



Frequently Asked Questions about Lead Testing of Drinking Water in California Schools: Updated for Assembly Bill 746/Health & Safety Code §116277

DISCLAIMER: This document is intended to provide answers to questions that may arise regarding lead testing of drinking water in California schools based on the newest legislation, AB 746, which goes into effect January 1, 2018. Nothing in this document supersedes any statutory or regulatory requirements or permit provisions for public water systems.

Contents

General Requirements Health & Safety Code (HSC) Sec. 116277/Assembly Bill (AB) 746	3
1. What is AB 746, and how is it related to the 2017 Permit Amendments issued by the California Division of Drinking Water (DDW)?	3
2. Did the State Water Board rescind the Permit Amendments in its response to a petition to the Office of Administrative Law (OAL)?	4
3. What are the general requirements of HSC 116277?	6
4. Who is required to comply with HSC 116277?	6
5. Which schools are <i>not</i> affected by HSC 116277?	6
6. Which schools are exempt from testing under HSC 116277?	6
7. Who pays for lead testing of drinking water in California schools?	7
Requests for Lead Sampling of Public School Drinking Water	8
8. Can a school request lead testing of their potable water system using the processes specified in the 2017 Permit Amendments?	8
9. Do the timelines specified in the 2017 Permit Amendments apply to the HSC 116277 requirements?	8
Community Water System Requirements	8
10. What information does the community water system need to provide to DDW per HSC 116277?	8
11. What are the sampling requirements for community water systems?	9
12. How many sample locations are required at a schoolsite?	9
13. What are the reporting requirements for community water systems?	9
14. What are the <i>requirements</i> for community water systems if the lead level in a sample exceeds 15 ppb?	10
15. What are the <i>recommendations</i> for community water systems if the lead level in a sample exceeds 15 ppb?	10
16. If an LEA does not comply with HSC 116277, will the community water system that serves the school receive a citation or fines?	11
Local Educational Agency (LEA) Requirements	11

17. What information does the LEA need to provide to the community water system? 11

18. What are the notification and response requirements for LEAs if the lead level in a sample exceeds 15 ppb? 11

19. What are the access requirements for LEAs? 12

20. Are potable water systems at preschools required to be tested?..... 12

Collecting Samples in Schools 12

21. How will the lead testing be performed? 12

22. When will the sampling be conducted? 13

23. What size sample bottle should be used? How should the sample be preserved? Should aerators be removed? Can samples be invalidated? 13

Reporting Results 13

24. Who will receive the results of lead testing of drinking water performed at California schools? 13

Interpreting and Responding to Sample Results 14

25. What is the action level for lead in drinking water at schools? 14

26. The Lead and Copper Rule uses a 90th percentile value to determine compliance with the action level. Does that apply to the lead sampling in schools program? 14

27. What can a school do if lead is detected in the drinking water? 14

28. If elevated lead levels are found in a school’s drinking water, will the community water system that serves the school receive a citation or fines? 15

Information about Lead Sources and Health Effects 15

29. What are other environmental sources of lead exposure for children? 15

30. Where does lead in drinking water come from? 15

31. What are the health risks of lead in drinking water? 15

Information about Lead Testing of Drinking Water in Other Locations..... 16

32. How can I find out what my community water system’s Lead and Copper Rule sampling results are? 16

33. How can I have the drinking water at my home tested for lead? 16

Additional Information about Lead Testing of Drinking Water in California Schools 16

34. Whom can I contact for more information about lead testing of drinking water in California schools?..... 16

35. Can I get information in Spanish about lead testing of drinking water in schools? 16

Links to Resources Cited in this Document 17

General Requirements Health & Safety Code (HSC) Sec. 116277/Assembly Bill (AB) 746

Questions 1-19 address frequently asked questions (FAQs) that may arise in conjunction with HSC 116277 (discussed in Question 1). Questions 20-34 are adapted from the FAQs that were developed in conjunction with the 2017 Permit Amendments, but the responses have been modified to address the requirements of both HSC 116277 and the 2017 Permit Amendments.

Private schools that wish to request testing in accordance with the 2017 Permit Amendments should refer to the [full version of the original FAQs](#) that was provided for 2017 Permit Amendments.

1. What is AB 746, and how is it related to the 2017 Permit Amendments issued by the California Division of Drinking Water (DDW)?

California Assembly Bill 746 (AB 746) adding Section 116277 to the Health and Safety Code (HSC 116277), effective on January 1, 2018. AB 746 was written, revised, voted on, and approved by the California legislature and then signed into law by the Governor on October 13, 2017. [AB 746 contains statutory requirements](#) for community water systems to test the lead levels of drinking water at *all* California public, K-12 schools and preschools and child day care facilities located on public school property by July 1, 2019.

In contrast, pursuant to its regulatory authority under the Safe Drinking Water Act (Health & Safety Code §116270 et seq.), the DDW issued amendments to the drinking water supply permits of more than 1,200 individual public water systems in January 2017 to require testing of the lead levels of drinking water at any California, K-12 school that requests testing, including private, public, and charter schools (referred to collectively as the “2017 Permit Amendments”). Under the 2017 Permit Amendments, schools were not required to have their potable water systems tested, but had the option of making that request. Requests for sampling in accordance with the 2017 Permit Amendments must be made by November 1, 2019.

HSC 116277 did not invalidate or otherwise make ineffective the 2017 Permit Amendments, and where a school makes a request pursuant to the community water system’s permit amendment, DDW plans to enforce the permit amendment requirements. HSC 116277 implicitly recognizes the requirements for testing under the permit amendments, and exempts from testing school sites for which testing for lead has already been requested pursuant to the community water system’s permit amendment. If a school site is *not* exempt (see Question 5), and a request has *not* been made by the local education agency (LEA) for a school site, HSC 116277 would control the requirements placed on the public water system.

Recognizing that HSC 116277 is silent on many details related to the sampling of drinking water in public schools, DDW encourages community water systems to follow the guidance in their 2017 Permit Amendments. For example, because the statute does not specify how or when to gather samples, community water systems and schools are encouraged to use

the sampling guidance developed for the 2017 Permit Amendments to meet the sampling plan requirements of HSC 116277.

DDW is making available the DRINC portal for the [School Lead Sampling and Reporting Tool](#) for community water systems to demonstrate compliance with the statute, enabling community water systems to report electronically sampling results of lead levels of potable water systems in schools, as is already being required under the permit.

See the table below for a comparison of the requirements of HSC 116277 and the 2017 Permit Amendments.

2. Did the State Water Board rescind the Permit Amendments in its response to a petition to the Office of Administrative Law (OAL)?

No, the Permit Amendments issued to individual public water systems have not been rescinded and are in full effect. The State Water Board issued a certification, as authorized under OAL regulations, in response to a complaint alleging that a template posted on the State Water Board website was an underground regulation. In its certification to OAL the State Water Board stated that it “will not issue, use, enforce or attempt to enforce the template identified as the underground regulation in the petition.” (emphasis added.) The certification noted that the template had been made available on the State Water Board’s website in order to provide schools with a simplified explanation about what was being required in separate orders issued to public water systems. The petition to OAL challenged the template as being an underground regulation, and in response the State Water Board removed the template from its website, and updated its website to clarify that the State Water Board’s actions to require testing for lead in school drinking water involved issuance of separate permit amendments for each of the affected public water systems, not a general permit or other action of general applicability.

Requirements	HSC §116277	2017 Permit Amendments
Audience	Community Water Systems (CWS) serving a schoolsite of a local education agency (LEA*) w/ building constructed before 1/1/2010. Includes K-12, preschools and child daycare located on public school property.	Public Water System serving K-12 school for which sampling request is made prior to 11/1/2019.
Number of Initial Samples	N/A. DDW will continue to reference DDW guidance and 3Ts to CWS/LEAs.	One to five samples from regularly used sinks, faucets, and fill stations.
Sampling Time	Anytime, but must be completed before 7/1/2019. Note that DDW guidance prescribes sampling while school is in session and not immediately following weekends or holidays.	During school year, on Tues/Wed/Thurs/Fri. when in session and in session for one day prior, within 90 days after receiving request.
PWS Reporting to School	Report findings to schoolsite within 10 business days after receiving results from lab.	Provide/discuss sample results with school within 10 days of receiving results from lab.
PWS Reporting to State	N/A. DDW is providing access to Lead In Schools (LIS) website.	Require lab to submit data to DDW's LIS website.
Action Level (AL)	15 ppb	15 ppb
AL Exceedance (ALE) Response by PWS	Report to school within 2 business days. Collect sample at the service connection between CWS and schoolsite. DDW encourages sampling following any corrective action taken by the school.	Notify school within 2 business days. Collect resample within 10 business days if sample site remains in service. Collect third sample within 10 business days after notification that resample is ≤ 15 ppb. Following corrective action, collect resample.
ALE Response by LEAs	Notify parents and guardians when ALE found. Take immediate steps to make fountains/faucets inoperable (shut down) where ALE found. Investigation required to determine if additional fountains/faucets require shut down; may require additional tap sampling. Enforced by DDW and CDE; tracked by DDW.	N/A. School corrective actions are not enforceable by DDW.
Sampling Plan	CWS, in cooperation with LEA, prepare a sampling plan for each schoolsite where sampling is required. CWS/LEA may request assistance from DDW or LPA.	CWS respond in writing within 60 days of receiving the school's sampling request, and schedule meeting with school to develop sampling plan (3Ts referenced). Finalize within 90 days of request.
Laboratory Cert.	N/A. Note that DDW guidance prescribes USEPA's 3Ts and ELAP-certified laboratories.	ELAP-certified
PWS Data Disclosure	N/A	Do not release data to public for 60 days following receipt of initial results unless complying with PRA. Discuss results with school prior to release.

3. What are the general requirements of HSC 116277?

HSC 116277 requires the following:

- WHO: Community water systems
- WHAT: Test potable water systems* for lead
- WHERE: All schoolsites of a local educational agency (LEA)** constructed before January 1, 2010
- WHEN: On or before July 1, 2019

*Potable water systems at LEAs are defined in HSC 116277 as “water fountains and faucets used for drinking or preparing food.” This definition does not require that all water fountains and faucets at the school be sampled.

**LEA is defined in HSC 116277 as a “school district, county office of education, or charter school located in a public facility.” An LEA’s schoolsite may be exempt from the requirements of HSC 116277 if it meets the conditions discussed in Question 5 below.

If lead levels exceed the action level of 15 parts per billion (ppb), HSC 116277 contains notification and response measures discussed in Questions 13, 14, and 17 below.

4. Who is required to comply with HSC 116277?

Community water systems that serve any schoolsite of an LEA must test for lead in the school’s potable water system.

(LEAs, which are defined as a “school district, county office of education, or charter school located in a public facility”, must give community water systems access to conduct testing at each required schoolsite.

5. Which schools are *not* affected by HSC 116277?

Private schools are not required to have their potable water systems tested for lead under HSC 116277. Private schools are still eligible, but are not required, to request testing under the 2017 Permit Amendments. The 2017 Permit Amendments require community water systems to assist any school in their service area. Schools are identified in the [California School Directory](#), published by the California Department of Education (CDE).

6. Which schools are exempt from testing under HSC 116277?

HSC 116277 specifies four situations that exempt a public schoolsite from the lead testing requirement:

- 1) The school was constructed or modernized after January 1, 2010.
 - a) “Modernized” refers to the plumbing system of the schoolsite being replaced after January 1, 2010.
 - b) At this time, there is no statewide database of school construction dates, so new or modernized schools must submit a letter or email to the community water system stating that they are exempt from testing.
- 2) The LEA for the school is a regulated community water system that tests its potable water system in compliance with the Lead and Copper Rule.

- 3) The LEA tested the schoolsite's potable water system for lead after January 1, 2009 and posted information about the testing on the LEA's public website.
 - a) The LEA sampling program should be similar to the initial sample collection requirements provided in [Appendix A, Sampling Guidance for Collecting Drinking Water Samples for Lead Testing at K-12 Schools](#) on the DDW website or the USEPA's [3Ts \(Training, Testing and Telling\) Program for Schools](#).
 - b) Lead analyses should be performed at a laboratory accredited by the State Environmental Laboratory Accreditation Program (ELAP) using test methods EPA 200.5, EPA 200.8, EPA 200.9, and/or SM 3113B and able to achieve a Practical Quantitation Level of 5 ug/l (ppb).
 - c) At a minimum, the LEA must identify on their website any schoolsite where the lead level in drinking water exceeded 15 ppb.
- 4) The LEA has already requested testing from the community water system in accordance with the community water system's 2017 Permit Amendment.

7. Who pays for lead testing of drinking water in California schools?

When a community water system contacts an LEA to conduct sampling under HSC 116277, the community water system is required to pay for the initial sampling. In addition, 116277 requires the community water systems to test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of water entering the schoolsite from the community water system's water supply network. Although HSC 116277 does not require the community water systems to perform any other follow-up, confirmation or additional investigative sampling, additional sampling may be needed to determine which fountains and faucets should be removed from service after initial sample results at a schoolsite exceeds the action level of 15 ppb. DDW encourages community water systems to conduct testing in accordance with the requirements of the 2017 Permit Amendments, and DDW encourages community water systems to assist LEAs with follow-up, confirmation, or additional investigative sampling.

If the LEA contacts the community water system to request testing in accordance with the 2017 Permit Amendments, the community water system that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. Confirmation and follow-up sampling after any maintenance or corrections are made to ensure lead levels are below the action level of 15 ppb is also the responsibility of the community water system under the 2017 Permit Amendments, but the community water system will *not* pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water.

Whether the LEA or the community water system initiates the request for potable water system sampling, community water systems should make reasonable, good faith efforts to conduct and pay for the testing needed to determine the true extent of any elevated lead levels in potable water systems at an LEA's schoolsites and to ensure that any corrective actions taken by the LEA result in a reliable reduction of lead in schoolsite potable water

systems to below the action level of 15 ppb. Most school officials are not familiar with sampling drinking water, interpreting water quality data, and implementing corrective actions, whereas water systems have decades of experience implementing the Lead and Copper Rule and are better suited to evaluate water quality at a school site. If the community water system and LEA cannot agree on a sampling plan, they may request assistance from DDW or the local primacy agency (LPA) to develop a plan.

Requests for Lead Sampling of Public School Drinking Water

8. Can a school request lead testing of their potable water system using the processes specified in the 2017 Permit Amendments?

Yes, all sampling requests, results, and reporting performed in accordance with the 2017 Permit Amendments satisfy the requirements of HSC 116277. If a school requests additional sampling in any additional locations after sampling has already been done under the Permit Amendment, a water system is not required to go in and resample under AB 746.

9. Do the timelines specified in the 2017 Permit Amendments apply to the HSC 116277 requirements?

Community water systems should follow the schedule specified in the 2017 Permit Amendments, regardless of whether a request is made by the LEA or the community water system has to reach out to the LEA to make arrangements for the testing. The 2017 Permit Amendments specify that within 90 days of receiving the sampling request, the water system must meet with school officials, finalize a sampling plan, and collect water samples, or develop an alternate schedule that is approved by DDW. HSC 116277 does not specify a schedule for community water systems and only contains a final deadline of July 1, 2019 to complete the testing.

Community Water System Requirements

10. What information does the community water system need to provide to DDW per HSC 116277?

In order to demonstrate compliance, the community water system must make initial contact with the LEA and collect the following information from all public schoolsites and provide it to DDW:

- Sampling results, which can be reported electronically at the DRINC portal for the [School Lead Sampling and Reporting Tool](#)
- A list of schools that provide proof of new construction or a complete plumbing replacement after January 1, 2010.
- A list of schools that refuse to provide access to community water systems for potable water system testing.
- For schools with lead testing results that exceed 15 ppb, the community water system should inform DDW the results of any retesting, including testing required by HSC

116277 at the point where the school site connects to the community water system's supply network. In addition, the community water system should report if the LEA shut down any drinking fountains or faucets, performed additional testing on its own, performed the required notifications, and/or provided replacement water or water treatment. See Questions 13, 14 and 17 for more details on these requirements.

11. What are the sampling requirements for community water systems?

The 2017 Permit Amendments and HSC 116277 require that in consultation with the LEA, the community water system must prepare a sampling plan for each schoolsite. Sampling plans prepared in accordance with the [guidance](#) provided in conjunction with the 2017 Permit Amendments also meet the requirements of HSC 116277.

12. How many sample locations are required at a schoolsite?

HSC 116277 does not specify the number of sample locations that must be tested for lead at a school's potable water system. The 2017 Permit Amendments require up to five sample locations at each schoolsite. The community water system and LEA should assess schoolsites on a case-by-case basis to determine the appropriate number of sample locations. If the community water system and LEA cannot agree on a sampling plan, they may request assistance from DDW or the local primacy agency (LPA) to develop a plan.

In contrast with the guidance previously provided with the 2017 Permit Amendments, samples taken at up to 25 locations at the schoolsite may now be reported electronically to DDW through the DRINC portal for the [School Lead Sampling and Reporting Tool](#), provided that the samples meet the sampling and reporting requirements of [Appendix A, Sampling Guidance for Collecting Drinking Water Samples for Lead Testing at K-12 Schools](#), on the DDW website.

13. What are the reporting requirements for community water systems?

Community water systems must report the results of lead testing to the schoolsite as follows:

- Within 10 business days after receiving the results from the laboratory, if the result is less than or equal to 15 ppb.
- Within 2 business days after receiving the results from the laboratory, if the result is greater than 15 ppb.

Sampling results for all testing of lead levels of potable water systems in schools should be reported electronically to DDW through the DRINC portal for the [School Lead Sampling and Reporting Tool](#) to demonstrate compliance with the statute. Community water systems should follow the procedures outlined in the [guidance for electronic submittal](#). Community water systems should also report all results greater than 15 ppb to the state via the ALE_Tracking_Spreadsheet located on the "Action Level Exceedances" tab of the [School Lead Sampling and Reporting Tool](#).

14. What are the *requirements* for community water systems if the lead level in a sample exceeds 15 ppb?

HSC 116277 requires community water systems to take a sample at the schoolsite's service connection if a sample result exceeds 15 ppb. The purpose of this requirement is to determine the lead level of water entering the schoolsite from the distribution system. Unlike the schoolsite samples, the service connection sample location should be flushed before sampling to ensure that the sample is representative of distribution system water quality. To simplify the sampling process, community water systems may choose to collect the service connection sample at the same time that initial sampling of the schoolsite is performed.

Unlike the 2017 Permit Amendments, HSC 116277 does not require that community water systems conduct repeat sampling after an initial sample exceeds 15 ppb. However, community water systems should work with the LEA and perform the repeat sampling protocol described in the 2017 Permit Amendments if requested by the LEA. If schools are being unresponsive to resampling and other communication requests, the community water system should give the school contact information to DDW-PLU@waterboards.ca.gov.

In contrast with the guidance provided with the 2017 Permit Amendments, samples taken at service connections must be reported electronically to DDW through the DRINC portal for the [School Lead Sampling and Reporting Tool](#). Samples collected at a connection point to a water system (i.e., at or just before a schoolsite meter) should be labeled "-Z". For more detailed instructions, see the [DDW Guidance for Electronic Submittal of School Lead Sample Results](#).

15. What are the *recommendations* for community water systems if the lead level in a sample exceeds 15 ppb?

As discussed in Question 17, the HSC 116277 requires LEAs shut down and make inoperable all fountains or faucets where lead levels exceeding 15 ppb may exist. In addition to the original sample location, this may include shutting down other fountains or faucets at the schoolsite that were not tested but can be reasonably expected to have similar lead levels based on the age, material, location, and/or plumbing configuration of the fountains and faucets. Community water systems are encouraged to assist LEAs in interpreting the testing results and determining which faucets and fountains should be shut down or tested.

HSC 116277 does not require community water systems to perform follow up testing at fountains or faucets after an initial sample result exceeds 15 ppb for lead. However, community water systems are encouraged to work with the LEA and perform the repeat sampling protocol described in the 2017 Permit Amendments if requested by the LEA. Note that lead sampling performed in accordance with the 2017 Permit Amendments (i.e., in response to a request from the LEA) still necessitates the repeat sampling required in the 2017 Permit Amendments.

16.If an LEA does not comply with HSC 116277, will the community water system that serves the school receive a citation or fines?

Community water systems will not receive a citation or fines if an LEA does not comply with HSC 116277 and provide access to public schoolsites. To enable DDW to determine compliance by the LEAs, DDW requests that community water systems keep records of which LEAs are claiming an exemption based on one of the four criteria (discussed in Question 5).

It is also strongly recommended that community water systems keep detailed records of attempts to contact LEAs and schoolsites about developing a sampling plan, conducting sampling, and reporting sample results. If an LEA or schoolsite is unwilling or unable to respond in a timely manner, the community water system should contact DDW or the LPA for assistance.

Local Educational Agency (LEA) Requirements**17.What information does the LEA need to provide to the community water system?**

The LEA should provide the following information to the community water system:

- Whether any schoolsites are exempt from lead testing of its potable water system under HSC 116277 because they meet one of the conditions discussed in Question 5.
- Any prior sampling results, if conducted outside of the 2017 Permit Amendment.
- The personnel responsible for meeting with the community water system to develop a sampling plan and schedule for any schoolsites that require testing.
- The notification and response at any schoolsite where a fountain or faucet is found to have lead levels exceeding 15 ppb.

18.What are the notification and response requirements for LEAs if the lead level in a sample exceeds 15 ppb?

HSC 116277 requires LEAs to take the following actions if a schoolsite sample has a lead level greater than 15 ppb:

- Take immediate steps to shut down and make inoperable all fountains or faucets where lead levels exceeding 15 ppb may exist. In addition to the original sample location, the LEA should investigate whether it should shut down other fountains or faucets at the schoolsite that were not tested but can be reasonably expected to have similar lead levels based on the age, material, location, and/or plumbing configuration of the fountains and faucets. Additional sampling and testing of the potable water system for lead may be needed to evaluate the situation. As discussed in Questions 13 and 14, community water systems are encouraged to assist LEAs in interpreting the testing results and determining which faucets and fountains should be shut down or retested.
- Notify the parents and guardians of students who attend the schoolsite of the findings. Although not required by HSC 116277, LEAs are encouraged to share all sampling results

with parents, guardians, and other stakeholders, not just when the sampling results exceed 15 ppb.

- Ensure that potable drinking water is provided for students at any schoolsite where fountains and faucets have been shut down because of elevated lead levels. This may include replacing portions of the plumbing that are contributing to elevated lead levels, providing onsite water filtration to remove lead or providing bottled water as a short-term remedy.

19. What are the access requirements for LEAs?

LEAs must provide community water systems access to all schoolsites that require testing under HSC 116277. To meet the stagnation requirements that ensure representative results, testing of the school's potable water system will typically need to occur early in the morning, before school starts, and after a stagnation period of no water usage (including irrigation) of at least 6 hours. Sampling should also occur after a normal school day, not after weekends or holidays, so will typically take place on a Tuesday, Wednesday, Thursday, or Friday of a normal school week.

LEAs that do not provide timely and reasonable access to community water systems to perform potable water system sampling are subject to receipt of a compliance order from DDW.

20. Are potable water systems at preschools required to be tested?

Preschools co-located on a schoolsite that is under the jurisdiction of an LEA must be tested. The water system must collect a representative sample of the preschool, i.e. one sampling site for that LEA building must be a location on the preschool property.

Collecting Samples in Schools

21. How will the lead testing be performed?

HSC 116277 does not set out requirements for how the testing is to be performed, and so DDW encourages community water systems to follow the guidance set out in the 2017 Permit Amendments. Under the requirements of the 2017 Permit Amendments, a water system representative will make an appointment to come to the school, develop a sampling plan, and collect up to five water samples. Samples may be collected from regularly used drinking fountains, cafeteria/food preparation areas, or reusable water bottle filling stations. Samples may be taken at sites where drinking water receives additional treatment, such as water softening. Sampling sites should be selected according to the [sampling guidance prepared by DDW, which is referenced in the permit amendments](#).

The samples will be sent to a laboratory for analysis. Laboratories used for sample analysis must be certified for lead testing of drinking water by the state [Environmental Laboratory Accreditation Program \(ELAP\)](#).

22. When will the sampling be conducted?

If a request for testing of a schoolsite is made by the LEA to the public water system, the 2017 Permit Amendment provides the requirements for when the sampling is to be conducted. It includes requirements intended to ensure that the most representative results are obtained, including that samples must be collected while school is in session. If a request is not made for a schoolsite, the community water systems will still have to conduct sampling pursuant to HSC 116277. However, because HSC 116277 does not set out requirements for when the testing is to be performed, community water systems should follow the guidance set out in the 2017 Permit Amendments in order to obtain the best results. Under the requirements of the 2017 Permit Amendments, the water system must meet with school officials, finalize a sampling plan, and collect water samples, or develop an alternate schedule that is approved by DDW within 90 days of receiving the sampling request. HSC 116277 requires that all sampling be completed by July 1, 2019.

Samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and summer, winter breaks, or other extended breaks. For larger water systems that have to sample many schools, sampling can be done on a Saturday. However, this must be carefully coordinated between the school, the water system, and the participating labs. Additionally, sampling can be done during summer school, as long as the school facility is in use and is operating during normal business hours. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

Samples need to be collected by a water system representative who is adequately trained to collect lead samples. A representative may be an employee of the school, but it is the responsibility of the water system to ensure the sample is properly taken. The water system will receive the results of the sample analyses from the laboratory and meet with school officials to discuss the sampling results.

23. What size sample bottle should be used? How should the sample be preserved? Should aerators be removed? Can samples be invalidated?

DDW has prepared a [sampling protocol](#) for lead testing of drinking water in California schools, which includes information on sample bottle size (1 Liter), preservation and chain of custody requirements, reporting requirements, and sample invalidation procedures. It should be noted that the DDW sampling protocol has different requirements than the USEPA's [3Ts \(Training, Testing and Telling\) Program for Schools](#), including sample size and lead action level. Water systems should adhere to the DDW sampling protocol when conducting lead sampling in California schools.

Reporting Results

24. Who will receive the results of lead testing of drinking water performed at California schools?

HSC 116277 does not set out requirements for how the testing results are to be administered, DDW expects community water systems will follow the guidance set out in

the 2017 Permit Amendments. Under the requirements of the 2017 Permit Amendments, the lab results from the sampling must be reported directly to the community water system. The water system will then provide the results to the school and meet with the school staff to assist with interpretation of the sample results.

Under the 2017 Permit Amendments, water systems are required to include a summary of the number of schools requesting lead sampling in their annual Consumer Confidence Report (CCR). For compliance with 116277, DDW suggests that water systems keep track of not only which schoolsites were tested, but also for which schoolsites the LEAs claimed an exemption.

Interpreting and Responding to Sample Results

25. What is the action level for lead in drinking water at schools?

The HSC 116277, the 2017 Permit Amendments, and the sampling protocol referenced in the 2017 Permit Amendments have established 15 parts per billion (ppb) as the action level for lead sampling in schools. This is the same concentration as the action level for residential tap sampling conducted by water systems for the Lead and Copper Rule. One part per billion is equivalent to about one drop in an Olympic-sized swimming pool.

The USEPA's [3Ts \(Training, Testing and Telling\) Program for Schools](#) currently uses 20 ppb in a 250 milliliter (mL) sample as the trigger level for follow-up testing; however, the California lead sampling of drinking water in schools sampling protocol was developed to align more closely with the tap sampling already performed by community water systems under the Lead and Copper Rule and uses 15 ppb as the action level and a 1-liter sample.

26. The Lead and Copper Rule uses a 90th percentile value to determine compliance with the action level. Does that apply to the lead sampling in schools program?

Each sample location at a school is compared individually to the 15 ppb action level. There is no 90th percentile calculation.

27. What can a school do if lead is detected in the drinking water?

The USEPA's [3Ts \(Training, Testing and Telling\) Program for Schools](#) and the American Water Works Association's [Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water](#) contain detailed information on routine, interim, and long-term remedies if lead is detected in drinking water at a school.

To assist schools in providing access to, and improving the quality of, drinking water in public schools, pursuant to Senate Bill 828 (2016), the State Water Board established the "[Drinking Water for Schools Grant Program](#)." Approximately \$9.5 million is available for schools to install water bottle filling stations, install or replace drinking water fountains, and for the installation of treatment devices at these locations that are capable of removing contaminants from drinking water. Applications for funding can be submitted using the [Financial Assistance Application Submittal Tool \(FAAST\)](#).

28.If elevated lead levels are found in a school's drinking water, will the community water system that serves the school receive a citation or fines?

Community water system compliance with the Lead and Copper Rule will continue to be determined by the results of residential sampling done according to the water system's Lead and Copper Rule tap sampling plan. Elevated lead levels found during a special sampling event at a school will not cause a water system to be out of compliance with the Lead and Copper Rule.

Information about Lead Sources and Health Effects**29.What are other environmental sources of lead exposure for children?**

According to the USEPA's [*3Ts \(Training, Testing and Telling\) Program for Schools*](#), the most common source of lead exposure for children is chips and particles of deteriorated lead paint, especially if they are exposed to house dust or soil contaminated by leaded paint. Other potential sources include lead in the air from industrial emissions, lead deposits in soils near streets from past emissions by automobiles using leaded gas, and lead in consumer products and food, such as imported candies, medicines, dishes, toys, jewelry, and plastics.

30.Where does lead in drinking water come from?

According to the USEPA's [*3Ts \(Training, Testing and Telling\) Program for Schools*](#): "Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipe and lead solder (commonly used until 1986), as well as faucets, valves, and other components made of brass. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water."

31.What are the health risks of lead in drinking water?

Lead can affect almost every organ and system in your body. The most sensitive is the central nervous system (brain), particularly in children. Lead also damages kidneys and the reproductive system. The effects are the same whether it is breathed or swallowed. Lead in children's blood has been associated with reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth, and hearing loss.

Infants and children who drink water containing lead in excess of the lead action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Information about Lead Testing of Drinking Water in Other Locations

32. How can I find out what my community water system's Lead and Copper Rule sampling results are?

Lead and copper sampling results, as well as other water quality data, are reported in your community water system's annual Consumer Confidence Report (CCR), which is sent or emailed to customers around July 1 of every year. You can obtain a copy of the most recent CCR by [contacting your community water system](#) by phone or checking their website. You can also search the [USEPA website for the CCR](#).

33. How can I have the drinking water at my home tested for lead?

USEPA has [recommendations for testing drinking water in the home](#). You can also find information on lead sampling in drinking water for individual homeowners and homes on a private well on the [State Water Board website](#). State-certified, commercial labs that can analyze drinking water for lead and other inorganics can be found by searching the [Geographic Information System map on the ELAP website](#). Customers can also [contact their community water system](#) and volunteer to participate in the residential tap sampling program for the Lead and Copper Rule.

Additional Information about Lead Testing of Drinking Water in California Schools

34. Whom can I contact for more information about lead testing of drinking water in California schools?

If you have additional questions about any aspect of lead testing of drinking water in California schools, send an email to DDW-PLU@waterboards.ca.gov, or call (916) 322-9602 and (916) 322-9601.

35. Can I get information in Spanish about lead testing of drinking water in schools?

En español: USEPA El plomo del agua potable en las escuelas y los centros de cuidado infantil: <https://espanol.epa.gov/espanol/el-plomo-del-agua-potable-en-las-escuelas-y-los-centros-de-cuidado-infantil>

Links to Resources Cited in this Document

Title	Author	Link
DDW Lead Sampling in Schools Website	DDW	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
AB 746 Text: Public Health: Potable Water Systems: Lead Testing: Schoolsites	CA LegInfo	http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB746
3Ts for Reducing Lead in Drinking Water in Child Care Facilities	USEPA	http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20017JVA.txt
3Ts for Reducing Lead in Drinking Water in Schools	USEPA	https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf
Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water	AWWA	http://www.awwa.org/portals/0/files/legreg/documents/assistingschoolslead2005.pdf
California School Directory	CDE	http://www.cde.ca.gov/re/sd/index.asp
Centers for Disease Control Healthy Schools	CDC	http://www.cdc.gov/healthyschools/nutrition/school_nutrition.htm
Certified Environmental Laboratories in California	ELAP	http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml
Consumer Confidence Report Search Tool	USEPA	https://ofmpub.epa.gov/apex/safewater/f?p=136:102
DDW District Office Contact Information	DDW	http://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf
DDW Lead Sampling in Schools Sampling Protocol	DDW	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
DDW Supply Service Area Lookup Tool	DDW	http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/water_supplier.shtml
Home Water Testing	USEPA	https://www.epa.gov/sites/production/files/2015-11/documents/2005_09_14_faq_fs_homewatertesting.pdf
National Drinking Water Alliance	UC	http://www.drinkingwateralliance.org
Drinking Water for Schools Grant Program	DFA	https://www.waterboards.ca.gov/water_issues/programs/grants_loans/schools/
Financial Assistance Application Submittal Tool (FAAST)	DFA	http://faast.waterboards.ca.gov/
Water Quality Funding Sources for Schools	USEPA	https://www.epa.gov/dwreginfo/water-quality-funding-sources-schools-resource-k-12-schools-and-child-care-facilities