the Paperwork Reduction Act (PRA) requires that all reporting and recordkeeping requirements have practical utility and appropriately balance the needs of the government with the burden on the public. As EPA proceeds with any revisions to the requirements of the current LCRR, EPA will also assess the need for revisions to reporting and recordkeeping requirements and will consider them in any estimation of the burden and benefits of the rule changes. EPA is committed to keeping paperwork requirements to the minimum necessary and to fulfill its statutory obligations as required by the PRA.

Detailed information and Panel recommendations on specific potential rule compliance requirements can be found in **Section 8.4**.

### 8.3 Related Federal Rules

As discussed in **Section 2.4**, there are NPDWRs for over 90 contaminants. EPA's drinking water rules were developed with careful attention to the interaction between each new rule that requires treatment changes. The Panel recommends that EPA continue to ensure that any revisions to the LCRR be coordinated with, and do not either duplicate or conflict with, the requirements of other drinking water regulations, and EPA should consider other drinking water rule costs for small systems. In addition, EPA should estimate the impacts of the addition of phosphate on downstream wastewater treatment plants.

One of the treatment strategies that the LCRR identifies for controlling lead and copper corrosion is to add orthophosphate to drinking water, which may impact the phosphorus levels in the wastewater discharges in communities, including those with numeric discharge criteria for phosphorous under the Clean Water Act. However, under SWDA, EPA is required to set regulatory standards that reduce adverse health effects to the extent feasible; this includes the lead and copper regulations. EPA has previously determined that CCT is technologically feasible and affordable.<sup>10</sup>

### 8.4 Regulatory Flexibility Alternatives

#### 8.4.1 LSLR

EPA is considering many improvements to the LCRR LSLR requirements, including a requirement that could result in the replacement of all LSLs in the nation as quickly as feasible (see **Section 2.3**). In addition to regulatory requirements, EPA has and will continue to take non-regulatory actions to achieve replacement of all LSLs. SERs have commented on the cost of LSLR as well as the challenges small systems face with limited staff, small budgets with competing priorities, and limited resources and capacity. One SER noted that any changes to the LSL definition in the LCRI may impact the estimate of LSLs and replacement estimates. Some SERs also provided LSLR cost information as part of their comments. Many SER comments centered around the need for federal funding for small systems.

The Panel recognizes the steps EPA has taken, and will continue to take, to ensure federal funds are available to drinking water systems, especially those within disadvantaged communities. The Bipartisan Infrastructure Law provides the single largest investment in water that the federal government has ever made. There are an estimated 6 to 10 million LSLs across the country, and the Bipartisan Infrastructure

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<sup>10</sup> EPA. (September 1998). Small System Compliance Technology List for the Non-Microbial Contaminants Regulated Before 1996. EPA 815-R-98-002. Office of Water.

Law provides funding that could be used to support efforts to address drinking water lead contamination, including: (1) \$11.7 billion in funding to supplement the general Drinking Water State Revolving Fund (DWSRF), where SRF-eligible projects may include LSL identification and replacement, and (2) \$15 billion in funding dedicated to LSL identification and replacement through the DWSRF. EPA works to allocate DWSRF funding to states and developed a factsheet on using the DWSRF for LSLR.<sup>11</sup> EPA recommends that states use the full DWSRF 2 percent small system technical assistance set-aside to enhance or build programs that provide assistance to rural, small, and tribal publicly owned treatment works and drinking water systems, particularly in disadvantaged communities. EPA announced the availability of \$10 million under the WIIN Act for LSLR or CCT projects and will work to award these grants. EPA has also created a guidance document for small and disadvantaged communities on ways to fund LSLR.<sup>12</sup>

Despite these efforts, the Panel recognizes that funding streams are not guaranteed to be available to all small systems, that some small systems may not pursue available funding opportunities for a variety of reasons, and that, in the absence of this funding, these communities may have significant difficulty financing LSLR. The Panel recommends that EPA evaluate available recent data and LSLR cost information (including EPA's Drinking Water Infrastructure Needs Survey and Assessment) to inform the economic analysis for the proposed LCRI. When evaluating the cost of compliance, the Panel recommends that EPA recognize that external funding sources may not be available to all small systems.

SERs identified factors such as customer engagement and cooperation, contractor availability, and supply chain issues that will challenge the rate at which they can replace 100 percent of their LSLs. When developing the LSLR requirements, the Panel recommends that EPA consider the barriers to 100 percent LSLR that SERs identified that make LSLR challenging. In the LCRR, EPA recognized that customers may refuse to participate in LSLR and required documentation of customer engagement. The Panel recommends that EPA include a provision in the LCRI to account for customer refusals in the mandatory LSLR provision and increase clarity in terms of what "good faith" attempts mean when engaging the customer. The Panel recommends that EPA provide additional time for small systems to comply with all LSLR requirements from the LCRR that are revised by the LCRI, including a transition period following the effective date to provide time for small systems to plan LSLR-required activities.

SERs expressed the importance of national-level technical assistance for small systems in both the pre-Panel and Panel meetings. A SER commented on how resources can vary between states or be significantly delayed. Another SER noted that new LCRI requirements may further stress State' resources. SERs emphasized to EPA that technical assistance is essential for guiding small systems through regulatory requirements, explicitly stating the need for resources on conducting LSL inventories and replacement. Therefore, the Panel recommends that EPA respond to SER concerns on the need for assistance in understanding and complying with the LCRI requirements. EPA is supporting small systems by developing guidance on the initial service line inventory requirements in the LCRR.<sup>13</sup> In January 2023, EPA initiated the LSLR Accelerators to provide hands-on support to guide 40 communities through the

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<sup>11</sup> EPA. (2019). Addressing Lead in Drinking Water with the State Revolving Fund. Retrieved from [https://www.epa.gov/sites/default/files/2019-03/documents/lead\\_fact\\_sheet\\_and\\_case\\_studies\\_final.pdf](https://www.epa.gov/sites/default/files/2019-03/documents/lead_fact_sheet_and_case_studies_final.pdf)

<sup>12</sup> EPA. (2020). Funding and Technical Resources for Lead Service Line Replacement in Small and Disadvantaged Communities. Retrieved from [https://www.epa.gov/sites/default/files/2020-12/documents/ej\\_slr\\_funding\\_sources-final.pdf](https://www.epa.gov/sites/default/files/2020-12/documents/ej_slr_funding_sources-final.pdf)

<sup>13</sup> EPA. (August 2022). Guidance for Developing and Maintaining a Service Line Inventory. Office of Water. Retrieved from [https://www.epa.gov/system/files/documents/2022-08/Inventory%20Guidance\\_August%202022\\_508%20compliant.pdf](https://www.epa.gov/system/files/documents/2022-08/Inventory%20Guidance_August%202022_508%20compliant.pdf)

process of LSLR from start to finish.<sup>14</sup> EPA intends to continue to provide guidance to small systems following LCRI promulgation in accordance with the Regulatory Flexibility Act. In addition to the activities described above to support small systems, EPA developed a fact sheet<sup>15</sup> on technical assistance available through EPA and other federal agencies, such as the Environmental Finance Centers announced in November 2022 that include representatives of rural water systems.<sup>16</sup> EPA hosts a monthly Small Drinking Water Systems Webinar Series that focuses on issues specific to small water systems, including a recent webinar on the initial service line inventory requirements. EPA also hosts an annual Drinking Water Workshop that brings together many stakeholders, such as states and tribes that regulate small water systems and representatives from small systems themselves to share the latest information on challenges facing small drinking systems and solutions to address them. Considering the SERs continued concerns and the degree to which technical assistance is crucial in reducing regulatory compliance costs, the Office of Advocacy recommends that EPA continue to consult regularly with small entities and state regulatory authorities to ensure the efforts to provide technical assistance to small systems to address regulated and emerging contaminants are effective and remain appropriately targeted.

EPA intends to propose LCRI requirements that incorporate equity principles, especially for LSLR (see **Section 2.3**). Due to the cost of replacing the customer-portion of an LSL, EPA notes that underserved communities could potentially experience disproportionate exposure to lead from LSLs if measures to ensure equity are not incorporated into the LCRI. EPA specifically asked for SER input about ways to ensure equitable LSLR in the LCRI. Multiple SERs stated that LSLR and other system repairs are generally based on (1) infrastructure needs and what may fail first rather than who the infrastructure serves and (2) how to complete the most pressing infrastructure work as efficiently as possible. One SER mentioned that equity should consider factors outside of finances, such as English as a second language and achieving proper communication and notice on construction projects. EPA notes that the LCRR required LSLR plans to include an LSLR prioritization strategy based on factors including but not limited to the targeting of known LSLs, LSLR for disadvantaged consumers, and populations most sensitive to the effects of lead (see **Section 2.2**). Systems can include additional factors important to their community, *e.g.*, unknown service lines suspected to be lead, areas with pressing system repairs or infrastructure needs, areas with older homes, populations with higher blood lead levels based on available data. The Panel recommends that EPA consider the range of additional factors raised by SERs in addition to equity principles when developing the LSLR plan and other LSLR requirements (*e.g.*, areas with pressing system repairs, infrastructure needs, and areas with older homes).

#### 8.4.2 Tap Sampling Procedures

In the LCRR review, EPA concluded that there are opportunities to better identify the communities that are most at risk of elevated drinking water lead levels (see **Section 2.3**). For the LCRI, EPA is evaluating alternative tap sampling protocols that may better identify higher lead levels.

EPA is considering a new tap sampling protocol that requires systems to collect both first- and fifth-liter samples at LSL sites and to use the higher concentration for the 90<sup>th</sup> percentile lead level calculation. In

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<sup>14</sup> EPA. (2023). EPA Launches New Initiative to Accelerate Lead Pipe Replacement to Protect Underserved Communities. News Release. Office of Water. Retrieved from <https://www.epa.gov/newsreleases/epa-launches-new-initiative-accelerate-lead-pipe-replacement-protect-underserved>

<sup>15</sup> EPA. (2023). Water Technical Assistance: Ensuring Equitable Access to Water Infrastructure Funding. Fact sheet. Retrieved from [https://www.epa.gov/system/files/documents/2023-02/Water%20TA%20Fact%20Sheet\\_FINAL.pdf](https://www.epa.gov/system/files/documents/2023-02/Water%20TA%20Fact%20Sheet_FINAL.pdf)

<sup>16</sup> EPA. (2023). Environmental Finance Centers. Retrieved from: <https://www.epa.gov/waterfinancecenter/efc>



the LCRR review, EPA discussed data summarized by the Association of State Drinking Water Administrators (ASDWA) on Michigan's revised Lead and Copper Rule that requires this approach. Masters *et al.* (2021) found that compliance data from water systems showed that the fifth-liter sample is more likely to be from an LSL and can identify systems that would benefit from optimized CCT.<sup>17</sup> Therefore, updating the tap sample protocol could ensure that elevated lead levels are missed less frequently.

SERs discussed various factors that may pose challenges for small systems to comply with a new sampling protocol, including increased costs and burden for systems with LSLs, increased complexity of the protocol and communicating instructions to customers, and difficulty obtaining customer participation. SERs expressed a lack of confidence in relying on homeowners to take routine samples and suggested ideas like developing training videos on how to take fifth-liter samples. A SER suggested that systems consider changing the sampling location if the system tests a home and detects no lead, which will help the system test various plumbing scenarios in their distribution system. A SER also stated that small systems without lead in their distribution system should get additional flexibilities, such as reduced tap sampling and monitoring for systems that do not detect lead. EPA notes that, under the current LCRR, systems with low 90<sup>th</sup> percentile lead levels and those without lead sources may reduce their monitoring frequency. EPA recognizes that by updating the sampling protocol, among other rule requirements, there will likely be additional systems that exceed the AL, thus requiring actions to reduce drinking water lead exposure not otherwise required in order to protect public health. EPA will take the costs and benefits of these additional actions into consideration in the economic analysis for the proposed LCRI.

The Panel recommends that EPA clarify aspects of the sampling protocol in the proposed LCRI rule language, such as a definition of a wide mouth bottle, and provide additional time for small systems to comply with monitoring and sampling requirements from the LCRR that are revised by the LCRI. Under the LCRR, small systems have less monitoring sites compared to large systems. EPA intends to maintain this in the proposed LCRI.

### 8.4.3 Rule Complexity and Simplification

To provide better health protection and more effective rule implementation, EPA is evaluating options for utilities to address lead contamination at lower levels and improve sampling methods. Additionally, EPA is considering potential revisions to the LCRR to reduce complexity of the lead AL and TL construct as well as ensure that the rule is easily understandable and triggers appropriate and feasible corrective actions (see **Section 2.3**).

EPA is aware that actions to reduce rule complexity could take various forms, but in the LCRR review, EPA identified a possible revision to eliminate the lead TL and lower the AL. Removing the lead TL could reduce compliance costs, but a lower lead AL could raise compliance costs by increasing the number of water systems that exceed the AL and must then take additional actions (*i.e.*, CCT adjustment, public education, and increased sampling). Most SERs stated that the lead TL should be removed to reduce rule complexity; however, one SER advocated for retaining the TL, noting that it could be beneficial to have a warning prior to an AL exceedance. A SER commented that the other changes to the rule accomplish the goal of reducing lead exposure without lowering the AL, and they recommended that EPA leave the AL

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<sup>17</sup> Masters, S. V., Bradley, T. C., Burlingame, G. A., Seidel, C. J., Schmelling, M., & Bartrand, T. A. (2021). What Can Utilities Expect from New Lead Fifth-Liter Sampling Based on Historic First-Draw Data?. *Environmental Science & Technology*, 55(17), 11491-11500.

at 15 ppb. The Panel recommends that EPA consider removing the TL. The Panel notes that EPA has committed to evaluating lower AL levels to increase public health protection and the impacts that such a change will have on smaller systems, even though many of the SERs expressed concern about the impact such a change would have. The Panel recommends that, if EPA determines that a lower AL is required, EPA provide additional time for small systems to comply with AL requirements from the LCRR that are revised by the LCRI, including additional time for planning for the lower AL. The Panel recommends that EPA also consider the appropriate level of public education requirements following an AL exceedance for small systems. The Panel further recommends that EPA consider additional flexibilities and compliance assistance for small entities serving isolated or primary non-English language-speaking communities.

A SER discussed tap sampling schedules as an additional way to reduce rule complexity. The SER suggested transitioning systems into the new sampling protocol based on their triennial schedule instead of transitioning all systems simultaneously. Additionally, the SER suggested EPA issue guidance ahead of finalizing the rule for sampling plans so small entities would have it during the transition. The Panel recommends that EPA issue guidance on the LCRI, including sampling, on the same date as the date of publication of the final rule (or as soon as possible after that date) to ensure the maximum time available for training and transition.

#### 8.4.4 Small System Flexibility

While EPA is focusing its rulemaking process on the priority areas discussed above, EPA announced that it would also consider additional changes to equitably improve public health protection and improve rule implementation to ensure that the LCRI prevents adverse health effects of lead to the extent feasible. Specifically, EPA stated in the LCRR review that the agency could make improvements to the LCRR small system flexibility.

In **Section 2.3**, EPA discussed the role of LSLR in the LCRR small system flexibility within an overall rule construct where LSLR is mandatory for all systems regardless of tap sampling results. EPA asked SERs if compliance options should be added or modified in the small system flexibility. One SER noted potential challenges for very small systems under the CCT compliance option, such as availability of trained operators to evaluate the CCT adjustments required if the system fails to meet its optimal WQPs. A different SER stated that the flexibility to administer POU or POE devices was helpful but expressed concern that availability of certified pitcher filters and devices may make this approach challenging to implement for some small systems. Another SER mentioned the limited utility of the LCRR flexibilities for systems serving between 3,300 and 10,000 people, stating that most of these systems would choose the OCCT compliance pathway.

The Panel recommends that EPA request comment on additional flexibilities for small water systems to effectively reduce drinking water lead exposure and whether EPA should allow these methods as compliance alternatives as part of the small systems flexibilities. EPA should review the costs and availability of compliant POU or POE devices to ensure that the flexibility remains available to small systems that want to use it. EPA intends to request public comment on the threshold for the small system flexibility provision for systems serving between 3,300 and 10,000 persons because EPA may propose more stringent limits and that may affect a system's choice of compliance options and timing.



## 8.5 Summary of Panel Recommendations

1. The Panel recommends that EPA evaluate whether it is appropriate to further differentiate LCRI requirements based on the differences among smaller water systems (*e.g.*, flexibilities for very small systems serving fewer than 500 people, small systems serving between 501 and 3,300 people, and small systems serving between 3,301 and 10,000 people).
2. The Panel recommends that EPA consider the costs associated with multiple rule areas of the proposed LCRI requirements in the economic analysis and ways to reduce the burden on small systems including the interrelationship amongst the areas of the rule requirements.
3. The Panel recommends that EPA continue to ensure that any revisions to the LCRR be coordinated with, and do not either duplicate or conflict with, the requirements of other drinking water regulations, and EPA should consider other drinking water rule costs for small systems. In addition, EPA should estimate the impacts of the addition of phosphate on wastewater treatment plants.
4. The Panel recommends that EPA evaluate available recent data and LSLR cost information (including EPA's Drinking Water Infrastructure Needs Survey and Assessment) to inform the economic analysis for the proposed LCRI. When evaluating the cost of compliance, the Panel recommends that EPA recognize that external funding sources may not be available to all small systems.
5. When developing the LSLR requirements, the Panel recommends that EPA consider the barriers to 100 percent LSLR that SERs identified that make LSLR challenging.
6. The Panel recommends that EPA include a provision in the LCRI to account for customer refusals in the mandatory LSLR provision and increase clarity in terms of what "good faith" attempts mean when engaging the customer.
7. The Panel recommends that EPA provide additional time for small systems to comply with all LSLR requirements from the LCRR that are revised by the LCRI, including a transition period following the effective date to provide time for small systems to plan LSLR-required activities.
8. The Panel recommends that EPA respond to SER concerns on the need for assistance in understanding and complying with the LCRI requirements. Considering the SERs continued concerns and the degree to which technical assistance is crucial in reducing regulatory compliance costs, the Office of Advocacy recommends that EPA continue to consult regularly with small entities and state regulatory authorities to ensure the efforts to provide technical assistance to small systems to address regulated and emerging contaminants are effective and remain appropriately targeted.
9. The Panel recommends that EPA consider the range of additional factors raised by SERs in addition to equity principles when developing the LSLR plan and other LSLR requirements (*e.g.*, areas with pressing system repairs, infrastructure needs, and areas with older homes).
10. The Panel recommends that EPA clarify aspects of the sampling protocol in the proposed LCRI rule language, such as a definition of a wide mouth bottle, and provide additional time for small systems to comply with monitoring and sampling requirements from the LCRR that are revised

by the LCRI.

11. The Panel recommends that EPA consider removing the TL. The Panel also recommends that, if EPA determines that a lower AL is required, EPA provide additional time for small systems to comply with AL requirements from the LCRR that are revised by the LCRI, including additional time for planning for the lower AL.
12. The Panel recommends that EPA consider the appropriate level of public education requirements following an AL exceedance for small systems. The Panel further recommends that EPA consider additional flexibilities and compliance assistance for small entities serving isolated or primary non-English language-speaking communities.
13. The Panel recommends that EPA issue guidance on the LCRI, including sampling, on the same date as the date of publication of the final rule (or as soon as possible after that date) to ensure the maximum time available for training and transition.
14. The Panel recommends that EPA request comment on additional flexibilities for small water systems to effectively reduce drinking water lead exposure and whether EPA should allow these methods as compliance alternatives as part of the small systems flexibilities. EPA should review the costs and availability of compliant POU or POE devices to ensure that the flexibility remains available to small systems that want to use it.

## **APPENDIX A: MATERIALS SHARED WITH SMALL ENTITY REPRESENTATIVES**

Appendices A1 and A2 (separate documents) are compilations of all outreach materials shared with SERs for the Pre-Panel Outreach meeting and the Panel Outreach meeting. Below are lists of those materials.

### **Appendix A1: Materials EPA Shared with Potential Small Entity Representatives for the Pre-Panel Outreach Meeting held on the LCRI NPDWR, September 12, 2022**

- Pre-Panel Outreach Meeting Agenda
- SBAR Panel Process Presentation
- Rulemaking Presentation
- Background Document
- POU or POE Treatment Options for Small Drinking Water Systems (EPA 2006)

### **Appendix A2: Materials EPA Shared with Small Entity Representatives for the Panel Outreach Meeting held on the LCRI NPDWR, November 29, 2022**

- Panel Outreach Meeting Agenda
- Rulemaking Presentation
- Updated Background Document

## **APPENDIX B: WRITTEN COMMENTS SUBMITTED BY SMALL ENTITY REPRESENTATIVES**

Appendices B1 and B2 (separate documents) are compilations of all written comments submitted by SERs following the Pre-Panel Outreach meeting and the Panel Outreach meeting. Below are the SERs that submitted comments.

### **Appendix B1: Written Comments Submitted by Potential Small Entity Representatives following the September 12, 2022, Pre-Panel Outreach Meeting**

- City of Wayne, Nebraska
- Kansas Rural Waterworks Association
- Wisconsin Council of Religious and Independent Schools
- American Water Works Association

### **Appendix B2: Written Comments Submitted by Small Entity Representatives following the November 29, 2022, Panel Outreach Meeting**

- Village of Plymouth and City of Beatrice, Nebraska
- City of Wayne, Nebraska
- Salt Lake County Service Area #3 (Snowbird, Utah)
- Rural Community Assistance Partnership
- Wisconsin Council of Religious and Independent Schools
- American Water Works Association