

Date of Hearing: March 14, 2023

ASSEMBLY COMMITTEE ON ENVIRONMENTAL SAFETY AND TOXIC MATERIALS

Alex Lee, Chair

AB 249 (Holden) – As Amended March 7, 2023

**SUBJECT:** Water: schoolsites: lead testing: conservation

**SUMMARY:** Requires, on or before January 1, 2027, a community water system that serves a schoolsite to test for lead in each of the schoolsite's potable water system outlets and to report the results to the State Water Resources Control Board (State Water Board) and applicable school or Local Educational Agency (LEA); requires LEAs or schools, if lead levels exceed 5 parts per billion (ppb), to notify parents and guardians of elevated lead levels, remove from use fountains and faucets where excess lead levels may exist, and provide a potable source of drinking water for pupils; and requires the State Water Board to allocate funds for the purposes of this bill. Specifically, **this bill**:

- 1) Codifies findings and declarations stating the impacts of lead on children, that these impacts are believed to be permanent, that there is no safe level of lead in children, and that the United States Environmental Protection Agency's (US EPA) maximum contaminant level goal for lead is zero.
- 2) Codifies findings and declarations that it is the goal of the state to ensure all of the following:
  - a) That water served to or consumed by children while they attend school or childcare contains no more than zero parts per billion (ppb) lead;
  - b) That state requirements for lead in drinking water in schools be at least as health protective as national standards and complement requirements established by the US EPA for the control of lead and copper; and,
  - c) That any future state requirements for lead testing in drinking water in schools will use the most protective standard possible, or no more than 5 ppb lead.
- 3) Requires, on or before January 1, 2027, a community water system that serves a schoolsite to test for lead in each of the schoolsite's potable water system outlets.
- 4) Specifies that the requirement for a community water system to test lead in the potable water outlets of schools does not apply to buildings that were constructed or modernized—such that all faucets and other end point devices used for potable water were replaced—after January 1, 2010.
- 5) Requires an LEA or school to allow the community water system to access each schoolsite to conduct testing, where testing is required pursuant to Health and Safety Code (HSC) § 116277(a).
- 6) Requires each community water system, in cooperation with the appropriate corresponding LEA or school, to prepare a sampling plan for each schoolsite where lead sampling is required pursuant to HSC § 116277(a).

- 7) Authorizes the community water system, LEA, or school to request assistance on developing the sampling plan from the State Water Board or any local health agency responsible for regulating community water systems.
- 8) Requires a community water system that serves a schoolsite where lead sampling is required pursuant to HSC § 116277(a) to report its water lead level findings to the following:
  - a) The applicable school or LEA, within 10 business days after the community water system receives the results from the testing laboratory, or within two business days if it is found that the water lead level from any potable water system outlet on the schoolsite exceeds 5 ppb; and,
  - b) The State Water Board.
- 9) Requires the LEA or school to do all of the following if the lead level exceeds 5 ppb:
  - a) Notify parents and guardians of pupils who attend the schoolsite or preschool where elevated lead levels were found;
  - b) Take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist; and,
  - c) Work with the schoolsites under its jurisdiction to ensure that a potable source of drinking water is provided for pupils at each potable water system outlet that has been shut down due to elevated lead levels.
- 10) Specifies that a potable source of drinking water may include, but is not limited to, replacing any fixtures that are contributing to elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.
- 11) Requires the State Water Board to make the results of school lead sampling, conducted pursuant to HSC § 116277(a), publicly available through posting on its internet website.
- 12) Defines "local educational agency" to mean a school district, county office of education, or charter school located in a public facility.
- 13) Defines "potable water system outlet" to mean a water fountain or faucet used for drinking or preparing food.
- 14) Defines "schoolsite" to mean a public or private school that provides preschool education, transitional kindergarten, elementary education, or secondary education to a minimum of six children.
- 15) Requires the State Water Board to allocate \$10 million each fiscal year from 2024 to 2027, inclusive, from the federal Infrastructure Investment and Jobs Act, to the extent allowed under federal law, to pay for drinking water testing, drinking water filters, and related training for school personnel, at schoolsites where lead sampling is required pursuant to HSC § 116277(a).
- 16) Requires the State Water Board to allocate \$5 million each fiscal year from 2024 to 2027, inclusive, from the federal Drinking Water State Revolving Fund, to the extent allowed under

federal law, to pay for water efficient faucet and fixture replacements at schoolsites where lead sampling is required pursuant to HSC § 116277(a).

**EXISTING LAW:**

- 1) Requires, pursuant to the federal Safe Drinking Water Act (SDWA) and California SDWA, drinking water to meet specified standards for contamination as set by the US EPA or the State Water Board. (42 United States Code § 300(f), et seq.; HSC § 116270, et seq.)
- 2) Establishes as policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. (Water Code § 106.3)
- 3) Defines "community water system" as a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system. (HSC § 116275(i))
- 4) Requires a licensed child day care center that is located in a building constructed before January 1, 2010 to have its drinking water tested for lead contamination levels on or after January 1, 2020, but no later than January 1, 2023, and every five years after the date of the initial test. (HSC § 1597.16(a)(1))
- 5) Requires a licensed child day care center subject to HSC § 1597.16(a)(1) to collect and submit drinking water samples to an accredited laboratory; requires the laboratory to, in a timely manner, electronically submit its test results to the State Water Board; and if the test results show elevated levels, requires the State Water Board to report, in a timely manner, the test results to the California Department of Social Services (CDSS). (HSC § 1597.16(a)(2)(A))
- 6) Requires the State Water Board to post all test results received for lead in licensed child day care centers on its internet website in a timely manner and to make test results readily accessible to the public. (HSC § 1597.16(a)(2)(B)(ii))
- 7) Requires, upon notification of elevated lead levels, a licensed child day care center to immediately make inoperable and cease using the fountains and faucets where elevated lead levels may exist, and to obtain a potable source of water for children and staff. (HSC § 1597.16(a)(3))
- 8) Requires a licensed child day care center to notify parents or guardians of children enrolled in the center of the requirement to test a facility's drinking water and of the test results. (HSC § 1597.16(a)(4))
- 9) Establishes the Lead-Safe Schools Protection Act and requires the State Department of Health Services (now the California Department of Public Health, CDPH) to conduct a sample survey of schools in this state for the purpose of developing risk factors to predict lead contamination in public schools. (Education Code (EC) § 32240-32245)
- 10) Requires, pursuant to the Lead-Safe Schools Protection Act, that the CDPH work with the California Department of Education to develop voluntary guidelines for distribution to

schools to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures. (EC § 32242(g))

- 11) Prohibits, beginning January 1, 1994, the use of lead-based paint, lead plumbing and solders, or other potential sources of lead contamination in the construction of any new school facility or the modernization or renovation of any existing school facility. (EC § 32244)
- 12) Requires a school district to provide access to free, fresh drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the National School Lunch Program or the federal School Breakfast Program are served or consumed. Authorizes a school district to comply with this requirement by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water. (EC § 38086)
- 13) Requires a school district to notify parents, pupils, teachers, and other school personnel of drinking water results immediately if the school district is required to provide alternative drinking water sources, and authorizes a school district to comply with that requirement by providing notification of the test results during the next regularly scheduled public school meeting. (HSC § 116450)
- 14) Prohibits the use of any pipe, pipe or plumbing fitting or fixture, solder, or flux that is not "lead free" in the installation or repair of any public water system or any plumbing in a facility providing water for human consumption. (HSC § 116875(a))
- 15) Defines "lead free" as not containing more than 0.2 percent lead when used with respect to solder and flux and not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures. (HSC § 116875(e))
- 16) Requires, by July 1, 2018, a public water system to compile an inventory of known lead user service lines in use in its distribution system and identify areas that may have lead user service lines in use in its distribution system. (HSC § 116885 (a))
- 17) Authorizes the US EPA to grant primary enforcement responsibility to states for the federal Safe Drinking Water Act if, among other things, the state has adopted drinking water regulations that are no less stringent than national primary drinking water regulations. (40 Code of Federal Regulations (CFR) § 142.10(a))
- 18) Defines, for the purposes of the federal Lead and Copper Rule (LCR), a "school" to mean any building associated with public, private, or charter institutes that primarily provide teaching and learning for elementary or secondary students. (40 CFR § 141.2)
- 19) Defines, for the purposes of the federal LCR, "child care facility" to mean a location that houses a licensed provider of child care, day care, or early learning services to children, as determined by the state, local, or tribal licensing agency. (40 CFR § 141.2)
- 20) Requires all community water systems to conduct lead monitoring at the schools and child care facilities they serve if those schools or child care facilities were constructed prior to

January 1, 2014, or the date the state adopted standards that meet the definition of "lead free" under the federal SDWA, whichever is earlier. (40 CFR § 141.92)

- 21) Requires each community water system to compile a list of schools and child care facilities served by the system by October 16, 2024. (40 CFR § 141.92(a)(1))
- 22) Requires each community water system to contact elementary schools and child care facilities on the list, developed pursuant to 40 CFR § 141.92(a)(1), to provide (40 CFR § 141.92(a)(2)):
  - a) Information about health risks from lead in drinking water on an at least annual basis; and,
  - b) Notification that the water system is required to sample for lead at elementary schools and child care facilities, including a proposed sampling schedule, information about lead sampling, and instructions for identifying outlets for sampling and preparing for a sampling event 30 days prior to the event.
- 23) Requires community water systems to include documentation if an elementary school or child care facility is non-responsive or otherwise declines to participate in the monitoring or education requirements under 40 CFR § 141.92. (40 CFR § 141.92(a)(3))
- 24) Defines a school or child care facility as "non-responsive" if a community water system makes at least two separate good faith attempts to contact the facility to schedule sampling with no response. (40 CFR § 141.92(a)(3))
- 25) Requires a community water system to collect five samples per school and two samples per child care facility at outlets typically used for consumption; prohibits, except under specified conditions, outlets from having point-of-use devices (40 CFR § 141.92(b)(1))
- 26) Requires a community water system to collect samples from specified fixture types, as follows:
  - a) For schools: two drinking water fountains, one kitchen faucet used for food or drink preparation, one classroom faucet or other outlet used for drinking, and one nurse's office faucet, as available. (40 CFR § 141.92(b)(1)(i))
  - b) For child care facilities: one drinking water fountain, and either a kitchen faucet used for food or drink preparation, or one classroom faucet or other outlet used for drinking. (40 CFR § 141.92(b)(1)(ii))
- 27) Requires a community water system to sample all outlets used for consumption, if a facility has fewer than the required number of outlets. ((40 CFR § 141.92(b)(1)(iii))
- 28) Requires community water systems to collect samples from at least 20 percent of elementary schools and 20 percent of child care facilities served by the system per year, or according to a schedule approved by the state, until all schools and child care facilities identified on the list, developed pursuant to 40 CFR § 141.92(a)(1), have been sampled or declined to participate. (40 CFR § 141.92(c)(1))

- 29) Requires community water systems to sample all elementary schools and child care facilities at least once in the five years following October 16, 2024. (40 CFR § 141.92(c)(2))
- 30) Requires community water systems, after they have completed one cycle of sampling in all elementary schools and child care facilities, to sample at the request of an elementary school or child care facility. (40 CFR § 141.92(c)(3))
- 31) Requires community water systems to sample at the request of a secondary school. (40 CFR § 141.92(c)(4))
- 32) Authorizes a state to exempt, through a written waiver, a community water system from school lead testing requirements under the federal LCR, if a state or local law or program requires the system to conduct sampling for lead in drinking water in schools and child care facilities served by that system, and sampling is consistent with federal requirements. (40 CFR § 141.92(d))
- 33) Requires a community water system to provide analytical results as soon as practicable but no later than 30 days after receipt of the results to the school or child care facility, along with information about remediation options. (40 CFR § 141.92(f)(1))
- 34) Requires a community water system to provide analytical results annually to the local and state health department, and the State Water Board. (40 CFR § 141.92(f)(2))

**FISCAL EFFECT:** Unknown.

**COMMENTS:**

*Need for the bill:* According to the author, "Lead consumption among youth and disenfranchised communities occurs at a higher rate. Assisting schools with the resources and appropriate standards to ensure the water fountains our children drink from are safe will help us protect our schools, students, and communities. Children do not become more resistant to lead's toxic effects once they transition from daycare to kindergarten, so California should take the responsible step of aligning childcare and school lead testing standards."

*Human right to water:* In 2012, by enacting Assembly Bill (AB) 685 (Eng, Chapter 524, Statutes of 2012), California became the first state with a Human Right to Water law. AB 685 established a state policy that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation. Water supply issues, contaminants, costs of treatment and distribution systems, climate change, the number and nature of small public water systems, especially in disadvantaged communities, and many other factors continue to challenge progress in implementing the Human Right to Water.

*Short- and long-term consequences of childhood lead exposure:* According to the Centers for Disease Control and Prevention (CDC), research shows that there is no safe level of lead in drinking water and even very low levels can have negative and irreversible health effects, especially for children and pregnant persons. Because of lead's health impacts, the US EPA maintains a maximum contaminant level goal of zero, and some organizations, such as the American Association of Pediatrics, have called for national and state efforts to bring lead levels

in drinking water closer to zero ppb. The CDC states that childhood lead exposure can seriously harm a child's health and cause well-documented adverse effects, including brain and nervous system damage, slowed growth and development, learning and behavior problems, and hearing and speech problems. These health impacts can in turn lead to decreased attention and underperformance in school among lead-exposed children. One study by Evens et al. (2015), published in *Environmental Health*, examined data for nearly 58,000 children attending Chicago public schools and found that increasing blood lead levels were associated with increasing failure rates on standardized reading and math tests. The authors found that this effect persisted, even when they controlled for other predictors of school performance, including poverty, race, ethnicity, gender, maternal education, birth weight, and prematurity. Among children with the lowest blood lead levels, even small increases in blood lead levels were associated with what the authors described as "steeper failure rates."

While children, pregnant persons, and developing fetuses are particularly susceptible to the harmful effects of lead, lead in blood can also result in an increased risk of cardiovascular disease, high blood pressure, and kidney and nervous system problems for adults. Because the human body can store lead in bone, even temporary environmental exposures in childhood can result in many years to decades of recurring or ongoing elevations in blood level levels. One study by Nie et al. (2009), published in the *Journal of Occupational and Environmental Medicine*, reported that lead stored in bone can release back into the blood, resulting in elevated blood lead levels during periods of illness (e.g., with skeletal or dental disease) and during multiple life stages, including childhood, pregnancy, lactation, and menopause.

*Inequities in childhood lead exposure:* According to the CDC, people with low incomes and people of color are more likely to live in neighborhoods with outdated infrastructure, and are thus more likely to be exposed to lead-based paint and pipes, faucets, and plumbing fixtures containing lead. Evens et al. (2015), in a study published in *Environmental Health*, found that among nearly 58,000 children attending Chicago public schools, blood lead levels were highest in black children (relative to Hispanic and white children) and higher in low-income children. Children from low-income families and communities of color can also be further disadvantaged through the cumulative impacts of lead and other challenges they may face, including higher rates of poverty, malnutrition, exposure to multiple pollutants, and enrollment in under-resourced schools. A 2020 study published in *Nature Medicine* (Marshall et al.) reported that the combination of lead exposure and being from a low-income family can result in worse impacts, compared to when children have only one of these risk factors. Specifically, children from low-income families and with the highest risk levels for lead exposure showed reduced cognitive performance and brain changes (including reduced volume of the cortex, a part of the brain that plays a role in higher level processes, including problem solving, planning, critical thinking, and memory).

*Sources of childhood exposure to lead:* The US EPA states that children can be exposed to lead in paint, dust, soil, air, and food, as well as drinking water, and that drinking water can make up 20 percent or more of a person's total lead exposure. The most prevalent sources of lead in drinking water are from pipes, fixtures, and associated hardware from which lead can leach. According to *Lead in Drinking Water and Human Blood Levels in the United States*, published by the National Center for Environmental Health in 2012, nearly all lead in users' tap water originates from the corrosion of lead-containing materials that can occur through contact with water, rather than from the primary water source or treatment plant. Lead can enter a building's drinking water by leaching from lead service lines, lead solder used in copper piping, and from

brass fixtures. The amount of lead in tap water can depend on several factors, including the age and material of the pipes and fixtures, concentration of lead in water delivered by the public utility, and corrosiveness of the water. More corrosive water can cause greater leaching from pipes.

Compared to other states, California has a relatively small share of the nation's lead service lines (defined under the LCR, described further below, as a "portion of pipe that is made of lead, which connects the water main to the building inlet" (40 CFR § 141.2)). In 2016, the American Water Works Association released a national survey of lead service line occurrence, finding that California had, at that time, about 1 percent of the nation's lead service lines (or 65,000 out of 6.1 million lead service lines nationally). Under state law—added by Senate Bill (SB) 1398 (Leyva, Chapter 731, Statutes of 2016) and amended by SB 427 (Leyva, Chapter 238, Statutes of 2017)—all community water systems were required to compile an inventory of known lead user service lines in its distribution system by July 1, 2018. Community water systems were further required to propose a schedule by July 1, 2020 to replace all known lead user service lines and user service lines constructed of unknown material.

State and federal laws also regulate the lead content of fixtures. Beginning January 1, 2010, California law (AB 1953, Chan, Chapter 853, Statutes of 2006) banned for sale and use any pipe, pipe or plumbing fitting, or fixture intended to convey or dispense water for human consumption through drinking or cooking that is not "lead free." That law defines "lead free" as not more than 0.2 percent lead when used with respect to solder and flux; not more than a weighted average of 0.25 percent when used with respect to the wetted surfaces of pipes and pipe fittings, plumbing fittings, and fixtures; and not more than 8 percent when used with respect to pipes and pipe fittings. This definition applies to kitchen faucets, bathroom faucets, and any other endpoint device intended to convey or dispense water for human consumption through drinking or cooking. A similar federal law went into effect in 2014. Notably, AB 249 requires testing of potable water outlets in buildings constructed before January 1, 2010, when AB 1953 went into effect. The federal Lead and Copper Rule Revision (LCRR; described further below) will require testing in school and child care facilities constructed before 2014, the year the federal ban went into effect. School testing requirements in the LCRR allow states to use an earlier date for building age, if the state had a definition for "lead free" before the federal ban went into effect, as long as the state and federal definitions of "lead free" are aligned.

*The federal Lead and Copper Rule and subsequent revision:* In 1991, the US EPA promulgated, under authority granted by the federal SDWA, the LCR, a body of regulations established to minimize lead and copper in drinking water. The 1991 federal LCR did not require water systems to eliminate lead in drinking water, but rather established treatment techniques to reduce lead concentrations below a set level.

The federal LCR requires a public water system to test water at the customer's tap and specifies rules for sample size, which varies based on population served. If more than 10 percent of the samples collected are at or above the action level for lead, it can trigger "actions" that include public education, water quality monitoring, corrosion control treatment, source water monitoring and treatment, and lead service line replacement.

Although the US EPA maintains a maximum contaminant level goal—the maximum amount of a contaminant a person can safely ingest—of zero for lead, the 1991 LCR establishes a "90th percentile" action level of 15 ppb (based on the 90th percentile sample level). If samples contain



lead concentrations less than 15 ppb, no remediation is required, despite US EPA's assessment that any level of lead in drinking water is harmful to human health.

On January 15, 2021, the US EPA issued substantial changes, called the LCRR, to the federal LCR. According to the US EPA:

"These revised requirements provide greater and more effective protection of public health by reducing exposure to lead and copper in drinking water. The rule will better identify high levels of lead, improve the reliability of lead tap sampling results, strengthen corrosion control treatment requirements, expand consumer awareness and improve risk communication. This final rule requires, for the first time, community water systems to conduct lead-in-drinking water testing and public education in schools and child care facilities. In addition, the rule will accelerate lead service line replacements by closing existing regulatory loopholes, propelling early action, and strengthening replacement requirements."

*LCRR requirements for lead testing in schools:* In the 2021 report, *How States Are Handling Lead in School Drinking Water*, the National Association of State Boards of Education states: "Due in part to their frequent closures and uneven water use patterns during weekends, holidays, summer break, or extenuating circumstances like the pandemic, the topic of lead in drinking water is of special relevance to schools. Water is more likely to stagnate in school pipes and fixtures during closures, potentially making the water more corrosive and increasing the chances that lead leaches into the water." The impacts of lead in drinking water on children's health gained national attention after news broke of the water crisis in Flint, Michigan. In 2014, a switch in Flint's water sources caused lead to leach from service lines into drinking water at dangerously high levels. In the wake of the Flint drinking water crisis, part of the national conversation has focused on strategies for improving the safety of drinking water in schools and child care facilities and the importance of lead testing.

As stated above, the LCRR contain regulations that would, for the first time, institute federal requirements for community water systems to test for lead in drinking water in schools and child care facilities. Beginning October 16, 2024, systems must conduct drinking water sampling at each elementary school and each child care facility they serve over no more than five years, testing 20 percent of the facilities they serve each year. The system will be required to provide sampling results to the school or child care facility and information on actions that can be taken by the school or child care facility to reduce lead in the drinking water. The system will also be required to provide information to the school or child care facility on methods to communicate results to users of the facility and parents. Community water systems will be required to provide testing to secondary schools upon request during the 5 years of mandatory elementary and child care facility testing, and also to elementary schools and child care facilities on request after the first round of mandatory testing.

*The federal Lead and Copper Rule Improvements (LCRI):* On January 20, 2021, federal Executive Order 13990 directed all federal agencies to undertake review and action, as appropriate, to address the promulgation of federal regulations and other actions during the prior four years. Of those actions, the LCRR was specifically identified as requiring review. As a result, the US EPA delayed the effective and compliance dates established in the LCRR to December 16, 2021 and October 16, 2024, respectively. The US EPA engaged with local communities, states, local governments, utilities, and stakeholders for input regarding needed

changes to the LCRR and published Docket No. EPA-HQ-OW-2021-0255 on December 16, 2021 in the federal register.

The LCRR compliance and effective dates listed above, as well as the text from the January 15, 2021 regulation, were not changed and became effective. Within the Docket, US EPA committed to propose and revise the LCRR by October 2024 with the Lead and Copper Rule Improvements (LCRI). The LCRI is expected to delay the implementation of portions of the LCRR beyond the October 16, 2024 compliance date. In fall 2022, the US EPA announced via a unified agenda entry (Regulation Identifier Number 2040-AG16) that release of the Notice of Proposed Rulemaking—an official document explaining the agency's plan—is expected in August 2023.

Although it remains unknown how the LCRI will modify the LCR, the US EPA has identified the following priority areas for improvement: proactive and equitable lead service line replacement; strengthening compliance tap sampling to better identify communities most at risk of lead in drinking water and to compel lead reduction actions; and, reducing regulatory complexity by evaluating whether trigger level requirements remain necessary with proactive lead service line replacement and a more protective action level.

*State action on lead in drinking water:* Lead has been listed under Proposition 65 since 1987 as a substance that can cause reproductive damage and birth defects, and has been on the list of chemicals known to cause cancer since 1992. In 2009, OEHHA established a public health goal of 0.2 ppb for lead in drinking water. In addition, the State Water Board enforces the California Lead and Copper Rule (CA LCR), which is aligned with the federal LCR to protect the public's drinking water from metals that can adversely affect public health. The CA LCR requires water systems to monitor lead and copper levels at consumers' taps. If the action level for lead—which is aligned with the federal LCR at 15 ppb—is exceeded, state regulations require installation or modifications to corrosion control treatment and public notification.

Under the state's Lead-Safe Schools Protection Act, originally passed in the mid-1990s, the CDPH conducted a sample survey of schools to determine the likely extent and distribution of childhood lead exposure from paint, soil in play areas, drinking water, and other potential sources. The resulting report, based on data collected from 200 randomly selected schools between 1995 and 1997, was submitted to the Legislature in 1998. The report demonstrates that lead in drinking water in schools constitutes a long standing concern in California, finding that an estimated 18.1% of California schools were, at that time, likely to have lead in drinking water at or above the federal action level (15 ppb). The report concluded that "in some situations drinking water from school water outlets could contribute to children's lead exposure, and demonstrate a need for monitoring lead from drinking water outlets in schools."

In 2017, the State Water Board required approximately 1,200 community water systems to test the drinking water for lead at any school that requested it. The same year, AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017) was enacted to require community water systems that serve a schoolsite built before January 1, 2010, to test for lead in the potable faucets of the schoolsite on or before July 1, 2019. Although AB 249 is substantially similar to AB 746, there are notable differences. For example, AB 249 requires an action level of 5 ppb, while AB 746 required an action level of 15 ppb. Also, AB 249 requires testing at each potable water outlet at a schoolsite, while AB 746 did not specify the number of outlets where testing was required. Finally, AB 249 requires testing at public or private schools that provide preschool education,

transitional kindergarten, elementary education, or secondary education to a minimum of six children; AB 746 did not require testing at private schools and required testing at schoolsites of school districts, county offices of education, and charter schools located in a public facility.

In 2018, EdSource concluded after analyzing data on lead testing from nearly 3,700 California schools that "gaps in [AB 746]...could leave children vulnerable to the toxic metal." The analysis found that 4 percent of schools tested—about 150 schools—recorded a lead level over the 15 ppb action level specified in AB 746. The analysis also showed that at 897 schools, at least one water outlet tested between 5 and 15 ppb, which required no remediation under AB 746. A 2020 study of AB 746 implementation in *Preventing Chronic Disease* (Umunna et al.) found that among 240 randomly selected California public schools, roughly 3% of schools that tested had at least one sample that exceeded 15 ppb. Among the schools they examined, the authors estimated that an action level of 5 ppb would have resulted in a 9-fold increase in the proportion of schools required to take steps to remediate their drinking water. The authors also found a wide range in implementation among schools, stating that "although some schools tested only one tap, others tested as many as 76. Schools that test fewer taps may be less likely to adequately capture the risk of elevated lead in drinking water than schools that test a greater number of taps." A 2021 report by the National Association of State Boards of Education, *How States Are Handling Lead in School Drinking Water*, states that because it is not possible to see, smell, or taste lead in drinking water, testing is the only way to identify its presence. The report recommends that schools test all cooking and drinking water sources, since lead levels can vary across taps, seasons, and with changes in water usage, temperature, the amount of time water sits in pipes, and the flow rate at the time of collection.

In 2018, the Legislature enacted AB 2370 (Holden, Chapter 676, Statutes of 2018), which requires licensed child day care centers operating in buildings constructed before January 1, 2010 to have their drinking water tested for lead by January 1, 2023, and every five years after the initial test. AB 2370 also mandated collaboration between the CDSS, which oversees child care programs, and the State Water Board in the implementation of the bill's requirements.

Similar to AB 249, AB 2370 requires the State Water Board to post test results for lead in licensed child day care centers on its website, and requires centers to:

- Cease using fountains and faucets where elevated lead levels may exist;
- Obtain a potable source of water for children and staff; and,
- Notify parents or guardians of the test results

Subsequent written directives from the CDSS specified an action level of 5 ppb, with a minimum reporting threshold of 1 ppb, for lead in water in child care centers. Through SB 862 (Budget Committee, Chapter 449, Statutes of 2018), the California State Legislature appropriated \$5 million, which the State Water Board is using to assist child care centers with the costs of testing and fixture replacement.

*Implications of establishing stricter standards for lead in drinking water in California schools:* AB 249 would establish stricter standards for lead in drinking water in schools, when compared to current state and federal standards and those used for prior school lead testing under AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017). Prior testing under AB 746 used a 15 ppb action level, the same level currently specified in the federal LCR and CA LCR, while AB 249 has an action level of 5 ppb. AB 249 also goes beyond AB 746 by requiring testing at each

potable water outlet in both private and public schools; AB 746 only required testing in public schools. In addition, AB 249 goes beyond the LCRR by requiring testing in schools serving preschool through secondary students. The LCRR only requires testing in elementary schools and child care centers; community water systems must only test secondary schools upon request. Compared to AB 746 and the LCRR, AB 249 would likely result in required mitigation in a greater number of schools, at a greater number of faucets and fountains. However, since there is no safe level of lead and lead levels can vary from outlet to outlet, this outcome would also capture a greater swath of lead issues in California's schools and result in greater health protection for children and school staff.

According to the National Association of State Boards of Education report, *How States Are Handling Lead in School Drinking Water*, several states already use action levels of 5 ppb or less for lead in drinking water in schools, including Illinois, Maine, Maryland, Michigan, Montana, Vermont, Washington, and the District of Columbia. Therefore, if AB 249 were to become law, California would be one of several states with an action level for lead in drinking water in schools that is stricter than the current federal standard. Using a 5 ppb threshold would also align California's action level for schools with the level used for licensed child day care centers.

*Possible interactions of AB 249 with the federal LCRR and forthcoming LCRI:* Among stakeholders, there appears to be consensus that minimizing childhood exposure to lead in drinking water is a critical issue. However, some stakeholders have raised concerns that implementing AB 249 ahead of October 16, 2024—the current compliance date for the LCRR, and the date by which the LCRI is expected to be issued—may result in duplicative or conflicting requirements for lead testing and mitigation in schools. Under the current timeline established by the LCRR, community water systems will not be required to begin testing in schools until October 16, 2024, assuming this compliance date is not delayed by the forthcoming LCRI. From that date, water systems will have five years—until 2029—to complete testing in all of the schools within their distribution areas. In comparison, the operative date of AB 249 would be January 1, 2024 and the completion date is proposed to be 2027.

The current LCRR authorizes states to issue waivers that exempt water systems from federal school testing requirements, if the state requires that water systems test for lead in drinking water in schools, and if the state's requirements are at least as stringent as federal requirements. Compared to the LCRR, AB 249 would require a more stringent action level, testing at a greater number of potable water outlets, and a shorter timeline for completing testing at eligible schoolsites.

According to the National Association of State Boards of Education, several other states mandate testing and mitigation for lead in drinking water in schools, including Maryland, Montana, New Hampshire, New Jersey, North Carolina, Oregon, Tennessee, Vermont, Washington, and the District of Columbia. If AB 249 were to become law, California would become one of several states with mandated lead testing in schools in place ahead of the compliance date for the LCRR and release of the LCRI. Because of this, it seems reasonable to expect that the LCRI would retain provisions allowing states to grant waivers to community water systems, where systems are already conducting lead testing in schools under state law and testing requirements are at least as stringent as federal requirements.

*This bill:* AB 249 requires community water systems to test for lead at each potable water outlet in the public and private schools they serve. The bill aims to ensure transparency by requiring

the reporting of elevated levels to parents and guardians and posting of lead level findings by the State Water Board. By establishing a 5 ppb action level and requiring testing at every potable water outlet at eligible schoolsites, the bill contains stricter standards for lead in drinking water than those currently required by state or federal law. AB 249 requires lead testing in schools ahead of the LCRR and forthcoming LCRI.

*Arguments in support:* A coalition of supporting organizations writes:

"In 2019, very limited California school drinking water testing, which only sampled several faucets on each campus six years ago, found that samples from 18 percent of K-12 school campuses contained lead levels above 5 ppb. At that time, schools were only required to remediate lead levels above 15 ppb, a level that experts say is not protective of children's health, and most school drinking and cooking faucets were not tested. Children should not have to drink water that contains high levels of lead when they are at school. AB 249 will build upon the earlier round of testing and ensure that no school potable faucets go untested and California's children are further protected from lead exposure caused by school drinking water.

Opponents maintain that the Legislature should not support AB 249 and should, instead, wait for the US EPA to update the federal Lead and Copper Rule before reducing lead in school drinking water. Unfortunately, this update, and the state regulations needed to enforce the federal rule, will not be in place for many years. Once the federal rule is updated, the Water Board will have to develop and approve regulations to apply the new rule in California—a process that could take four to five years. California's children can't wait another 5 years or more to be able to drink safe water at school. AB 249 will allow the state to move forward and remediate lead-tainted school drinking water in the near term, a protective action that should not be held up due to state and federal agency processes."

*Arguments in opposition:* According to the California Municipal Utilities Association and California Special Districts Association:

"The United States Environmental Protection Agency (EPA) in January 2021 finalized the first major update to the Lead and Copper Rule (LCRR) in nearly 30 years...Further, in December 2021 EPA announced a plan for additional review and stronger regulation through proposed Lead and Copper Rule Improvements (LCRI) to strengthen the regulatory framework on lead in drinking water because they concluded that there are significant opportunities to improve the rule and support the overarching goal of proactively removing lead service lines and more equitably protecting public health...

The school testing provisions in the LCRR/LCRI will achieve the same outcomes as what is proposed in AB 249. However, the current version of the federal rule includes different requirements than the proposed provisions of AB 249 and we expect that those differences could be further exacerbated in the LCRI. The operative date of AB 249 would be January 1, 2024 and the completion date is proposed to be 2027. This would directly overlap with the LCRR/LCRI schedule and water systems likely would have to comply with two comprehensive testing regimes without any additional public health benefit. And if the state law and federal law conflict, it is unclear how water systems would be expected to fulfill both sets of requirements.

Given the existing extensive work to protect public health and pending federal requirements, AB 249 is simply unnecessary at this time."

*Double referral:* Should AB 249 be approved by the Assembly Environmental Safety & Toxic Materials Committee, it will be re-referred to the Assembly Education Committee.

*Related legislation:*

- 1) AB 1931 (Rivas, 2022). Would have required a community water system to create an inventory of lead service lines in its distribution system and a timeline for the replacement or removal of lead service lines. This bill was held on the suspense file in the Assembly Appropriations Committee.
- 2) SB 1144 (Wiener, 2022). Would have required, by January 1, 2027, the operator of a building owned or operated by a state agency or public school to complete a water efficiency and quality assessment report for each covered building. This bill was vetoed.
- 3) AB 100 (Holden, Chapter 692, Statutes of 2021). Requires, commencing January 1, 2023, manufacturer compliance with a specified lower lead leaching standard for faucets and other end point devices used for providing drinking water; prohibits sales of products that do not meet the new standard beginning July 1, 2023; and, requires labeling of products that comply with the definition of "lead free" to indicate compliance in an easily identifiable manner.
- 4) AB 2060 (Holden, 2020). Would have established a "lead free" performance standard for end use plumbing fixtures, required labeling of such products, and set an implementation schedule for compliance with the new standard. This bill was held on the suspense file in the Assembly Appropriations Committee.
- 5) AB 2370 (Holden, Chapter 676, Statutes of 2018). Requires licensed child day care facilities to, upon enrolling any child, provide parents or guardians with certain written information related to the risks and effects of lead exposure and blood lead testing recommendations and requirements, and subjects certain child day care centers to requirements related to testing drinking water for lead contamination levels.
- 6) SB 862 (Budget Committee, Chapter 449, Statutes of 2018). Appropriated \$5 million to the State Water Board to provide grants or contracts for drinking water testing for lead at licensed child care centers, remediation of lead in plumbing and drinking water fixtures, and technical assistance for licensed child day care providers to apply for testing and remediation.
- 7) AB 746 (Gonzalez Fletcher, Chapter 746, Statutes of 2017). Requires a community water system that serves a schoolsite built before January 1, 2010 to test for lead in the potable water system of the schoolsite on or before July 1, 2019.
- 8) SB 427 (Leyva, Chapter 238, Statutes of 2017). Requires, by July 1, 2020, a community water system that has identified lead user service lines in use in its distribution system to provide a timeline for replacement of those service lines to the State Water Board.
- 9) SB 1398 (Leyva, Chapter 731, Statutes of 2016). Requires a public water system to identify and replace known leaded plumbing.
- 10) AB 2124 (E. Garcia, Lackey, 2016). Would have required a public water system to include in its water analysis samples from schools, day care facilities, and health care facilities, to the

extent those locations are within the public water system. This bill was held in the Senate Environmental Quality Committee.

- 11) SB 334 (Leyva, 2015). Would have required the CDPH to test drinking water for lead at a sample of schoolsites, and establish the intent of the Legislature to prioritize testing of schoolsites that have high risk factors. This bill was vetoed.
- 12) AB 1953 (Chan, Chapter 853, Statutes of 2006). Banned for sale and use any pipe, pipe or plumbing fitting, or fixture intended to convey or dispense water for human consumption through drinking or cooking that is not "lead free."

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

Children Now (Co-Sponsor)  
Environmental Working Group (Co-Sponsor)  
A Voice for Choice Advocacy  
Alliance of Nurses for Healthy Environments  
As You Sow  
Brighter Beginnings  
California Black Health Network  
California Coalition of California Welfare Rights Advocates  
California Environmental Voters (formerly CLCV)  
California Health Coalition Advocacy  
California Interfaith Power and Light  
Californians Against Waste  
CALPIRG  
Clean Water Action  
Cleaneearth4kids.org  
Consumer Attorneys of California  
Educate. Advocate.  
Environmental Health Coalition  
Families Advocating for Chemical and Toxics Safety  
Friends Committee on Legislation of California  
Green Science Policy Institute  
Jonas Philanthropies  
Madera Coalition for Community Justice  
Maternal and Child Health Access  
Non-toxic Neighborhoods  
Protect Wild Petaluma  
San Diego Pediatricians for Clean Air  
Sierra Club California  
Sonoma Safe Agriculture Safe Schools (Sonoma SASS)  
The Los Angeles Trust for Children's Health  
Western Center on Law and Poverty  
Women's Voices for The Earth  
Youth vs. Apocalypse

**Opposition**

Association of California Water Agencies  
California Municipal Utilities Association  
California Special Districts Association

**Analysis Prepared by:** Naomi Ondrasek / E.S. & T.M. /