



## Client Enrichment Series – Q & A



**Topic: Water Quality Management in GSA Buildings**

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**Presenters:**

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**Water Quality Management Related Resources**

[GSA Water Quality Website](#)

[GSA Water Quality Fact Sheet](#)

[GSA 2016 Order on Drinking Water](#)

[CDC Water Management Program Toolkit](#)

[CDC Legionella](#)

[CDC ToxFAQs for Copper](#)

[CDC ToxFAQs for Lead and Lead in Drinking Water](#)

**Client Enrichment Series**

[Client Enrichment Series homepage](#)

[Water Quality Management session recording \(YouTube\)](#)

**Q1. Is GSA working on a contract with a lab or labs for water testing services since there is such a large difference in cost and turnaround time?**

*A. GSA is not directly contracting for the baseline water testing. This is being contracted through the O&M for owned facilities and the lessor for leased spaces.*

**Q2. What is the timeline in mitigating the discovery of legionella within a federal building?**

*A. Each situation is unique and requires a tailored approach.*

**Q3. How does flushing impact LEED certification?**

*A. LEED (Leadership in Energy and Environmental Design) Operations and Maintenance (O+M) certification has a water meter requirement that awards points for efficient use of water. LEED BD+C does have a flush requirement which is 1.6 g for toilets and 1 g for urinals as a prerequisite*

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and then it awards points for more efficient fixtures installed throughout. Based on available data, there hasn't been a notable increase in water utility costs attributable to these initiatives that would require a rent increase.

**Q4. At the VA we were required to set tankless water heaters at 130 or higher and tanked water heaters at above 140. Is GSA doing the same? As I understand it the ASHRAE standard takes many aspects of VHA directive 1061 into account. Has GSA compared the two?**

**A.** The PBS Guidance to Restore or Maintain Water Quality requires that hot water storage tanks be set at a minimum of 140o F (60o C).

**Q5. What happens when landlords push back on the testing and or mitigation costs that may be incurred?**

**A.** GSA will work with our lessors in an effort to obtain the necessary testing. When results indicate that applicable EPA, state, or local thresholds have been exceeded for lead, copper, total coliform bacteria, or E.coli, or when growth is not well controlled for Legionella, GSA will follow our standard lease enforcement processes to ensure lessors take the necessary mitigation actions to ensure potable water as required under the lease.

**Q6. Does GSA's new policy cover recurring water testing for heavy metals, toxins, bacteria-legionella on a yearly basis? The GSA order I have reviewed only refers to the FY24 baseline testing.**

**A.** The GSA Order PBS 1000.7A, Drinking Water Quality Management, and its accompanying Desk Guide for Drinking Water Quality Management delineate the existing testing requirements. Following the completion of baseline testing, the GSA's national office will meticulously analyze all gathered data to formulate recommendations aimed at updating the Order and Desk Guide.

**Q7. Is the increase in the number of buildings with positive results because it's more prevalent or because GSA is testing more frequently?**

**A.** At GSA, we are committed to proactive testing measures, which include implementing baseline drinking water quality tests across all federally owned facilities and leased spaces under our jurisdiction, custody, and control. Additionally, several facilities have adopted ASHRAE 188 Water Management Programs, mandating annual Legionella testing. According to the CDC for the general trend in the increase of Legionnaires' disease from 2000 - 2018, it is unclear whether this increase represents an artifact (due to increased awareness and testing), increased susceptibility of the population, increased Legionella in the environment, or some combination of factors.

**Q8. As water management policies change, do they also change the ASHRAE standard needed to renew LEED certifications in buildings?**

**A.** ASHRAE Standards 514 and 188 along with Guideline 12 were all recently updated and incorporate the most current information on water management programs.

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**Q9. How is this being applied to GSA Commercial Leased Facilities that house both public and private sector tenants?**

*A. As part of the baseline testing initiative, the GSA is implementing baseline drinking water quality tests for approximately 6,000 leased spaces in FY2024. Exemptions from this requirement encompass leases with less than 60 square feet (e.g., parking, antennas, kiosks, etc.), as they are assumed not to have drinking water systems, and leases expiring during FY 2024. Per our scope of work, water testing will be performed in GSA leased space and all common areas to which the GSA tenants and its visitors have access and would reasonably expect to use. Therefore, for facilities with both federal and private sector tenants, we are not testing within space occupied by private sector tenants, or their common areas (unless they overlap our common area).*

**Q10. If I have a Judge's chambers that is infrequently used, what would you recommend as flushing prior to use?**

*A. It is always advisable to flush an outlet before using it for cooking or drinking purposes as a best practice.*

**Q11. Will GSA be responsible for testing or will the agencies? Will Leased Facilities be required to test based on the new guidance from GSA?**

*A. In FY24, GSA is instituting baseline drinking water quality tests for all applicable federally owned facilities and leased spaces under our jurisdiction, custody, and control that are occupied and have drinking water. For facilities we operate, GSA will oversee the testing. In instances where operations and maintenance duties have been delegated to the occupant agency, the occupant agency assumes responsibility for the testing. For leased spaces, the lessor is accountable for conducting the testing.*

**Q12. Is there a list of contractors that can perform these new requirements? We are having issues locating vendors who can do all of this work?**

*A. While GSA is unable to endorse specific contractors for the work, it's worth noting that the majority of environmental or industrial hygiene consultants should be able to fulfill one of the qualifications outlined in the scope of work for a qualified person.*

**Q13. Is there any consideration to expanding testing for issues that are specific to regional challenges? For example: If a local geographic region has a higher incidence of arsenic along the southern US border?**

*A. In each GSA region, there is a designated subject matter expert responsible for overseeing the regional drinking water program. Specific concerns can be addressed directly with this team for assistance and resolution.*

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**Q14. Where can we get a list of the leased facilities that will be tested for our agency?**

*A. GSA's National Client Executives have furnished each agency with a comprehensive list of all spaces slated for inclusion in the testing effort.*

**Q15. Can GSA provide assistance with developing IGEs?**

*A. When operations and maintenance duties are delegated to the occupant agency, they assume responsibility for contracting and conducting the testing. Upon request, GSA may be able to provide a government cost estimate template for similar work conducted in the facilities that we operate.*

**Q16. What about sites that are smaller? How does this impact those facilities?**

*A. For owned facilities that do not meet the criteria outlined in the PBS Guidance to Restore or Maintain Water Quality, we will prioritize weekly flushing in focus areas such as health units, childcare centers, and showers. Furthermore, the GSA is implementing baseline drinking water quality tests in all applicable federally owned facilities and leased spaces under our jurisdiction, custody, and control, provided they are occupied and have drinking water access.*

**Q17. When you say leased facilities, does that also include commercial buildings with federally leased space and federal tenants?**

*A. That is correct.*

**Q18. Is there any consideration for testing for PFAS as well?**

*A. GSA has determined that PFAS will not be included in the baseline testing for drinking water.*

**Q19. Will the lessor be required to provide a report of results to the agency POC for any testing?**

*A. Per the scope of work, the lessor is required to provide a report of results to GSA.*

**Q20. Since you have a remediation plan for heavy metals in drinking water, are the offices that have an issue notified? If so, what is the notification to agencies?**

*A. In cases where there is a concern affecting occupants, including individuals residing in or visiting a federally owned facility or leased space under GSA's jurisdiction, custody, or control, the notification process adheres to the existing PBS Risk Management Notification Policy. This process involves notifying affected occupants about environmental, health, safety, or fire protection (EHSF) risks, including instances of water testing results that surpass regulatory thresholds. This notification process is consistent for Federal tenants, contractors, and the general public. It's designed around transparency and ensuring everyone's well-being in the spaces we oversee.*

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**Q21. How does reporting to health departments work?**

*A. Legionnaires' Disease is a reportable disease. This means that healthcare facilities and physicians are required by law, in most states, to report cases to the local and state health departments.*

**Q22. If legionella is expected, is there a "safe" threshold level if found in water?**

*A. As part of the routine or reactive testing, PBS follows the [CDC Guidance for Routine Legionella testing: A multifactorial approach to performance indicator interpretation](#) that considers factors such as concentration, extent of colonization, type of Legionella, and changes over time. If Legionella is found to be not well controlled in a building's water system, GSA will implement industry-standard recommendations for corrective actions that will reduce risk and help ensure that our occupants are safe.*

**Q23. Can UV light systems help prevent legionella?**

*A. UV (ultraviolet) light systems can be effective in mitigating Legionella contamination within water systems. UV light disrupts the DNA of bacteria, including Legionella, thereby impeding their reproduction. While predominant long-term treatment strategies often involve supplemental continuous disinfection methods like the addition of monochloramine and copper-silver ionization systems, the most effective strategies include adjusting operational parameters, reducing water age, and maintaining an active water management program or team.*

**Q24. If the major pathway is inhalation and not ingestion do you need to shut down water fixtures (water fountains, sinks) that test positive?**

*A. GSA is taking a conservative approach until corrective action has been confirmed to be effective.*

**Q25. Is there some sense of what percentage of legionnaire's infections come from potable water vs. mechanical systems water?**

*A. In 2016, the CDC published a report detailing 27 Legionnaires' disease outbreaks that occurred between 2000 and 2014 (Garrison et al., 2016). The report highlighted that the majority of cases were associated with potable water sources (56%).*

**Q26. The presenter listed the requirements and expertise that is needed to carry out this work. Is field training being done in parallel/ simultaneously for OFM folks or others at GSA, for the purpose of building capacity, succession planning, shortening baseline data collection time, and enhancing processes?**

*A. In each GSA region, a designated subject matter expert oversees the drinking water program and possesses relevant training in this domain. However, it's important to note that OFM*

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employees are not directly conducting the testing; rather, they will be utilizing the services of O&M contractors within owned facilities for this purpose.

**Q27. Now that it is on radar, will more testing be required?**

*A. The GSA Order PBS 1000.7A, Drinking Water Quality Management, and its accompanying Desk Guide for Drinking Water Quality Management delineate the existing testing requirements. Following the completion of baseline testing, the GSA's national office will meticulously analyze all gathered data to formulate recommendations aimed at updating the Order and Desk Guide.*

**Q28. How does one get Legionnaires' disease from cooling towers?**

*A. From the CDC Legionella Control Toolkit, [Controlling Legionella in Cooling Towers](#), "Cooling towers can release aerosolized water to the atmosphere. If Legionella is present, the aerosolized water can spread the bacteria over miles." Legionnaires' disease can occur when people breathe in water droplets containing Legionella bacteria.*

**Q29. I'm from a federal building that has resulted positive for legionella in the potable water system. Employees were concerned, talked with their physicians, were tested and resulted positive for antibodies. How do we deal with the emotional impacts and messaging to employees in this situation?**

*A. The Council of State and Territorial Epidemiologists (CSTE) is the organization that provides technical advice to federal agencies like the CDC and includes a [Legionnaires' Disease Risk Communication Toolkit](#).*

**Q30. When and how will the test results be provided? What repairs are being contemplated (there will be sites which have negative results)? Are some lease requirements going to be provided (especially for delegated authority)?**

*A. When results indicate that applicable EPA, state or local thresholds have been exceeded for lead, copper, total coliform bacteria, or E.coli, or when growth is not well controlled for Legionella, GSA, a lessor, or the delegated federal agency will:*

- *Notify tenants and post relevant signage*
- *If indicated, restrict access to impacted outlets or spaces, and/or provide bottled water*
- *Communicate with the water supplier, if needed*
- *Begin corrective actions, such as system flushing and adjusting operational parameters*
- *Retest the water system once corrective actions are complete*
- *Notify tenants of follow-up testing results*
- *Continue with additional corrective actions and testing if deemed necessary*

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*There is not a one-size-fits-all approach to repairs when water samples exceed established action levels. Each situation is unique and repairs should be considered and evaluated on an individual basis.*

**Q31. Should we take any precautions for facility coffeemakers and Keurigs?**

*A. Several end-use devices directly connected to building water systems require maintenance according to the manufacturer's instructions.*

**Q32. Should we follow CDC's toolkit or ASHRAE standard? What makes those two distinctively different?**

*A. ASHRAE Standard 188 and Guideline 12 are closely associated with the CDC Legionella Toolkit, which serves to offer supplementary context and guidance in this domain.*

**Q33. In a facility where flushing and other measures do not control lead and copper, would filtration be advisable/effective and would a 2 micron filter be effective or would a filter certified to NSF/ANSI 53 for lead and copper reduction and NSF/ANSI 42 for particulate reduction be required?**

*A. The EPA's 3Ts Manual for Reducing Lead in Drinking Water recommends that Point-of-Use filters be considered as a short-term control measure. Point-of-use filters utilized for lead filtration should be verified as compliant with NSF/ANSI 53 and NSF/ANSI 42. These filters are considered effective as a short-term control measure. For samples that exceed the lead or copper action level, short-term control measures should not become permanent substitutes for permanent control measures.*

**Q34. What is the typical time needed to flush water pipes in a building? Do the times differ for hot and cold water flushing?**

*A. Each situation involving water quality concerns is unique, and influenced by system design.*

**Q35. With regard to local coordination, can we make sure GSA works with the customer agency to determine what the level of communication will be? For example, our preference would be for all communications to flow through our Regional Office, instead of the local onsite managers.**

*A. The size and scope of GSA's testing program complicates our ability to enact custom communication plans for each customer agency. While there will be testing/schedule communication at the local level, we are developing a testing/schedule notification process to inform customers at the national/headquarters level as well. This way, information can be filtered both "up" or "down" within an agency as necessary.*

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**Q36. Suppose there is a lease site that is under 1000 square feet, however there was a recent issue with legionella? How do we get these sites considered as a focus site?**

**A.** Baseline testing will be conducted in all applicable leased facilities that are occupied and equipped with drinking water facilities. The 1,000-square-foot threshold applies solely to owned facilities.

**Q37. For agencies with operations and maintenance delegation agreements, will GSA continue to allocate "Reserved Amounts" for water treatment in our annual letters?**

**A.** Yes, where applicable, drinking water quality management will be included in the estimated operating costs that GSA uses for the retained amount calculation.

**Q38. What about the increased operating costs for the required flushing? The cost for that has not been considered in rent budgets, how will that be addressed?**

**A.** Based on available data, there hasn't been a notable increase in water utility costs attributable to these initiatives that would require a rent increase.

**Q39. What is going to happen with buildings that we lease that are under 1,000 sq ft?**

**A.** Baseline testing will be conducted in all applicable leased facilities that are occupied and equipped with drinking water facilities. The 1,000-square-foot threshold applies solely to owned facilities.

**Q40. Is GSA trying to eliminate all legionella in the buildings or is there a threshold identified which will trigger corrective action?**

**A.** As part of the routine or reactive testing, PBS follows the [CDC Guidance for Routine Legionella testing: A multifactorial approach to performance indicator interpretation](#) that considers factors such as concentration, extent of colonization, type of Legionella, and changes over time. If Legionella is not well controlled in a building's water system, GSA implements industry-standard recommendations for any corrective actions while reducing risk and helping to ensure that our occupants are safe.

**Q41. Should we be concerned about the water quality when we constantly see brown water? What would be the trigger to request for a water test?**

**A.** Please report any localized concerns to the GSA property manager for further investigation and resolution.

**Q42. Is serotyping sufficient to establish an occupational case of legionellosis (versus community-acquired), or is there more investigative work necessary to confirm occupational cases?**

**A.** The Centers for Disease Control and Prevention (CDC) and the Council of State and Territorial Epidemiologists (CSTE) define laboratory-confirmed cases of Legionnaires' disease as those with

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a positive diagnostic test result obtained through various means, including culture, molecular testing, urine antigen analysis, and multiple blood tests. Public health departments will compare those results against water samples collected from the facility to help determine if there is a connection. The criteria for an investigation are located on the [CDC website](#).

**Q43. What happens if a representative sample indicates a large amount of water quality issues at a site?**

**A.** The corrective actions will be determined based on the sampling results. If systematic issues are identified, we're committed to taking appropriate steps including bringing in outside experts to help with the remediation plans. This might involve providing alternative sources of potable water while corrective actions are developed and successfully implemented. These corrective actions could include system disinfection or the replacement of specific plumbing components.

*In every instance, clear communication is our top priority. It's crucial that all occupants are fully informed about the situation and any necessary actions being taken to address it. Transparency and effective communication ensure that everyone remains informed and reassured throughout the process.*

**Q44. What are the requirements for water management plans for GSA leased offices?**

**A.** The lease contract language does not require the lessors to provide a water management plan. However, they are required to provide potable water at point-of-use outlets. Potable is defined as water meeting current EPA primary drinking water standards or more stringent, applicable state or local regulations. The Lessor shall serve as the first responder to any occupant complaints about drinking water. The Lessor shall promptly investigate any such complaints and implement the necessary controls to address the complaints and maintain potable water conditions.

**Q45. As a delegated building, what does GSA provide vs. the Customer Agency?**

**A.** We have revised and shared the Standard Operating Procedures for Operation and Maintenance of Delegated Real Property (SOP).

*We have also shared our GSA Order PBS 1000.7A, Drinking Water Quality Management, and its accompanying Desk Guide for Drinking Water Quality Management (November 16, 2023), PBS Guidance to Maintain or Restore Water Quality, and the PBS Scope of Work for Drinking Water Testing In GSA Federally Owned Facilities.*

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*In addition, we shared the estimated cost for implementing the revised SOP water quality provisions at each delegated facility. GSA expects your agency to implement these new water quality provisions promptly and complete the work in fiscal year (FY) 2024.*

*GSA's determination of the amount that may be retained by your agency to operate, maintain and repair the building for FY 2024 will be increased to account for the anticipated additional operating costs and expenses associated with implementing the new water quality provisions.*

*Infrastructure repair or improvements, if needed, will be completed in accordance with the delegation agreement and SOP.*

**Q46. What is GSA's obligation to notify tenants of health-related issues such as drinking water quality?**

*A. In cases where there is a concern affecting occupants, including individuals residing in or visiting a federally owned facility or leased space under GSA's jurisdiction, custody, or control, the notification process adheres to the existing PBS Risk Management Notification Policy. This process involves notifying affected occupants about environmental, health, safety, or fire protection (EHSF) risks, including instances of water testing results that surpass regulatory thresholds. This notification process is consistent for Federal tenants, contractors, and the general public. It's designed around transparency and ensuring everyone's well-being in the spaces we oversee.*

**Q47. What steps has GSA been taking prior to this to address water quality?**

*A. Back in the early days of the pandemic, GSA recognized the potential challenges posed by water stagnation issues. We swiftly rolled out a low water use guidance nationwide. This initiative mandated that facilities with reduced occupancy flush areas weekly and conduct periodic checks. Moreover, during this time, several facilities took an extra step and developed ASHRAE 188 water management programs.*

*We're also implementing a preventative flushing initiative for all our owned facilities that haven't been flushed recently due to returning to normal operations post-pandemic. This move is aimed at bolstering water safety until testing can confirm the situation. It's all about staying proactive and keeping everyone safe as we navigate through these transitions.*

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**Q48. Who will conduct the testing, and how will it be completed?**

- A.** Testing will be handled by a qualified subcontractor engaged by our O&M contractors or lessors. The subcontractor will employ professionals with either an ASSE 12080 certification, a certified industrial hygienist (CIH) designation, or health and safety individuals supervised by a CIH or an ASSE 12080 certified individual. These experts must have a minimum of two years of onsite experience conducting potable water sampling, including microbiological sampling methods for Legionella.

The testing process will cover a representative number of drinking water outlets and additional water sampling from specific equipment, adhering to recommendations from AIHA and CDC. All samples will be analyzed by a certified laboratory. Following analysis, the contractor will provide a comprehensive written report outlining all findings. It's all about ensuring thoroughness and accuracy in the testing process to maintain the highest standards of water safety.

**Q49. How often is water tested in GSA buildings? Is there a standard in commercial buildings?**

- A.** While there is no mandatory requirement for water testing, we acknowledge the significance of this endeavor. That's precisely why GSA is dedicating considerable resources to this effort. Beyond addressing operational concerns, we aspire to set a positive example and inspire other industries and property owners to embrace similar initiatives. Together, we can champion a culture of proactive health and safety measures across various sectors.

**Q50. Is Legionella naturally occurring, and do drinking water treatment plants remove it or test for it?**

- A.** Yes, Legionella is found naturally in freshwater environments, like lakes and streams. These bacteria can become a health concern when they grow and spread in human-made building water systems. Many public water utilities use chemicals that are effective at preventing Legionella growth, like chlorine, to treat water. These chemicals are added to the water at the water treatment plant. However, by the time the water reaches a building, the amount of chemicals still in the water may have decreased. Water utilities are not required to test for Legionella, though some may do so voluntarily.

**Q51. Some studies have shown that Legionella is present in 50% of facilities. Is it that common to find Legionella in the building's drinking water and should I be concerned?**

- A.** Building water systems can provide an environment that Legionella can easily grow in if the water is not adequately managed. Therefore, it's not uncommon to find Legionella in building water systems if they are tested. If Legionella is found in the building you work in, your level of concern likely depends on the specific circumstances. For example, people who are at [increased risk for](#)

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Legionnaires' disease may be more concerned than someone who isn't at increased risk. If you're at increased risk and concerned about getting sick, speak with your healthcare provider. They may recommend steps you can take to help protect yourself. Someone's level of concern may also depend on the testing information. For example, if *Legionella* growth appears uncontrolled, someone at increased risk may be even more concerned than if *Legionella* is detected but growth appears well controlled.

**Q52. How often is *Legionella* testing required for an office building's drinking water?**

A. There is no national standard that requires *Legionella* testing in office buildings. Building managers and owners may choose to test for *Legionella*. Some states or localities may have their own rules regarding testing in different types of buildings.

**Q53. What is the risk of contracting *Legionnaires' disease* from exposure to *Legionella* in non-healthcare settings such as office buildings, where people do not stay overnight, and the majority of the population are healthy, working-aged individuals?**

A. There's no known safe level or type of *Legionella*. This means that results of *Legionella* testing alone can't predict if people will get *Legionnaires' disease*. Most healthy people exposed to *Legionella* don't get sick. However, certain people are at increased risk of getting *Legionnaires' disease*.

**Q54. Why is a representative sampling methodology used for routine and follow-up *Legionella* testing? If initial results indicate *Legionella* in certain outlets, should every outlet in the entire building now be tested?**

A. Environmental sampling plans should be thoughtfully designed to represent the water systems undergoing testing by including central locations, such as water heaters, and fixtures where people come into contact with the water, such as sinks and showers, across the system. If the locations are representative, then the results can be interpreted as representing similar fixtures or areas of the system. If *Legionella* is detected at 10% of sinks that are tested, then it should be assumed that 10% of sinks that were not tested similarly have *Legionella*, and corrective actions should be taken accordingly. In this way, the building manager has information about how to revise operations without having to test every fixture.

**Q55. Do toilets and urinals pose a risk, and do they need to be tested?**

A. Any device that produces water mist or droplets can possibly expose someone to *Legionella*. However, toilets and urinals are not a known common source of exposure.

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**Q56. How can workers within a building where Legionella is detected avoid becoming sick?**

**A.** Most healthy people exposed to Legionella don't get sick. Workers who are concerned about getting sick may choose to avoid exposure to water droplets to help protect themselves. This may include drinking bottled water instead of using a water fountain or avoiding using the showers in the building. There are [steps building owners and managers can take](#) to help protect workers in a building that tests positive for Legionella. If you're at [increased risk of getting Legionnaires' disease](#) and concerned about getting sick, speak with your healthcare provider. They may recommend steps you can take to help protect yourself.

**Q57. Can occupants still drink the water and wash their hands if Legionella is detected in the facility?**

**A.** There's no known safe level or type of Legionella. This means that results of Legionella testing alone can't predict if people will get Legionnaires' disease. Most healthy people exposed to Legionella don't get sick. Additionally, while people can become sick after aspirating water (accidentally swallowing water into the lungs), it is rare. However, certain people are at increased risk of getting sick. If you're at [increased risk of getting Legionnaires' disease](#) and concerned about getting sick, speak with your healthcare provider. They may recommend steps you can take to help protect yourself. These steps may include things like drinking bottled water and limiting splashing while washing hands.

**Q58. Could you clarify what "well controlled," "poorly controlled," and "uncontrolled" mean regarding Legionella? Does "well controlled" mean there is zero Legionella?**

**A.** How well [Legionella growth appears controlled](#) depends on the amount of Legionella detected, where it is found, at how many locations (e.g., faucets, showerheads) within a system it was detected, and trends over multiple rounds of testing. "Well controlled" does not necessarily mean there is zero Legionella.

**Q59. Why is it not recommended to shut down a facility if Legionella is detected?**

**A.** In general, shutting down a facility when Legionella is detected will not help solve the problem. It could actually make the Legionella grow more within the water system. What's most important is that the building owner and manager respond to the Legionella detection with corrective actions. These may include steps like adding chemicals or flushing the water through the system.

**Q60. What type of corrective actions are typically implemented when Legionella is detected in the potable water system to ensure the safe continued operation of a facility?**

**A.** Response activities are not one-size-fits-all; they depend on the building's characteristics and testing information. Response activities could include flushing the water through fixtures such as faucets and showerheads, treating the water with chemicals, or changing plumbing design.

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**Q61. If Legionella is detected in my building's potable water system, do water restrictions need to be put into place, and should bottled water be provided?**

*A. Response activities are not one-size-fits-all; they depend on the building's characteristics and testing information. In some situations, it may make sense to provide bottled water.*

**Q62. How many rounds of follow-up testing with well controlled results are recommended if Legionella is detected in my building's potable water system?**

*A. Testing strategies are not a one-size-fits-all approach. Follow up testing plans will depend on the building's characteristics and testing information. Testing plans may also change depending on whether any cases of disease are associated with a specific building.*

**Q63. Can occupants shower and wash their hands with water that exceeds EPA action limits for lead and copper?**

*A. Lead and copper are not absorbed through the skin to any significant extent from water. Even if unfiltered tap water contains lead at EPA's action level (15 parts per billion and above) or copper at EPA's action level (1,300 parts per billion and above), washing your hands, bathing and showering should be safe for children and adults even if their skin has minor cuts or scrapes. Children and adults should not drink, brush teeth, or rinse their mouths with bath or shower water. (From [CDC Lead Poisoning Prevention](#) and [EPA Lead in water resources](#).)*

**Q64. Can occupants brush their teeth with water that exceeds EPA action limits for lead and copper?**

*A. Children and adults should not drink, brush teeth, or rinse their mouths with bath or shower water that exceeds action limits for lead and copper. (From [CDC Lead Poisoning Prevention](#) and [EPA Lead in water resources](#).)*

**Q65. Can occupants wash dishes with water that exceeds EPA action limits for lead and copper?**

*A. Lead and copper in water will not be absorbed by porcelain, metal or glass. Filtered or unfiltered tap water can be used for washing dishes.*

**Q66. What are some best practices for both work and home to minimize exposure to lead and copper in drinking water?**

*A. Use NSF®certified water filters in your home and run only cold water through the filters. Filtered water is a safe option ONLY if your filter is certified to remove lead and copper and you follow all the instructions on how to use it and when to replace it. For the filter to remain effective, the filter must be replaced regularly according to the manufacturer's recommended schedule.*

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Use filtered or bottled water for drinking (including making coffee, drink mixes, juice, and brushing teeth). Bottled water is the safest choice for children under the age of six, including for making infant formula.

Use filtered or bottled water for cooking. Use filtered water to wash fruits and vegetables. Use filtered or unfiltered tap water for washing hands and dishes.

Boiling water will not remove lead and copper, and boiling water may increase lead levels.

**Q67. What types of corrective actions are typically taken when outlets have high levels of heavy metals?**

- A. Building water operators can consider the following actions when lead and copper are identified in building water systems:
- Remove and replace any fixtures or components that contain lead, copper, or brass.
  - Work to reduce water temperature by wrapping or rerouting pipes from heated areas.
  - Identify areas of stagnation and promote water flow through those areas.

**Q68. Do filters effectively reduce heavy metal content in drinking water?**

- A. You can reduce your exposure to lead and copper in tap water by drinking or using only tap water that has been run through a “point-of-use” filter certified by an independent testing organization to reduce lead and copper (NSF/ANSI standard 53 for lead and copper removal and NSF/ANSI standard 42 for particulate lead removal).

**Q69. What are other common sources of heavy metal exposure that people may encounter in [their] lives?**

- A. Sources of heavy metal exposure are found throughout the environment. For example, lead is a metal found naturally in the earth's crust. It can be found in all parts of our environment, including air, water, and soil ([Lead | ToxFAQs™ | ATSDR \(cdc.gov\)](#)). Other potential sources of lead exposure include ([Sources of Lead | Lead | CDC](#)):
- Lead-based paint in homes built before 1978 (when lead-based paints were banned).
  - Certain water pipes, fittings, and fixtures.
  - Some products such as toys and jewelry.
  - Some candies or traditional home remedies.

Cultural products can contain heavy metals such as lead, mercury, arsenic, antimony and cadmium. More information about other potential sources of exposure to heavy metals is available at: [Heavy Metals in Cultural Products | US EPA](#)