



February 5, 2024

Dr. Jennifer McLain
Office of Groundwater and Drinking Water
U.S. Environmental Protection Agency
1200 Pennsylvania Ave NW
Washington, DC 20009

RE: Lead and Copper Rule Improvements (LCRI), Docket No. EPA-HQ-OW-2022-0813

Dear Dr. McLain,

Thank you for the opportunity to comment on this important rulemaking. The state and territorial primacy agencies are co-regulators with the Environmental Protection Agency (EPA) in the development and implementation of drinking water regulations. The primacy agencies' collective workforce of about 3,600 regulators works tirelessly every day to ensure that the nation's 150,000 water systems provide safe drinking water every time consumers turn on the tap. Additionally, state regulators provide boots-on-the-ground assistance to respond to emergencies and address many other compliance and implementation challenges.

States have over 30 years of direct implementation experience with the Lead and Copper Rule (LCR), originally published in 1991, including the minor revisions in 2000 and 2004 and the short-term revisions in 2007. ASDWA's Members are also currently working to implement the service line inventory components of the 2021 Lead and Copper Rule Revisions (LCRR) ahead of the LCRI. ASDWA's members have a breadth and depth of knowledge on the details of LCR implementation that EPA should incorporate into the final LCRI. As EPA's development of the LCRI continues, ASDWA's members, as co-regulators with EPA, need to continue to be included in efforts to ensure the final LCRI can be implemented in such a way that both protects public health and streamlines the overall rule complexity. The LCRI must be feasible to implement in order to be effective.

ASDWA's members appreciate that the Agency included some of ASDWA's LCRI Federalism Consultation Recommendations in the proposed rule, including:

- Elimination of the lead trigger level.
- Establishment of a standardized approach for proactive lead service line replacement.
- Renaming "find-and-fix" to "Distribution System and Site Assessment."
- Limiting the use of small system flexibilities to those serving populations less than 3,300.
- Alignment of school and childcare sampling protocols with existing 3Ts Guidance.
- Clarification of definitions of galvanized requiring replacement and connectors.

After a review of the proposed regulatory language, ASDWA's members have developed extensive, in-depth comments based on over 20 hours of input via Teams Meetings from 165 state regulators across

41 states. ASDWA's members' most pressing concern with the proposed LCRI is the increased state workload, compounded by the upcoming PFAS regulation and ongoing Infrastructure Investment and Jobs Act (IIJA) implementation. These important new tasks under LCRI will be in addition to states' current everyday activities, such as providing hands-on technical assistance to water systems, ensuring compliance with over 90 existing standards, system inspections, engineering reviews, operator certification, and much more. The proposed rule requires 38 new reviews by states, 8 new templates to be developed, and 5 new state-to-system consultations across various components of the LCRI. Our estimate of the increased burden to states is a few million additional hours each year for LCRI implementation.

ASDWA's updated Cost of States' Transactions Study (CoSTS) estimates that the LCRI will place a significant cost and time burden on states annually, estimating that a total of 5,141,769 state staff hours will be needed each year, or 71% of estimated available state staff time based on the estimated 3,600 state staff across all primacy agencies. This time burden translates to over \$300 million a year for state implementation—more than three times the amount of PWSS funding allocated for state implementation for the entire Safe Drinking Water Act (SDWA.) Additionally, CoSTS estimates that the rule will necessitate approximately 799,115 upfront state hours, equating to about \$48 million for initial implementation and transition to the new rule.

While ASDWA's Members are encouraged that EPA incorporated state's feedback from the Federalism Consultation into the proposed rule, states still have concerns about the overall feasibility of the updated rule. ASDWA's detailed comments that follow this letter contain several important recommendations that EPA should prioritize in the final LCRI—priority issues are outlined below.

Lead Service Line Replacements

ASDWA's members applaud the Agency for requiring proactive lead service line (LSL) replacements nationwide, as this action will help eliminate one of the major sources of lead in drinking water. However, ASDWA's members are concerned with the Agency's implicit messaging implying that full removal of LSLs will eliminate the risk of lead exposure from drinking water. Premise plumbing, including legacy lead pipes, lead solder, and brass fixtures will continue to be a potential source of lead in drinking water and the importance of effective corrosion control should continue to be emphasized. This messaging needs to be appropriately revised as part of finalizing the LCRI.

The \$15 billion in LSLR funding from the Infrastructure Investment and Jobs Act (IIJA) is a significant first step towards the goal of 100% LSL removal, however, this IIJA funding will not cover the estimated \$45 billion cost to replace all LSLs nationwide. Giving that impression in the Agency's messaging is problematic. Additionally, this funding is anticipated to already be distributed by the time the rule is effective. States, systems, and EPA will need to continue to work together to advocate wherever possible for additional funding to meet this critical public health need.

States have a variety of concerns about the feasibility of components of the proposed rule regarding LSL replacements. EPA's attempt to establish that control equals access for water systems may impact the enforceability of the rule requirements to conduct LSL replacements. EPA should define "control" and determine if control equates to ownership, rather than access, to clarify these concerns. Additionally, prohibiting partial LSL replacement during planned infrastructure work or repairs is not realistic. Partial

replacements may be necessary where a homeowner will not cooperate with the system, and the rule employs several mitigation measures that will provide sufficient notice and reduce resident risk where a partial replacement is necessary to conduct needed infrastructure work. States determining if a particular water system could replace LSLs at a faster rate than determined by rule is not feasible and this evaluation should not be a condition of primacy in the final LCRI. This option should be left to state discretion where a state implements regulations more stringent than federal regulations.

Lead Service Line Inventories

Additional clarification is needed in the final LCRI to ensure feasibility of the inventory requirements, especially the requirements for connectors. States recommend that connectors be optional in the LSL inventory, to ensure continuity with existing inventory requirements and the first round of inventories that are due October 2024. EPA should revise the proposed definition of “connector,” indicating that connectors are not to exceed three feet, rather than two feet, otherwise many connectors would need to be re-classified as LSLs. Additionally, EPA should add clarification to the definition of “connector” and “lead service line” explicitly outlining that any such piping over three feet is an LSL for purposes of the rule. Further, EPA should clarify what constitutes the “service line” and where the service line ends and interior plumbing begins, specifically defining the “building inlet”. Recently, there have been inconsistencies with defining a “lead service line” for the purposes of Drinking Water State Revolving Fund program funding, and ASDWA recommends that all EPA programs use the proposed LCRI definition.

EPA should establish a deadline for systems to identify all unknown service lines prior to service line replacement deadlines, or risk systems failing to meet the LSL replacement deadline altogether.

States also brought up concerns about some service line data being publicly available, and potential misuse of this data. EPA should give states discretion to allow location identifiers to be used in lieu of street addresses in some instances, such as on military installations, to address privacy and security concerns.

Compliance Monitoring

Under the updated tiering requirements, most water systems will need to adjust their compliance sampling sites. As such, EPA should utilize a phased approach for the review of compliance sampling plans and implementation by water systems, similar to the approach taken for Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR). ASDWA recommends that large systems begin compliance sampling under the new scheme starting the next standard monitoring period after the compliance date, medium systems one year later, and small systems two years after the compliance date. Staggering the compliance dates is the only solution for limited laboratory capacity, as well as capacity within the states to review compliance determinations.

For systems collecting compliance samples from sites meeting different tier definitions, the 90th percentile results should be calculated based off the samples with the highest lead or copper concentration, regardless of the tier.

EPA should also address concerns about sample invalidation and should establish a maximum stagnation time for compliance samples. States recommend that EPA establish more definitive guidance and clarify

issues with sample invalidation that have arisen since the inception of the rule that were not made clear with the 2004 Memorandum “Lead and Copper Rule – Clarification of Requirements for Collecting Samples and Calculating Compliance.”

Corrosion Control Treatment

The rule relies heavily on the use of pipe-loop corrosion control treatment studies for LSL systems that exceed the action level, and states strongly advise against this prescriptive approach. Pipe-loop studies often have diminishing returns with respect to determination of the most effective treatment approach and are very cost- and time-intensive. Pipe loop studies also take much longer to execute (sometimes years) and are much more expensive than other types of studies (i.e., desktop studies, coupon studies, etc.) This means that the public health protection afforded by optimal corrosion control treatment could be delayed. States have provided EPA with examples where pipe loop studies did not show different results compared to coupon studies. States also have significant concerns with the number of staff hours needed for the reviews and approvals of the potentially larger number of pipe-loop studies. EPA should offer additional flexibility in implementing corrosion control treatment, leaving the discretion to states to determine if pipe-loop studies should be required and allowing systems to make incremental changes once corrosion control treatment is installed to achieve optimization for each individual system. Incorporating flexibility on this aspect of the rule could benefit public health and improve feasibility for both water systems and states.

POU Filters

States have expressed concern regarding the reliance of POU filters to mitigate lead levels in the proposed LCRI. Specifically, filters being used as a compliance option for small systems is problematic, as well as the provision for systems with three or more lead Action Level Exceedances (ALE) to distribute filters to the entire service area, and the requirement to provide POU filters to individuals served by an LSL, GRR or unknown following a line disturbance. Not only are there efficacy concerns regarding the effectiveness of the filters, but there are also concerns around implementation and ensuring use of filters do not increase bacteriological risk for users.

EPA should limit the use of small system flexibilities in lieu of corrosion control treatment to systems that are either in control of their entire distribution system or to those systems with 100 percent buy in from the community. State experience has determined that POU filters and plumbing replacement have only shown to be effective in systems meeting these criteria.

The proposed LCRI targets the highest risk sites for monitoring and evaluating the action level, as such, filters distributed after an action level exceedance should be targeted at sites that are at risk of lead exposure, i.e., locations with LSL, GRR, or unknowns based on the system’s inventory. Providing filters to consumers served by known, non-lead lines could undermine public confidence in drinking water and introduce unnecessary cost and risk to the water system and their consumers.

School and Childcare Sampling

As written, many well-established lead sampling programs would not be eligible to meet the waiver requirements under the proposed LCRI. EPA should change the waiver deadline for school and childcare

sampling to January 1, 2014, as EPA's proposed date of January 1, 2021, would exclude existing state and local sampling programs enacted through America's Water Infrastructure Act of 2018 (AWIA) and the Water Infrastructure Improvements for the Nation Act (WIIN), as well as other established programs implemented at the state and local level.

Public Education

Several new public notification requirements in the LCRR and in the proposed LCRI have not yet been implemented. In adding these requirements, EPA has added new reporting deadlines and certifications. EPA should consider streamlining the reporting deadlines down to one or two dates for when the system needs to provide reports or certifications to the primacy agency for review. Additionally, EPA should coordinate with states to develop templates prior to the compliance date of LCRI for each type of certification the PWS is required to submit to the primacy agency to ensure national consistency and clarity ahead of the compliance deadline.

States agree that translating important public health information for non-English speakers is important; however, states have significant concerns with the considerable cost for translation services and strongly recommend that EPA remove the requirement for translation support to be a condition of primacy. Many states do not have the expertise or funds to support this effort. EPA should instead pursue a contract or public-private partnership to provide translation as a centralized service to water systems as needed.

Implementation and Guidance

ASDWA's members recommend that EPA develop comprehensive decision-trees, flowcharts, or schematics clearly depicting the regulatory triggers and steps for various components of the rule, including for corrosion control treatment, public education, and sampling components of the rule. These tools should be developed and shared with primacy agencies ahead of the compliance date for the rule to aid in compliance determinations and training.

EPA needs to expeditiously prioritize the development of LCRR and LCRI implementation guidance for state primacy agencies. Additionally, the LCRI needs updated data management capabilities for states to track requirements, particularly with LSL replacements. EPA should prioritize collaboration with states in implementation of the LCRR and LCRI over the next few years. Specifically, states recommend coordination on the following:

- Establishing expectations around including connectors in the inventory and streamlining implementation of the new definitions in initial and baseline inventory efforts.
- Developing in-depth guidance and training for the review and approval of CCT studies and CCT adjustments needed for source and treatment changes.
- Addressing clarification questions regarding school and childcare facility definitions and the expectations for state drinking water programs to manage lists of such facilities.
- Developing new and updating existing public education and notification templates for states and water systems ahead of the compliance deadline.
- Establishing guidance for filter usage and expectations for various filter requirements.
- Ensuring compliance tracking and schedules established by LCRR and LCRI are fully supported in SDWIS or DW-SFTIES, and updated data entry instructions are available ahead of the compliance deadline.


In addition to the comments discussed above, ASDWA's Members have provided extensive and detailed input on the proposed regulation that has been synthesized into the attachments that follow:

- Appendix A: Responses to EPA's Requests for Comment
- Appendix B: Comments on Proposed Regulatory Language
- Appendix C: LCRI Cost of State Transactions Study

ASDWA appreciates the opportunity to share states' collective experiences to provide input on the final LCRI. As co-regulators with EPA, states request a continued dialogue during the rule writing process. States are willing to provide expertise and guidance on rule components that could be more streamlined and can help to identify new and innovative solutions that could address problems that have arisen during the last 30 years of implementation. States encourage OGWDW to confer with the Agency's Office of Research and Development, and regional direct implementation staff, as well as states, in ensuring the LCRI is truly an improvement over the existing regulation—that it is implementable, feasible, and improves public health.

ASDWA's members look forward to continuing our partnership with EPA to implement the LCRI. If you have any questions about these comments, please feel free to reach out to me (aroberson@asdwa.org) or Ashley Voskuhl (avoskuhl@asdwa.org).

Sincerely,



J. Alan Roberson, P.E.
ASDWA Executive Director

Request for Comment	ASDWA Response
General Matters	
Whether the proposed revisions to the LCRR treatment technique are effective to prevent known or anticipated adverse health effects to the extent feasible in accordance with the SDWA.	ASDWA's Members agree with many of the proposed revisions to the LCRR treatment technique and thank EPA for including many recommendations from the LCRI Federalism Consultation into the proposed rule.
Whether there are additional ways EPA could reduce the complexity of the regulatory approach used to address lead in drinking water consistent with the statutory standard for a treatment technique rule in section 1412(b)(7)(A) of SDWA. Specifically, EPA requests comment on ways that the proposed LCRI could be simplified and ways that burden, including paperwork burden, could be reduced without affecting the ability of the rule to prevent known or anticipated adverse health effects.	<p>ASDWA has outlined several ways for EPA to reduce complexity within the LCRI in this comment package and emphasizes the need for additional streamlining of the CCT requirements, reporting deadlines and public education requirements.</p> <p>States strongly recommend EPA dedicate additional resources for state support, including the development of in-depth and routine (annual) corrosion control training and regulatory training for LCRI for both states and systems. Additionally, States recommend that EPA develop compliance determination flowcharts for the final rule within a year of promulgation to help states and systems prepare ahead of the compliance deadline.</p> <p>Throughout this comment package, there are numerous requests for clarification from the states. EPA should consider meeting with ASDWA and states to ensure these issues are addressed ahead of final promulgation of the rule.</p>
Whether the proposed requirements of the rule are enforceable and promote compliance without the need for State or Federal enforcement action. EPA also solicits comment on ways the rule could be modified to better promote compliance.	EPA's attempt to establish that control equals access for water systems may impact the enforceability of the rule requirements to conduct LSL replacements. EPA should define control and determine if control equates to ownership, rather than access, to clarify these concerns. This is especially important for master meter communities (e.g., mobile home parks, commercial parks, etc.) and systems that are exempt from the NPDWRs.

Service Line Replacement	
<p>Whether a reasonable effort to obtain property owner consent should be more than four times (e.g., five, six, or seven times).</p>	<p>EPA should not require water systems to attempt to obtain property owner consent more than four times with two different forms and manners of communication. Additionally, ASDWA's members continue to argue that homeowner and rental documentation should be used to provide notification. Although ASDWA understands this is outside of EPA's regulatory authorities, the Agency can still push the Department of Housing and Urban Development to consider these actions.</p>
<p>Whether the proposed LCRI appropriately interprets "control" for the purposes of the mandatory replacement provision (i.e., require systems to conduct full service line replacement in situations where the system has access to conduct the full replacement).</p>	<p>ASDWA recommends that EPA define "under the control" within the definition section and provide further clarification. Does control equal access or ownership? Some states have reported having many systems that do not own any of the service lines, and these states are concerned that these systems may believe they are not required to remove LSLs. States have also brought up concerns about the enforceability of this provision considering the lack of clarity.</p>
<p>EPA is seeking comment on the rate construct approach, including how to calculate compliance with a given service line replacement deadline and average annual rate calculated across a rolling three-year period.</p>	<p>These calculations may be confusing to implement. ASDWA recommends EPA include information on this calculation in the implementation guidance and provide that information at least one year prior to the compliance date of the rule.</p>
<p>EPA is taking comment on whether States, as a condition of primacy, or EPA when it is directly implementing the program, should be required to set initial shortened deadlines by a certain timeframe, such as no later than 60 days after the compliance date.</p>	<p>It is unclear to ASDWA how states would determine that it is "feasible" for a system to replace LSLs at a faster rate. This puts an unreasonable burden on the states. Expedited replacement plans should be based on the 90th percentile, not at the state's discretion.</p>

<p>The proposed use of a maximum threshold of 10,000 annual service line replacements for systems with atypically high numbers of LSLs and GRR service lines as well as seeking comment on the alternate threshold of 8,000 annual service line replacements. EPA is also seeking feedback on other thresholds and supporting data.</p>	<p>A maximum annual threshold for LSL removal of 10,000 and 8,000 are both infeasible from a logistical, workforce and supply perspective. For context, Wisconsin was the first state to create a dedicated LSL replacement funding program in 2017 and has been a leader in lead service line replacement. Over this time period, they have only had one project that was able to accomplish more than 1,000 service line replacements in a year. This system completed 1,279 private side replacements in a year and half. The number of service lines removed in the projects that they have encountered are typically in the double digits, however, there have been a few that have been in the hundreds. Additionally, another ASDWA member has a city that is currently doing full LSL replacement with significant state and federal funding but has still only managed to replace 481 LSLs in 2023. ASDWA recommends a threshold of 6,000 to 7,000 per year maximum.</p>
<p>EPA is seeking comment on whether partial service line replacement should be prohibited during "planned infrastructure work" or with certain types of planned infrastructure work.</p>	<p>Prohibiting partial LSLR during planned infrastructure work is not realistic. Coordinating service line replacements with main line replacements and transportation projects (for repaving), etc. is already challenging with the new 10-year timeline for LSL replacements. Requiring no partial replacements in these cases will only reduce the ability for this coordination to occur and increase costs. Additionally, there are many other requirements that ensure any lead exposure from partially-replaced service lines will be mitigated (e.g., the addition of dielectric couplings and additional flushing and risk mitigation requirements; public communication annually about presence of LSL/GRR/Unknowns; notification after change of ownership, etc.). ASDWA recommends that EPA allow systems to do partial replacements during planned infrastructure work or repairs when they are unable to get cooperation from the homeowner.</p>
<p>Tap Sampling for Lead and Copper</p>	
<p>Comment on the sites included in Tier 3 and whether all of the proposed sites should be included in Tier 3, if additional sites should be included, or if some should be included in a different, lower priority tier, such as Tier 4. Specifically, comment on whether sites served by galvanized service lines or containing galvanized premise plumbing that are identified as ever being downstream of an LSL or lead connector should be included in the same tier as other sites with a current lead connector (e.g., copper service line downstream of a lead connector).</p>	<p>Data from California water systems have shown that galvanized lines downstream of a previously removed lead gooseneck show lower levels of lead than copper service lines with lead solder. There is concern that if the galvanized lines are included in tier 3, above the copper lines with lead solder, that the 90th percentile will be lower than it actually is. This concern is alleviated if EPA requires water systems to include the highest samples, regardless of tier, to calculate the 90th percentile. Alternatively, adding a tier for copper lines with lead solder may be appropriate.</p>

Comment on the proposed updated definition of wide-mouth bottles that is "bottles that are one liter in volume with a mouth, whose outer diameter measures at least 55 mm wide," and specifically on the availability of qualifying bottles.	The current wide mouth bottle definition is using the diameter of the outside opening. The diameter of the inside of the mouth is easier to measure and is more important to the bottle's use. EPA should reference the minimum diameter inside the bottle mouth.
Comment and any relevant data on the number and tiering of samples used to calculate the 90th percentile lead and/or copper levels for systems with LSLs for purposes of assessing CCT efficacy. Specifically, whether samples from non-LSL sites that have higher lead concentrations than samples from LSL sites should be included and whether these higher values should replace lower values from LSL sites in the 90th percentile calculation.	ASDWA recommends that systems be required to include samples with the highest lead levels for calculating the 90 th percentile, regardless of the tier. It will be very burdensome to go through all the results and pick and choose depending on tiers. It would also be difficult to justify to the public why higher results aren't included in the calculation. It will also close a known and frequently exploited loophole in the lead and copper rule that allows systems to dilute their 90 th percentile by taking additional samples from sites with lower results until their 90 th percentile drops below the AL. Using the highest samples will simplify this process and ensure the best public health protection.
Comment on whether State authority to specify sampling locations when a system is conducting reduced monitoring should apply regardless of the number of taps meeting sample site criteria.	States appreciate the flexibility and authority to specify sampling locations when a system is conducting reduced monitoring regardless of the number of taps meeting sample site criteria. However, states don't expect to be doing it often as it does increase workload.
Service Line Inventory and Service Line Replacement Plan	
EPA is proposing a threshold of systems serving greater than 50,000 persons to host the inventory and plan online, which is the required threshold under the LCRR. EPA is seeking comment on the size threshold at which systems must host their publicly accessible inventory, inventory summary data, replacement summary data, and service line replacement plan online, and whether it should be lowered relative to the LCRR requirements.	ASDWA agrees with these requirements for systems with populations larger than 50,000; however, it is not clear if this requirement would be feasible for medium sized systems. EPA should provide states with the authority to require online posting of the inventory information at their discretion. Note: CCRs are required to be posted online for systems serving more than 100,000. Implementation would be easier and more streamlined if thresholds across NPDWRs were more aligned.
EPA is proposing a requirement for systems to validate the accuracy of non-lead service lines in their inventory that were categorized using methods other than records review or visual inspection of at least two points along the line. EPA is requesting comment on the number of validations required, the proposed 95 percent confidence level approach used to develop the number of validations required, the criteria for which methods used to categorize non-lead service lines should be included in the validation pool (including whether non-lead lines categorized based on records should be subject to validation), and the seven-year timeline for systems on a 10-year replacement deadline to complete the validation requirements.	The regulatory language refers to paragraphs (b)(2)(i) through (iii) of §141.84 as not being applicable to the validation pool, but additional clarification is needed. Does this apply to those that are non-lead by way of a predictive/statistical method? If you're relying on qualifiers like, "these homes were built after the lead ban, therefore we assigned them as non-lead," are those systems required to go validate those lines? ASDWA recommends that EPA provide further clarifications and examples of what should be included in the validation pool. Additionally, ASDWA recommends that if a water system uses a statistical method that is at least as stringent as EPA's, they should be allowed to meet this requirement without further investigation.

	<p>It appears that any records included in paragraphs (b)(2)(i) through (iii) that may have only had one inspection point would need to be included in the sampling pool. ASDWA's members have concerns with the increased workload for systems that have already started or completed their initial inventories. Additional clarification and examples should be provided. For example, would an inspection of a curb stop that shows the utility-owned line and customer-owned line separated by a meter be considered 2-point, or does the point need to be a separate hole or location in order to count? Additionally, the proposal notes that if the ownership of a service line is split, the water system will need to do verification on both sides. Does this mean that a system must do two-point verification for each portion of the line (so 4 points in total) or just two points for the entire line, one on the PWS side and one on the private side?</p> <p>States brought up concerns about duplicative efforts for 2-point verification in cases where either the water system or the customer owns the entire service line. ASDWA recommends that EPA provide states the flexibility and authority to allow a single point of inspection or require additional inspection points if deemed necessary.</p> <p>With the current methodology for determining the validations required, larger systems are required to validate a lower percentage of lines compared to smaller systems. Small systems are required to validate 20% of their service lines while large systems with greater resources may only need to validate as little as 0.78% of their lines. ASDWA's members are concerned that this small sample size may not be representative of all areas within a system's distribution, especially for large systems serving many neighborhoods built during different time periods. The 95th percentile approach seems oversimplified for large distribution systems with varied infrastructure characteristics. ASDWA recommends that EPA add additional requirements for larger systems to demonstrate that their sample sufficiently represents all areas of their distribution system, especially those systems most likely to have LSLs/GRRs. One state suggested one way to address this issue would be to have large systems break up their distribution system, according to characteristics such as development date range, and validate each of these sections individually with a 95th percentile confidence level.</p>
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Comment on establishing a deadline for systems to identify all unknown service lines prior to their service line replacement deadlines.	EPA should establish a deadline for systems to identify all unknown service lines prior to their service line replacement deadlines. Without this requirement, states are concerned that systems will wait until the last minute to identify their service lines and will scramble to replace all the LSLs by the deadline.
Lead Action and Trigger Levels	
EPA is seeking comment on the proposed lead action level of 0.010 mg/L, as well as comment and supporting data on alternative action levels, such as 0.005 mg/L, with regards to generally effective corrosion control treatment and identifying systems most at risk of elevated levels of lead in drinking water.	For feasibility of rule administration and compliance, States support reducing the lead action level to 0.010 mg/l and not to 0.005 mg/L.
EPA is also seeking comment on the use of the action level to determine when additional public education is required, and the use of the same action level for public education as for the CCT provisions.	For feasibility, as well as consistency and clear messaging, states recommend using the same lead action level for both the public education requirements and the CCT-related requirements.

<p>EPA is seeking public comment, data, and information on the anticipated benefits and tradeoffs, including for public health and administrative burden on systems and States, if more small and medium systems are required to conduct a detailed OCCT demonstration and take other actions if they exceed the proposed action level of 0.010 mg/L or other lower values, while water systems are simultaneously required to mandatory conduct full service line replacement.</p>	<p>The changes to the sampling scheme for LCRI (i.e., tiering changes and addition of the 5th L to the sampling protocol), along with lowering the lead action level will likely more than double the number of systems with lead ALEs, thus doubling the number of systems required to implement OCCT. This will place a significant burden on state primacy agencies to review and approve such treatment, and the public health exposure risks are not well understood related to stagnation times at premise plumbing. Most states are already struggling to adapt to increasing regulatory requirements for emerging contaminants such as PFAS and are experiencing unprecedented challenges in recruiting and retaining engineers to review any drinking water treatment modifications. The private sector is experiencing similar challenges in finding experienced design engineers to design and manage engineering projects.</p> <p>Both LSLR and CCT are critical in addressing lead in drinking water and states support the requirement for small and medium water systems to utilize both methods in addressing that risk. However, states do not support the requirement for small and medium LSL systems with a lead ALE to conduct a pipe-loop demonstration study to identify their CCT approach. Many states indicated they have never reviewed such a study and those states with the experience have indicated that pipe-loop studies have limited value compared to their cost and length of time to implement. Desktop or coupon studies can be less time intensive and expensive, placing less of a burden on the water system, as well as the state agency to review. One state with experience reviewing multiple types of CCT indicated that desktop studies can often provide satisfactory results in a fraction of the time needed for pipe-loop studies, effectively providing public health protection more quickly .</p>
<p>Corrosion Control</p>	
<p>The proposed determination that the CCT treatment technique is feasible and prevents known or anticipated adverse health effects to the extent feasible.</p>	<p>Some of ASDWA's Members agree that the CCT treatment technique described in the LCRI would prevent known or anticipated adverse health effects; however, as noted in other comments, meeting all requirements under the LCRI, including the requirement for pipe-loop studies may be difficult or infeasible for many systems.</p> <p>Collaboration between states and EPA in developing guidance and training on CCT is critical and should be prioritized by the Agency.</p>

<p>Comment on whether it would be more appropriate to require water systems to re-optimize again following an action level exceedance regardless of meeting their optimal water quality parameters and to provide the State with the authority to waive this requirement.</p>	<p>Many states support requiring re-optimization following an ALE, regardless of whether the PWS is meeting their OWQPs. States disagree that systems should only be required to re-optimize once. If a PWS met their water quality parameters and still incurred an ALE, either the system was not truly optimized, or the treatment is not effective in addressing lead and copper issues at that particular system. States also support having the authority to waive this requirement and to have discretion regarding the level of re-optimization effort needed (i.e., CCT Study, additional sampling, designating a different CCT dose, etc.), as the situation at each system is unique.</p>
<p>The proposed option for a water system to delay OCCT until after the system has replaced all of its LSLs and GRR service lines, while the system achieves at least 20 percent removal per year and must have no LSLs, GRR service lines, or lead status unknown service lines remaining at the end of the five-year period.</p>	<p>Some states have expressed support for accelerated removal of LSLs to control lead and copper, especially states that are concerned about phosphate as a downstream contaminant. Additionally, 5 years can be a typical timeframe for systems to complete installation of CCT following an ALE.</p> <p>Other states have expressed concern about having to wait a full year after the compliance date to know if a system is serious about complying with this provision of the rule, allowing them to prolong their current practices. States are concerned that this component of the rule could be exploited by water systems with very few lead service lines. The proposal would allow potential lead exposure for up to five years. In addition, it is possible lead will likely remain in the system through other mediums (i.e. solder, internal plumbing, fixtures). Many states have water systems that have ALEs without having any LSLs. While 20% of pipes are removed each year, the remaining 80% may still release lead into the system if corrosion control treatments have not been optimized.</p> <p>States recommend that EPA make it clear that systems with CCT installed may not cease CCT to pursue a shorter LSLR schedule. Additionally, EPA should leave discretion to States to allow systems to pursue a shorter LSLR schedule or require systems to install CCT in cases where the state deems it to be more protective of public health. EPA should also clarify that this provision should not be applied to systems with copper ALEs.</p>

<p>The treatment recommendation and CCT study process can take multiple years to complete. For systems with existing corrosion control, the system may be able to alter the existing treatment (e.g., increase pH and/or orthophosphate dose) without a new CCT study on a much faster timeframe rather than waiting for study results that may recommend that same change. EPA is requesting comment on whether there are situations and/or conditions where existing treatment modifications may achieve similar lead reductions rather than delaying new treatment for two-and-a-half years while a study is underway.</p>	<p>States agree there are cases in which it is beneficial for states to have discretion to modify existing CCT rather than delay updated treatment doses, etc. while a CCT study is underway.</p> <p>Systems should be allowed to concurrently make treatment changes that may optimize CCT while also performing a CCT study with different dosages or treatment approaches. In the case of Newark, NJ, the water system installed zinc-orthophosphate for corrosion control treatment and used all available research and guidance to determine the best dose for their system. In the meantime, the system ran a CCT study with different orthophosphate dosages on different materials. Systems with existing CCT should be able to utilize the same approach, as long as the treatment changes are reviewed and approved by the State.</p>
<p>Compliance Alternatives for a Lead Action Level Exceedance for Small Community Water Systems and Non-Transient, Non-Community Water Systems</p>	
<p>EPA is proposing that small system flexibilities be limited to CWSs serving 3,300 persons and fewer and all NTNCWSs for the remaining compliance alternatives of point-of-use devices and plumbing replacement. EPA is seeking comment on whether the Agency should allow systems serving up to 10,000 persons (or another threshold) to be eligible to use the small system compliance flexibility provision.</p>	<p>States do not believe this option should be available to systems serving up to 10,000 people, and many states believe this option should only be available to systems even smaller than 3,300 (e.g., systems serving less than 100 or 500 people.)</p> <p>States continue to have efficacy concerns regarding the use of POU filters as a compliance option, and many states continue to advocate for EPA to limit the use of POU filters to systems with 100% buy-in from the community or complete control over their distribution system. Providing filters in a small town or municipal setting indefinitely is concerning for many states, due to the logistics, the maintenance required, and potential biofilm risks. Many states recommend that EPA further limit the use of these two flexibilities to water systems that either control their distribution plumbing or communities that gain 100% buy-in from the community for the use of POU or plumbing replacement alternatives. Some states do not allow POU compliance options at all, but other states indicated that this is a necessary option for some small, rural systems; however, without 100% buy in or control of the distribution system, the options are infeasible.</p> <p>To ensure 100% long-term participation by homeowners, Nevada recommends the following language be added to the rule: "POU agreements must be recorded with the property/land which is an equitable servitude running with the property/land." This is to ensure property transfers disclose the requirement for POUs to be operated and maintained.</p>

EPA is also seeking information, data, and analysis on whether point-of-use devices and plumbing replacement are as effective as OCCT at systems serving up to 10,000 persons (or another threshold).	States do not agree that POU devices or plumbing replacement are as effective as OCCT for systems other than those in control of their entire distribution system or those who have 100% buy in from the community.
Public Education	
The proposed determination that the public education treatment technique is feasible and prevents known or anticipated adverse health effects to the extent feasible.	The public education treatment technique is feasible. However, more detailed information is needed from EPA to understand everything (all the PE information) that will be included in the rule and EPA guidance documents. These requirements will be difficult for systems and states to keep track of and ensure compliance with every component.
Comment and supporting data on the capacity of water systems to conduct some or all of the required public education activities in 30 days, or another period of time that is less than 30 or 60 days, after the end of the tap sampling period in which a systemwide lead action level exceedance occurs.	ASDWA recommends that EPA keep the 60 days after the sampling period. This will also address impacts to PWSs on lab capacity to report analytical results timely. Furthermore, it will be difficult for systems to undertake the long list of requirements and pay for printing and mailing costs within a shorter time-period.
Data, analyses, and comments on the proposed determination that water systems are capable of providing consumer notices of individual tap sampling results within three calendar days of obtaining those results, regardless of whether the results exceed the lead or copper action level, or if a longer time frame is needed (e.g., three business days, seven calendar days, 14 calendar days).	<p>ASDWA recommends the EPA allow at least 30 days. The 3-day timeframe would be very difficult for small, rural water systems. Some water system staff only come in once a week and are off on weekends and holidays. Since most lead and copper compliance results are very low anyway, this provision adds significant burden and cost with a low public health benefit. Furthermore, since many systems would not be able to comply, states would need to spend resources tracking compliance, issuing violations, making sure that associated public notice occurs, and returning systems to compliance for this Monitoring and Reporting violation. This provision has serious feasibility impacts.</p> <p>For example, Alaska Native Villages with limited internet for receiving the results from the state or the lab and rely on boat or plane delivery of written notification and is weather dependent. They have difficulties with communications (internet outages, spotty cell service). It is not out of the ordinary for them to receive a mail plane once every couple of weeks. Note: Three days is the required time for a postmark, not receipt.</p> <p>Clarity is needed on how to calculate the number of days when the state gets the results from the lab and then gives it to the water system, as well as how the states track it.</p>
Whether the proposed requirement for water systems to offer lead sampling to consumers with LSLs, GRR service lines, or unknown service lines in the notice of service line material is effective at reducing adverse health effects.	ASDWA agrees that offering lead sampling is effective at reducing adverse health effects and will also help increase transparency and potentially get more customers into the P90 sampling pool. Note: These samples are not required to be included in the P90 sampling pool – if they don't meet the compliance sampling tiering and protocol (e.g., if using 3Ts or method 200.7)

EPA is also requesting comment on the requirement for water systems to deliver consumer-initiated test results within three days of obtaining those results.	See above, ASDWA recommends that EPA allow at least 30 days.
Whether the types and timing of outreach activities proposed for systems failing to meet the mandatory service line replacement rate are appropriate and whether other activities should be considered.	One town hall meeting or community event would not be feasible to reach enough customers for a larger system. The number of meetings or events should be tailored to the demographics of the customers and community.
Whether EPA should require systems to annually notify consumers if they are served by a lead connector, in addition to notifications for sites with lead, GRR, or lead status unknown service lines.	ASDWA's Members recommend that the inclusion of connectors in the inventory remain optional—if connectors are optional, notifying consumers that they are served by a lead connector should also be optional. If connectors are required to be included in the inventory, EPA should also require systems to notify customers if they are served by lead connector.
Whether EPA should require additional public education requirements to further encourage swift service line replacement faster than the 10-year replacement deadline. For example, should water systems that have LSLs, GRR service lines, or unknown service lines five years after the compliance date for the LCRI be required to increase the frequency of the notification of service line materials from annual to once every six months?	The replacement rate will vary significantly based on system specific circumstances. Some large systems with high percentages of service lines needing replacement will not be able to do it in faster than 10 years.
EPA is seeking information and data on when a system provides translated materials to consumers with limited English proficiency, what resources are used to translate materials (e.g., State resources, community organizations), and what barriers water systems may face in providing accurate translated materials.	Many states don't have translation expertise. EPA should develop translated templates and provide the necessary tools and resources.
Whether the Agency should require States, as a condition of primacy, to provide translation support to water systems that are unable to do so for public education materials to consumers with limited English proficiency	<p>Translation support should not be a condition of primacy. If it is a condition, then EPA should provide templates, educational materials and resources, rather than requiring states to complete this work. States individually providing this service for each water system is cost prohibitive and inconsistent with other public notification requirements.</p> <p>It is uncertain how PWS enforcement for this provision would work. Many states do not have resources for translation and to verify that translations are correct. Also, compliance must remain the responsibility of systems. States should be in an assistive role but should not have to take on tasks associated with compliance.</p>

<p>EPA is also requesting comment on additional ways to streamline public education and associated certification requirements (e.g., combine deadlines for systems to conduct public education or submit information to the State).</p>	<p>ASDWA recommends that EPA streamline and combine deadlines and reporting requirements.</p> <p>The due dates for the public education and associated certification requirements do not align. States recommend that EPA work with ASDWA to identify ways to streamline deadlines for states and PWSs in the final rule.</p> <p>For PWSs that fail to meet lead service line replacement rates, EPA should only require CWSs to publish in CCR and NTNCs to post in a conspicuous location or distribute information to each person served by the system.</p> <p>EPA should consider removing the requirement for individual systems to send PE materials to health departments, and consider providing the state with the option to fulfill this requirement to ensure consistency.</p>
<p>Additional Requirements for Systems with Multiple Lead Action Level Exceedances</p>	
<p>Whether water systems should be required to take additional actions when the system exceeds the lead action level multiple times and if so, what actions are appropriate and feasible, and when these additional actions should be required under the LCRI.</p>	<p>In addition to the requirements already outlined in the LCRI, States recommend that EPA require re-optimization following an ALE, regardless of if the PWS is meeting their OWQPs or if they have already re-optimized. EPA should allow the State to waive this requirement, but the default should be a re-optimization of CCT.</p>
<p>Whether EPA should use three action level exceedances in a five-year period for identifying systems with multiple action level exceedances where additional action is warranted and, whether additional actions should be required sooner, or later, than the five-year period, or whether EPA should use a modified metric (number of consecutive action level exceedances in a set time period) or a different metric entirely (i.e., based on one or more factors other than the number of action level exceedances in a set time period).</p>	<p>ASDWA agrees that three ALEs in five years is a good indication that short-term protective measures should be required by the system to protect consumers.</p>
<p>The proposed public education activities after a system exceeds the lead action level multiple times. EPA is specifically seeking any information, data, or analysis on whether the proposed public education activities support preventing adverse health effects in this situation.</p>	<p>ASDWA agrees that these activities support preventing adverse health effects.</p>
<p>EPA is also requesting comment on whether systems should be required to conduct more than one (e.g., two or three) of the public education activities proposed.</p>	<p>PWS demographics (size, type) should be considered for the different types of activities. The rule should provide authority for the states to require a specific or different activity based on the situation at the system (e.g., one town hall alone may not be effective for a large municipality.) Additionally, EPA should develop guidance on the expectations for some of the requirements, e.g. the components of a "social media campaign."</p>

<p>Whether EPA should require water systems to make filters certified to reduce lead and replacement cartridges, along with instructions for use, available to all consumers within 60 days of a system having multiple action level exceedances and whether there are any supporting or contrary data on whether the proposed filter requirement would be protective of public health.</p>	<p>States have concerns with the provision for systems with 3 or more lead Action Level Exceedances (ALE) to distribute filters to the entire service area. The LCRI targets the highest risk sites for monitoring and evaluating the AL, as such, filters should be targeted at sites that are at risk of lead exposure, i.e., locations with LSL, GRR, or unknowns based on the system's inventory. High risk locations may only represent a small percentage of consumers served by the system. Providing filters to consumers served by known, non-lead lines could undermine public confidence in drinking water and introduce unnecessary cost and risk to the water system and their consumers. States recommend that EPA amend this requirement to require filter distribution to consumers served by LSL, GRR, or unknown, and provide states authority to require distribution to the full community at their discretion, based on sample locations, existence of CCT, etc.</p> <p>States have also expressed concern regarding how heavily the LCRI relies on POU filters to mitigate lead. These requirements increase the burden on water systems based off the assumed efficacy of the filters to remove lead. EPA's endorsement of such filters may provide consumers with the impression that the POU's will remove all potential lead hazards. These filters generally rely on either GAC adsorption or ion exchange resin, which is effective at soluble lead removal; however, POU filters are not always effective, especially for insoluble lead removal (Tang, et al.; Aljandani et al.) States recommend EPA develop additional guidance on education about filter use, which filters are acceptable for removing lead, and also provide information on flushing procedures, another important component in lead education. EPA should ensure it is clear that POU devices may be effective for temporary lead removal, while ensuring public confidence in tap water is maintained.</p>
<p>The proposed requirements for systems to develop a filter plan and submit to the State after the system has multiple action level exceedances for the first time, and whether EPA should require systems to take additional actions to facilitate filter distribution.</p>	<p>EPA should work with ASDWA to establish expectations and guidance for what should be included in the filter plan.</p>

<p>Alternative requirements for systems with multiple action level exceedances to provide filters to their consumers, such as requiring water systems to provide filters and replacement cartridges to consumers served by an LSL, GRR service line, or unknown service line or to all consumers, or to require systems to consult with the State upon meeting the criteria for multiple action level exceedances, after which the State determines the appropriate action to reduce lead exposure.</p>	<p>States have concerns with the provision for systems with 3 or more lead Action Level Exceedances (ALE) to distribute filters to the entire service area. The LCRI targets the highest risk sites for monitoring and evaluating the AL, as such, filters should be targeted at sites that are at risk of lead exposure, i.e., locations with LSL, GRR, or unknowns based on the system's inventory. High risk locations may only represent a small percentage of consumers served by the system. Providing filters to consumers served by known, non-lead lines could undermine public confidence in drinking water and introduce unnecessary cost and risk to the water system and their consumers. States recommend that EPA amend this requirement to require filter distribution to consumers served by LSL, GRR, or unknown, and provide states authority to require distribution to the full community at their discretion, based on sample locations, existence of CCT, etc.</p>
<p>Whether, in addition to the proposed requirements, EPA should provide States discretion to determine appropriate action following a multiple action level exceedance that is tailored to meet specific system needs.</p>	<p>States agree that EPA should provide states discretion to require actions in addition to what is outlined in the federal regulation.</p>
<p>Lead Sampling in Schools and Child Care Facilities</p>	
<p>The proposed provision to allow States to issue waivers to community water systems from the requirement for lead sampling in schools and child care facilities during the five-year period after the LCRI compliance date if the facility was sampled for lead after January 1, 2021 but prior to the LCRI compliance date and the sampling otherwise meets the waiver requirements of § 141.92(h).</p>	<p>ASDWA recommends EPA change the January 1, 2021 sampling date to January 1, 2014, as the 2014 date coincides with the Reduction of Lead in Drinking Water Act and also includes sampling efforts that utilized funding opportunities through America's Water Infrastructure Act of 2018 and the Water Infrastructure Improvements for the Nation Act.</p>
<p>Whether or not to allow States to waive the requirements of § 141.92 for CWSs in schools and child care facilities that use and maintain filters certified to reduce lead, and if so, whether the waiver should only be allowed where schools and child care facilities are required by State or local law to install POU devices and maintain them.</p>	<p>ASDWA recommends EPA not create this additional waiver. This waiver has the potential to significantly increase state and system burden, and sampling at schools and child care facilities even if they do have POU devices would be simpler and easier. States should not be issuing waivers at individual school or child care facilities; additionally, water systems have no obligations to monitor building owned and operated devices. It is also important for EPA to note that not all states allow POU devices.</p>

Whether EPA should require CWSs to make school and child care facility sampling results publicly available, and if so, how frequently and in what manner.	ASDWA recommends the sampling results be made publicly available; however, the responsibility of sharing and delivering these results should not fall upon the water system, but instead the school or child care facility. EPA could also add language about specific results being available upon request of the school or child care facility. EPA should also leverage other regulatory authorities over educational facilities to supply the information, similar to requirements for asbestos disclosures.
Reporting and Recordkeeping	
EPA is requesting comment on the expansion of the inventory reporting to include lead connectors and non-lead service lines.	As outlined in other comments, states recommend that inclusion of connectors and non-lead lines be optional. Including these additional data elements, without a data system to collect any of the inventory data, adds to the existing burden for reporting. Information on systems' individual approaches to connectors could be included as a part of the LSLR plan so as to not interfere with current inventory efforts.
EPA has heard concern over the ability of States to review all required site sample plans and provide approvals in time for the first tap monitoring period, and is requesting comment on whether EPA should consider a phased approach or alternate approach to reduce the burden on States following the rule compliance date.	<p>ASDWA recommends that EPA use a phased-in approach for the review of sampling plans and the implementation of those plans by the water systems. Multiple states have noted that outreach to systems requesting updated sampling plans and time to review them all has taken multiple years and still does not include 100% of systems. ASDWA's members have stated that there is significant back and forth after the initial sampling plan is submitted and this should be considered in any deadlines included. States have reported that under the current rule, systems have struggled to inventory premise plumbing material, determine the presence of a softener or filter, and assign the correct tier. Under the proposed LCRI, this will be further complicated by the need to inventory lead connectors. Additionally, it will take systems time to find new sampling sites if needed.</p> <p>ASDWA recommends that EPA provide large systems three years after the effective date of the final LCRI to complete new sampling plans and obtain approval by the state agencies. The association recommends that EPA require medium-sized systems to complete these actions within four years of the effective date of the final rule and five years for small systems.</p>
EPA is requesting comment on whether States should be required to maintain records related to distribution system and site assessments conducted by water systems.	States should be required to keep information reported by water systems to the state (i.e., treatment recommendation summarizing DSSA evaluation); however, states should not be responsible for maintaining records for each individual elevated sample investigation as they are not required to be reported as part of the treatment recommendation in 141.82(j)(3).

<p>EPA is requesting comment on whether States should be required to maintain documentation of determinations of more stringent implementation, including but not limited to conditions or approvals related to reduced compliance monitoring and additional information required to conduct a review or designate OCCT.</p>	<p>ASDWA supports states’ ability to keep information reported by water systems regarding materials present at monitoring sites. However, states should not be responsible for maintaining records that belong to water systems.</p> <p>ASDWA recommends requirements remain consistent with existing practice and documented within primacy agreements.</p> <p>Primacy agencies with existing lead service line inventory programs/requirements may collect additional information that does not align with the Federal requirements. For example, if a primacy agency considers goosenecks to be a lead line, but EPA does not.</p> <p>How should primacy agencies manage/report data in cases where the state requirements are more strict?</p>
Compliance Dates	
<p>Whether there are other LCRR provisions besides the initial inventory and notifications of service line material for which the October 16, 2024 compliance date should be retained.</p>	<p>No additional compliance dates should be returned under the LCRI.</p> <p>Some states brought up concerns with moving the compliance date for risk mitigation measures related to LSLR to the LCRI compliance date. Water systems are already replacing LSLs and the BIL money for LSLR is going out now. Risk mitigation measures, such as notifications of replacements, sampling, and filters should be in place to protect public health. These states recommend using the compliance date under the LCRR for LSLR related risk mitigation measures.</p>
Consumer Confidence Report	
<p>EPA is requesting comment on the proposed requirement for systems to provide an informational statement in the CCR about the school sampling requirements with the information that consumers can contact the school or child care facility about any potential sampling results.</p>	<p>ASDWA recommends including a statement in the CCR indicating that “If you are interested in the sampling results for any school or licensed childcare facility in your area, please contact that facility to find out if they have tested and request results for that facility”.</p>
Definitions	
<p>EPA is seeking comment on all aspects of the proposed definitions, and specifically the following: b. EPA is proposing to define a two-foot maximum length of connectors. EPA proposes that “connectors” that exceed two feet in length be treated as a service line. EPA is requesting comment on the defined length of a connector</p>	<p>ASDWA is appreciative of EPA’s efforts to define what constitutes a “connector.” However, the current definition should be further clarified. The Agency should explicitly state that anything <u>over</u> the defined length is considered a lead service line. This has a significant impact on what is considered a “galvanized line requiring replacement” and should be clear in the definition. Additionally, it would be helpful if the rule specified which connectors (i.e., only the connection to main) are required to be included in the inventory when found.</p>

	<p>ASDWA recommends that EPA change the definition of a “connector” from two feet to three. States have noted concerns that many connectors are under existing infrastructure and will be much more difficult to remove than traditional LSLs. ASDWA members are concerned with the financial resources that would be needed to remove these components. Additionally, there are concerns that replacing the connectors could damage the mains they are attached to, causing more leaks and main breaks and associated exposure to bacteriological contamination. If EPA deems it is necessary to protect public health, ASDWA asks that the Agency provide specific studies that highlight connectors at this length being the cause of exposure rather than premise plumbing or other lead sources.</p> <p>There is also concern regarding states that have already been including connectors within inventories but have different definitions than what EPA has proposed. EPA should work with those states to ensure a streamlined implementation of the new definitions and inventory requirements.</p> <p>The definition for “galvanized line requiring replacement” should be clear that it is referring to the pipe between the main and the building inlet.</p> <p>EPA should further clarify what constitutes the “service line” and where the service line ends and the interior plumbing begins. In particular, EPA should define what the “building inlet” is. Currently, there have been inconsistencies with defining an LSL for the purposes of Drinking Water State Revolving Fund (DWSRF) program funding and what is included in the LCRR/LCRI. The DWSRF guidance from EPA has told states and water systems that an LSLR must be to the shut-off valve to qualify for funding. This is not consistent with the “building inlet” proposed in the LCRI. Rather than working off of guidance, all EPA programs should use the regulatory definition. In this case, ASDWA recommends that all EPA programs use the proposed LCRI definition.</p> <p>The definition of “service line” isn’t consistent with small system guidance from EPA. The proposed service line definition will exclude most NTNCWS and many non-municipal community water systems (e.g., mobile home parks) because they do not have water mains. Under this definition, these systems will not be subject to inventory or replacement requirements of the LCRI. Additionally, it would not be possible to assign such systems a tier based on service line material because no service line would exist. If EPA adopts the proposed service line definition, then states</p>
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	<p>will not have authority to implement inventory or replacement requirements in accordance with this guidance. EPA needs to update the definition of a service line or clarify whether pipes that deliver water to building inlets that are not connected to the water main are defined as a service line and regulated as such under the LCRI.</p> <p>ASDWA also continues to recommend that EPA clearly defines "upstream" and "downstream" and the context for using those terms in the LCRI and other regulations. Operators think of upstream and downstream in terms of the distribution system as it relates to bacteria sampling, so it is critical that the rule is clear regarding these definitions. The rule needs to clarify if upstream and downstream is contained to a single service line for the LCRI as opposed to within the distribution system. This would help to clarify GRR.</p>
Questions from within Preamble	
<p>While EPA is not proposing to establish a maximum stagnation time in the LCRI because the Agency is concerned about samples being invalidated solely because the sample result is high, EPA is seeking comment and data, including modeling and sampling data, on potential maximum stagnation times, and specifically how stagnation times inform corrosion rates.</p>	<p>ASDWA recommends that EPA set a maximum stagnation time of 18 hours to align with the 3Ts guidance. Including this requirement will help ensure that vacant homes and vacation rentals are not included in the sampling pool. This maximum stagnation time would also require schools to sample during the school week rather than first thing Monday mornings or after a school break.</p> <p>EPA should require water systems to include the stagnation time when submitting samples. ASDWA also recommends that EPA give states the authority and the flexibility to invalidate a sample based on this stagnation time if the state determines it is necessary. EPA should not require states to invalidate samples in all cases when a sample does not meet the stagnation time.</p> <p>States have noted that utilities may use this requirement as a loophole to avoid including high samples within their 90th percentile and giving states the option to not invalidate these samples will help avoid this issue. States have stressed that the goal here is not to invalidate high samples, but instead to set the framework under which operators know to avoid taking samples.</p>

<p>EPA is seeking comment about the potential inclusion of samples from lower-priority tiers (i.e., Tiers 3 through 5) that have a higher lead or copper concentration than samples from Tier 1 and 2 sites for calculation of the 90th percentile for systems that do not have a sufficient number of samples from Tier 1 and 2 sites. Additionally, EPA is seeking comment on whether to require systems to use samples with the highest lead and copper concentration regardless of sampling tiers, such as including samples from lower-priority tiers (i.e., Tier 3 through 5) in the 90th percentile calculation for systems that are collecting compliance samples from all Tier 1 and 2 sites.</p>	<p>ASDWA recommends that systems be required to include samples with the highest lead levels for calculating the 90th percentile, regardless of the tier.</p>
<p>While water systems are required to notify consumers of disturbances resulting from water main replacement under these proposed requirements, EPA is also requesting comment on whether to require distribution of filters for this type of disturbance.</p>	<p>In alignment with other filter-related comments, states do not recommend filters be distributed to consumers for this type of disturbance.</p>

Definitions		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§141.2	<p>The following terms are not defined under Section 141.2 and are used in the proposed regulation:</p> <ul style="list-style-type: none"> • Validation Pool, Section 141.84(b)(5) • Baseline Inventory, Section 141.84(a)(2) • Low Lead, Section 141.85(a)(2)(ii), is a term used to refer to another citation rather than being defined itself. • Lead Free, Section 141.85(a)(1)(iii), is a term used to refer to another citation rather than being defined itself. • Program Year, Section 141.90(e)(8), when the rest of the rule refers to “calendar year” 	EPA should define these terms in Section 141.2, correct usage of the terms, or otherwise provide additional clarification.
§ 141.2	The definitions for small and medium size systems have been reversed from the LCRR, which was modified from the LCR. Small system flexibilities were cited as up to 10,000 population (LCRR) and have been reduced to 3,300 population, but the other citations for small systems have changed from 3,300 to 10,000. This makes things very confusing for states and water systems.	The definitions for small systems should be the same for all parts of the LCRI in order to eliminate this confusion. States recommend staying consistent with the original LCR, with a small system definition equaling <3,300.
§ 141.2	In a scenario where samples are collected during the last weeks or days of a sampling, it is not possible for samples to be shipped, analyzed and reported in 10 days. Some systems or states may not get their final sample results for a reduced monitoring tap sampling period until 1.5 months after the end of the sampling period, after considering the allowances for labs, shipping times, etc. The shorter time may be possible for WQPs (since the current compliant rule (LCR) requires reporting January 10 and July 10 for WQPs according to the monitoring period), but not for the tap sampling period.	EPA needs to clarify the difference between tap monitoring period and tap sampling period definitions section in 141.2 to ensure that the 141.90 timeframes for reporting of sample results are feasible.
§ 141.2	The definition for <i>Method detection limit (MDL)</i> conflicts with the EPA definition of MDL in 40 CFR Part 136 Appendix B Rev. 2.0. This definition was revised in 2016 to say: “The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results.” However, the MDL definition in LCRR/LCRI still says “...99 percent confidence that the analyte concentration is greater than zero...”	EPA should ensure that the definition of Method Detection Limit (MDL) in Section 141.2 aligns with the definition in 40 CFR Part 136 Appendix B Rev. 2.0.

Service Line Inventory and Replacement		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§142.16 (d)(8)	ASDWA's members have concerns with the proposed requirement for states to identify any State laws, including statutes and constitutional provisions, that pertain to a water system's access to conduct full service line replacement and notifying water systems in writing whether any such laws exist or not	ASDWA members have argued that the water suppliers should be responsible for determining whether laws, statutes or constitutional provisions exist that pertain to a water system's access to conduct full LSLR. ASDWA recommends that EPA delete this paragraph. Applicable State laws are often not under the authority of the state agencies and/or many ordinances may be set at a local level. This requirement will create a significant burden for state staff to research and identify laws, statutes, constitutional provisions or local ordinances to develop and maintain a list.
§141.84	ASDWA's members are concerned that the requirement for full removal of LSLs will give the public a false sense of security that there will no longer be any risk of lead exposure from drinking water.	EPA should ensure that the messaging from the Agency about these replacements does not imply that nationwide LSLR will completely eliminate the risk of lead in drinking water. Premise plumbing, including legacy lead pipes, lead solder, and brass fixtures will continue to remain a potential source of lead in drinking water and the importance of effective corrosion control should continue to be emphasized. Clear messaging requirements should include information for homeowners that if they have concerns about lead hazards within their home, they should contact a local licensed plumber or environmental hazards assessment professional for an assessment.
§141.84	Flexibility is needed for the LCRI for systems showing a "good-faith-effort" to comply with the rule.	ASDWA continues to recommend that EPA incorporate good-faith-effort flexibility into LSLR provisions. This flexibility could be similar to the allowance in the Revised Total Coliform Rule for a PWS to request a deadline extension after consultation with the state.

§141.84	There is significant confusion and concern over the inclusion of lead connectors within system inventories. EPA had consistently stated that the inventory requirements from the LCRR would remain in the LCRI. With this in mind, some systems are already far ahead in developing their inventories and were not actively seeking out records for their connectors. Are these systems required to go back and edit their inventories to include these components? Additionally, states would have to send out new inventory templates to all of their systems.	ASDWA recommends that EPA make including connectors optional for service line inventories. Some systems have already started their inventories and this would require them to go back and redo them. Additionally, if a system has found that their entire inventory is non-lead, they would otherwise not be required to submit updated inventories. If connectors are required these systems will be forced to do their entire inventories again. States believe that this is an unnecessary burden. However, some states have already been requiring systems to include connectors in their inventories. Leaving this component of the inventories as optional will give states the flexibility to include connectors if they deem it necessary.
§141.84	Requiring systems to identify where lead connectors have been replaced in the past increases the workload on the system owners and operators. It makes more sense to allow them to focus their time and resources on the other inventory and replacement requirements, rather than having them review records to determine where lead connectors don't exist anymore.	ASDWA recommends that EPA remove the requirement to identify where lead connectors have been replaced in the past, and instead make the "Replaced Lead" category optional.
§141.84	Since there can be connectors from the main, between the meter, etc., but not always, there's a big question of how many connectors to report and which ones. If there are multiple connectors associated with a single service line, how will those be tracked individually? Will we need unique IDs for the connectors as well?	If EPA maintains the inventory requirement for connectors, ASDWA recommends that the Agency provide further clarification.

<p>§141.84 (b)(4)</p>	<p>“(4) If a consumer notifies the water system of a suspected incorrect categorization of their service line material in the inventory, the system must respond to the consumer with an offer to inspect the service line within 60 days of receiving the notification.”</p> <p>Currently, it is unclear what EPA means by “inspect” the service line within 60 days. One ASDWA member noted that in the northern areas of the nation, they sometimes have up to 5-6 months of frozen ground/snow cover, which would make meeting this requirement difficult.</p> <p>Additionally, it is unclear how systems will be required to "offer" to inspect the customer service line. Will systems be required to include a statement in their publicly available inventory or in their CCR that customers who suspect the inventory incorrectly categorized their service line material can contact the system to request an inspection?</p>	<p>ASDWA recommends that EPA clarify what the Agency means by “inspection” and include examples of what is sufficient. Is it a visual inspection where the service line enters the building? If not and field inspection is required then some states (for example, Northern states) will need additional time (60-90 days).</p> <p>Additionally, ASDWA recommends that EPA provide clarification on what is meant by requiring systems to “offer” customers to inspect the customer side service line.</p>
<p>§141.84 (a)(4)</p>	<p>ASDWA members have concerns over the new requirement to include street addresses within service line inventories rather than unique locational identifiers.</p> <p>One state noted that they have received many inventories from non-community systems and non-municipal community water systems includes services lines to multiple buildings located at the same address. In such instances, they use the business, which does not include specific addresses for each service line, but instead includes a general locational identifier, such as a building name. For these small systems, there may only be one building, and having them go back to list their street address seems like an unnecessary burden. Additionally, For NTNCWS that do have more than one building, while reviewing inventories, we have already determined whether or not their locational identifiers are sufficient, so it also seems unnecessary for them to go back and list the same street address for each building.</p> <p>Additionally, ASDWA members have noted that the inclusion of home addresses may push utilities that are not required to post their inventories online to only make it available on request.</p>	<p>ASDWA recommends that EPA clarify whether a street address MUST be used if available, or if another unique locational identifier can be used instead. States have expressed concern that requiring a street address could be complicated due to privacy laws that may be in place. Additionally, some states noted that there are service lines without any street addresses, particularly in very rural areas. Finally, there is concern with sensitive sites such as military installations. ASDWA recommends that systems be allowed to use either a street address or locational identifier.</p>

<p>§141.84 (a)(6)</p>	<p>“(6) When a water system has no lead, galvanized requiring replacement, or lead status unknown service lines, no known lead connectors or unknown connectors, it may comply with the requirements in paragraph (a)(5) of this section using a written statement in lieu of the publicly accessible inventory, declaring that the distribution system has no lead, galvanized requiring replacement, or lead status unknown service lines, no known lead connectors or no unknown connectors.”</p> <p>Based on this statement, it is unclear whether or not a declaration can be made if there are “replaced lead” connectors.</p>	<p>ASDWA recommends that EPA clarify this statement.</p>
<p>§141.84 (b)(3)(ii)</p>	<p>ASDWA’s members have noted that full-service line replacement within 6 months is not feasible for water systems in colder areas of the country. For example, due to temperature conditions in many parts of Alaska, service lines can only be replaced during a 5-month window during the spring and summer.</p>	<p>ASDWA recommends that EPA add a clause to allow states to add additional time as is reasonable/feasible for water systems to complete the replacement.</p>
<p>§141.84 (d)(4)</p>	<p>It is unclear how the 10-year deadline for LSL replacement will work for those systems that are unable to complete mandatory replacement under the exclusions in 141.84(d)(2) and (3), such as being unable to obtain customer consent.</p>	<p>ASDWA recommends that EPA clarify this component of the rule.</p>
<p>§141.84 (h)(iv)</p>	<p>Offering to collect a follow-up 1st and 5th liter sample for every emergency repair may result in large costs for water systems. In a multifamily complex, a single replacement could be very expensive with 1st and 5th liter samples for every resident that requests one. Especially with other required mitigation efforts such as the pitcher filter/POU devices and 6 months of replacement cartridges. Does the water system have the right to request the consumer pay for the sample analysis? Would one 1st and 5th liter count as the follow-up for the entire multi family complex?</p>	<p>ASDWA recommends that EPA clarify this component of the proposed rule. Additionally, ASDWA recommends that the rule only require water systems to offer to sample, as customers have the right to refuse that testing.</p>

<p>§ 141.84 (b)(3)</p>	<p>“Water systems that discover a lead or galvanized requiring replacement service line that was previously inventoried as non-lead must update their inventory in accordance with paragraph (b)(2) of this section and complete the following requirements:...”</p> <p>“Although not specifically stated in the proposed rule, a State could require the system to take action to improve inventory accuracy.”</p> <p>Some ASDWA members noted that if this requirement is not explicitly stated in the rule, they will not have the authority to require systems to take action to improve the accuracy of their inventory when systems discover lead or GRR lines during validation that were previously identified as non-lead.</p>	<p>ASDWA recommends that EPA include a requirement for systems to take steps to improve the accuracy of their inventory when previously categorized non-lead service lines are identified as lead or GRR.</p>
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<p>§ 141.84 (h)(1)(iii) and (h)(3)(iii) and §141.85 (g)(2)</p>	<p>States have expressed concern regarding how heavily the LCRI relies on POU filters to mitigate the anticipated spike in lead from lead line disturbances. These requirements increase the burden on water systems which is deemed necessary because of the assumed efficacy of the filters to remove lead. Because these POU's would be distributed by the systems to consumers based on an EPA regulation, consumers will be under the impression that the POU's will remove all potential lead hazards. These filters generally rely on either GAC adsorption or ion exchange resin—treatment that is effective at soluble lead removal. POU filters have in some cases been shown to be ineffective at insoluble lead removal (Tang, et al.; Aljandani et al.).</p> <p>Additionally, EPA repeats a manufacturer's claim in the preamble to the LCRI that some lead filter cartridges can last 6 months and that "assuming typical water use" this means a PWS may need to only supply one filter cartridge when required to do so under the regulation. One state investigated this claim made by Brita and found that the company only calculated usage based on drinking 11 glasses ((8 oz. each) of water per day against the 120-gallon filter life. See https://www.brita.com/products/elite-replacement-filters/. This translates to 0.66 gallons/day over six-months per residence. When you take into consideration all the consumptive uses (e.g., drinking, cooking, and preparing baby formula) for which this filter should be used following an LSL disturbance or an LSLR this volume is woefully inadequate, and EPA should not be suggesting that one filter might be sufficient. One such filter barely covers a single adult's daily drinking water consumption (2 L = 0.53 gallons). If more than one adult lives in the residence this too will reduce the life of the filter cartridge.</p>	<p>States recommend EPA develop additional guidance on education about filter use and provide information on flushing procedures following a replacement or line disturbance. EPA should ensure it is clear that POU devices may be effective for temporary lead removal, while maintaining public confidence in tap water.</p> <p>Further, EPA should investigate and verify manufacturers' claims regarding filter usage and the expected filter life for typical usage. EPA should provide guidance for states and water systems to determine the number of filters needed to ensure a 6-month lifespan in a typical residence.</p>
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Corrosion Control Treatment		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
Preamble Exhibit 1 – FR 84890	<p>In Exhibit 1 in the preamble, under the section on CCT, EPA indicates that “Systems with P90 lead level > 0.010 mg/L: No CCT: Must complete CCT installation regardless of their subsequent P90 levels if system has started to install CCT. ”</p> <p>What does "started to install CCT" mean in this context? Does this refer to after the systems obtain approval and install chemical feed pumps, or does this refer to the installation period as a whole? Or does this refer strictly to after the system starts feeding the designated treatment to the system?</p>	States recommend that EPA clarify what it means when a system has “started to install CCT” in the context of this rule.
§ 141.81 and § 141.82	Overall, Sections 141.81 and 141.82 remain as complex as written under the LCR. With so many conditional statements and complexity throughout these two sections, it will remain difficult for primacy agency staff to ensure state-wide compliance with the requirements, train new staff on the requirements, and answer questions from systems about the requirements.	ASDWA’s members recommend that EPA develop comprehensive decision-trees, flowcharts, or schematics clearly depicting the regulatory triggers and steps for corrosion control treatment (CCT) optimization, re-optimization, and optimal water quality parameter (OWQP) designation. These tools should be developed and shared with primacy agencies ahead of the compliance date for the rule to aid in compliance determinations and training.
§ 141.80 (a)(1)(i) and §141.81	In the proposed rule, EPA has determined that systems with CCT installed, but who have not previously been “deemed optimized” because they have not had an ALE, will now be required to be optimized by the State and subject to OWQPs, regular WQP monitoring, etc. These systems are currently going above and beyond existing requirements and ASDWA’s Members have expressed concern that such systems may now be incentivized to cease this treatment so as to not be subject to OWQP monitoring requirements.	States request that EPA provide additional clarification for states to handle such systems. Are all systems with CCT who are not currently deemed optimized expected to be deemed to have optimized CCT and subject to OWQP monitoring? What is the expected timeframe for implementing this requirement?
§ 141.81 (a)(1)(iii)	The LCRI refers to large systems without CCT to complete steps and install OCCT. The LCR has already required almost all large water systems (except those who previously met the (b)(3) requirements under LCR) and water systems that newly meet the large water system criteria to install CCT. As written, it appears that in the LCRI water systems that increase population to greater than or equal to 50,001 and therefore meet the criteria to “become” large water systems, don’t have to install CCT unless they exceed the PQL or copper action level according to 141.81(a)(1)(iii).	EPA should ensure all large water systems have CCT installed, designated optimal and designated with OWQPs in accordance with 141.81(a)(1). This requirement should apply to all medium systems that become large systems upon the change in population.

§ 141.81 (a)(3)	This section refers to small water systems (serving <= 10,000 people) and non-transient, non-community water systems (NTNCWS).	If a NTNCWS serves a population larger than 10,000, does it fall under this section or should it be considered a medium water system for purposes of this rule?
§ 141.81(a) and (b)	<p>Some states have expressed concerns that EPA has simply replaced the trigger level with the Practical Quantification Limit (PQL) for triggering systems into CCT requirements. Under the proposed rule, systems with 90th percentile results between the PQL and the AL will be subject to standard monitoring, installation of OCCT and subject to OWQPs. Maintaining two separate levels to trigger water systems into different requirements is confusing and not a simplification of the rule.</p> <p>Further, determining which systems are “deemed” optimized has become even more complex with the proposed regulatory language.</p>	States recommend that EPA further clarify and simplify the language in this section. States recommend that EPA move forward with using a single number to trigger treatment technique requirements, rather than using the AL as well as the PQL for triggering CCT-related actions under the rule. Alternatively, some states suggest leaving the re-optimization determination up to the state, especially for exceedances of the PQL and not the AL, in lieu of using the PQL as a “trigger level.”

<p>§ 141.81(d) and (e)</p>	<p>Overall comments on pipe loop requirements: Corrosion Control Treatment is not “set it and forget it” and achieving and maintaining effective and optimized corrosion control treatment (OCCT) is just as much of an art as it is a science. While it’s laudable that EPA wants to try to encourage systems to invest in pipe-loop studies in an attempt to get it “right” the first time, there are diminishing returns with this requirement. In almost every case, there are two viable corrosion control methods: pH/alkalinity adjustment and/or orthophosphate inhibitor addition. A determination of which combination of method to use at a particular system can often be made using theory and best practice, along with an evaluation of water quality parameters.</p> <p>States have concerns that EPA’s proposed requirements for pipe-loop studies are overly prescriptive, especially when applied to small water systems. Desktop and bench-scale evaluations are much more cost effective and expeditious when compared to pipe-loop studies. Pipe-loop testing could be cost-prohibitive for water systems and take many months to reach the same conclusions that otherwise would be identified through alternative evaluation approaches.</p> <p>Further, the timeframe allowed under the proposed rule for pipe-loop studies, while it may be necessary for completing such studies, may put consumers at unnecessary risk, when the system could install and operate CCT more quickly based on a desktop or bench-scale evaluation. This also holds true for water systems that already have CCT installed and need to re-optimize; in such cases, allowing up to 30 months for a CCT study could be unnecessary, and depending on the specific details of the situation, a slight adjustment to existing CCT may be more effective at addressing elevated lead levels across the water system. This delay in public health benefit from CCT is a concern, and likely unjustified.</p>	<p>EPA should allow states discretion in determining the final timelines for the completion of CCT studies, allowing them to establish shorter timeframes where feasible.</p> <p>States recommend that EPA establish different maximum timelines for re-optimization vs. initial CCT installation.</p> <p>Additionally, pipe-loop corrosion control studies should be optional, and required on a case-by-case basis as determined by the state and based on an evaluation of the water quality and existing treatment at the PWS. This determination should be made by the state in collaboration with the system and their engineer and should be based on the materials in the distribution system, the complexity of the water quality, and potential expediency of the installation of viable CCT.</p> <p>EPA should offer further flexibility in implementing CCT, allowing systems to make incremental changes once CCT is installed, as this would have a stronger, more expedient impact on public health than requiring pipe-loop studies in all cases for systems with LSLs. Pipe-loop studies are a tool that should be used by LSL systems with complex water quality who anticipate future source or treatment changes that would affect corrosion. EPA should leave this determination to the state primacy agencies and should collaborate with ASDWA in developing comprehensive guidance for making these determinations based on the most up-to-date science.</p> <p>Overall, incorporating this recommendation would maintain or improve health protection in most cases, reduce burden and improve feasibility.</p>
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<p>§ 141.81(d) and §141.82</p>	<p>A strong understanding of the theory and science behind corrosion is important when making CCT determinations. There is a critical need for up-to-date, in-depth guidance and training to ensure the best state of the science information from EPA ORD, and other experts in the field of corrosion control, is passed on to state regulators and review engineers. Currently, there is limited knowledge at the state level in reviewing and approving pipe-loop studies, as many CCT studies have historically been submitted using EPA’s CCT Desktop Evaluation Form or equivalent, in accordance with EPA’s LCR implementation guidance documents.</p> <p>A poll of ASDWA’s members revealed that only 7 primacy agencies (concentrated in 3 regions), have at least one staff person with experience reviewing and approving these types of studies. The remaining states indicated that there are no staff with such experience.</p> <p>One state with experience reviewing pipe-loop studies indicated that often the results were inconclusive or without statistical significance to recommend one CCT option over another. At this state, typical pipe-loop study reviews ranged from 20-40 hours, depending on complexity. The potential increase in state workforce burden is concerning for many states.</p>	<p>ASDWA recommends that EPA prioritize the development of in-depth guidance and training, in collaboration with states, for the review and approval of CCT studies, specifically pipe-loop studies. This should include an update to EPA’s Guidance “Optimal Corrosion Control Treatment Evaluation Technical Recommendations” and should cover CCT studies in response to ALEs, as well as CCT studies and Evaluations ahead of a source or treatment change.</p> <p>ASDWA’s members recommend that this comprehensive training be deployed ahead of the LCRI compliance date, updated and offered on a regular basis, and be easily accessible by all primacy agencies.</p>
<p>§ 141.81 and §141.82</p>	<p>States have expressed concerns that there is no guidance about safe cessation of CCT. It is not clear when or if a system with CCT or OCCT would be allowed to stop application of CCT.</p>	<p>States recommend that CCT-related training and guidance cover steps to be taken when a system plans to stop CCT following complete replacement of LSLs and GRRs. In addition, EPA should give states discretion to require continued CCT in cases where cessation could pose a risk to public health.</p>

<p>§141.81 (d)(4) and (7) and §141.81 (e)(4) and (7)</p>	<p>Numerous states have reiterated the request for EPA to allow flexibility in deadlines for designating OCCT and OWQPs at a particular water system. Because of system deadlines, states receive a wave of studies and recommendations, making it difficult to review all of them in a timely manner. Additionally, states are facing unprecedented workforce challenges due to congressionally directed spending, FTE caps at state agencies, and engineer shortages, all while regulatory requirements increase.</p>	<p>ASDWA recommends that EPA modify the language such that the state “should” designate OWQPs or OCCT within 6 months. States recognize the importance of deadlines in federal rules and in many cases encourage EPA to include deadlines where possible. However, unprecedented challenges have made it difficult for many states to comply with the 6-month deadline outlined in this section. Additionally, the 6-month deadline limits states’ ability to fully evaluate WQPs, require additional WQP monitoring periods, or even require re-optimization of treatment before moving forward with final OWQP designation. Additional flexibility is needed to address these concerns and to ensure states have sufficient time to make data-driven, science-based decisions during these high-volume review timeframes.</p>
<p>§ 141.81(d)</p>	<p>ASDWA’s Members have expressed concern that as written in the proposal, re-optimization is only required once following an ALE, as long as a PWS is maintaining OWQPs. Several states expressed that if a system exceeds the AL more than once, that the state would want the system to re-optimize with each exceedance. Additionally, states want to ensure that they maintain the authority to require re-optimization as needed in conjunction with source or treatment changes.</p> <p>Based on historical experience providing technical assistance to water systems installing and working to optimize CCT, many systems may need several rounds of adjustment to achieve optimization or re-optimization. States that are only able to enforce the minimum federal requirements have expressed concern about pushback from systems if the state attempts to require re-optimization more than once when the regulation implies systems will only need to optimize once.</p>	<p>States recommend EPA clarify the rule language to clearly require re-optimization as often as required by the state and remove references to re-optimization only one time. While states can require them to re-optimize under Section 141.81(a), this again brings up the concern from states who are unable to be more stringent than federal rule. It should be clarified in the regulatory language that a system may have to undergo re-optimization as often as is necessary to protect public health.</p>

§ 141.81 (f)(1)(i)(a)	Some states have expressed support for accelerated removal of LSLs to control lead and copper, especially states that are concerned about phosphate as a downstream contaminant. However, some states have expressed concern about having to wait a full year after the compliance date to know if a system is serious about complying with this provision of the rule, allowing them to prolong their current practices. States are concerned that this component of the rule could be exploited by water systems with very few lead service lines. Additionally, this provision adds complexity and may potentially allow PWSs to delay OCCT.	States recommend that EPA make it clear that systems with CCT installed may not cease CCT to pursue a shorter LSLR schedule. Additionally, EPA should leave discretion to States to allow systems to pursue a shorter LSLR schedule or require systems to install CCT in cases where the state deems it to be more protective of public health. EPA should also clarify that this provision should not be applied to systems with copper ALEs.
§ 141.81 (d) to (f)	Section 141.81(f) specifically calls out Galvanized Requiring Replacement (GRR), in addition to LSL lines; however, only LSL, not GRR, are called out in paragraphs 141.81(d) and (e). Is this intentional, or should GRR also be specifically mentioned in paragraphs (d) and (e)?	Clarify whether paragraphs 141.81(d) and (e) apply to GRR service lines.
§ 141.82	One state indicated that it has reviewed proposals that indicate that orthophosphate addition will increase DBP formation. Will EPA offer guidance, either relating to DBPs or other contaminants and treatment options, on how to consider the effects of OCCT on WQPs and other drinking water quality treatment processes?	ASDWA strongly recommends OW, ORD, and states work together to develop more comprehensive simultaneous compliance guidance and training. While some states, such as Colorado and Ohio have developed CCT-related guidance, and ASDWA collaborated with AWWA to develop a CCT training module, more guidance from EPA to ensure simultaneous compliance with all NPDWRs is a critical need.
§ 141.82 (d)	Do the States have the authority to require small systems, and systems with no lead service lines, to complete a demonstrative CCT study with a primary focus on reducing corrosion at sites with copper with lead solder? If yes, would coupons be allowed as the only form of demonstration performed?	Clarify states' authority to require demonstration studies for systems with copper and lead solder corrosion issues.
§ 141.82 (f)(4)	This component of the regulatory language is not straightforward and may be confusing for states and systems. One state asked: How does a system not have CCT when they feed orthophosphate? It is not clear why EPA is being so prescriptive in this component of the rule and the language is difficult to interpret.	EPA should provide examples of when feeding orthophosphate does not count as CCT and should add this clarification into state implementation guidance.
§ 141.82 (g)	States request that EPA provide additional clarification regarding the requirements that apply to consecutive water systems. As written, the requirements are not clear and seem to differ from existing LCR requirements. Are consecutive systems always required to monitor for their wholesaler's OWQPs, and are they subject to excursion violations?	EPA should clarify when consecutive systems are subject to OCCT and OWQP requirements.

<p>§ 141.82 (j)</p>	<p>ASDWA appreciates that the Agency re-named the “Find-and-Fix” component of the regulation to “Distribution System and Site Assessment” (DSSA) to more accurately reflect the requirements.</p> <p>States have some implementation concerns around the DSSA requirements. The requirement to collect a follow-up sample from a sample tap within a half-mile radius, as outlined in the rule, is not realistic in many rural areas. Additionally, it is not clear if the half-mile radius is measured by radial distance or by pipe length.</p> <p>It is also not clear which components of DSSA would be required for small systems, those both with and without CCT installed.</p> <p>Finally, states have expressed concerns regarding the workforce burden for the DSSA provisions, both at the state and system-level. Not only is there a significant increase in data collection and reporting following any elevated samples, this requirement adds significant complexity to the rule. Systems do not currently have the capabilities to report this data and states do not have the capability to collect or store this data in SDWIS.</p>	<p>States recommend that EPA clarify the requirement to collect a sample within a half-mile radius of the original sample location under DSSA. Additionally, to address concerns in rural areas that may be more than a half-mile from another tap sample location, EPA should include a clarification that the sample should be collected from a sample location within 0.5 miles or at the next closest tap sample location.</p> <p>States also recommend that EPA further clarify which components of DSSA are required for which systems, especially small systems. A post-sampling flowchart or decision tree could be helpful to ensure systems and states understand the requirements following an individual elevated sample result.</p> <p>States recommend that EPA give states the option to waive some or all of the DSSA requirements depending on the situation at the system. Additionally, states recommend EPA ensure DW-SFTIES includes ways for states to capture and track all the follow up actions based on elevated sample results.</p>
<p>§ 141.82 (j)(1)(ii)(B)</p>	<p>In most states, review of OCCT would not be completed by sanitary survey inspectors, and instead would be completed by state review engineers with expertise in corrosion control treatment.</p>	<p>EPA should collaborate with ASDWA and states on implementation guidance for this requirement. EPA should provide clear expectations as to the documentation and evaluation of OCCT needed during sanitary surveys and should disseminate this information through guidance and training.</p>
<p>§ 141.87 (b)(1)(i)</p>	<p>Wording in the rule indicates Table 5. The Table is labeled Table 1</p>	<p>Change from Table 5 to Table 1.</p>
<p>§ 141.87 (c)(4)</p>	<p>As currently written, this paragraph leaves ambiguity for water systems and states as to the interpretation of “9 days.”</p>	<p>ASDWA recommends that EPA more clearly tie this section with Section 141.82(g) to clarify when and how the reduced WQP monitoring determination would be made by the state.</p>

Compliance Monitoring		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§141.86	<p>Clarification is needed on how systems qualified for reduced sampling. Currently, it appears that systems on triennial monitoring will have to go back down to six-month monitoring rather than annual monitoring.</p> <p>There is concern that very few, if any, systems will qualify for reduced monitoring if it is required to have samples below the PQL.</p> <p>There is also confusion about systems without any unknown service lines, lead service lines, or galvanized requiring replacement.</p>	<p>States need additional clarification on how systems qualify for reduced sampling. Currently, it appears that systems on triennial monitoring will have to go back down to six-month monitoring rather than annual monitoring. Additionally, there is a concern that few, if any, systems will qualify for triennial monitoring if the PQL is used as the qualifier. Additionally, ASDWA recommends that water systems (regardless of size) without lead, GRR, or unknowns should be able to maintain their current monitoring schedule. This will help alleviate concerns with lab capacity and state staff workload.</p>
§141.86	<p>States are concerned with a possible need to maintain records of customer refusals from systems. This would be a significant burden on state staff.</p>	<p>EPA should require systems to maintain records regarding customer refusals for tier 1 sampling. However, systems should only submit documentation to the state certifying that they have collected and are maintaining this information.</p>
§141.86 (a)(1)(iii)	<p>States have brought up logistical concerns regarding sampling at water systems utilizing POU devices for compliance with the NPDWRs, including those that will be utilizing the POU small system flexibility outlined in 141.93. Are such POU devices required to be connected to the tap? States anticipate water systems may utilize pitcher-filters, is this acceptable? Would 1st and 5th L samples still be required to be collected if the site is served from a known LSL or GRR?</p>	<p>EPA should provide clarification on these requirements. A 5th L sample from a pitcher filter seems infeasible.</p>
§141.86 (a)(3)	<p>The requirement to collect samples from “every site containing lead pipe and/or served by a lead service line” is nearly impossible for community water systems to carry out given the available time and resources. As it is, community water systems struggle with getting participation, but rarely are they able to sample exactly the same homes with each round of lead tap sampling. Additionally, states are likely not positioned to be able to enforce this.</p>	<p>EPA should modify the language to take out “every” and instead include “all available sites.”</p> <p>“Available” should mean sample sites that are accessible and allow for individuals to collect samples within the guidelines and requirements of the LCRI.</p>

§141.86 (b)(1)	ASDWA members highlighted that the rule has always allowed acidification up to 14 days after collection, but that this period could and should be increased. One state noted that laboratory technicians and laboratory directors have stated that no matter how long a sample sits, all lead and copper adhering to the sides of the bottle will resolubilize in the required 18-hours period (found in EPA method 200.8) after nitric acid has been added for two reasons, to preserve the sample and the required period of time to resolubilize metals before analysis can begin. This state has had water systems that are waiting on a single sample (one of twenty or more) to complete their required number of samples, that then must recollect all but one sample because the others are over the 14-day limit.	ASDWA recommends that EPA change the acidification time to a longer period, such as “up to 30 days”. This would eliminate many of the issues associated with recollections.
§141.86 (d)(2)(i)	ASDWA members think that water systems that reduce to annual monitoring after two six-month monitoring periods should begin annual monitoring at the reduced number of samples, not remain on the standard number of samples. This change will help with lab capacity issues and associated costs.	ASDWA recommends that EPA keep the annual monitoring requirements at the reduced number of samples.
§ 141.86 (f)(2)	There is currently uncertainty as to what type of documentation EPA requires to invalidate a sample. Is a letter/email acceptable, or does EPA want more documentation?	ASDWA recommends that EPA clarify the expectations for this documentation.

Public Education & Notification		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§ 141.85	Guidance and draft templates are needed for all the various Public Education and Public Notices	EPA should ensure guidance and draft templates for all the various Public Education and Public Notices are developed ahead of the compliance deadline.
§ 141.85	A Communication plan or strategy should be added to this section so that water systems are prepared to conduct PE requirements.	ASDWA recommends that systems be required to submit a communication strategy at the start of the LCRI rule. This will ensure that systems are prepared and not scrambling to produce and distribute public education materials. To help systems do this, EPA should work with water systems and states to develop a template.
§ 141.85 (b)(1)	Clarification is needed for translation of public education materials for public water systems serving a large proportion of non-English speaking consumers, as determined by the state.	ASDWA recommends that EPA define the term, “large proportion.” Is it one immigrant population or all of them combined? Is this what must be “determined by the state?”

§ 141.85 (b)(7)	Clarification is needed for when a water system may request an extension from the State, in writing, to complete public education requirements in a time period beyond the 60-day deadline after a lead ALE. (ii) The State may only grant the extension on a case-by-case basis if the system has demonstrated that it is not feasible to complete the activities in (b)(2)(ii) through (vi) of this section.	ASDWA recommends that EPA clarify the circumstances for which a state can grant an extension.
§ 141.85 (c)(1)	The statement that a water system “must offer to sample for lead in the tap water of any customer who requests it,” is unclear. Who is expected to pay for sampling analysis when it is requested by the customer.	ASDWA recommends that EPA clarify what is meant by the term “offer” to explain who is responsible for the cost of customer requested sampling.
§ 141.85 (c)(1-2)	For Supplemental Monitoring and notification of Results, States are concerned that homeowners will want too much sampling. This could become a burden for the water system.	ASDWA recommends that EPA consider the system cost and burden for substantially increased numbers of customer sampling requests.
§ 141.85 (d)(2)	For the supplemental monitoring 3-day notification requirement, what is meant by “learns of the tap monitoring results”. When does the clock start?	ASDWA recommends that EPA clarify the meaning of the term, “learns of the tap monitoring results” so systems understand when the clock starts for the 3-day notification (or 30 days per ASDWA’s recommendation).
§ 141.90 (j)(1)	When does the clock start? Within 24 hours of receiving results from who? 24 hours will be a challenge. What if results are received on a Friday night?	ASDWA recommends that EPA clarify when the 24-hour clock starts.
§ 141.85 (j)(3)	What is an adequate filter plan? Should this be added under the lead service line replacement plan and outline within the plan.	ASDWA recommends that EPA provide guidance on what is required in the filter plan (for Lead ALEs). Additionally, EPA could require that the filter plan be submitted in advance with the LSL Replacement plan.
§141.85(j)	States have expressed concerns with the provision for systems with 3 or more lead Action Level Exceedances (ALE) to distribute filters to the entire service area. The LCRI targets the highest risk sites for monitoring and evaluating the AL, as such, filters should be targeted at sites that are at risk of lead exposure, i.e., locations with LSL, GRR, or unknowns based on the system’s inventory. High risk locations may only represent a small percentage of consumers served by the system. Providing filters to consumers served by known, non-lead lines could undermine public confidence in drinking water and introduce unnecessary cost and risk to the water system and their consumers.	States recommend that EPA amend this requirement to require filter distribution to consumers served by LSL, GRR, or unknown, and provide states authority to require distribution to the full community at their discretion, based on sample locations, existence of CCT, etc.

§141.85 (j)(3)	A 15-day turnaround time for a state to review and approve systems' filter distribution plan will be challenging to implement. Additionally, this timeframe does not align with any other aspect of the rule.	States recommend streamlining all ALE requirements, including the POU plan requirements, and recommend adding flexibility for states review to this provision. Additionally, EPA should work with ASDWA to establish expectations and guidance for the filter plan. The review time should be extended to 45 days.
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School and Childcare Sampling		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§ 141.2	The existing definitions for school and child-care facility need additional clarity. A lack of clear definitions results in several questions: How should daycares that offer pre-school be categorized? What does licensed mean for child-care facilities? Is there a minimum population served to qualify for either definition? How do mixed-use buildings that include child-care factor into these definitions, for example a high rise with a day care on one floor of the building? How will residential child-care facilities be treated, and how can we ensure the sampling is not duplicated?	EPA should add additional details for the various definitions of schools and the definition of child care facility.
§ 141.92 (a)	Many states already have a lead testing in schools and child-care facilities program, and other states are concerned about starting a program but want to ensure it is a streamlined process with other state agencies.	<p>ASDWA strongly recommends that EPA allow states to use their existing lead testing in schools and child-care facilities programs and add language in the LCRI that would allow states without an existing program to develop a program as stringent as EPA's proposed LCRI. Many states already have an existing testing program, and honoring these programs would significantly reduce burden on the states and systems.</p> <p>Additionally, adding language to the LCRI for states to develop a program that do not have one already would allow states to begin working with other state agencies like the Department of Public Instruction (DPI) or Health and Human Services (HHS) to streamline paperwork that would otherwise be placed on the water system or city administration. Much of the paperwork proposed by EPA could be handled by the state DPI or HHS which may already have email addresses and physical addresses for schools and child-care facilities.</p>
§ 141.92 (a)	Sampling for lead only gives a snapshot of lead levels at schools and child-care facilities. The bigger focus for	ASDWA is aware of the jurisdictional issues between EPA, schools and child-care facilities,

	resolving issues with lead in schools and child-care facilities should be on remediation.	and remediation; however, ASDWA recommends EPA continue to support remediation activities in schools and child-care facilities in any way possible.
§ 141.92 (a)(b)	In the proposal, the list of schools and child-care facilities appears to include all schools and child-care facilities, where the general requirements exclude schools and child care facilities with full plumbing replacement or those constructed after January 1, 2014.	ASDWA recommends that EPA revise the rule to clarify that the list of schools and child-care facilities should exclude those with full plumbing replacement or those constructed after January 1, 2014 or the date the State adopted standards that meet the definition of lead free in accordance with section 1417 of the Safe Drinking Water Act.
§ 141.92 (b)(1)	Clarification is needed from EPA on the review process expected by states when receiving the CWS list of schools. Additional clarification is needed on how the list will be maintained, as child-care facilities will go online and offline very quickly.	ASDWA recommends that EPA provide clarity on the review process for which states are responsible in the proposed rule with regards to the compiled list of schools and child-care facilities. State drinking water programs do not have enough information or resources to assess the validity of a community water system's list of schools and child-care facilities. ASDWA recommends that while the list may be turned into the state, there should be no expectation that the state drinking water program review the list for accuracy. Additional clarity is needed on the maintenance of the list of schools and child-care facilities. Based on the proposal, ASDWA assumes this list will be made once every five years and the list will not be updated until the next five-year period.
§ 141.92 (b),(c),&(f)	There is concern over how data will be tracked and used for compliance with lead testing in schools and child care facilities. Where will the various lists be hosted and how will the state receive and store them? Where will data from sample results be stored? How will this new data be entered, and will it allow users to enter things like sample volume?	ASDWA recommends that EPA clarify how data will be stored, entered, and used for compliance with regards to lead testing in schools and child-care facilities.
§ 141.92 (c)(2)(i-ii)	Elementary schools and childcare facilities are handled differently than secondary schools.	ASDWA recommends EPA have the default for secondary schools be the same as elementary schools and child-care facilities, as secondary schools often have programs serving younger children at their facilities.

§ 141.92 (d)(b)	Clarification is needed from EPA on schools or child-care facilities that decline to participate, and whether these entities are able to be permanently counted for the 20 percent per year requirement.	ASDWA recommends that EPA provide additional detail on how schools and child-care facilities that are non-responsive or decline to participate in sampling be counted in the 20 percent requirement per year for school/ child-care facility sampling. ASDWA recommends that once a school or child-care facility declines to participate, the school or facility will be permanently counted in the 20 percent requirement and will not need to be contacted again to fulfill future 20 percent requirements in subsequent years.
§ 141.92 (e)&(f)	The proposal needs to provide clarity on the handling of schools requesting sampling and how the water systems will record these requests and submit them to the state for compliance.	ASDWA recommends that EPA provide additional detail describing how water systems should record school or child-care facility requests for additional testing and how these recorded lists should be submitted to the state for compliance. ASDWA also recommends that the proposal detail how states shall use sampling request lists submitted by their water systems.
§ 141.92(f)	In some states, the state Department of Education (DOE) conducts sampling efforts for schools and child-care facilities. How will this violations work for these entities?	ASDWA wants to make EPA aware that in some states, the state Department of Education (DOE) conducts sampling efforts for schools and child-care facilities. In the proposal, EPA needs to consider how this may influence sampling violations and potential jurisdictional issues.

Data Management		
Reference	Comment/Concern/Question to be Addressed	Recommendation for EPA
§ 141.90	<p>Lack of Sufficient Rule Support in SDWIS</p> <p>Given the timelines associated with SDWIS modernization, primacy agencies lack a sufficient data system to effectively manage the rule.</p> <p>ASDWA’s members are concerned with portions of LCRR moving forward in SDWIS State with uncertainty with how LCRI would impact data and record keeping longer term.</p> <p>To ensure compliance with existing requirements from LCRR related to inventory management, primacy agencies employed a variety of solutions – from low-tech, in-house, applications to expensive 3rd party-developed add on modules.</p> <p>State primacy agencies have templates and processes in place for collecting and managing inventory data, and now there will likely be an expansion of the data collected there, which will require new templates, processes, and training, and further calls into question the information already collected.</p> <p>Finally, ASDWA members expressed concerns over data migration – what will DW-SFTIES accept/manage and what will be left to state-developed systems?</p>	<p>EPA must consider how the timelines for SDWIS modernization, including time necessary to transition into production, will impact primacy agencies’ ability to effectively implement the rule.</p> <p>It is critical that primacy agencies understand what, if any, functionality will be lost because of the transition to the new data system. EPA must continue to communicate transparently about development timelines and capabilities of DW-SFTIES, so primacy agencies understand how transition will impact their programs.</p> <p>Where possible, EPA must provide updated templates, guidance, and data entry instructions (DEI) with enough lead time to allow primacy agencies to plan for and implement changes.</p>
§ 141.90	<p>Records/Tracking</p> <p>There are many reports and records listed throughout this section of the rule. Primacy agencies and PWSs need clarification on what each entity needs to keep track of the various information/reports that EPA requires, what type of data, and in which format.</p> <p>In addition, what type of tracking will the primacy agency need to do? For example: Is the date on a letter going out to the system going to be good enough documentation for a recorded entry into SDWIS or is additional documentation going to be required? And if yes, what documentation is needed?</p>	<p>EPA should provide additional guidance and clarification.</p>

§ 141.90	There are now 24 certifications in the LCRI. Some certifications in the LCRR have been changed from a certification to “water system must demonstrate”, which is still a certification. If those are counted the total goes up to 26. Most are in this section 141.90, but one certification is in 141.86(h). The rule has gotten more complex not less.	Reduce the number of certifications so states don’t have to track as many things. This will help make the rule less complex.
§ 141.90 (a)(2)(i)	Please see the comment immediately above about Lead and Copper tap samples that also apply for 1 st and 5 th liter sample results notification.	Remove the 10-days after the end of the tap sampling period requirement for lead and copper tap sampling and return it to the requirements in the LCR/LCRR, which under the LCRI is defined as Tap Monitoring Period.
§ 141.90 (a)(2)(ii)	The LCRI states that the water system can collect a replacement sample 20 days after the state invalidates a sample, but it also states that documentation for each tap water lead and copper sample for which the water system requests invalidation be submitted within 10 days after the end of the tap sampling period. One state reports that its state laboratory cannot have all samples that are collected by the end of the tap sampling period, September 30, analyzed and reported by October 10 th ; therefore, invalidations cannot be requested by the proposed date in the rule because not all sample results have been reported.	Remove the 10-day after the end of the tap sampling period requirement for requesting an invalidation. Make a change to the rule to request an invalidation within 10 days after receiving sample results.
§ 141.90 (a)(2)(iii)	This part of the LCRI requires the water system to notify the state they are going to perform a future requirement, to supply results to the public within 60 days of the end of the monitoring period. Section 141.86(h)(3) requires the water systems to make the results available and certify to the state that it has been completed. Some states display these results on Drinking Water Watch so this requirement is taken care of, but many other states that don’t do this will need to track another item. Also, section 141.85(d)(1) requires that individual results be given to the specific customer that collected the sample.	To reduce the complexity of the rule, this requirement should be removed because it is duplicative of other rule requirements. If a water system doesn’t comply with 40 CFR 141.86(h)(3), they will receive a violation and be required to do PN and have it included in the CCR. Also, tracking a water system’s notification to the state that they will complete a future requirement is unnecessary.

<p>§ 141.90 (a)(2)</p>	<p>Reporting within the first 10 days following the end of each sampling period is not possible for lead and copper tap samples. A state required to provide laboratory services by statute report that samples collected during the last weeks or days of a sampling period cannot be shipped, analyzed, and reported in 10 days. The state normally gets their final sample results for a reduced monitoring tap sampling period 1.5 months after the end of the sampling period. This may be possible for WQPs since the current rule (LCR) requires reporting January 10 and July 10 for WQPs according to the monitoring period, but not the sampling period. EPA should look at the definitions section in 141.2 and review the difference between tap monitoring period and tap sampling period.</p> <p>History: The Proposed LCRR published in 10-10-2019 had the citation in 40 CFR 141.90(a)(1) “applicable monitoring period”. The final rule pre-publication version published in 12-21-2020 had the citation in 40 CFR 141.90(a)(1) “applicable tap sampling monitoring period”. The definition for tap sampling monitoring period was virtually the same as monitoring period. The final LCRR published on 1-15-2021 remained the same with the citation in 40 CFR 141.90(a)(1) as “applicable tap sampling monitoring period”. The pre-publication of the LCRI published 11-21-23 changed the citation to 40 CFR 141.90(a)(2) with the quote “applicable sampling period”. This changed the intent of the LCR and the LCRR from 10-days following the end of each applicable monitoring period/tap sampling monitoring period, which is December 31 for reduced monitoring to the end of the sampling period which is September 30 for reduced monitoring. The requirement changed from, using the LCRI definition of monitoring period “tap monitoring period” to, using the LCRI definition of sampling period “tap sampling period”.</p>	<p>Change the citation from sampling period to tap sampling monitoring period as found in 40 CFR 141.90(a)(1) of the LCRR or more appropriately to the LCRI definition tap monitoring period. If it remains as tap sampling period, it is a definite implementation issue that causes compression of the tap sampling period as well as increases laboratory capacity problems and costs.</p> <p>As noted in the same paragraph of the rule 40 CFR 141.90(a)(2) “For tap sampling period with a duration of less than six months, the end of the sampling period is the last date samples can be collected as specified in 141.86.” This statement reinforces that EPA wants results reported on October 10 following the end of the reduced monitoring period. But, based on years of experience working with the lead and copper rule, states believe that it is often not possible for samples to be submitted in the last month of the tap sampling period (September) and have them shipped, preserved, analyzed, QAQC processed, signed off on and reported in 10 days/all by October 10th.</p> <p>If the citation is not corrected the tap sampling period will be compressed, causing the entire month of September to be lost for lead and copper tap sampling. In state experiences it takes 1.5 months to have all samples analyzed and reported for the annual, triennial, and nine-year reduced monitoring periods each year. Backing up from October 10, the last date samples could be submitted would be around August 20th of each year.</p> <p>Also, September is when Missouri samples our schools because class has resumed, and water is again being used. Sample results are then reflective of water children are actually consuming.</p>
<p>§ 141.90 (b)(2)</p>	<p>What kind of explanation or documentation will EPA accept for the WQP sample sites for justification on why PWS didn’t use the same sample sites?</p>	<p>EPA should provide additional guidance/clarification.</p>

<p>§ 141.90 (c)</p>	<p>ASDWA's members raised concerns over the staggered reporting schedule, which can be very resource intensive for both the PWS and the primacy agency.</p> <p>There are now 24 certifications in the LCRI. Some certifications in the LCRR have been changed from a certification to "water system must demonstrate", which is still a certification. If those are counted the total goes up to 26. Most are in this section 141.90, but one certification is in 141.86(h).</p>	<p>EPA should streamline the reporting deadlines down to 1 or 2 dates for when the system needs to provide reports or certifications to the primacy agency for review.</p> <p>EPA should identify ways to combine and streamline certifications throughout. EPA should develop templates prior to the compliance date of LCRI for each type of certification the PWS is required to submit to the primacy agency to ensure national consistency and clarity ahead of the compliance deadline.</p> <p>EPA must ensure all compliance tracking and schedules are fully supported in SDWIS and DW-SFTIES.</p>
<p>§ 141.90 (e)(10)</p>	<p>What is valid documentation of customer refusal? Does every attempt need to be tracked by the state, or a single certification that all steps were followed?</p> <p>ASDWA members are concerned about timeliness associated with sampling if the customer is not responsive and sampling timelines are missed.</p>	<p>EPA should develop a template to track acceptable customer refusal. This template could be used by the PWS for tracking purposes and submitted once to the primacy agency for the entire system, rather than per connection. EPA should further develop guidance to aid utility staff with tracking and reporting customer engagement to the state.</p>
<p>§ 141.90 (f)(3)</p>	<p>Because systems are required to report monitoring data within 10 days from the end of the monitoring period and are required to send consumer notification within 3 days of learning of the results, states brought up that the 3 month allowance for certifying consumer notice is unnecessarily flexible.</p>	<p>Some states recommended that consumer notice be certified to the state 30 days from the date of the last consumer notice issued.</p>

<p>§ 141.90 (h)(1)</p>	<p>Timelines/90th Percentile</p> <p>141.90(h)(1) implies the State cannot do the 90P calculation for water systems if data are reported late.</p> <p>Primacy agencies must complete a number of steps in order to provide 90th percentile data to water systems, including a comparison of the 1st and 5th L sample results to identify which sample will be used, and for mixed tier systems identify which sites will be used in the calculation based on the results. Additionally, primacy agencies must then approve the results and report to the water system, all within 5 days.</p> <p>Primacy agencies must also approve the sample plans before sampling begins. States who have recently undergone efforts to update their sampling plans have been very time intensive, requiring significant back and forth with utilities.</p> <p>These logistical concerns are not addressed in LCRI.</p>	<p>ASDWA recommends that EPA provide longer timelines to allow for these processes.</p> <p>EPA should explore potential functionality in CMDP to facilitate better timelines.</p>
<p>§ 141.90 (h)(3)</p>	<p>States are concerned that the timeframes in the rule, and particularly the 15-day timeframe for doing the P90 calculations, that includes reporting the results no later than 10 days after the end of the monitoring period.</p> <p>For example, the P90 cannot be calculated soon enough if samples are collected at the end of the tap sampling period, including the last day, because they cannot be shipped, preserved, analyzed, QA/QC processed, signed off on and reported in 10 days/all by October 10 or 15, for samples collected in September.</p>	<p>ASDWA members recommend a 30-day buffer to the existing timeline or changing the “trigger”, so the clock starts when the primacy agency receives sample results.</p> <p>An unintended consequence of this rule change is that EPA is pushing the requirement to laboratories, who are for the most part unregulated. There are no updated requirements for the labs to complete QA/QC etc. within a certain timeframe in LCRI or LCRR. Therefore, states will most likely be unable to meet the 15-day reporting requirement, as written.</p>

<p>§ 141.86(f)(3) and §141.90(h)(3)</p>	<p>States expressed concern with replacement sample timelines under 141.86(f)(3). Under 141.86(f)(3) The water system must collect replacement samples for any samples invalidated under this section... Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring tap sampling period, whichever occurs later. In addition, there is the requirement that all PWS must have all lead and copper sample results out within 10 days by the end of the monitoring period and notification back to the State. What happens if a PWS must recollect a sample that arrived at the lab Sept 29th and was then invalidated? According to the rule, the PWS has 20 days to recollect the sample. If the sample is recollected on October 15th, then the PWS missed the 10 days lead and copper sample results notification deadline requirements. Also, the lab must analyze the sample, which takes 10 days. So, the PWS is now at day 25 after the sampling period. Mailing (official way to receive paperwork) the sample results to the state may take 2-5 days - now 30 days have passed. The State still needs to calculate the 90th percentile, review, generate the information/paperwork and send it out to the system. This is well past 30 days altogether, but still under the 60 days.</p>	<p>Where states calculate P90 and samples were invalidated, ASDWA recommends changing the language to “(3) The State has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system within 15 days of the end of the tap sampling period or after receipt of the replacement laboratory sample/s results submitted to the State program.” This will ensure the timelines will match up with the invalidation of a sample by a Lab at the end of a monitoring period or the time for lab to get all the sample result back to the State to do the P90 calculation.</p>
<p>§ 142.15</p>	<p>Does the data in SDWIS used by primacy agencies to submit the required quarterly reports to EPA satisfy record keeping or is the primacy agency required to maintain hard copies of all the records?</p>	<p>EPA should provide additional guidance and clarification.</p>

Summary of Costs of States' Transactions Study (CoSTS)

To understand the impact to state drinking water programs from the proposed regulatory changes in the Lead and Copper Rule Improvements (LCRI), ASDWA expanded on its previous Lead and Copper Rule Revisions (LCRR) Cost of States' Transactions Study (CoSTS) with updated cost estimates reflecting changes in the proposed rule. ASDWA's updated CoSTS estimates that the LCRI will place a significant burden on states annually, estimating that a total of 5,141,769 state staff hours will be needed each year. Additionally, CoSTS estimates that the rule will necessitate approximately 799,115 upfront state hours for initial implementation and transition to the new rule. This time burden translates to over \$300 million a year for state implementation—approximately three times the amount of Public Water System Supervision (PWSS) program funding for state implementation for all the primacy requirements under the Safe Drinking Water Act (SDWA.)

Basis for Cost of States' Transactions Study

ASDWA would like to thank EPA for the use and consideration of ASDWA's LCRR CoSTS in the development of the economic analysis for proposed LCRI. ASDWA's members have invested significant time validating the tasks and hours for each task for the proposed LCRI, and ASDWA commends EPA for structuring the Agency's Economic Analysis similar to CoSTS. States appreciate EPA's acknowledgement of the ever-increasing burden being placed on state drinking water programs and emphasize the importance of working together through cooperative federalism to ensure new and updated regulations can be feasibly implemented.

As with the previous version, this version of CoSTS relies significantly on EPA's LCRI Economic Analysis in both the layout and presentation of information and the numbers used. The estimates in CoSTS are intended to serve as a national approximation, and many states may have a higher or lower level of burden due to differences in population and individual state rules, policies, or internal procedures. To develop the national estimate, ASDWA utilized feedback from state workgroups to give recommendations on individual hourly estimates, assumptions of information included in estimates, and the organization of different line items to specify burden for specific activities. ASDWA's LCRI CoSTS estimates states will annually incur 5,141,769 hours of burden and 799,115 hours of one-time burden at the beginning of LCRI implementation. An important consideration is that the estimates developed in the LCRI CoSTS reflect specific regulatory line items and do not consider every potential impact to states from the final rule. For example, calls from consumers, the media, and other state level staff will likely result in a sizable impact on staff burden. The number of public notifications in both the LCRR and LCRI will almost certainly result in increased calls from consumers to both states and water systems. As such, the LCRI CoSTS may in fact underestimate the amount of dedicated staff time needed for effective rule implementation and oversight.

Analysis of State Workforce Capacity

Unfortunately, while an estimated 5,141,769 hours of staff time is needed annually for effective rule implementation and oversight, states will be incapable of dedicating this amount of time to oversight of a single rule. ASDWA's 2018 Resource Needs Report estimated 3,600 state drinking water regulatory staff (including inspectors, engineers, compliance, management, and administrative staff) across all 57 primacy agencies, with a total availability of 7,200,017 hours based on an estimated 2,000-hour work year. Comparatively, ASDWA's PFAS CoSTS estimated that the proposed PFAS regulation, an MCL rather than a treatment technique, would require an estimated 325,850 hours annually, or 4% of total available state staff time annually. This comparison

emphasizes the complexity of the LCRI and indicates that there are likely opportunities to streamline this regulation ahead of final promulgation.

In the context of state drinking water programs, it's an unrealistic expectation to assume that primacy agencies will dedicate 71% of their time implementing a single rule, while simultaneously ensuring state-wide compliance with all other SDWA implementation activities, including oversight of the 91 regulated contaminants, as well as managing programs for operator certification, capacity development, source water protection, and the drinking water state revolving fund (DWSRF); conducting sanitary surveys; providing technical assistance to water systems; ensuring compliance and pursuing enforcement; conducting engineering plan review and approval; and managing massive amounts of data for all of these activities. States have significant concerns that they are being set up to fail based on the unrealistic expectations put forward by these rule changes without comparable increases in funding.

Analysis of State Funding Constraints

Funding options for state drinking water programs are limited, as funding for the states' ability to fulfill their mission of overseeing safe drinking water comes from a limited number of sources. The primary sources for state funding come from EPA's Public Water System Supervision Program (PWSS) and from the set-asides from EPA's Drinking Water State Revolving Loan Fund (DWSRF). Some states can supplement federal funding through the states' general funds and fees from water systems collected during plan reviews, inspections, etc., but this is highly variable by state and will not serve as a substitute for sustainable funding from both the DWSRF and PWSS programs.

State drinking water programs have been chronically underfunded, and ASDWA's Members have been advocating for over 10 years the critical need for increases to PWSS and the DWSRF. The DWSRF and PWSS funding sources have not kept up with inflation, seeing only minor increases in the past decades. Inflation impacts have resulted in a significant overall funding decline for state programs, while programs simultaneously take on more oversight responsibilities.

Historically, states used PWSS grants to implement their drinking water programs; however, for much of the past decade, this funding has remained relatively stagnant. As regulatory responsibilities increased and PWSS funding stayed the same, states began to rely more heavily on the DWSRF set-asides to bridge this gap and maintain their regulatory programs with the increased responsibilities. While the passage of the Infrastructure and Investment in Jobs Act (IIJA) added a significant amount of funding for DWSRF, and thus an increase in the availability of state set-asides for program implementation, the recent increases in using DWSRF funds for Congressionally Directed Spending (CDS) projects has resulted in a net-loss for state programs compared to pre-IIJA DWSRF set-aside availability. Due to states' historical reliance on the DWSRF set-asides to supplement the relatively flat PWSS funding, Congress' utilization of the DWSRF funds for CDS projects has put state drinking water programs at risk at a time when states need more funding for their programs, not less.

ASDWA's 2019 State Resources Needs Report further emphasized how much state primacy agencies have been stretched beyond their capacity. The analysis found that drinking water programs needed a 65% increase in available funding (from \$574 million to \$949 million) and an 82% increase in existing FTEs (from 4,121 to 7,518) for effective program implementation in 2020. The analysis projected that by 2029, state drinking water program funding and workforce would need to double to ensure safe drinking water programs are effective.

This analysis did not include estimates for addressing new and emerging issues, such as addressing PFAS and cybersecurity.

The potential fiscal impacts to state drinking water programs from the proposed LCRI can be estimated by comparing the estimated staff hours needed for LCRI implementation to the current levels of Federal funding from the PWSS program. Using the national average loaded hourly rate for state employees of \$59.90 (salary plus benefits and overhead) and the time estimates outlined in CoSTS, full implementation of the final LCRI would cost the states \$307,991,963 annually and \$47,866,988 for initial regulatory startup. In addition to the 91 contaminants regulated under the SDWA, states have struggled with meeting both the regulatory requirements and additional actions to address non-regulated contaminants such as cyanotoxins, cybersecurity, and PFAS over the past decade as increases to PWSS have not aligned with increases in regulatory oversight needs. While the FY21 increase of 5.4% to PWSS funding (to \$112 million) was a small step to closing the funding gap, the proposed LCRI alone is expected to cost almost three times as much as the current PWSS funding available to implement SDWA. Without significant increases to PWSS and full appropriation of DWSRF funding to counteract the impact of CDS spending, states will be forced to make tough decisions about how to prioritize support to existing programs to implement the final LCRI.

States support EPA's efforts to update the regulation addressing lead in drinking water and are ready to take whatever steps are necessary to protect our Nation from the risks of lead in drinking water; however, implementation at current funding levels is unsustainable, if not impossible. Additional funding would allow states to more effectively implement the LCRI, and manage other emerging issues, using contracted support or through the creation of additional positions at the state. Without this support, our collective goal of protecting public health through safe drinking water will continue to face capacity and implementation challenges.

REFERENCES:

[ASDWA Cover Letter Comments CoSTS on Proposed LCRR](#)

[ASDWA LCRR CoSTS in Excel](#)

[ASDWA LT LCR CoSTS](#)

[ASDWA PFAS CoSTS](#)

[PWSS Table from EPA](#)

[ASDWA CDS White Paper](#)

[ASDWA 2019 Resource Needs Report](#)

[Employment Cost Index - September 2023 \(bls.gov\)](#)

Costs of States Transactions Study (CoSTS) for EPA's Proposed LCRR
Association of State Drinking Water Administrators (ASDWA)

1/31/24 Version

The summary below is based on nine categories taken from EPA's Proposed LCRI Economic Analysis and also pulls data from EPA's LCRR Economic Analysis.

Hours are estimated annually and in some categories include actions that may happen only once every five years, for example.

All totals are being shown as whole numbers.

For the number of systems, this model uses data from SDWIS downloaded on 1/2/24 that included community water systems (CWS) and non-transient non-community water systems (NTNCWS).

In some cases, ASDWA assumes one-time activities in EPA's LCRI Economic Analysis may actually occur on an annual basis.

Estimates for this model are based on federally available data and not individual state capabilities.

	Estimated Annual State Staff Hours	Estimated One-Time Staff Hours
Regulatory Start-Up	587,151	-
Data Reporting	181,300	-
Tap Sampling	1,418,292	3,920
Lead Testing in Schools & Child Care Facilities	634,208	133,280
Corrosion Control Treatment	1,029,893	-
Sample Site Assessment	220,966	-
Lead Service Line Inventory and Replacement	941,305	138,859
Point-of-Use Filter Requirements	21,236	51,959
Public Education & Notification Requirements	107,419	471,097
Totals	5,141,769	799,115

Regulatory Start-Up

EPA Exhibit 4-144 Economic Analysis

		CWS	NTNCWS
Large systems >50,000	1,054	1,048	6
Medium 3,301-50,000	8,655	8,462	193
Small 25-3,300	56,931	39,889	17,032
Total number of systems	66,640		

	Model Inputs
	Model Outputs
	Annual Hours Input

Adoption of Lead and Copper Rule Revisions (LCRI)

States	Hours Ea.	Total Hour	Hours Ea.
49	3,200	156,800	640

Modify State Data Management System

Unclear how the modernized SDWIS might accommodate LCRR/LCRI and what state changes might be needed.

States	Hours Ea.	Total Hours
49	3,700	181,300
		740

System Training and Technical Assistance

States	Hours Ea.	Total Hours
49	4,000	196,000
		800

State Staff Training

Assume three state size categories for training for state staff to properly trained on all components of LCRI.

Lead service line inventories & replacement, corrosion control treatment, public education, sampling & simultaneous compliance

		Hours Ea.	Total Hours
Large	9	2,000	18,000
Medium	20	1,000	20,000
Small	20	500	10,000
Not Wyoming or DC	Total	49	48,000

This total for state staff training is in the same range as what was estimated for the Revised Total Coliform Rule (RTCR).

Based off EPA Exhibit 4-146 Economic Analysis

State Annual Administrative Activities

Coordinate with EPA	1,040
Provide ongoing TA	2,347
Report to SDWIS/FED	1,560
Train Staff for Annual Adminstration	104
	5,051

Annual To 587,151

Data Reporting

Large systems >50,000	1,054
Medium 3,301-50,000	8,655
Small 25-3,300	56,931
Total number of systems	66,640

	Model Inputs
	Model Outputs
	Annual Hours Input

States	Hours Ea.	Total Hours	
	49	3,700	181,300 740

Annual To 181,300

Tap Sampling

EPA Exhibit 4-144 Economic Analysis

Tap Sampling							
EPA Exhibit 4-144 Economic Analysis							

Review of Compliance Monitoring Plans Based on LSL Inventories

Large Systems without LSL		Hours Ea.	Total Hours
Tracking			
# of systems	530	1	530
Review			
	530	2	1,060
Follow-up			
15%	80	2	159
Reporting			
	530	0.5	265
Violations			
2%	11	2	21
Return to Compliance Plan			
	11	2	21
Re-eval.			
	159	2	318
30%	Total		2,374

Medium Systems without LSL		Hours Ea.	Total Hours
Tracking			
# of systems	186	1	186
Review			
	186	1	186
Follow-up			
25%	47	2	93
Reporting			
	186	0.5	93
Violations			
20%	37	2	74
Return to Compliance Plan			
	37	2	74
Re-eval.			
	56	1	56
30%	Subtotal		763
			2,374
	Total		3,138

Small Systems without LSL		Hours Ea.	Total Hours
Tracking			
# of systems	63,565	1	63,565
Review			
	63,565	1	63,565
Follow-up			
40%	25,426	2	50,852
Reporting			
	63,565	0.5	31,782
Violations			
33%	20,976	2	41,953
Return to Compliance Plan			
	20,976	2	41,953
Re-eval.			
	19,069	1	19,069
30%	Subtotal		312,740
			763
			2,374
	Total		315,877

Assumes in the above estimate that systems without LSL will still require some review of their monitoring plans due to changes in requirements.

	States	Hours Ea.	Total Hours
Total Hours to Build Template	49	80	3,920

Appendix C: Cost of States' Transactions Study by the Association of State Drinking Water Administrators
EPA Docket ID: EPA-HQ-OW-2022-0801

Review of Monitoring Data											
Large Systems		Hours Ea.	Total Hours	Medium Systems		Hours Ea.	Total Hours	Small Systems		Hours Ea.	Total Hours
Tracking				Tracking				Tracking			
# of systems	1,054	2	2,108	# of systems	8,655	1	8,655	# of systems	56,931	1	56,931
Review				Review				Review			
	1,054	4	4,216		8,655	3	25,965		56,931	2	113,862
Follow-up				Follow-up				Follow-up			
15%	158	4	632	25%	2,164	4	8,655	40%	22,772	4	91,090
Reporting				Reporting				Reporting			
	1,054	0.5	527		8,655	0.5	4,328		56,931	0.5	28,466
Violations				Violations				Violations			
2%	21	4	84	20%	1,731	4	6,924	33%	18,787	4	75,149
Return to Compliance				Return to Compliance				Return to Compliance			
	21	4	84		1,731	4	6,924		18,787	4	75,149
Total			7,652	Subtotal			61,451	Subtotal			440,646
							7,652				61,451
				Total			69,103				7,652
								Total			509,748

	# Invalidated samples/year	Hours Ea.	Total Hours	Large	Medium	Small	Total *1.2%
Review Sample invalidation Requests	13,884	2	27,767	84,320	389,475	683,172	13,884

Assumes denied requests and 1.2% samples invalidated annually.

Above estimate utilizes numbers from the section 141.86 in the LCR for monitoring requirements.

Review Customer Notification	Total #Systems	Hours Ea.	Total Hours
Certifications	66,640	2	133,280

Review Monitoring Results & 90th Percentile Calculations	Small Sys. w/ LSL	Hours Ea.	Total Hours	Medium Sys. w/ LSL	Hours Ea.	Total Hour	Large Sys. w/ LSL	Hours Ea.	Total Hours
	14,233	1	14,233	4,328	1	4,328	527	2	1,054
	Small Sys. w/o LSL	Hours Ea.	Total Hours	Medium Sys. w/o LS	Hours Ea.	Total Hour	Large Sys. w/o LSL	Hours Ea.	Total Hours
	63,565	1	63,565	186	1	186	530	2	1060

	Systems w/ No CCT	Hours Ea.	Total Hours	Systems w/ CCT	Hours Ea.	Total Hours
Review Lead WQP Sampling Data and Compliance with OWQPs	6,002	10	60,019	1,054	17	17,918

Assumes the above calculation will happen twice per year (5 hours*2 and 8.5 hours*2)

	Systems w/ No CCT	Hours Ea.	Total Hours	Systems w/ CCT	Hours Ea.	Total Hours
Review Copper WQP Sampling Data and Compliance with OWQPs	6,002	10	60,019	1,054	17	17,918

Review Source Water Monitoring Results	Total #Systems	Hours Ea.	Total Hours
	6,002	0.5	3,001

Annual Total	1,418,292
One-Time Total	3,920

Lead Testing in Schools and Child Care Facilities

	Model Inputs
	Model Outputs

Large systems >50,000	1,054
Medium 3,301-50,000	8,655
Small 25-3,300	56,931
Total number of systems	66,640

Assume the number of hours per state includes the following:
Ongoing conversations with systems on number of licensed schools and child care facilities in their area, coordinating with other entities (Dept. of Ed., Dept of Social Services, etc.), providing updated guidance. Answering questions from the public, schools, and child care facilities.

States	Hours Ea.	Total Hours
49	1,000	49,000

Total number of systems			
Initial tech. assistance	66,640	Hours Ea. 3	Total Hours 199,920
Tracking # of systems	66,640	0.5	33,320
Review	66,640	1	66,640
Follow-up 15%	9,996	1	9,996
Reporting	66,640	1	66,640
Violations 10%	6,664	0.5	3,332
Return to Compliance	6,664	0.5	3,332
Total			383,180

	Total #Systems	Hours Ea.	Total #Systems
Review List of Schools and Child Care Facilities	66,640	1	66,640

The above estimate assumes states will only review the list to ensure it was completed, not checking for accuracy.

Provide Templates, Translations, and Review Updated System Sampling Instructions	Total #Systems	Hours Ea.	Total Hours
	66,640	1	66,640

Review School and Child Care Facility Testing Program Materials	Medium & Small Systems	Hours Ea.	Total Hour	Large Systems	Hours Ea.	Total Hours
	65,586	1	65,586	1,054	3	3,162

	Total #Systems	Hours Ea.	Total Hours
Review School and Child Care Facility Sampling Results After Individual Sampling Events	66,640	2	133,280

Annual Total	634,208
One-Time Total	133,280

Corrosion Control Treatment

	# of systems	CWS	NTNCWS	# systems with ALE	Model Inputs
					Model Outputs
Large systems >50,000	1,054	1,048		6	183
Medium 3,301-50,000	8,655	8,462		193	866
Small 25-3,300	56,931	39,889		17,032	4,953
Total number of systems	66,640				6,002

Assumes categories based upon EPA's Exhibit 4-160 in the LCRI Economic Analysis.
Assumes NTNCWS are counted.
Assume "review" includes: review CCT study and determine type of CCT to be installed, along with approaval of engineering plans.
Assumes large systems are already conducting CCT, so only counting ALEs
Assumes 50% of medium systems have CCT installed will be required to conduct CCT studies to designate OCCT, and add medium systems assumed to have ALEs
Assumes NO small systems currently have CCT, and is only accounting for estimated number of small systems with ALEs - 50% CCT, 25% POU, 25% lead plumbing replacement

Large sys. w/ ALE	Hours Ea.	Total Hours	Medium sys. w/ ALE and CCT that needs to be optimized	Hours Ea.	Total Hours
Tracking			Tracking		
# of systems	183	2	# of systems	5,193	2
Review	183	40	Review	5,193	50
Follow-up			Follow-up		
25%	46	10	25%	1,298	10
Reporting	183	1	Reporting	5,193	1
Violations			Violations		
2%	4	6	20%	1,039	6
Return to Compliance	4	4	Return to Compliance	1,039	4
Periodic CCT			Periodic CCT		
Re-eval.	18	40	Re-eval.	519	20
10%	Subtotal	9,115	10%	Subtotal	308,984
Small sys. w/ ALE	Hours Ea.	Total Hours			
Tracking					
# of systems	2,476	2			
Review	2,476	25			
Follow-up					
25%	619	10			
Reporting	2,476	1			
Violations					
33%	495	6			
Return to Compliance	495	4			
Periodic CCT					
Re-eval.	248	20			
10%	Subtotal	85,439			

Small System Flexibility

Assumes NO small systems currently have CCT, and is only accounting for estimated number of small systems with ALEs
Assumes 50% small systems with ALEs implement CCT.
Assumes 25% small systems with ALE implement POU and remaining 25% replace lead bearing plumbing.

POU	25% small systems		Small Systems Lead Bearing	25% small systems	
	Hours Ea.	Total Hours		Hours Ea.	Total Hours
Tracking			Tracking		
# of systems	1,238	2	# of systems	1,238	2
Review			Review		
	1,238	4		1,238	4
Follow-up			Follow-up		
50%	619	4	50%	619	4
Reporting			Reporting		
	1,238	0.5		1,238	0.5
Violations			Violations		
33%	409	4	33%	409	4
Return to Compliance			Return to Compliance		
	409	4		409	4
Periodic CCT			Periodic CCT		
Re-eval.	124	4	Re-eval.	124	4
10%			10%		
	Subtotal	14,289		Subtotal	14,289

Review of OWQPs	Small Sys.	Hours Ea.	Total Hours	Medium Sys.	Hours Ea.	Total Hour	Large Sys.	Hours Ea.	Total Hours
		4,953	2		866	4		183	8
			9,906			3,462			1,467

Review Revised CCT Study and Determine Needed CCT Adjustment	Small Sys. w/ LSL	Hours Ea.	Total Hours	Medium Sys. w/ LSL	Hours Ea.	Total Hour	Large Sys. w/ LSL	Hours Ea.	Total Hours
		2,476	28		5,193	50		527	50
			69,342			259,650			26,350

Review CCT Guidance and Applicability to Individual Systems	States	Hours Ea.	Total Hours
		49	40
			1,960

Review Water Quality Data with Sys. During Sanitary Survey	Small Sys.	Hours Ea.	Total Hours	Medium Sys. w/o LSL	Hours Ea.	Total Hour	Large Sys. w/o LSL	Hours Ea.	Total Hours
		56,931	2.5		8,655	3.5		1,054	4.5
			142,328			30,293			4,743

Consulting System on Treatment Change	Small Sys.	Hours Ea.	Total Hours	Medium Sys. w/o LSL	Hours Ea.	Total Hour	Large Sys. w/o LSL	Hours Ea.	Total Hours
		786	46		129	84		16	82
			36,142			10,840			1,294

For the above estimate, EPA assumes 4.6% of all CWS and 3.3% of all NTNCWS will change treatment each year.
4.6% divided by 3 (small, medium and large) 1.5% multiplied by each total system size plus 3.3% divided by 3 (small, medium, large) 1.1%.

Annual Total	1,029,893
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Sample Site Assessment

	# of systems	CWS	NTNCWS
Large systems >50,000	1,054	1,048	6
Medium 3,301-50,000	8,655	8,462	193
Small 25-3,300	56,931	39,889	17,032
Total number of systems	66,640		

	Model Inputs
	Model Outputs

	# of systems	% for DSSA	# of systems required for DSSA
All systems	66,640	30%	19,992

Assumes NTNCWS included in system count.

Consult w/ Sys. Before DSSA CCT Adjustments

Total #Systems	Hours Ea.	Total Hours
66,640	2	133,280

Review Report on DSSA Responses

Medium & Small Systems	Hours Ea.	Total Hours	Large Systems	Hours Ea.	Total Hours
65,586	1	65,586	1,054	2	2,108

Grand Total	220,966
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Lead Service Line (LSL) Inventories and Replacement Plans

							Model Inputs
							Model Outputs
							One Time
	# of systems	CWS	NTNCWS	Systems with LSLs		Systems without LSLs	For NTNCWS Using Exhibit 4-17 2.5% assumption
Large systems >50,000	1,054	1,048	6	524	Complex LSL Inventories & LSLR Plans	530	0
Medium 3,301-50,000	8,655	8,462	193	4,231	Moderate LSL Inventories & LSLR Plans	4,424	5
Small 25-3,300	56,931	39,889	17,032	9,972	Simpler LSL Inventories & LSLR Plans	46,959	426
Total number of systems	66,640	49,399	17,231	14,727	Total number of systems with LSLs	51,913	Total no. of systems without LSLs

Review Updated Service Line Inventory with Lead Connector Information

Total #Systems	Hours Ea.	Total Hours
66,640	1	66,640

Review Annual Service Line Inventory Updates

66,640	1	66,640
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Review Validation Report

49,399	0.5	24,700
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Above estimate assumes only CWS are counted.

Review SLR Plan

Large Systems	Hours Ea.	Total Hour	Medium Syst	Hours Ea.	Total Hour	Small System:	Hours Ea.	Total Hour	NTNCWS with LSLs	Hours Ea.	Total Hours
524	18	9,432	4,231	10	42,310	9,972	6	59,834	431	6	2,584

Review System's Annual Service Line Replacement Report

Small Sys.	Hours Ea.	Total Hour	Medium Sys.	Hours Ea.	Total Hours
9,972	1	9,972	4,231	1	4,231
524	3	1,572			

Small NTNCWS	Hours Ea.	Total Hour	Medium NTN	Hours Ea.	Total Hours
426	1	426	5	1	5

Review Baseline Annual Service Line Replacement Report

Large Systems		Hours Ea.	Total Hours
Tracking			
# of systems	524	1	524
Review			
	524	8	4,192
Follow-up			
10%	52	3	157
Reporting			
	524	0.5	262
Violations			
2%	10	3	31
Return to Compliance			
	10	3	31
Periodic LSLR			
Plan Re-eval.	1,048	4	4,192
200%	Total		9,390

Medium Systems		Hours Ea.	Total Hours
Tracking			
# of systems	4,231	1	4,231
Review			
	4,231	4	16,924
Follow-up			
10%	423	2	846
Reporting			
	4,231	0.5	2,116
Violations			
20%	846	2	1,692
Return to Compliance			
	846	2	1,692
Periodic LSLR			
Plan Re-eval.	8,462	2	16,924
200%	Subtotal		44,426
			9,390
	Total		53,816

Small Systems	Hours Ea.		Total Hours
Tracking			
# of systems	9,972	1	9,972
Review			
	9,972	2	19,945
Follow-up			
25%	2,493	1	2,493
Reporting			
	9,972	0.5	4,986
Violations			
33%	3,291	1	3,291
Return to Compliance			
3,291	1	3,291	
Periodic LSLR			
Plan Re-eval.	19,945	1	19,945
200%	Subtotal		63,922
			44,426
			9,390
	Total	117,738	

NTNCWS with LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	431	2	861
Review			
	431	6	2,584
Follow-up			
40%	172	4	689
Reporting			
	431	0.5	215
Violations			
33%	142	4	568
Return to Compliance			
	142	4	568
Periodic LSLR			
Plan Re-eval.	861	1	861
200%		Subtotal	6,347
			63,922
			44,426
			9,390
Total			124,085

Initial tracking, review and follow-up for LSL inventories - complexity of inventories based on system size and whether system has LSLs or not
Assume all systems have to conduct an inventory to determine if they have LSLs or not
Assume review of systems with LSLs will take more time than systems that don't have LSLs
Assume 100% of LSL inventories would need to be re-evaluated annually.
Systems would find more LSLs than in original inventory or find a few LSLs in the system that were unknown initially
Assumes large NTNCWS are not included due to less than 1 being reported for having LSLs based off Exhibit 4-17 in EPA's Economic Analysis
Assumes 30% of all CWSs will have LSLs - 50% of large and medium CWSs and 25% of small CWSs have LSLs

Lead Service Line Inventories-First inventory after first three years plus two annual re-evaluations in years four and five

Large Systems with LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	524	1	524
Review			
	524	8	4,192
Follow-up			
15%	79	4	314
Reporting			
	524	0.5	262
Violations			
2%	10	4	42
Return to Compliance			
	10	4	42
Annual LSLI			
Re-evaluation	1,048	8	8,384
200%	Total		13,760

Medium Sys. with LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	4,231	1	4,231
Review			
	4,231	8	33,848
Follow-up			
25%	1,058	4	4,231
Reporting			
	4,231	0.5	2,116
Violations			
20%	846	4	3,385
Return to Compliance			
	846	4	3,385
Annual LSLI			
Re-evaluation	8,462	8	67,696
200%	Subtotal		118,891
			13,760
	19,674	Total	132,651

Small Sys. with LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	9,972	1	9,972
Review			
	9,972	4	39,889
Follow-up			
40%	3,989	4	15,956
Reporting			
	9,972	0.5	4,986
Violations			
33%	3,291	4	13,163
Return to Compliance			
	3,291	4	13,163
Annual LSLI			
Re-evaluation	19,945	4	79,778
200%	Subtotal		176,908
			118,891
			13,760
	Total		309,559

NTNCWS with LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	431	1	431
Review			
	431	4	1,723
Follow-up			
40%	172	4	689
Reporting			
	431	0.5	215
Violations			
33%	142	4	568
Return to Compliance			
	142	4	568
Annual LSLI			
Re-evaluation	861	4	3,445
200%	Subtotal		7,639
			176,908
			118,891
			13,760
	Total		317,198

Large Systems without LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	530	1	530
Review			
	530	2	1,060
Follow-up			
10%	53	2	106
Reporting			
	530	0.5	265
Violations			
2%	11	2	21
Return to Compliance			
	11	2	21
	Total		2,003

Medium Sys. without LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	4,424	1	4,424
Review			
	4,424	2	8,848
Follow-up			
10%	442	2	885
Reporting			
	4,424	0.5	2,212
Violations			
10%	442	2	885
Return to Compliance			
	442	2	885
	Subtotal		18,138
			2,003
	Total		20,142

Small Sys. without LSLs		Hours Ea.	Total Hours
Tracking			
# of systems	46,959	1	46,959
Review			
	46,959	2	93,918
Follow-up			
20%	9,392	2	18,784
Reporting			
	46,959	0.5	23,479
Violations			
20%	9,392	2	18,784
Return to Compliance			
	9,392	2	18,784
	Subtotal		220,706
			18,138
			2,003
	Total		240,848

Small NTNCWS without LSI		Hours Ea.	Total Hours
Tracking			
# of systems	16,606	1	16,606
Review			
	16,606	2	33,212
Follow-up			
40%	6,642	2	13,285
Reporting			
	16,606	0.5	8,303
Violations			
33%	5,480	2	10,960
Return to Compliance			
	5,480	2	10,960
Periodic LSLI			
Plan Re-eval.	4,982	3	14,946
30%	Subtotal		108,272
			220,706
			18,138
			2,003
	Total		349,120

Medium/Large NTNCWS wit		Hours Ea.	Total Hours
Tracking			
# of systems	188	2	376
Review			
	188	2	376
Follow-up			
40%	75	2	151
Reporting			
	188	0.5	94
Violations			
33%	62	2	124
Return to Compliance			
	62	2	124
Periodic LSLR			
Plan Re-eval.	56	3	169
30%	Subtotal		1,415
			108,272
			220,706
			18,138
			2,003
	Total		350,535

Annual Tot 941,305
One-Time 138,859

Total LSL Replacement and Inventory 791,819

Point-of-Use (POU)

	# of systems	CWS	NTNCWS
Large systems >50,000	1,054	1,048	6
Medium 3,301-50,000	8,655	8,462	193
Small 25-3,300	56,931	39,889	17,032
Total number of systems	66,640	49,399	17,231

	Model Inputs
	Model Outputs
	One Time

Review of POU Plan

Small Sys	Hours Ea.	Total Hours
9,972	2	19,945

Small NTNCW	Hours Ea.	Total Hours	Medium NTNCW	Hours Ea.	Total Hour: Large NTNCW	Hours Ea.	Total Hours	
426	2	852	5	3	14	0	4	1

Provide Templates for POU Outreach Materials for Small Sys. And NTNCWS

Small Sys and NTNCWS	Hours Ea.	Total Hours
57,120	0.5	28,560

Review POU Public Education Materials

Small Sys	Hours Ea.	Total Hours	Small and Medium NTN	Hours Ea.	Total Hour: Large NTNCW	Hours Ea.	Total Hours	
4,953	0.5	2,476	199	0.5	100	6	2	12

Review Sample Invalidation Request for POU Monitoring

Systems	Hours Ea.	Total Hours
666	2	1,333

Review Customer Notification Certifications

Systems	Hours Ea.	Total Hours
19,680	0.5	9,840

Review Annual POU Program Report

Small Sys	Hours Ea.	Total Hours	Small NTNCWS	Hours Ea.	Total Hour	Medium NTNCWS	Hours Ea.	Total Hour	Large NTN	Hours Ea.	Total Hours
19,680	0.5	9,840	426	0.5	213	5	2	10	0	3	0

Annual Total	21,236
One-Time Total	51,959

Public Notification and Education

	total # of			Model Inputs Model Outputs One Time	# systems	# systems with
	systems	CWS	NTNCWS		with ALE	LSL/sites >AL
Large systems >50,000	1,054	1,048	6		183	756
Medium 3,301-50,000	8,655	8,462	193		866	4,042
Small 25-3,300	56,931	39,889	17,032		4,953	6,661
Total number of systems	66,640	49,399	17,231		6,002	11,459

Review Copy of 3 Calendar Day Notice and Certification

Systems	Hours Ea.	Total Hours
66,640	0.5	33,320

Provide Templates for Updated CCR and Translating Material

Systems	Hours Ea.	Total Hours
49,399	2.5	123,498

Translating CCR Updates Annually

Systems	Hours Ea.	Total Hours
49,399	0.5	24,700

Provide Templates for Local and State Health Departments Lead Outreach

Systems	Hours Ea.	Total Hours
49,399	0.5	24,700

Review Lead Outreach Materials for State and Local Health Departments

Systems	Hours Ea.	Total Hours
49,399	1.5	74,099

Participate in Joint Communication Efforts with Local and State Health Departments

Systems	Hours Ea.	Total Hours
49,399	1	49,399

Review Public Education Materials for Service Line Distrubances

Systems	Hours Ea.	Total Hours
14,727	1.5	22,091

Provide Templates for Inventory-Related Outreach Materials

Systems	Hours Ea.	Total Hours
15,158	0.5	7,579

Review General Inventory-Related Outreach Materials

Systems	Hours Ea.	Total Hours
66,640	1.5	99,960

Review Public Education Certifications

Systems	Hours Ea.	Total Hours
6,002	1	6,002

Provide Template and Review Revised Lead Language

Systems	Hours Ea.	Total Hours
15,158	2	30,316

Consult with CWS on Other Public Education Activities in Response to a Lead ALE

Systems	Hours Ea.	Total Hours
6,002	2	12,004

Provide Templates for Systems with ALEs

Systems	Hours Ea.	Total Hours
6,002	2	12,004

Review Outreach Materials Provided by Systems with Multiple Lead ALEs

Systems	Hours Ea.	Total Hours
6,002	2	12,004

Consult on Filter Program for Systems with Multiple Lead ALEs

Small Sys	Hours Ea.	Total Hour	Medium Sys	Hours Ea.	Total Hours	Large Sys.	Hours Ea.	Total Hours
4,953	2	9,906	866	6	5,193	183	8	1,467

Review Plan for Making Filters Available

Small Sys	Hours Ea.	Total Hour	NTNCWS	Hours Ea.	Total Hours
14,925	2	29,850	426	1	426

Annual Total	107,419
One-Time Total	471,097