Testing Drinking Water for Lead at Public Schools and State Licensed Child Care Centers

MAY 1, 2017

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Introduction

Lead in drinking water can contribute to elevated blood lead levels and can harm a person's health. Young children and infants are more vulnerable to lead than adults are because negative physical and behavioral effects can happen with exposure to lower levels of lead. Pregnant women are also vulnerable because a mother can expose an unborn baby to lead. In children, even low-level exposure has been linked to nervous system damage, learning disabilities, shorter stature, impaired hearing, and impaired formation and function of blood cells. Some of these effects may be irreversible and permanent. Although drinking water is rarely a major source of lead as compared to lead paint or lead paint chips, it is critical to reduce or eliminate all possible sources of lead to protect children's health.

Lead in drinking water usually comes from the corrosion of older pipes or fixtures or from lead solder that was used to connect pipes. Lead in plumbing is most common in structures that were built before 1986. The *Safe Drinking Water Act* was passed that year and it prohibited the use of lead in most plumbing. Most homes and schools in Rhode Island were built before 1986, and lead service lines from the street to the building were installed before the 1940s.

Legislative Charge
Because of the known risks of exposure to lead and in response to the events in Flint, Michigan, the Rhode Island General Assembly approved House Bill H 8127 Substitute A, *An Act Relating to Waters and Navigation – Lead and Copper Drinking Water Protection Act* in 2016. This bill directed the Rhode Island Department of Health (RIDOH) to:

- Conduct testing of water supplies at all public schools for students from grades pre-k to 12 and at state-licensed childcare facilities to determine compliance with all state and federal laws, rules, and regulations pertaining to lead and copper levels in drinking water supplies;
- Report its findings to the leadership of the General Assembly by April 30, 2017; and
- Include a plan for ensuring that water systems are in compliance with all state and federal laws, rules, and regulations, pertaining to lead and copper levels in drinking water.

Project Management
RIDOH's Center for Drinking Water Quality revised its contract with the University of Rhode Island's Cooperative Extension Water Program (URI CE) for URI CE to develop a cost-effective and efficient strategy to collect and analyze water samples from schools and child care facilities.

URI CE project staff collaborated with RIDOH to develop a plan that included:

- Compilation of existing information to properly frame the scope of work;
- Process for collecting, analyzing, and evaluating samples;
- Outreach, education, and technical assistance for schools and child care facilities;
- Creation of a website for sharing project information, resources, and results; and
- Production of a report for the leadership of the General Assembly.

Advisory group
To ensure that the project plan, analysis, and recommendations were comprehensive and relevant, an advisory group, comprised of various stakeholders was convened. (A list of Advisory Group members and the agencies they represent is listed in Appendix A.) Advisory Group members provided critical insight and professional expertise to help define current

regulations and practices and develop a water sampling and communication strategy. The Advisory Group met on a monthly basis beginning in August 2016.

The Advisory Group helped define the project parameters given available funding and time. For example, collecting water samples from an estimated 900 in-home day care and child care facilities would pose significant logistical challenges, so the Advisory Group agreed that focusing on testing drinking water in schools was the most effective and practical strategy. In addition, the Advisory Group was informed that Rhode Island Department of Children Youth, and Families (DCYF) regulations require an assessment of lead in drinking water before a childcare facility can be licensed.

The Advisory Group also agreed that the effort should focus on lead and not copper. Including copper in each analysis would have doubled the cost and significantly reduced the ability to address the much more significant public health problem posed by lead in drinking water.

Lead in Drinking Water Regulations Overview

Department of Children, Youth, and Families (DCYF)
Rhode Island General Laws 42-72.1 – *Licensing and Monitoring of Child Care Providers and Child-Placing Agencies* gives DCYF the authority to develop and implement a process for safeguarding the well-being of the children served by child care programs. *Granting a license means there is clear evidence that the building and grounds are safe, staff are appropriately trained and responsible, and the program reflects an understanding of the healthy growth and development of children.* Initial licensure standards for physical space and safety of child care facilities includes a requirement that they *provide evidence that the program and water source are lead free or lead safe as assessed by a Certified Lead Inspection Professional.* (Refer to page 6 for RIDOH's professional standards and testing requirements.)

The lead inspection form a childcare facility must present includes a section to indicate whether the facility met lead-free (less than five parts per billion in a first-draw sample) or lead-safe (from 5-15 parts per billion in a first-draw sample, or less than 15 parts per billion in a flushed sample) levels. The inspection form does not include individual water sample test results.

Annual renewal of child care licenses requires facilities to maintain safe, appropriate environments and a lead-safe certification. Testing of drinking water for lead is only required for a license renewal inspection if renovations or other significant alterations to the property have occurred since the initial licensure.

Department of Education (RIDE)
Providing safe and healthy schools to support high-quality learning environments with appropriate indoor environmental quality are a core focus of RIDE. A number of regulations provide the authority for implementing maintenance and operations rules. The *1988 Lead Contamination Control Act (LCCA)* amended the *Safe Drinking Water Act* to create lead monitoring and reporting requirements for all schools, and to require the replacement of drinking water fixtures that contained excessive levels of lead. (A listing of water coolers that are not allowed in schools is found in Appendix B.) Schools replaced banned water coolers by 1990, and any new school construction was not allowed to use any of the banned water coolers.

RIDE compiled regulations, guidance and resources related to indoor environmental quality (IEQ) for school districts into a single document entitled *Health and Safety in School Facilities.* (http://www.ride.ri.gov/Portals/0/Uploads/Documents/Funding-and-Finance-Wise-Investments/School-Facilities/School-Construction-Program/IEQ-Guidance.pdf) Specifically, the document details:

- Annual school facilities inspection deadlines defined under RIGL§16-21, *Rules and Regulations for School Health Programs*, (http://sos.ri.gov/documents/archives/regdocs/released/pdf/DOH/5471.pdf);
- Rules on asbestos control and radon testing required by state law;
- *Tools for Schools*, an EPA initiative focused on indoor air quality; and
- A walkthrough inspection checklist (http://www.ride.ri.gov/Portals/0/Uploads/Documents/Funding-and-Finance-Wise-Investments/School-Facilities/School-Construction-Program/tfs-walkthru-chklst-JULY-2013.pdf) for helping to identify potential indoor environmental quality issues.

In 1994, RIDE launched the Rhode Island Coordinated School Health Program (now known as *thrive)* with funding from the Centers for Disease Control and Prevention (CDC). *Thrive* is

designed to prevent serious health problems and to improve educational outcomes by ensuring that schools are safe and healthy places for teaching and learning. (http://www.thriveri.org). *Thrive* highlights that healthy buildings are an essential component of maintaining overall health and safety of students and staff.

RIDE recognizes that policies and protocols designed to ensure that all children have access to healthy school buildings, including a safe water supply, are critical (http://www.ride.ri.gov/StudentsFamilies/HealthSafety.aspx).

Department of Health (RIDOH)
Two programs at RIDOH have authority for reduction of lead exposure from drinking water: the Center for Healthy Homes and Environment (HHE) and the Center for Drinking Water Quality (DWQ). The Centers work across RIDOH and in collaboration with other agencies and partners.

The Environmental Lead Program, housed within HHE, gets its authority from RIGL§23-24.6, the *Rhode Island Lead Poisoning Prevention Act* (http://webserver.rilin.state.ri.us/Statutes/TITLE23/23-24.6/INDEX.HTM) and provides resources for identifying and decreasing environmental lead hazards. Specifically, HHE licenses and regulates Lead Inspection professionals. HHE staff also conducts comprehensive environmental inspections of child care facilities and homes of children (younger than age 6) who have significantly elevated blood lead levels.

HHE works with DCYF to ensure that preschools, child care facilities, nursery schools, public and private elementary schools, playgrounds, foster homes, and shelters meet all rules and regulations under the *Lead Poisoning Prevention Act*, including drinking water safety. HHE-certified Environmental Lead Inspectors and/or Inspector Technicians collect water samples from kitchen faucets and other outlets used for drinking water or food preparation in facilities that want to be licensed as a child care facility. Water test results must be lead-free or lead-safe for facilities to qualify for initial licensing.

DWQ gets its authority from two federal laws:

- The *Safe Drinking Water Act (SDWA) of 1974* requires the Environmental Protection Agency (EPA) to determine safe levels of contaminants in drinking water and to develop regulations for monitoring and treatment of public water systems.
    - Public schools and licensed child care facilities who get water from a municipal water system are not subject to SDWA monitoring and treatment requirements.
    - Schools and child care facilities may voluntarily conduct drinking water quality testing.
- The *Lead and Copper Rule (LCR) of June 1991* set new action limits for lead and copper in drinking water. It requires public water systems to monitor a set number of customers throughout their distribution system. According to the LCR, if public drinking water at more than 10% of faucets (90^{th} percentile) is higher than 15 parts per billion of lead, the water system must work to reduce it. Required actions for water systems include treating corrosive water, increasing monitoring, educating customers, and replacing fixtures and lead service lines within the distribution system.
  If a water test result is higher than the EPA action level of 15 parts per billion, it is a sign that something needs to be fixed. By itself, a test result above the action level is not a violation. A public water system gets a violation when it does not take the

required actions. Penalties from a violation depend on how serious the violation is. At minimum, customers are notified and the water system must do more sampling. In some cases, a compliance agreement between the water system and RIDOH is issued to make sure the water system returns to compliance with regulations.

RIDOH is approved to adopt and implement EPA's minimum standards in the SDWA to regulate lead in drinking water, and uses standards detailed in *Rules and Regulations Pertaining to Public Drinking Water;* R46-13-DWQ, § 6.0 *Control of Lead and Copper.* The LCR requires samples from community water systems be from single-family homes to assure any treatments are working.

Schools that supply their own water are regulated under the LCR. They must take samples on a regular schedule and report results. If drinking water at more than 10% of faucets (90^{th} percentile) is higher than 15 parts per billion of lead, the water system must work to reduce it. If individual faucets have higher than 15 parts per billion of lead, the faucet is usually shut off or replaced. If the entire system has to be treated, the system operator must get approval for engineering plans, do the treatment, keep maintenance logs, and monitor water test results to see if the treatment worked.

Corrosion of lead is caused by the interaction of the water and the plumbing material. If water is corrosive, and lead is present, lead will get into the water. When sampling started in 1992, the initial intent was to identify which water supply systems needed corrosion control. Corrosion Control Treatment systems installed in the early 1990s are now reaching the end of their projected useful life, so investment in maintenance and upgrade is crucial. Large municipal systems have been able to keep up with scheduled maintenance. Smaller systems are less able to cope; in particular, self-supplied schools are dependent on local school budgets that are always under stress.

After events in Flint, Michigan in 2014, the EPA polled states about implementation of LCR and subsequently, issued guidance regarding transparency, such as making information regarding lead service line locations and sampling results available online. RIDOH has worked with water systems to be sure they are using appropriate sampling techniques and that they share information with customers.

Public Water System Monitoring and Compliance

The LCR was promulgated in the early 1990s, and during the first years of testing, the extent of the lead contamination problem in Rhode Island was identified. Many water systems started taking appropriate action to fix individual issues. Any small community or non-transient non-community water systems that did not have 90th percentile water test results above the EPA action level were allowed to monitor less frequently. Any water system that had 90th percentile water test results above the EPA action level had to take appropriate actions to reduce it. Any water system that had more than 50,000 customers had to optimize their corrosion-control, whether or not its 90th percentile exceeded the Lead Action Level of 15 parts per billion.

There are 469 active public water systems in Rhode Island, and 168 of those are required to test for lead in the water. (The other 301 water systems serve restaurants and campgrounds and are defined as transient water systems. Because transient water systems serve different people every day, they are not required to test for lead.) Of the water systems that are required to monitor for lead, 46 serve schools or child care centers. In the latest round of monitoring, three water systems exceeded the EPA Lead Action Level of 15 parts per billion in more than 10% of the samples from their respective system. An additional four water systems did not test for lead in 2016 and are collecting "make up" samples in early 2017.

Challenges of Lead Monitoring and Corrective Actions

The preamble to the LCR identified and described some common challenges of choosing sample sites that are most vulnerable to contamination, the importance of limiting stagnation times, and other issues. The initial intent of collecting and testing water samples was to assess if treatments the water system had used were working. That is still true in 2016. In 1991, the EPA determined that the best way to collect water samples was to do first-draw samples and to standardize how long water in the pipes should be stagnant before testing.

In its attempt to standardize stagnation time, EPA unintentionally fostered the practice of pre-stagnation flushing. In Rhode Island, pre-stagnation flushing was interpreted as allowing the water to run until it was cold (about one minute) the night before a sample was collected. In other parts of the country, water was allowed to run for several hours the day before a sample was collected, thus artificially reducing the amount of lead in the water. EPA has since issued guidance that water should not be run the day before a sample is collected and faucets that will be tested should be in regular use.

Lead service lines were used regularly before 1940 to connect plumbing from a house or a business to water mains in the street. One initial requirement of the LCR was that water systems had to replace lead service lines from the street to the owner's property line because EPA assumed that if water did not run through lead pipes, there would be less lead in the water. EPA knew that disturbing the lines to do the work would mean that the water that came out of the faucet could temporarily be very cloudy and have more lead in it. However, the long term benefits were thought to greatly outweigh the short-term effects. One result that was not anticipated was the amount of galvanic corrosion that could occur when the copper from the new pipes came in contact with lead in older pipes that had not been replaced. EPA is considering removing the lead service line replacement requirement from the LCR and instead focusing on replacing lead lines that run all the way from the water main to a house or business.

Even if all lead service lines were replaced, lead still exists in the pipes inside homes and other buildings. It is common for older buildings to have lead pipes, lead-soldered copper, and leaded

brass faucets and valves. It is important for water systems to continue corrosion-control treatment to help reduce lead at the tap.

CASE STUDIES

Providence Water Supply Board (ProvWater)

ProvWater is the largest supplier in Rhode Island and had never exceeded the EPA action level of 15 parts per billion in any of its water sample tests; however, for several years, at least 10% of all samples taken from the water system had results higher than 10 parts per billion. RIDOH and EPA agreed that the results were too high for ProvWater to be deemed optimized. In 2005, ProvWater's engineers and consultants, EPA, and RIDOH, agreed that lowering the pH of the water from 10.2 to 9.7 would likely reduce corrosion. In hindsight, that conclusion was erroneous, because in 2006, the 90th percentile of all samples taken from the water system was 23 parts per billion – eight parts per billion above the EPA action level of 15. From 2007-2016, the 90th percentile was near or higher than the EPA action level. Since 2014, 90th percentile has been steadily decreasing. ProvWater has aggressively pursued solutions to the problem, including various treatment options and an extensive distribution system maintenance program. The combination of all efforts has had a positive impact.

Small Water Systems

In 1992, if a water system that had fewer than 3,300 customers discovered elevated levels of lead in the water, they treated the water to reduce its corrosiveness. Some water systems added soda ash, potash, or calcite to decrease the acidity of the water, and others installed phosphate-injection systems that coated the interior of the pipes and fittings in order to prevent the water from coming into contact with materials that contained lead. These treatment methods have proven to be effective, as long as they are operated as designed, approved, installed, and maintained. The estimated life of corrosion-control systems at small water systems is about 20 years, so the systems will need to be replaced or upgraded in the coming years.

RIDOH promotes these methods during water system operator training, when staff inspects a water system, and by regular water testing. RIDOH has used federal grants to fund the preparation of Facility Improvement Plans to assist small systems in planning for such investments.

Small Community System: Maplehill Mobile Home Park

In 1993, this small community system, a mobile home park, found high levels of lead in their water. A pH-adjustment system was proposed, approved, and installed. Subsequent water tests showed lower levels, and for several years very little lead was found. Since 2012, both lead and copper levels have been increasing slightly, and RIDOH believes this is an indication that the treatment system may need to be re-evaluated.

Self-Supplied School Water System: Charlestown Elementary School

Charlestown Elementary School detected elevated levels of lead in 1995 and 1996 sampling periods. A treatment system was installed to increase the water's acidity, but in 2000, levels of lead were higher than the EPA action level. By 2002, the 90th percentile was well below the Action Level, and remained so for years.

In 2010, the treatment system was rehabilitated with new calcite filters. However, in 2013, after a loss of pressure, school staff bypassed the treatment system. Staff did not fully understand water chemistry and thought bypassing the treatment system would be acceptable because the

water still had a higher acidity level. In June 2014 water test results showed very high levels pf lead from samples collected at two different faucets. The system was immediately restarted, and the school district entered into a compliance agreement with the State to assure that there was increased monitoring and that the treatment system would be maintained and operated as designed and approved. Since 2014, no water samples have had test results that were above the EPA action level, and most results have barely been above the detection level.

Summary of Lead 90th Percentile Results for Public Water Systems

The Lead Action Level refers to the amount of lead detected in the 90th percentile sample. If more than 10% of samples had a lead level of higher than 15 parts per billion, the Lead Action Level was exceeded. If a small water system collects and tests five samples, the 90th percentile is considered to be the average of the two highest results. If a large water system collects and tests 100 samples, the 11th-highest sample is the 90th percentile. All lead results must be reported to the state; however, only the 90th percentile result is reported to the EPA.

For all public water systems regulated under the LCR, the data from the past 24 years of monitoring has shown that the average 90th percentile lead concentration has decreased. The majority of the 90th percentile lead results reported to RIDOH have been less than half of the action level. Only a small number of 90th percentile lead results reported to RIDOH were above the action level.

For schools that are licensed public water systems, the average 90th percentile lead levels have decreased in the past 24 years and had remained consistent from 2002-2013. In the most recent five years, the average 90th percentile lead level has increased, and is likely due to aging treatment systems and lack of maintenance. However, it is important to note that the majority of 90th percentile lead levels reported to RIDOH remain below the EPA action level.

For child care centers that are licensed as public water systems, data reported to RIDOH has shown that the average 90th percentile level of lead has decreased overall at the taps. The majority of 90th percentile lead levels reported to RIDOH have been less than half of the action level, and the percentage of 90th percentile lead levels reported to RIDOH less than half of the action level has increased. Similarly, the percentage of 90th percentile lead levels reported higher than the action level has decreased.

Testing Drinking Water in Schools and Child Care Centers on Community Public Water Supply Systems

Sampling Project Overview

In Rhode Island, 342 public schools are served by public water systems, and some of these systems are operated by the schools themselves. Public schools include municipality/regional districts, state-operated schools, and charter/collaborative schools. There are 930 DCYF-licensed child care providers in the state that are inspected by staff from RIDOH's Center for Healthy Homes and Environment. Of all licensed facilities, 422 are in stand-alone buildings or commercial space, and 508 are operated out of private homes. Home-based child care providers can be served by either public water systems or private wells. Samples were collected from 305 public schools and two child care centers.

The scope of this project was to identify baseline lead levels in water from faucets at public schools and at child care centers because that is the water that children drink. Those facilities support a significant population of individuals who are most vulnerable to the effects of lead. The testing done for this project is different from routine monitoring done by public water systems that need to confirm that corrosion control and treatment efforts are functioning properly and that lead levels within the water supply meet EPA criteria. Municipal water suppliers do not test water inside schools for potential elevated lead levels caused by plumbing fixtures inside the schools.

Schools that get water from their own wells are required to conduct lead testing of their water supply because they are considered Non Transient Non Community Systems. Data from the schools with their own wells are included in this report even though the results are not directly comparable to results from this project. However, since water samples are collected at various points in the school, they represent baseline conditions within those structures. In addition, the team discovered that a number of school districts were already testing their water for lead. Although school systems that were already testing the water had procedures and sample sites that varied slightly from this project, the data was included in this report.

Because child care centers are required to be certified as lead-safe before initial DCYF licensure and due to limited funding for sampling, the Advisory Group recommended that the lead-safe certifications could represent baseline assessments. Since further testing of lead in water is not part of the renewal inspection process, select child care centers (large centers within three miles of schools that had more than 10 children with elevated blood lead levels) were offered the opportunity to participate in this project.

Sampling Plan Overview

The plan was based on guidance from the EPA's *3Ts for Reducing Lead in Schools* (October 2006). Limited funds precluded taking a sample from every faucet at every school. Testing and analysis of a minimum of three samples from each school building was offered. Buildings that were particularly large, had multiple additions, or included child care programs were offered the opportunity to have additional water samples tested.

Samples were collected in the morning, Tuesdays through Fridays, before use of the fixtures was likely (5 a.m. – 8 a.m.). Schools were provided with bottles to collect samples and school staff was trained to collect samples and complete all appropriate paperwork. Schools were asked to take samples from faucets that were most frequently used by students, from faucets in kitchens where food was prepared, and from faucets used by in-school child care programs.

Couriers retrieved samples after all of the schools within a district had collected samples and delivered the samples to a state-certified laboratory for testing and analysis. To assure all test results were documented in a centralized location, results were sent to the URI CE, and in turn, URI CE sent the results to the designated point of contact(s). In addition to the results, schools received an explanation of the results and information on remediation methods and comprehensive assessments. (Sample notifications and associated materials supplied by RIDOH are in Appendix C).

To assure transparency of the process and to help with communication to parents and community stakeholders, administrators received a plain-language parent notification letter template developed under the guidance of RIDOH's Center for Public Health Communication. In addition an online listing of a variety of resources was available for schools or parents. (http://web.uri.edu/nemo/lead-in-water/)

Participation
Schools were very responsive and willing to participate in the effort to assess drinking water. Nearly every school district and nearly all of the charter schools either provided results from their own independent testing or participated in this project. Very few of the selected child care centers participated in this project.

Results summary
The vast majority (83%) of samples had results either less than the detection level or less than five parts per billion. (All results are available in Appendix D.) Only 6% of samples exceeded the EPA action level of 15 parts per billion, and schools who had higher levels responded immediately and appropriately to eliminate students' potential exposure to lead by discontinuing use of those fixtures. Approximately 11% of samples had results between five and 14 parts per billion, for which recommended actions were developed to help schools reduce potential lead exposure.

Table 1. Number of Fixtures Sampled, By Lead Concentration Value
(includes initial and repeat samples)

Results (parts per billion)	Total Number of Samples In Range
Not detected	565
1-15	407
>15	62
TOTAL	**1,034**

There was a slight difference in the proportion of results that fell into these categories between samples collected through this effort using a consistent protocol and those of samples collected by the school districts. Those differences were largely due to when samples were collected (summer versus school year) and where (bathroom faucets were avoided in the project sampling protocol, but were often included in district sampling). In addition, the minimum detection level for the lab used to analyze samples collected for the project was one part per billion, whereas certified labs used by districts had detection limits that ranged from one to five parts per billion. Overall, few samples exceeded the EPA action level of 15 parts per billion.

Summary of findings

Several important findings were identified:

1. Faucets, whether located in a kitchen or a bathroom, were most likely to have values that exceeded the EPA action level of 15 parts per billion.
2. Schools who had established sampling programs often had higher initial lead levels because they collected water samples during the summer when school buildings were normally unused and the water collected for sampling was stagnant. Bathroom faucets were also more likely to be sampled by the districts even though bathroom faucets are not routinely used for drinking water. *Note: All schools who had collected water samples during summer vacation retested the water before the school year started and results were lower than the EPA action level of 15 parts per billion.*
3. Flushing (letting the water run for one minute before collecting sample) effectively reduced the lead levels at most sample sites to less than the EPA action level of 15 parts per billion; however, one-time flushing cannot be considered a permanent solution.
4. Schools often worked with municipal water suppliers to address elevated lead levels if flushing did not correct the problem.

Findings

School districts were interested and responsive, but were concerned about financial implications of finding lead levels above the EPA action level. Specifically, facilities and operations staff were concerned about identifying funds for routine testing or replacement of plumbing or fixtures. The Advisory Committee raised concerns about whether school staff would follow sample collection procedures resulting in data that could be compromised. Some viewed the use of certified professionals as essential for ensuring actionable results.

Flushing of fixtures was effective for reducing lead levels in most repeat samples. However it is unrealistic to expect young children to adequately flush a water fountain before taking a drink, and it is impractical to expect staff to flush the entire water system every day. The Town of Cumberland, which had three schools with test results higher than the EPA action level is researching the feasibility of automatic flushing systems. The use of such systems could provide long-term solutions if replacement of plumbing or fixtures is not feasible.

In addition to flushing and re-testing fixtures with initial results higher than the EPA action level, schools replaced water fountains, faucets, and valves to help reduce lead levels. Aerator cleaning and replacement plans are being developed and implemented in several districts, and many schools are posting signs (words and pictures) in bathrooms reminding students and staff to not drink water from bathroom faucets. In some cases, school districts worked with public water suppliers to assess service lines and conduct follow-up testing. *Note: This project did not require schools to report lead reduction efforts, so these responses are anecdotal, and are largely limited to those districts which performed repeat water tests*.

Water samples collected from faucets, whether in kitchens or in bathrooms, were more likely to have elevated lead levels than the samples collected from water fountains. The two most common causes of this are aerators that capture and concentrate lead at the point of discharge and the fact that hot water leaches more lead from pipes and solder, leading to build-up of lead on aerators and in the water. Lead-free faucets can be purchased, but are legally allowed to contain small concentrations of lead. Schools need to be reminded that proper maintenance is critical to reducing lead levels in drinking water.

Schools frequently stated there is a need for clear and consistent guidance to properly address potential lead sources.

The broad language of the current legislation presents opportunities for more clearly defining this guidance, including a more specific definition of baseline information and addressing the exemption of private and parochial schools. The Advisory Group was concerned with the latter as most health requirements pertain to public, private, and parochial schools. In addition, the current legislation does not address who is responsible for testing the drinking water if the school or child care center does not own the building where they are located.

Because large child care centers are commercial enterprises, the low rate of participation from this group was not surprising. There was virtually no tangible incentive for the 27 larger facilities to test the drinking water and have the results reported publicly. Requiring child care centers to test the drinking water for lead would help to establish consistent expectations for any facility who provides services to children. Annual re-inspections require a valid lead-safe certification but do not require the water to be tested for lead. Adding a requirement to test drinking water for

re-inspections could be done; however it would mean a slight increase to the cost of re-inspections.

In the absence of legislation that explicitly requires schools and child care centers to test water for lead, the state must rely on the good will of school districts and child care centers to develop and implement local plans to reduce childhood lead exposure. Parents, community partners, and members of the media may expect more frequent and comprehensive testing of drinking water; however community pressure does not always guarantee an effective, efficient, and practical solution. Community pressure may spur additional efforts, but those seldom reflect a consistent sampling approach, nor are they always as comprehensive as parents would prefer.

Recommendations

The current legislation provides an excellent start toward ensuring that the drinking water in schools and child care centers is safe to drink. The data collected from this project, considered in tandem with the findings of the staff involved in this project, have resulted in the following recommendations:

Regulatory/Legislative

- Establish a mandatory action level for first-draw and flushed samples.
- Sampling and remediation requirements need to be set clearly into the regulatory structure.
- Periodic testing for lead in water should be required for all schools, including those that are privately funded, unless sources of lead have been removed.
    - Testing water for lead should be conducted every three years or after plumbing repairs or renovations.
- Testing of drinking water for lead levels should be part of both the initial licensure and subsequent license renewals for child care centers under DCYF regulations.
    - Require actual water sample test results rather than only checking a box to declare a facility lead-safe.
    - Testing water for lead should be conducted every three years or after plumbing repairs or renovations.
    - If remediation and re-testing was required to achieve lead-safe compliance, the facility should conduct lead testing annually until it can provide three consecutive years of water test results that meet lead-safe levels and are documented, at which point testing can be conducted on a three-year cycle.
- Lead in drinking water test results from child care centers should be reported to a centralized database managed by either RIDOH or DCYF.

Schools

- By June 2018, all schools (public, private, and parochial) should be required to develop Lead Safety Plans similar to those required for overall school safety.
- Sampling techniques should be consistent for all schools (public, private, and parochial) and should be conducted in accordance with EPA's *3Ts Guidelines*.
    - Routine sampling should be based on a full plumbing assessment.
- School districts should work with its water supplier to identify distribution system characteristics that could influence lead levels, such a lead lines or service connections, oversized lines that don't flush completely, and structures that are at the end of long runs.
- Schools should work with water suppliers to replace lead service lines or connections.
- A mechanism for schools to provide testing results to parents and to the community should be required. The publicly accessible database only includes results collected under the current project. (Schools were provided with sample parental notification letters but the decision to notify parents was at the discretion of the individual schools.)
- If lead test results are higher that the established action level, schools should be required to notify parents immediately and to activate its Lead Safety Plan. Additionally, any test result that is higher than the established action level should automatically require a full *3Ts* assessment, including a plumbing assessment, remediation, and re-testing to assure compliance.

- Post signs to remind child care staff that cold water should be used to prepare all infant formula, beverages, and food.
- Post signs to remind child care staff that the faucet/sprayer should be allowed to run until the water is as cold as it will get before using the water to make formula, beverages, or food.

Child Care Centers

- Post signs to remind child care staff that cold water should be used to prepare all infant formula, beverages, and food.
- Post signs to remind child care staff that the faucet/sprayer should be allowed to run until the water is as cold as it will get before using the water to make formula, beverages, or food.
- If lead test results are higher that the established action level, child care center should be required to notify parents immediately and to activate its Lead Safety Plan.
- Remediation and re-testing should follow test results that are higher than the established action level.

Appendix A: Advisory Group Members

Andy Andrade, Rhode Island Department of Education (RIDE)
Leeanne Black, Rhode Island Department of Health (RIDOH)
Jason Blais, Atlantic States Rural Water and Wastewater Association
Bob Bozikowski, University of Rhode Island (URI)
Laura Brion, Childhood Lead Action Project
Bonnie Cassani Brandt, RIDOH
Clay Commons, RIDOH
Veronica Davis, Rhode Island Department of Children, Youth, and Families (DCYF)
Cindy Giroux, MA, Rhode Island Association of School Principals
Elizabeth Herron, MA, URI
Lorraine Joubert, MS, URI
Henry Leibovitz, PhD, RIDOH
Eugenia Marks, MA
Jim Marvel, City of East Providence
Alyson McCann, URI
Patricia Nolan, MD, MPH; Brown University
Melissa Orpen-Tuz, RIDOH
Amy Parmenter, MS, RIDOH
Lisa Philo, URI
Darlene Price, Rhode Island Housing Resources Commission
Tim Ryan, Rhode Island School Superintendents' Association
Josephine Saltzman, Ocean State Analytical Services, LLC
Chris Smith, Dr. Daycare Centers
Sue Stableford, Health Literacy Institute
June Swallow, PE, RIDOH

Appendix B: Banned Water Coolers

Halsey Taylor Water Coolers with Lead-Lined Tanks

These models have one or more units in the model series with lead-lined tanks:

GC10A	GC10ACR	GC5A	RWM13A	WM8A	WT8A

The following models and serial numbers contain lead-lined tanks:

LL14A Serial No. 64346908	WM14A Serial No. 843034	WT21A Serial No. 64309542
WM14A Serial No. 843006	WT11A Serial No. 222650	WT21A Serial No. 64309550

EBCO Manufacturing

All pressure bubbler water coolers with shipping dates from 1962-1977 have a bubbler valve containing lead. The units contain a single, 50-50 tin-lead solder joint on the bubbler valve. Model numbers for coolers in this category are not available. Look for product dates.

The following models of pressure bubbler coolers produced from 1978-1981 contain one 50-50 tin-lead solder joint:

13P	CP3-50	DP12N	DP14M	DP20-50	DP7MH	DPA4A-50/60
13PL	CP3H	DP13A	DP14S	DP3R	DP7S	DPM8
7P	CP3M	DP13A-50	DP15M	DP3RH	DP7SM	DPM8H
C10E	CP5	DP13M	DP15MW	DP5F	DP7WM	EP10F
CP10	CP5M	DP13M-60	DP15W	DP5M	DP7WMD	EP5F
CP10-50	DP10F	DP13S	DP16M	DP5S	DP8A	PX-10
CP3	DP10X	DP13SM	DP20	DP7M	DP8AH	WTC10

Halsey Taylor models containing lead fixtures/solder

Lead solder was used in these models of water coolers manufactured between 1978 and 1987.

BFC-4F/7F/4FS/7FS	S3/5/10D	SCWT/SCWT-A	WMA-1
DC/DHC-1	S300/500/100D	SWA-1	

Haws Drinking Faucet Company

The following coolers manufactured from November 1984 through December 18, 1987, are not lead free because they contain two tin-lead solder joints. The models for these units are:

HC10F	HC14WL	HC1FL	HC4FH	HC8F	HC8WT	HWC7D
HC14FH	HC14WT	HC2F	HC4W	HC8FH	HC8WTH	HWCZ
HC14FH	HC14WTH	HC2FH	HC5F	HC8FL	HCBF7D	
HC14W	HC16WT	HC4F	HC6W	HC8W	HCBF7HO	

Adapted from EPA's 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance
http://web.uri.edu/nemo/files/toolkit_leadschools_guide_3ts_leadschools.pdf

Appendix C: Educational, Notification Materials Supplied By RIDOH

INSERT DATE HERE

Dear Superintendent or Principal:

Thank you for volunteering to have the drinking water at your school tested for lead and for complying with the recent recommendations of the Rhode Island General Assembly. Your water samples have been analyzed by a state-certified lab, and we are now sharing the results with you.

Water Sample Test Results: INSERT SCHOOL DISTRICT NAME HERE

School Name	Sample location	Test result (parts per billion or ppb)

Understanding Test Results

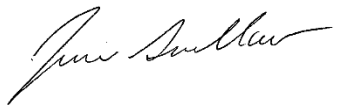
- Any sample that had a result of higher than 15 ppb is above the action level set by the US Environmental Protection Agency (EPA). We urge you to follow the *Strongly Recommended Actions* included with this letter.
- Any sample that had a result between 1 and 15 ppb is below the action level set by the EPA; however, we urge you to follow the *Suggested Actions* included with this letter, especially if water from this faucet or drinking fountain is used by young children.
- Any sample that had a result of less than 1 ppb is below the detection level for lead. We urge you to follow the *Routine Prevention and Control Actions* included with this letter.

As a reminder, results of all water testing conducted as part of this project will be posted on the Department of Health's (RIDOH) website at www.health.ri.gov/schoolwater. In addition, RIDOH is required to share all results with the General Assembly no later than April 30, 2017.

For your convenience, we have also included a sample letter that can be adapted and used to inform parents and community members of your school's water test results.

Should you have any questions regarding the test results, please feel free to contact our colleague at URI's Cooperative Extension, Elizabeth Herron, at 401-874-4552 or eherron@uri.edu. You can also contact the Rhode Island Department of Health's Center for Drinking Water Quality at 401-222-6867.

Sincerely,



June Swallow, P.E.
Chief, Center for Drinking Water Quality
Rhode Island Department of Health

Lead and Drinking Water
Remediation and Control Measures

Strongly Recommended Actions
(For water samples with results higher than 15 ppb)

- Do not allow water faucet or drinking fountain to be used for drinking water.
- Post a *Do Not Use* sign on the faucet or drinking fountain, or remove it completely.
- Conduct follow-up testing *after* all of the *Suggested Actions* have been completed.

Suggested Actions
(For water samples with results of 1-15 ppb)

- Refer to EPA's *3Ts for Reducing Lead in Drinking Water in Schools* that includes information on assessing plumbing and implementing control measures to reduce elevated lead levels. It can be found online at http://web.uri.edu/nemo/files/toolkit_leadschools_guide_3ts_leadschool.pdf
- Flush the pipes to the faucet or drinking fountain each morning before students arrive. Flushing the pipes will get rid of water that has been in the pipes overnight.
    - Water fountains without refrigeration and water faucets should be run for 30 seconds to one minute until the water is noticeably colder.
    - Water fountains with refrigeration should be run for 15 minutes.
- Remove and clean, or replace, faucet aerators.
- Consider replacing faucets or water fountains with a lead-free, NSF-approved fixture.

Routine Prevention and Control Actions

- Create and implement aerator cleaning schedules for all water faucets so that debris can be removed.
- Use only cold water for food preparation and drinking. Hot water dissolves lead faster than cold water.
- Flush faucets and drinking fountains regularly, especially after weekends, vacations, or long periods of inactivity.
- Post signs in bathrooms that water from the sink faucets should not be used for drinking water. Put both words and pictures on signs.
- If lead is detected in your water, consider testing *all* faucets and drinking fountains on a regular basis.

Additional Resources

- http://web.uri.edu/nemo/lead-in-water

PLACE THIS ON SCHOOL LETTERHEAD

INSERT DATE HERE

Dear Parents and Community Members,

In 2016, the Rhode Island General Assembly passed a law requiring the Rhode Island Department of Health (RIDOH) to test drinking water in schools for lead. Our school voluntarily submitted three drinking water samples. All water samples were tested by a state-certified lab.

The most common causes of a child becoming sick from lead is from exposure to lead-based paint and paint dust found in a home environment. It is much less likely for a child to become sick from exposure to water in a school environment from a faucet or a water fountain. The data we have collected from water samples in our school helps us to keep our children as safe as possible by working with RIDOH to follow the recommended guidance.

Here are the results of the three drinking water samples from INSERT SCHOOL NAME HERE:

Faucet or drinking fountain location	Lead (parts per billion, or ppb)	What We Are Doing

What Do The Test Results Mean?

- Any sample that had a result of higher than 15 ppb is above the "action level" of the US Environmental Protection Agency (EPA). Our school is following advice from the Rhode Island Department of Health (RIDOH) to help fix this.
- Any sample that had a result between 1 and 15 ppb is below the "action level" of the EPA. There are still things we can do to help get rid of lead in the drinking water. We are following RIDOH's advice.
- Any sample that had a result of less than 1 ppb is below the "detection level" for lead. We are following RIDOH's advice to help keep lead out of the drinking water at the school.

All water sample results will be posted on RIDOH's website soon, and RIDOH will send all test results to the General Assembly by April 30, 2017.

If you want more information about lead in drinking water, visit these websites:

- Department of Health: http://www.health.ri.gov/water/about/lead/ or 401-222-5960
- URI's Cooperative Extension:
  - http://web.uri.edu/nemo/lead-in-water

If you would like to talk to someone at the school about the test results, please call INSERT NAME HERE at 401-XXX-XXXX or email INSERT EMAIL HERE.

Sincerely,

INSERT SIGNATORY HERE

Appendix D: All Results

Note: This list includes all results received as of April 21, 2017. For a current list of results, visit http://www.health.ri.gov/data/schools/water/

Municipality	School	Fixture Location	Fixture Type	Sample Date	Result
Barrington	Hampden Meadows	Kitchen	Faucet	3/22/17	1.4
Barrington	Hampden Meadows	Nurse	Faucet	3/22/17	1
Barrington	Hampden Meadows	Outside library	Water Fountain	3/22/17	<1
Barrington	Sowams Elementary	Kitchen	Faucet	3/22/17	13
Barrington	Sowams Elementary	Nurse	Faucet	3/22/17	6.6
Barrington	Sowams Elementary	Near playground	Water Fountain	3/22/17	1.4
Barrington	Barrington High	Kitchen	Faucet	3/22/17	2.7
Barrington	Barrington High	Nurse	Faucet	3/22/17	1.1
Barrington	Barrington High	Outside library	Water Fountain	3/22/17	<1
Barrington	Barrington Middle	Kitchen	Faucet	3/22/17	2.2
Barrington	Barrington Middle	Nurse	Faucet	3/22/17	<1
Barrington	Barrington Middle	Outside boiler room	Water Fountain	3/22/17	1.3
Barrington	Nayatt	Kitchen	Faucet	3/22/17	1.7
Barrington	Nayatt	Nurse	Faucet	3/22/17	<1
Barrington	Nayatt	Outside Blanchetter Room	Water fountain	3/22/17	<1
Barrington	Primrose Hill	Kitchen	Faucet	3/22/17	1.2
Barrington	Primrose Hill	Nurse	Faucet	3/22/17	2.7
Barrington	Primrose Hill	Near addition	Water cooler	3/22/17	1.6
Bristol	Colt Andrews	Kitchen	Faucet	9/12/16	6.9
Bristol	Colt Andrews	Adj A 133	Water fountain	9/12/16	2.2
Bristol	Colt Andrews	Adj A122	Water fountain	9/12/16	<2
Bristol	Guiteras	Kitchen	Faucet	9/12/16	<2
Bristol	Guiteras	Elevator	Water fountain	9/12/16	<2
Bristol	Guiteras	Hall	Water fountain	9/12/16	<2
Bristol	Kickemuit Middle	Kitchen	Faucet	9/12/16	<2
Bristol	Kickemuit Middle	Adj Auditorium	Water fountain	9/12/16	<2
Bristol	Kickemuit Middle	Adj Rm 43	Water fountain	9/12/16	<2
Bristol	Mt. Hope High	Kitchen	Faucet	9/12/16	<2
Bristol	Mt. Hope High	Adj Cafeteria	Water fountain	9/12/16	<2
Bristol	Mt. Hope High	Adj gym	Water fountain	9/12/16	<2
Bristol	Rockwell	Kitchen	Faucet	9/12/16	12.3
Bristol	Rockwell	Kitchen	Faucet	10/6/16	<2
Bristol	Rockwell	Adj 1	Water fountain	9/12/16	<2
Bristol	Rockwell	Adj A 19	Water fountain	9/12/16	<2
Burrillville	Austin T. Levy	Nurse's office sink	Faucet	3/16/17	5.1
Burrillville	Austin T. Levy	Between Rooms 11 & 12	Water fountain	3/16/17	9.2

Burrillville	Austin T. Levy	Near café	Water fountain	3/16/17	2
Burrillville	Burrillville High	Nurse faucet by fridge	Faucet	3/16/17	<1
Burrillville	Burrillville High	B-wing	Water fountain	3/16/17	<1
Burrillville	Burrillville High	Some gym by custodial closet	Water fountain	3/16/17	2
Burrillville	Burrillville Middle	Schoolwide	90th Percentile	7/22/16	1
Burrillville	Nach Realty Trust	Schoolwide	90th Percentile	9/20/16	1.6
Burrillville	Steere Farm Elementary	Bubbler 1F	Water fountain	3/16/17	<1
Burrillville	Steere Farm Elementary	Nurse's office	Water fountain	3/16/17	<1
Burrillville	Steere Farm Elementary	Room 250	Water fountain	3/16/17	<1
Burrillville	William L. Callahan	Nurse's office	Faucet	3/16/17	18
Burrillville	William L. Callahan	Next to Room 208	Water fountain	3/16/17	1
Burrillville	William L. Callahan	Outside Room 21 Library	Water fountain	3/16/17	12
Central Falls	Capt. G. Harold Hunt	Pre-school area prep Kitchen	Faucet	1/5/17	4.4
Central Falls	Capt. G. Harold Hunt	kitchen	Kitchen sprayer	1/5/17	4.5
Central Falls	Capt. G. Harold Hunt	Adj visitor bathroom	Water fountain	1/5/17	<1
Central Falls	Central Falls Senior High	Kitchen 2nd sink from right	Faucet	1/4/17	2.5
Central Falls	Central Falls Senior High	Gym-far right	Water fountain	1/4/17	<1
Central Falls	Central Falls Senior High	Main office	Water fountain	1/4/17	<1
Central Falls	Dr. Earl F. Calcutt Middle	Kitchen sprayer, for fruit washing	Kitchen sprayer	1/4/17	2.4
Central Falls	Dr. Earl F. Calcutt Middle	2nd floor right side adj rm 205	Water fountain	1/4/17	<1
Central Falls	Dr. Earl F. Calcutt Middle	Stair A water fountain-1st floor	Water fountain	1/4/17	<1
Central Falls	Ella Risk	kitchen	Kitchen sprayer	1/5/17	2
Central Falls	Ella Risk	2nd floor by stairc-rt hand unit	Water cooler	1/5/17	<1
Central Falls	Ella Risk	3rd floor	Water cooler	1/5/17	<1
Central Falls	Margaret I. Robertson	3rd floor adj room 303	Kitchen sprayer	1/5/17	<1
Central Falls	Margaret I. Robertson	1st floor adj room 103	Water fountain	1/5/17	<1
Central Falls	Margaret I. Robertson	2nd floor adj room 203	Water fountain	1/5/17	<1
Central Falls	Margaret I. Robertson	kitchen	Water fountain	1/5/17	<1
Central Falls	Segue Institute for Learning	Annex, main office, near bathroom	Atlas filtered unit	1/11/17	<1
Central Falls	Segue Institute for Learning	Main Bldg 2nd floor near exit	Atlas filtered unit	1/12/17	<1
Central Falls	Segue Institute for Learning	Main bldg., lunch rm., sink dishwasher	Faucet	1/11/17	<1
Central Falls	Segue Institute for Learning	Annex gym, top level, near bathrooms	Water fountain	1/11/17	<1
Central Falls	Segue Institute for Learning	Annex main office, between bathrooms	Water fountain	1/11/17	<1
Central Falls	Segue Institute for Learning	Main Bldg Second floor near exit	Water fountain	1/11/17	<1
Central Falls	Sheila Skip Nowell Leadership Academy (Central Campus)	Eating Room	Faucet	1/19/17	3.8

Central Falls	Sheila Skip Nowell Leadership Academy (Central Campus)	Kitchen	Faucet	1/19/17	<1
Central Falls	Sheila Skip Nowell Leadership Academy (Central Campus)	Hall	Water cooler	1/19/17	<1
Central Falls	Learning Community Charter	1st floor Cafeteria sink	Faucet	1/11/17	<1
Central Falls	Learning Community Charter	4th floor gym	Water fountain	1/11/17	<1
Central Falls	Learning Community Charter	Across from room 124	Water fountain	1/11/17	<1
Central Falls	Veterans Mem. Elementary	Kitchen	Faucet	1/10/17	<1
Central Falls	Veterans Mem. Elementary	Adj Boys restroom 2nd floor	Water fountain	1/10/17	<1
Central Falls	Veterans Mem. Elementary	Adj Boys restroom-1st floor	Water fountain	1/10/17	<1
Central Falls	Veterans Mem. Elementary	Gym	Water fountain	1/10/17	<1
Charlestown	Charlestown Elementary	Schoolwide	90th Percentile	6/8/16	2
Charlestown	Charlestown Elementary	Faculty kitchen sink	Faucet	3/1/17	1.7
Charlestown	Charlestown Elementary	400 wing	Water cooler	3/1/17	1.8
Charlestown	Charlestown Elementary	Gym	Water cooler	3/1/17	2
Charlestown	Lakeview Early Learning Center	Schoolwide	90th Percentile	1/1/2012-12/31/2012	2
Charlestown	St. Andrew Lutheran Church	Schoolwide	90th Percentile	9/30/15	6
Coventry	Alan Shawn Feinstein Middle	Outside multipurpose A room	Bottle Filler	2/2/17	< 2
Coventry	Alan Shawn Feinstein Middle	Kitchen Sink Room 314	Faucet	2/2/17	4
Coventry	Alan Shawn Feinstein Middle	Outside of clerk's office room 100	Water fountain	2/2/17	< 2
Coventry	Blackrock Elementary	Bubbler back hallway	Water fountain	2/2/17	< 2
Coventry	Blackrock Elementary	Room 7		2/2/17	4.5
Coventry	Blackrock Elementary	Woman's bathroom front teachers		2/2/17	< 2
Coventry	Coventry High	Aramark Kitchen	Faucet	2/2/17	< 2
Coventry	Coventry High	Bubbler by Room 702-2nd floor	Water fountain	2/2/17	< 2
Coventry	Coventry High	Boys' locker room		2/2/17	3.3
Coventry	Hopkins Hill	Kitchen serving room sink	Faucet	2/2/17	< 2
Coventry	Hopkins Hill	Across from room 8	Water fountain	2/2/17	3.2
Coventry	Hopkins Hill	Between bathrooms by gym	Water fountain	2/2/17	< 2
Coventry	Tiogue	Nurse's bathroom	Faucet	2/2/17	6.8
Coventry	Tiogue	Bubbler by room 3	Water fountain	2/2/17	< 2
Coventry	Tiogue	Cafetaria		2/2/17	2.5
Coventry	Washington Oak Elementary	Schoolwide	90th Percentile	9/18/14	<1
Coventry	Western Coventry Elementary	Schoolwide	90th Percentile	9/18/14	2

Cranston	Arlington	Boys' bathroom	Faucet	8/1/16	5
Cranston	Arlington	Kitchen	Faucet	8/1/16	5
Cranston	Arlington	Nurse's office	Faucet	8/1/16	7
Cranston	Arlington	Principal's Office	Faucet	8/1/16	7
Cranston	Briggs	Boys' bathroom	Faucet	8/2/16	5
Cranston	Briggs	Girls' bathroom	Faucet	8/2/16	3
Cranston	Briggs	Kitchen	Faucet	8/24/16	2
Cranston	Briggs	Kitchen	Faucet	8/2/16	<1
Cranston	Briggs	Downstairs Cafeteria	Water fountain	8/2/16	27
Cranston	Chester W. Barrows	Boys' bathroom	Faucet	8/3/16	<1
Cranston	Chester W. Barrows	Girls' bathroom	Faucet	8/3/16	<1
Cranston	Chester W. Barrows	Kitchen	Faucet	8/3/16	10
Cranston	Chester W. Barrows	Nurse's office	Faucet	8/3/16	1
Cranston	Cranston East	Boys' bathroom	Faucet	8/2/16	<1
Cranston	Cranston East	Girls' bathroom	Faucet	8/2/16	<1
Cranston	Cranston East	Kitchen	Faucet	8/2/16	4
Cranston	Cranston East	Nurse's office	Faucet	8/2/16	2
Cranston	Cranston West - Career Tech	Medical Pathways	Water fountain	9/8/16	4
Cranston	Daniel D. Waterman	Boys' bathroom	Faucet	8/2/16	3
Cranston	Daniel D. Waterman	Girls' bathroom	Faucet	8/2/16	17
Cranston	Daniel D. Waterman	Kitchen	Faucet	8/2/16	4
Cranston	Daniel D. Waterman	Nurse's office	Faucet	8/2/16	35
Cranston	Daniel D. Waterman	Nurse's office	Faucet	8/24/16	<1
Cranston	DCYF Alt. Education Program	Youth Assessment Bldg		8/16/12	<1
Cranston	Eden Park	Boys' bathroom	Faucet	8/2/16	8
Cranston	Eden Park	Girls' bathroom	Faucet	8/2/16	4
Cranston	Eden Park	Kitchen	Faucet	8/2/16	29
Cranston	Eden Park	Nurse's office	Faucet	8/2/16	1
Cranston	Eden Park	Nurse's office	Faucet	8/24/16	5
Cranston	Edgewood Highland	Boys' bathroom	Faucet	8/3/16	<1
Cranston	Edgewood Highland	Girls' bathroom	Faucet	8/3/16	3
Cranston	Edgewood Highland	Kitchen	Faucet	8/3/16	58
Cranston	Edgewood Highland	Kitchen	Faucet	8/24/16	<1
Cranston	Edgewood Highland	Nurse's office	Faucet	8/3/16	2
Cranston	Edward S. Rhodes	Boys' bathroom	Faucet	8/24/16	1
Cranston	Edward S. Rhodes	Boys' bathroom	Faucet	8/3/16	102
Cranston	Edward S. Rhodes	Girls' bathroom	Faucet	8/3/16	3
Cranston	Edward S. Rhodes	Kitchen	Faucet	8/3/16	78
Cranston	Edward S. Rhodes	Kitchen area	Faucet	8/24/16	<1
Cranston	Edward S. Rhodes	Nurse's office	Faucet	8/24/16	3
Cranston	Edward S. Rhodes	Nurse's office	Faucet	8/3/16	231
Cranston	Garden City	Boys' bathroom	Faucet	8/1/16	1

Cranston	Garden City	Girls' bathroom	Faucet	8/1/16	<1
Cranston	Garden City	Kitchen	Faucet	8/1/16	1
Cranston	Garden City	Nurse's office	Faucet	8/1/16	2
Cranston	George J. Peters	Boys' bathroom	Faucet	8/1/16	4
Cranston	George J. Peters	Girls' bathroom	Faucet	8/1/16	10
Cranston	George J. Peters	Kitchen	Faucet	8/1/16	2
Cranston	George J. Peters	Nurse's office	Faucet	8/1/16	1
Cranston	Gladstone Street	Boys' bathroom	Faucet	8/1/16	204
Cranston	Gladstone Street	Girls' bathroom	Faucet	8/1/16	3
Cranston	Gladstone Street	Kitchen	Faucet	8/24/16	1
Cranston	Gladstone Street	Kitchen	Faucet	8/1/16	110
Cranston	Gladstone Street	Nurse's office	Faucet	8/24/16	3
Cranston	Gladstone Street	Nurse's office	Faucet	8/1/16	100
Cranston	Glen Hills	Boys' bathroom	Faucet	8/1/16	1
Cranston	Glen Hills	Girls' bathroom	Faucet	8/1/16	2
Cranston	Glen Hills	Kitchen	Faucet	8/1/16	1
Cranston	Glen Hills	Nurse's office	Faucet	8/1/16	<1
Cranston	Hope Highlands Middle	Boys' bathroom	Faucet	8/3/16	<1
Cranston	Hope Highlands Middle	Girls' bathroom	Faucet	8/3/16	<1
Cranston	Hope Highlands Middle	Kitchen	Faucet	8/3/16	<1
Cranston	Hope Highlands Middle	Nurse's office	Faucet	8/3/16	<1
Cranston	Horton	Boys' bathroom	Faucet	8/2/16	26
Cranston	Horton	Girls' bathroom	Faucet	8/2/16	24
Cranston	Horton	Kitchen	Faucet	9/8/16	9
Cranston	Horton	Kitchen	Faucet	8/2/16	20
Cranston	Horton	Nurse's office	Faucet	8/2/16	23
Cranston	Horton Program	Hallway	Faucet	1/25/17	5.9
Cranston	Horton Program	Gym	Water fountain	1/25/17	11
Cranston	Horton Program	Hallway	Water fountain	1/25/17	7.8
Cranston	Hugh B. Bain Middle	Boys' bathroom	Faucet	8/2/16	<1
Cranston	Hugh B. Bain Middle	Girls' bathroom	Faucet	8/2/16	<1
Cranston	Hugh B. Bain Middle	Kitchen	Faucet	8/2/16	4
Cranston	Hugh B. Bain Middle	Nurse's office	Faucet	8/2/16	<1
Cranston	Construction Academy	Boys' bathroom	Faucet	8/1/16	2
Cranston	Construction Career Academy	Girls' bathroom	Faucet	8/1/16	9
Cranston	Construction Academy	Men's Bathroom	Faucet	8/1/16	2
Cranston	Construction Academy	Nurse's office	Faucet	8/1/16	3
Cranston	Norwood Avenue	Aramark office	Faucet	8/24/16	6
Cranston	Norwood Avenue	Aramark Office	Faucet	8/3/16	48
Cranston	Norwood Avenue	Boys' bathroom	Faucet	8/3/16	2
Cranston	Norwood Avenue	Girls' bathroom	Faucet	8/3/16	3
Cranston	Norwood Avenue	Kitchen	Faucet	8/3/16	<1
Cranston	Oak Lawn	Boys' bathroom	Faucet	8/1/16	7

Cranston	Oak Lawn	Girls' bathroom	Faucet	8/1/16	4
Cranston	Oak Lawn	Kitchen	Faucet	8/1/16	6
Cranston	Oak Lawn	Nurse's office	Faucet	8/24/16	7
Cranston	Oak Lawn	Nurse's office	Faucet	8/1/16	22
Cranston	Orchard Farms Elementary	Boys' bathroom	Faucet	8/3/16	<1
Cranston	Orchard Farms Elementary	Girls' bathroom	Faucet	8/3/16	1
Cranston	Orchard Farms Elementary	Kitchen	Faucet	8/3/16	6
Cranston	Orchard Farms Elementary	Nurse's office	Faucet	8/3/16	2
Cranston	Park View Middle	Boys' bathroom	Faucet	8/2/16	6
Cranston	Park View Middle	Girls' bathroom	Faucet	8/24/16	1
Cranston	Park View Middle	Girls' bathroom	Faucet	8/2/16	50
Cranston	Park View Middle	Kitchen	Faucet	8/2/16	20
Cranston	Park View Middle	Kitchen	Faucet	8/24/16	<1
Cranston	Park View Middle	Nurse's office	Faucet	8/2/16	4
Cranston	Sprague	Boys' bathroom	Faucet	8/9/16	4
Cranston	Sprague	Girls' bathroom	Faucet	8/9/16	6
Cranston	Sprague	Kitchen	Faucet	8/9/16	2
Cranston	Sprague	Parent Restroom	Faucet	8/9/16	6
Cranston	Stadium School	Boys' bathroom	Faucet	8/2/16	<1
Cranston	Stadium School	Girls' bathroom	Faucet	8/2/16	1
Cranston	Stadium	Kitchen	Faucet	8/2/16	5
Cranston	Stadium	Nurse's office	Faucet	8/2/16	<1
Cranston	Stone Hill	Boys' bathroom	Faucet	8/2/16	4
Cranston	Stone Hill	Girls' bathroom	Faucet	8/24/16	4
Cranston	Stone Hill	Girls' bathroom	Faucet	8/2/16	27
Cranston	Stone Hill	Kitchen	Faucet	8/2/16	9
Cranston	Stone Hill	Nurse's office	Faucet	8/2/16	9
Cranston	William R. Dutemple School	Boys' bathroom	Faucet	8/2/16	<1
Cranston	William R. Dutemple	Girls' bathroom	Faucet	8/2/16	1
Cranston	William R. Dutemple	Kitchen	Faucet	8/2/16	1
Cranston	William R. Dutemple	Nurse's office	Faucet	8/2/16	2
Cranston	Woodridge	Boys' bathroom	Faucet	8/1/16	7
Cranston	Woodridge	Girls' bathroom	Faucet	8/1/16	6
Cranston	Woodridge	Kitchen	Faucet	8/1/16	<1
Cranston	Woodridge	Nurse's office	Faucet	8/1/16	3
Cumberland	Ashton	kitchen	Faucet	2/16/17	12
Cumberland	Ashton	Across from 1st floor restroom	Water fountain	2/16/17	6.2
Cumberland	Ashton	Outside gym	Water fountain	2/16/17	<1
Cumberland	BF Norton Elementary	Kitchen	Faucet	2/17/17	<1
Cumberland	BF Norton Elementary	Outside cafeteria	Water fountain	2/17/17	<1

Cumberland	BF Norton Elementary	Outside room 310	Water fountain	2/17/17	<1
Cumberland	Community School	Kitchen	Faucet	2/16/17	2.4
Cumberland	Community School	Outside cust room 301	Water fountain	2/16/17	<1
Cumberland	Community School	Outside Room 118	Water fountain	2/16/17	2.2
Cumberland	Cumberland High	Kitchen	Faucet	2/16/17	4.6
Cumberland	Cumberland High	Outside cafeteria	Water fountain	2/16/17	1
Cumberland	Cumberland High	Outside Room 206	Water fountain	2/16/17	<1
Cumberland	Cumberland High	Trans 3rd floor (t326)	Water fountain	2/16/17	3.9
Cumberland	Cumberland High	Trans bubbler outside gym (t235)	Water fountain	2/16/17	2.2
Cumberland	Garvin Memorial	Kitchen	Faucet	2/17/17	72
Cumberland	Garvin Memorial	Kitchen prep sink	Faucet	3/8/17	2
Cumberland	Garvin Memorial	Kitchen prep sink	Faucet	3/8/17	9.6
Cumberland	Garvin Memorial	Outside room 22	Water fountain	3/8/17	7.2
Cumberland	Garvin Memorial	Outside room 22	Water fountain	2/17/17	32
Cumberland	Garvin Memorial	Outside room 22	Water fountain	3/8/17	38
Cumberland	Garvin Memorial	Outside room 6	Water fountain	2/17/17	<1
Cumberland	John J Mclaughlin Cumberland Hill	Kitchen prep	Faucet	2/16/17	60
Cumberland	John J Mclaughlin Cumberland Hill	Kitchen prep sink	Faucet	3/8/17	1.8
Cumberland	John J Mclaughlin Cumberland Hill	Kitchen prep sink	Faucet	3/8/17	<1
Cumberland	John J Mclaughlin Cumberland Hill	Across from book room	Water fountain	3/8/17	2.5
Cumberland	John J Mclaughlin Cumberland Hill	Across from book room	Water fountain	3/8/17	27
Cumberland	John J Mclaughlin Cumberland Hill	Across from book room	Water fountain	2/16/17	41
Cumberland	John J Mclaughlin Cumberland Hill	Across from nurse office	Water fountain	3/8/17	2.7
Cumberland	John J Mclaughlin Cumberland Hill	Across from nurse office	Water fountain	2/16/17	4.6
Cumberland	John J Mclaughlin Cumberland Hill	Across from nurse office	Water fountain	3/8/17	<1
Cumberland	Joseph L. McCourt Middle	Kitchen	Faucet	2/17/17	3.2
Cumberland	Joseph L. McCourt Middle	Kitchen prep sink	Faucet	3/8/17	2.7
Cumberland	Joseph L. McCourt Middle	Kitchen prep sink	Faucet	3/8/17	7.7
Cumberland	Joseph L. McCourt Middle	Nurse's office	water cooler	2/17/17	<1
Cumberland	Joseph L. McCourt Middle	Gym (near exit)	Water fountain	3/8/17	28
Cumberland	Joseph L. McCourt Middle	Gym (near exit)	Water fountain	3/8/17	670
Cumberland	Joseph L. McCourt Middle	Inside gym near exit	Water fountain	2/17/17	630

Cumberland	Joseph L. McCourt Middle	Outside teachers R room	Water fountain	3/8/17	7.2
Cumberland	Joseph L. McCourt Middle	Outside teachers R room	Water fountain	3/8/17	13
Cumberland	Joseph L. McCourt Middle	Outside teachers room	Water fountain	2/17/17	3
Cumberland	North Cumberland Middle	Kitchen	Faucet	2/16/17	12
Cumberland	North Cumberland Middle	Outside Boys Locker Room	Water fountain	2/16/17	7.6
Cumberland	North Cumberland Middle	Outside gym	Water fountain	2/16/17	2.6
E. Greenwich	Archie R. Cole Middle			5/23/16	<1
E. Greenwich	East Greenwich High			5/23/16	<1
E. Greenwich	Frenchtown	Cafeteria	Faucet	4/5/16	<5
E. Greenwich	George Hanaford			5/23/16	<1
E. Greenwich	Eldridge Elementary			5/23/16	<1
E. Greenwich	Meadowbrook Farms		Water fountain	4/5/16	<5
E. Providence	Agnes B. Hennessey	Kitchen	Faucet	8/8/16	<5
E. Providence	Agnes B. Hennessey	Kitchen sample 75-4	Faucet	7/13/16	16.5
E. Providence	Agnes B. Hennessey	Teacher's lounge	Faucet	8/22/16	<5
E. Providence	Agnes B. Hennessey	Sample 75-1	Water fountain	7/13/16	<5
E. Providence	Agnes B. Hennessey	Sample 75-2	Water fountain	7/13/16	<5
E. Providence	Agnes B. Hennessey	Sample 75-3	Water fountain	7/13/16	<5
E. Providence	Alice M. Waddington	Kitchen	Faucet	8/8/16	<5
E. Providence	Alice M. Waddington	Sample 101-3	Faucet	7/12/16	8.28
E. Providence	Alice M. Waddington	Teacher's lounge	Faucet	7/14/16	<5
E. Providence	Alice M. Waddington	Sample 101-1	Water fountain	7/12/16	7.39
E. Providence	Alice M. Waddington	Sample 101-2	Water fountain	7/12/16	7.47
E. Providence	Alice M. Waddington	Sample 101-4	Water fountain	7/12/16	<5
E. Providence	Alice M. Waddington	Sample 101-5	Water fountain	7/12/16	<5
E. Providence	Alice M. Waddington	Sample 101-6	Water fountain	7/12/16	<5
E. Providence	Career and Technical Center	Kitchen Sample 1998-3	Faucet	7/14/16	<5
E. Providence	Career and Technical Center	Teacher's lounge	Faucet	8/22/16	9.51
E. Providence	Career and Technical Center	Sample 1998-1	Water fountain	7/14/16	<5
E. Providence	Career and Technical Center	Sample 1998-2	Water fountain	7/14/16	7.33
E. Providence	Career and Technical Center	Sample 1998-4	Water fountain	7/14/16	<5
E. Providence	East Providence High	Kitchen	Faucet	8/8/16	<5
E. Providence	East Providence High	Kitchen sample 2004	Faucet	7/14/16	19.4
E. Providence	East Providence High	Soup vat	Faucet	8/8/16	<5
E. Providence	East Providence High	Teacher's lounge	Faucet	8/22/16	<5
E. Providence	East Providence High	Vegetable Washer	Faucet	8/8/16	<5
E. Providence	East Providence High	1st floor sample 2001	Water fountain	7/14/16	<5

E. Providence	East Providence High	1st floor sample 2002	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2003	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2005	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2006	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2007	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2008	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2009	Water fountain	7/14/16	<5
E. Providence	East Providence High	1st floor sample 2010	Water fountain	7/14/16	<5
E. Providence	East Providence High	2nd floor sample 2011	Water fountain	7/14/16	<5
E. Providence	Edward R. Martin Middle	Kitchen Sample111-7	Faucet	7/13/16	<5
E. Providence	Edward R. Martin Middle	Teacher's Lounge House A	Faucet	8/22/16	<5
E. Providence	Edward R. Martin Middle	Teacher's Lounge House B	Faucet	8/22/16	<5
E. Providence	Edward R. Martin Middle	Teacher's Lounge House C	Faucet	8/22/16	<5
E. Providence	Edward R. Martin Middle	Teacher's Lounge House D	Faucet	8/22/16	<5
E. Providence	Edward R. Martin Middle	Teacher's lounge Office	Faucet	8/22/16	<5
E. Providence	Edward R. Martin Middle	Sample111-1	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-10	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-11	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-2	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-3	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-4	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-5	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-6	Water fountain	7/13/16	<5
E. Providence	Edward R. Martin Middle	Sample111-8	Water fountain	7/13/16	7.48
E. Providence	Edward R. Martin Middle	Sample111-9	Water fountain	7/13/16	<5
E. Providence	Emma G. Whiteknact	Kitchen	Faucet	8/8/16	<5
E. Providence	Emma G. Whiteknact	Kitchen Sample 261-3	Faucet	7/13/16	110
E. Providence	Emma G. Whiteknact	Teacher's lounge	Faucet	7/14/16	<5
E. Providence	Emma G. Whiteknact	Sample 261-1	Water fountain	7/13/16	<5
E. Providence	Emma G. Whiteknact	Sample 261-1	Water fountain	7/13/16	<5
E. Providence	James R. D. Oldham	Kitchen sample 60-1	Faucet	7/12/16	14.7
E. Providence	James R. D. Oldham	Sample 60-2	Water fountain	7/12/16	<5
E. Providence	Kent Heights	Kitchen	Faucet	8/8/16	<5
E. Providence	Kent Heights	Kitchen sample 2680-3	Faucet	7/13/16	19.3
E. Providence	Kent Heights	Teacher's lounge	Faucet	8/22/16	<5
E. Providence	Kent Heights	Sample 2680-1	Water fountain	7/13/16	6.61
E. Providence	Kent Heights	Sample 2680-2	Water fountain	7/13/16	<5
E. Providence	Kent Heights	Sample 2680-4	Water fountain	7/13/16	<5
E. Providence	Kent Heights	Sample 2680-5	Water fountain	7/13/16	<5
E. Providence	Myron J. Francis Elementary	Kitchen	Faucet	8/8/16	<5
E. Providence	Myron J. Francis Elementary	Kitchen Sample 64-4	Faucet	7/14/16	15.3

E. Providence	Myron J. Francis Elementary	Teacher's lounge	Faucet	8/22/16	<5
E. Providence	Myron J. Francis Elementary	Sample 64-1	Water fountain	7/14/16	<5
E. Providence	Myron J. Francis Elementary	Sample 64-2	Water fountain	7/14/16	<5
E. Providence	Myron J. Francis Elementary	Sample 64-3	Water fountain	7/14/16	<5
E. Providence	Myron J. Francis Elementary	Sample 64-5	Water fountain	7/14/16	<5
E. Providence	Myron J. Francis Elementary	Sample 64-6	Water fountain	7/14/16	<5
E. Providence	Ocean State Montessori	Brooke's room sink	Faucet	3/16/17	1.1
E. Providence	Ocean State Montessori	Children's room sink	Faucet	3/16/17	4.8
E. Providence	Ocean State Montessori	Teacher's room sink	Faucet	3/16/17	4.6
E. Providence	Orlo Avenue	Kitchen	Faucet	8/8/16	<5
E. Providence	Orlo Avenue	Kitchen sample 25-1	Faucet	7/14/16	23
E. Providence	Orlo Avenue	Teacher's lounge	Faucet	8/22/16	5.7
E. Providence	Orlo Avenue	Sample 25-2	Water fountain	7/14/16	<5
E. Providence	Orlo Avenue	Sample 25-3	Water fountain	7/14/16	<5
E. Providence	Orlo Avenue	Sample 25-4	Water fountain	7/14/16	6.76
E. Providence	Riverside Middle	Kitchen Sample 179-1	Faucet	7/12/16	5.48
E. Providence	Riverside Middle	Teacher's lounge	Faucet	8/22/16	<5
E. Providence	Riverside Middle	Sample 179-2	Water fountain	7/12/16	<5
E. Providence	Riverside Middle	Sample 179-3	Water fountain	7/12/16	6.46
E. Providence	Riverside Middle	Sample 179-4	Water fountain	7/12/16	<5
E. Providence	Riverside Middle	Sample 179-5	Water fountain	7/12/16	<5
E. Providence	Riverside Middle	Sample 179-6	Water fountain	7/12/16	<5
E. Providence	Riverside Middle	Sample 179-7	Water fountain	7/12/16	<5
E. Providence	Riverside Middle	Sample 179-8	Water fountain	7/12/16	5.24
E. Providence	Riverside Middle	Sample 179-9	Water fountain	7/12/16	<5
E. Providence	Silver Spring	Kitchen Sample 120-1	Faucet	7/13/16	10.7
E. Providence	Silver Spring	Teacher's lounge	Faucet	7/14/16	<5
E. Providence	Silver Spring	Sample 120-2	Water fountain	7/13/16	<5
E. Providence	Silver Spring	Sample 120-3	Water fountain	7/13/16	<5
E. Providence	Silver Spring	Sample 120-4	Water fountain	7/13/16	<5
Exeter	Metcalf Elementary	Schoolwide	90th Percentile	11/24/16	7
Exeter	Ski Pro Inc	Schoolwide	90th Percentile	8/1/16	3
Exeter	South County Business Park	Schoolwide	90th Percentile	1/1/2013-12/31/2015	4.8
Exeter	Wawaloam	Schoolwide	90th Percentile	9/29/15	14
Exeter	Wawaloam	Teacher room	Faucet	2/2/17	1.1
Exeter	Wawaloam	Across from girls' room-new wing	Water fountain	2/1/17	<1
Exeter	Wawaloam	Kindergarten	Water fountain	1/31/17	2.1
Foster	Captain Isaac Paine	Schoolwide	90th Percentile	9/29/16	20

Foster	Clayville Elementary	Schoolwide	90th Percentile	9/29/15	1
Foster	Dr. Daycare Child Dev. Ctr.	Schoolwide	90th Percentile	9/30/15	<1
Glocester	Cooper Hill Office Complex, LLC	Schoolwide	90th Percentile	9/16/16	2
Glocester	Fogarty Memorial	Schoolwide	90th Percentile	12/22/16	5.7
Glocester	Harmony Hill	Schoolwide	90th Percentile	1/1/2014-12/31/2016	8
Glocester	Pinewood Park	Schoolwide	90th Percentile	8/18/14	3
Glocester	Ponaganset Middle	Schoolwide	90th Percentile	9/25/15	<1
Glocester	West Glocester Elementary	Schoolwide	90th Percentile	12/23/16	17
Hopkinton	Ashaway Elementary	Schoolwide	90th Percentile	6/16/15	7
Hopkinton	Ashaway Elementary	Kitchen Prep Sink	Faucet	3/1/17	2.3
Hopkinton	Ashaway Elementary	By boiler room	Water cooler	3/1/17	4.4
Hopkinton	Ashaway Elementary	Entry	Water cooler	3/1/17	2.7
Hopkinton	Hope Valley Elementary	Kitchen 3 bay sink	Faucet	3/1/17	1.3
Hopkinton	Hope Valley Elementary	1st floor old section	Water cooler	3/1/17	2.2
Hopkinton	Hope Valley Elementary	Gym	Water cooler	3/1/17	1.4
Hopkinton	Trinity Lutheran Preschool	Schoolwide	90th Percentile	8/31/14	4
Jamestown	Lawn	Kitchen tap	Faucet	5/24/16	<2
Jamestown	Lawn	2nd grade fountain	Water fountain	5/24/16	<2
Jamestown	Lawn	3rd grade fountain	Water fountain	5/24/16	<2
Jamestown	Melrose	Kitchen	Faucet	5/24/16	<2
Jamestown	Melrose	Front Lobby	Water fountain	5/24/16	<2
Jamestown	Melrose	Jr. High	Water fountain	5/24/16	<2
Johnston	Brown Avenue	Kitchen Faucet sink at café	Faucet	1/10/17	<1
Johnston	Brown Avenue	Across from library	Water fountain	1/10/17	<1
Johnston	Brown Avenue	Next to Main office	Water fountain	1/10/17	<1
Johnston	Calef (High School Annex)	Kitchen faucet in Print center	Faucet	2/16/17	<1
Johnston	Calef (High School Annex)	Room 101 sink	Faucet	2/16/17	1.4
Johnston	Calef (High School Annex)	Water cooler next to print center	Water fountain	2/16/17	1.4
Johnston	Early Childhood Center	Nurse's office sink	Faucet	1/10/17	<1
Johnston	Early Childhood Center	Room 111 sink	Faucet	1/10/17	<1
Johnston	Early Childhood Center	Near main Office	Water fountain	1/10/17	<1
Johnston	Graniteville	Kitchen sink	Faucet	1/10/17	<1
Johnston	Graniteville	1st floor	Water fountain	1/10/17	3.5
Johnston	Graniteville	2nd floor	Water fountain	1/10/17	2.4
Johnston	Johnston Senior High	Kitchen, at café, near ecco labs (sink)	Faucet	1/10/17	7.4
Johnston	Johnston Senior High	1st floor near woman's room	Water fountain	1/10/17	<1
Johnston	Johnston Senior High	Gym near ice room	Water fountain	1/10/17	<1

Johnston	New Era Enrichment Academy	Schoolwide	90th Percentile	9/19/16	1
Johnston	Nicholas A. Ferri Middle	1st floor next to elevator	Water fountain	2/16/17	<1
Johnston	Nicholas A. Ferri Middle	2nd floor next to room 207	Water fountain	2/16/17	<1
Johnston	Nicholas A. Ferri Middle	Basement, between women's and men's	Water fountain	2/16/17	<1
Johnston	Sarah Dyer Barnes	Kitchen Faucet sink at café	Faucet	1/10/17	3.3
Johnston	Sarah Dyer Barnes	At bathroom-first floor	Water fountain	1/10/17	<1
Johnston	Sarah Dyer Barnes	Lower level	Water fountain	1/10/17	<1
Johnston	Thornton	Kitchen at Cafeteria	Faucet	1/10/17	<1
Johnston	Thornton	1st floor	Water fountain	1/10/17	3.8
Johnston	Thornton	Lower Level	Water fountain	1/10/17	1.2
Johnston	Winsor Hill	Kitchen at café sink	Faucet	1/10/17	<1
Johnston	Winsor Hill	At bathrooms	Water fountain	1/10/17	<1
Johnston	Winsor Hill	Cafeteria	Water fountain	1/10/17	2.8
Lincoln	B. V. Prep Elementary 3	#1 Main floor	Water Fountain	3/7/17	1.1
Lincoln	B. V. Prep Elementary 3	#2 Main floor	Water Fountain	3/7/17	1
Lincoln	B. V. Prep Elementary 3	Café kitchen	Faucet	3/7/17	1.5
Lincoln	B.V. Prep Middle 2	Staff room kitchen	Faucet	3/7/17	<1
Lincoln	Lincoln Central Elementary	In cafeteria	Water cooler	1/5/17	<1
Lincoln	Lincoln Central Elementary	Water fountain main corridor Rm 6	Water cooler	1/5/17	<1
Lincoln	Lincoln Central Elementary	Outside teachers room	Water fountain	1/5/17	1.5
Lincoln	Lincoln Middle	Across from Rm E209	Water fountain	1/5/17	<1
Lincoln	Lincoln Middle	Classroom B-205	Water fountain	1/5/17	<1
Lincoln	Lincoln Middle	Water fountain outside gym in corridor	Water fountain	1/5/17	<1
Lincoln	Lincoln Senior High	300's corridor	Water cooler	1/5/17	<1
Lincoln	Lincoln Senior High	North Wing water fountain next to lav	Water cooler	1/5/17	1
Lincoln	Lincoln Senior High	Outside south gym in corridor	Water cooler	1/5/17	<1
Lincoln	Lonsdale Elementary	Across from main office	Water cooler	1/5/17	3.2
Lincoln	Lonsdale Elementary	Bus door	Water cooler	1/5/17	2.2
Lincoln	Lonsdale Elementary	Rm 134	Water fountain	1/5/17	<1
Lincoln	Northern Lincoln Elementary	Outside nurse office next to 103	Water cooler	1/5/17	1.2
Lincoln	Northern Lincoln Elementary	Water cooler across from gym	Water cooler	1/5/17	<1
Lincoln	Northern Lincoln Elementary	Water cooler across from Rm 142	Water cooler	1/5/17	<1
Lincoln	Saylesville Elementary	Gym	Water cooler	1/5/17	1.2
Lincoln	Saylesville Elementary	Lower level outside lavs	Water cooler	1/5/17	<1
Lincoln	Saylesville Elementary	Upper level outside lavs	Water cooler	1/5/17	<1
Little Compton	Wilbur and McMahon	Schoolwide	90th Percentile	12/13/16	2
Middletown	Aquidneck	Outside room 201	Water cooler	2/15/17	1.4

Middletown	Aquidneck	Outside room 303	Water cooler	2/15/17	2
Middletown	Aquidneck	Outsie room 401	Water cooler	2/15/17	<1
Middletown	Aquidneck	Gym	Water fountain	2/15/17	1.8
Middletown	Forest Avenue	Kitchen	Faucet	2/15/17	2.6
Middletown	Forest Avenue	Across from library	Water fountain	2/15/17	<1
Middletown	Forest Avenue	Outside Lavs 200 level	Water fountain	2/15/17	<1
Middletown	Forest Avenue	Outside Lavs 300 level	Water fountain	2/15/17	<1
Middletown	Gaudet Learning Academy	Outside of room 117	Water fountain	2/15/17	1.8
Middletown	Joseph H. Gaudet	Café	Water cooler	2/14/17	<1
Middletown	Joseph H. Gaudet	Outside Room J108	Water cooler	2/14/17	<1
Middletown	Joseph H. Gaudet	Outsideroom 352 A	Water cooler	2/14/17	<1
Middletown	Middletown High	Kitchen	Faucet	3/15/17	<1
Middletown	Middletown High	Kitchen	Faucet	3/16/17	<1
Middletown	Middletown High	Kitchen - small sink	Faucet	3/2/17	2.1
Middletown	Middletown High	Branch / Main (Bottle #2)	Service line	3/15/17	1.4
Middletown	Middletown High	Branch / Main (Bottle #3)	Service line	3/15/17	1.6
Middletown	Middletown High	Branch / Main (Bottle #4)	Service line	3/16/17	3.5
Middletown	Middletown High	Branch / Main (Bottle #5)	Service line	3/16/17	3.5
Middletown	Middletown High	Branch / Main (Bottle #7)	Service line	3/16/17	<1
Middletown	Middletown High	Branch water line feeding gym/feeding	Service line	3/2/17	260
Middletown	Middletown High	Hall outside gym - 69	Water cooler	3/2/17	4
Middletown	Middletown High	Hallway outside kitchen	Water cooler	3/2/17	2.4
Middletown	Middletown High	Outside kitchen Rm 95	Water cooler	2/14/17	15
Middletown	Middletown High	Room 213T	Water cooler	2/14/17	<1
Middletown	Middletown High	Gym	Water fountain	3/2/17	3.3
Middletown	Middletown High	Inside gym room 69	Water fountain	2/15/17	4.6
Middletown	Middletown High	Outside gym	Water fountain	3/16/17	3.6
Middletown	Middletown High	Outside gym Rm 69	Water fountain	2/14/17	37
Middletown	Silveira Kindergarten & Nursery	Schoolwide	90th Percentile	8/30/15	1
N. Kingstown	Davisville Academy	Boys' bath water cooler	Water cooler	1/23/17	<1
N. Kingstown	Davisville Academy	Cafeteria/Gym	Water cooler	1/23/17	<1
N. Kingstown	Davisville Academy	Girls' bath water cooler	Water cooler	1/23/17	<1
N. Kingstown	Davisville Middle	Boys' gym sink	Faucet	1/23/17	2.5
N. Kingstown	Davisville Middle	Teachers room sink	Faucet	1/23/17	<1
N. Kingstown	Davisville Middle	Water fountain	Water fountain	1/23/17	<1
N. Kingstown	Fishing Cove Elementary	Room #9 sink	Faucet	1/23/17	5
N. Kingstown	Fishing Cove Elementary	Sink girls bathroom	Faucet	1/23/17	1.4
N. Kingstown	Fishing Cove Elementary	Water cooler	Water cooler	1/23/17	1.2
N. Kingstown	Forest Park Elementary	Water cooler	Water cooler	1/19/17	<1
N. Kingstown	Forest Park Elementary	Kitchen gym		1/19/17	3.5

N. Kingstown	Forest Park Elementary	Teacher room		1/19/17	<1
N. Kingstown	Hamiliton Elementray	Kitchen sink Cafeteria	Faucet	1/23/17	2.5
N. Kingstown	Hamiliton Elementray	Boys' bathroom water cooler	Water cooler	1/23/17	<1
N. Kingstown	Hamiliton Elementray	Girls' bath water cooler	Water cooler	1/23/17	7.2
N. Kingstown	North Kingstown Senior High	3rd floor teacher bath in office	Faucet	1/23/17	2.3
N. Kingstown	North Kingstown Senior High	Water cooler outside elevator	Water cooler	1/23/17	<1
N. Kingstown	North Kingstown Senior High	Water cooler, Gym/girls bathroom	Water cooler	1/23/17	<1
N. Kingstown	Stony Lane Elementary	Kitchen sink Cafeteria	Faucet	1/23/17	6.8
N. Kingstown	Stony Lane Elementary	Water cooler, Gym/girls bathroom	Water cooler	1/23/17	<1
N. Kingstown	Stony Lane Elementary	Water cooler outside Room #27	Water cooler	1/23/17	3.1
N. Kingstown	Henseler Quidnessett Elem.	Sink outside gym	Faucet	1/24/17	4
N. Kingstown	Henseler Quidnessett Elem.	Water cooler inside gym	Water cooler	1/24/17	<1
N. Kingstown	Henseler Quidnessett Elem.	Water cooler outside Office #17	Water cooler	1/24/17	2
N. Kingstown	Wickford Middle	Water cooler	Water cooler	1/17/17	5.8
N. Kingstown	Wickford Middle	1st floor boys		1/17/17	5.5
N. Kingstown	Wickford Middle	Boys' gym		1/17/17	8.1
N. Smithfield	Briarwood Child Academy	Schoolwide	90th Percentile	9/28/15	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding bathroom sink at nurse's office	Faucet	3/10/17	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding 3	Water fountain	3/10/17	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding 4	Water fountain	3/10/17	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding 7	Water fountain	3/10/17	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding 8	Water fountain	3/10/17	<1
N. Smithfield	Dr. Harry L. Halliwell Memorial	Bulding 9, left side	Water fountain	3/10/17	<1
N. Smithfield	North Smithfield Elementary	Schoolwide	90th Percentile	1/1/2013-12/31/2015	1
N. Smithfield	North Smithfield Jr/Sr High	Schoolwide	90th Percentile	1/1/2013-12/31/2015	1.4
Narragansett	Narragansett Elementary	200 wing	Water fountain	3/8/17	<1
Narragansett	Narragansett Elementary	Gym	Water fountain	3/8/17	<1
Narragansett	Narragansett Elementary	Gym hall	Water fountain	3/8/17	<1
Narragansett	Narragansett High	Café	Water Fountain	3/8/17	1
Narragansett	Narragansett High	Gym	Water Fountain	3/8/17	<1
Narragansett	Narragansett High	Media lobby	Water Fountain	3/8/17	1.5
Narragansett	Narragansett Pier	Gym/locker	Water Fountain	3/8/17	<1

Narragansett	Narragansett Pier	Lobby center	Water Fountain	3/8/17	<1
Narragansett	Narragansett Pier	West wing	Water Fountain	3/8/17	1.5
Narragansett	Ocean Tides	Dorm sink, lower west wing	Faucet	3/9/17	<1
Narragansett	Ocean Tides	Kitchen sink, window by coffee machine	Faucet	3/9/17	<1
Narragansett	Ocean Tides	O.T. dorm	Water Fountain	3/9/17	<1
New Shoreham	Block Island	Kindergarten room	Faucet	2/21/17	<1
New Shoreham	Block Island	Main hallway	Water Fountain	2/21/17	<1
New Shoreham	Block Island	Cafeteria		2/21/17	<1
Newport	Claiborne Pell Elementary	Cafeteria near main office, short fountain	Water Fountain	2/23/17	1.1
Newport	Claiborne Pell Elementary	Cafeteria near main office, tall fountain	Water fountain	2/23/17	2.8
Newport	Claiborne Pell Elementary	Gym next to main doors	Water fountain	2/23/17	2.2
Newport	Claiborne Pell Elementary	Gym next to office	Water fountain	2/23/17	2.3
Newport	Frank E. Thompson Middle	1st floor	Water fountain	2/14/17	<1
Newport	Frank E. Thompson Middle	3rd floor	Water fountain	2/14/17	<1
Newport	Frank E. Thompson Middle	Lower Level Gym	Water fountain	2/14/17	<1
Newport	Career and Technical Center	Colonial dining room	Faucet	2/28/17	3.3
Newport	Career and Technical Center	Girls' bathroom	Water fountain	2/28/17	7.9
Newport	Career and Technical Center	Next to room 922	Water fountain	2/28/17	21
Newport	Career and Technical Center	Next to room 922	Water fountain	3/23/17	25
Newport	Rogers High	Kitchen Chartwell cooking sink	Faucet	2/28/17	2.3
Newport	Rogers High	Teacher's lounge sink near science hall	Faucet	3/23/17	3.1
Newport	Rogers High	Auditorium lobby	Water cooler	2/28/17	6.7
Newport	Rogers High	Auditorium next to room 810	Water cooler	3/23/17	4.5
Newport	Rogers High	Auditorium next to room 810	Water cooler	2/28/17	71
Newport	Rogers High	Gym hall	Water cooler	2/28/17	2.3
Newport	Rogers High	Academic hall across from 107	Water fountain	3/23/17	6
Newport	Rogers High	Academic hall across from 107	Water fountain	2/28/17	28
Newport	Rogers High	Main office hall, boy's side	Water fountain	2/28/17	3.5
Newport	Rogers High	Main office hall, girls' side	Water fountain	3/23/17	3.5
Newport	Rogers High	Main office hall, girls' side	Water fountain	2/28/17	4.4
Newport	Rogers High	ROTC	Water fountain	3/23/17	4.2
Newport	Rogers High	ROTC	Water fountain	2/28/17	11
Newport	Rogers High	Science hall across from 219	Water fountain	2/28/17	180
Pawtucket	Agnes E. Little	Kitchen		12/30/16	10.2
Pawtucket	Agnes E. Little	Near Boiler Room		12/30/16	<5

Pawtucket	Agnes E. Little	Near Teacher's Lounge		12/30/16	<5
Pawtucket	Blackstone Academy Charter	cafeteria	Faucet	3/6/17	<1
Pawtucket	Blackstone Academy Charter	1st floor	Water fountain	3/6/17	<1
Pawtucket	Blackstone Academy Charter	2nd floor	Water fountain	3/6/17	<1
Pawtucket	Charles E. Shea High	2nd floor		12/29/16	<5
Pawtucket	Charles E. Shea High	Cafetaria		12/29/16	<5
Pawtucket	Charles E. Shea High	Cafetaria near kitchen		12/29/16	<5
Pawtucket	Charles E. Shea High	Kitchen Sink		12/29/16	<5
Pawtucket	Curvin-McCabe	Kitchen		12/30/16	<5
Pawtucket	Curvin-McCabe	Near gym		12/30/16	<5
Pawtucket	Curvin-McCabe	Near room 36		12/30/16	<5
Pawtucket	Elizabeth Baldwin	Cafetaria		12/29/16	<5
Pawtucket	Elizabeth Baldwin	Kitchen		12/29/16	<5
Pawtucket	Elizabeth Baldwin	Near gym		12/29/16	<5
Pawtucket	Fallon Memorial	Hall next to teacher's lounge		12/30/16	<5
Pawtucket	Fallon Memorial	Kitchen		12/30/16	<5
Pawtucket	Fallon Memorial	Near room 3		12/30/16	<5
Pawtucket	Fallon Memorial	Room 7 pre-school		12/30/16	<5
Pawtucket	Fallon Memorial	Room 8 Pre-school		12/30/16	<5
Pawtucket	Flora S. Curtis Memorial	Kitchen	Faucet	12/30/16	22.1
Pawtucket	Flora S. Curtis Memorial	Room 19	Water fountain	12/30/16	20.7
Pawtucket	Flora S. Curtis Memorial	Kitchen		1/23/17	<5
Pawtucket	Flora S. Curtis Memorial	Main entry lobby		12/30/16	<5
Pawtucket	Flora S. Curtis Memorial	Room 19		1/23/17	<5
Pawtucket	Francis J. Varieur	1st floor near room 21		12/29/16	9.5
Pawtucket	Francis J. Varieur	Kitchen		12/29/16	<5
Pawtucket	Francis J. Varieur	Outside cafetaria		12/29/16	<5
Pawtucket	Henry J. Winters	Cafetaria		12/29/16	<5
Pawtucket	Henry J. Winters	Kindergarten Room 2		12/29/16	<5
Pawtucket	Henry J. Winters	Kitchen		12/29/16	7.8
Pawtucket	International Charter School	Kitchen Sink	Faucet	1/27/17	<1
Pawtucket	International Charter	1-B classroom 119	Water Fountain	3/2/17	<1
Pawtucket	International Charter	1st floor	Water fountain	1/27/17	<1
Pawtucket	International Charter	2-B classroom 120	Water Fountain	3/2/17	<1
Pawtucket	International Charter	2nd floor	Water fountain	1/27/17	<1
Pawtucket	International Charter	4-B classroom 232	Water fountain	3/2/17	<1
Pawtucket	International Charter	4-C classroom 225	Water Fountain	3/2/17	<1
Pawtucket	International Charter	5-A classroom 227	Water Fountain	3/2/17	<1
Pawtucket	International Charter	K-A classroom 131	Water Fountain	3/2/17	<1
Pawtucket	International Charter	K-B classroom 128	Water fountain	3/2/17	<1

Pawtucket	Walsh School for the Arts	Near Director's Office	Water fountain	12/30/16	18.9
Pawtucket	Walsh School for the Arts	Near Director's Office		1/23/17	<5
Pawtucket	Walsh School for the Arts	Outside science S-3		12/30/16	<5
Pawtucket	Joseph Jenks Middle	Cafetaria		12/30/16	<5
Pawtucket	Joseph Jenks Middle	Kitchen		12/30/16	<5
Pawtucket	Joseph Jenks Middle	Rear gym		12/30/16	<5
Pawtucket	Lyman B. Goff Middle	Audiorium Upper Fountain		12/30/16	<5
Pawtucket	Lyman B. Goff Middle	Gym		12/30/16	<5
Pawtucket	Lyman B. Goff Middle	Kitchen		12/30/16	<5
Pawtucket	M. Virginia Cunningham	Front office		12/29/16	<5
Pawtucket	M. Virginia Cunningham	Kitchen		12/29/16	<5
Pawtucket	M. Virginia Cunningham	Room 7		12/29/16	<5
Pawtucket	Nathanael Greene	1st floor		12/29/16	<5
Pawtucket	Nathanael Greene	2nd floor		12/29/16	<5
Pawtucket	Nathanael Greene	Kitchen faucet		12/29/16	<5
Pawtucket	Pawtucket Learning Academy	Kitchen		12/29/16	<5
Pawtucket	Pawtucket Learning Academy	Offices near room 108		12/29/16	<5
Pawtucket	Potter-Burns	1st floor near room 110		12/30/16	<5
Pawtucket	Potter-Burns	Kitchen		12/30/16	<5
Pawtucket	Potter-Burns	Multi-purpose room		12/30/16	<5
Pawtucket	Samuel SlaterJr High	Kitchen		12/29/16	<5
Pawtucket	Samuel SlaterJr High	Outside café		12/29/16	<5
Pawtucket	William E Tolman Senior High	Basement		12/29/16	<5
Pawtucket	William E Tolman Senior High	Cafetaria		12/29/16	<5
Pawtucket	William E Tolman Senior High	Gym		12/29/16	<5
Pawtucket	William E Tolman Senior High	Kitchen		12/29/16	<5
Portmouth	Melville Elementary	Teacher lounge sink	Faucet	4/3/17	<1
Portsmouth	Howard Hathaway	Kitchen sink	Faucet	3/5/17	1.5
Portsmouth	Howard Hathaway	Teacher's lounge	Faucet	3/5/17	1
Portsmouth	Howard Hathaway	Gym/bath	Water Fountain	3/5/17	1.4
Portsmouth	Howard Hathaway	Second floor	Water Fountain	3/5/17	2
Portsmouth	Melville Elementary	Kitchen sink	Faucet	3/5/17	4.5
Portsmouth	Melville Elementary	Teacher's lounge	Faucet	3/5/17	18
Portsmouth	Melville Elementary	Hydration station	Water Fountain	3/5/17	1.9
Portsmouth	Melville Elementary	West side	Water Fountain	3/5/17	2.3
Portsmouth	Portsmouth High	Kitchen west	Faucet	3/5/17	2
Portsmouth	Portsmouth High	Teacher's lounge	Faucet	3/5/17	5.4
Portsmouth	Portsmouth High	B wing B-7	Water Fountain	3/5/17	2

Portsmouth	Portsmouth High	CAF D-wing	Water Fountain	3/5/17	1.5
Portsmouth	Portsmouth High	Library	Water Fountain	3/5/17	2
Portsmouth	Portsmouth High	New gym	Water Fountain	3/5/17	1.9
Portsmouth	Portsmouth Middle	A/B kitchen	Faucet	3/5/17	6.7
Portsmouth	Portsmouth Middle	C/D kitchen	Faucet	3/5/17	7.7
Portsmouth	Portsmouth Middle	Teacher's lounge office	Faucet	3/5/17	9.8
Portsmouth	Portsmouth Middle	A/B kitchen - West cooler	Water cooler	3/5/17	1.8
Portsmouth	Portsmouth Middle	C/D kitchen - East cooler	Water cooler	3/5/17	1.8
Portsmouth	Portsmouth Middle	Gym hall	Water cooler	3/5/17	2.3
Providence	Providence Mayoral Academy	1st Floor		6/24/16	<3
Providence	Providence Mayoral Academy	1st Floor		6/24/16	<3
Providence	Providence Mayoral Academy	2nd floor		6/24/16	<3
Providence	Providence Mayoral Academy	2nd floor		6/24/16	<3
Providence	Providence Mayoral Academy	Basement		6/24/16	<3
Providence	Providence Mayoral Academy	Basement		6/24/16	<3
Providence	Feinstein Elementary, Broad St.	Corridor sink at 101	Faucet	4/25/16	2.13
Providence	Feinstein Elementary, Broad St.	Nurse's office bathroom	Faucet	4/25/16	<1
Providence	Feinstein Elementary, Broad St.	Corridor bubbler at nurse office	Water fountain	4/25/16	<1
Providence	Asa Messer Elementary	Nurse sink	Faucet	5/26/16	<1
Providence	Asa Messer Elementary	Nurse's office	Faucet	5/26/16	<1
Providence	Asa Messer Elementary	Nurse's office	Water fountain	5/26/16	2.25
Providence	Carl G. Lauro Elementary	Main office	Faucet	5/26/16	<1
Providence	Carl G. Lauro Elementary	Nurse's office	Faucet	5/26/16	<1
Providence	Carl G. Lauro Elementary	Corridor	Water fountain	5/26/16	<1
Providence	Martin Luther King Elementary	Nurse's office	Faucet	5/26/16	1.78
Providence	Martin Luther King Elementary	Principal Sink	Faucet	5/26/16	1.32
Providence	Martin Luther King Elementary	Teacher room	Faucet	5/26/16	2.32
Providence	Esek Hopkins Middle	Nurse girls' bathroom sink	Faucet	6/15/16	<1
Providence	Esek Hopkins Middle	Nurse sink in bedroom	Faucet	6/15/16	<1
Providence	Esek Hopkins Middle	Corridor across from copy room	Water fountain	6/15/16	<1
Providence	Frank D. Spaziano Elementary	Bubbler at nurse's office	Water fountain	5/26/16	1.26
Providence	Frank D. Spaziano Elementary	Bubbler in corridor at office	Water fountain	5/26/16	3.78

Providence	Frank D. Spaziano Elementary	Nurse's office-2nd floor	Water fountain	5/26/16	2.94
Providence	Spaziano Elementary Annex	LL faculty bathroom-right	Faucet	5/26/16	1.08
Providence	Spaziano Elementary Annex	Sink in bathroom 3	Faucet	5/26/16	1
Providence	Spaziano Elementary Annex	Café bubbler LL	Water fountain	5/26/16	<1
Providence	Gilbert Stuart Middle	Food Prep Faucet	Faucet	1/27/17	1.1
Providence	Gilbert Stuart Middle	Nurse's office bathroom sink	Faucet	6/15/16	2.13
Providence	Gilbert Stuart Middle	Bubbler in Corridor Across from 105	Water fountain	6/15/16	<1
Providence	Gilbert Stuart Middle	Bubbler in corridor at nurse's office	Water fountain	6/15/16	<1
Providence	Gilbert Stuart Middle	Cooler 308	Water fountain	1/27/17	<1
Providence	Gilbert Stuart Middle	Water cooler 128	Water fountain	1/27/17	<1
Providence	Gilbert Stuart Middle	Water cooler 132	Water fountain	1/27/17	<1
Providence	Governor DelSesto Middle	Kitchen	Faucet	1/26/17	<1
Providence	Governor DelSesto Middle	Kitchen Office	Faucet	1/26/17	<1
Providence	Governor DelSesto Middle	Fountain by Room 108	Water Fountain	1/26/17	<1
Providence	Harry Kizirian Elementary	LL kitchen	Faucet	5/26/16	1.79
Providence	Harry Kizirian Elementary	Nurse's office		5/26/16	<1
Providence	Harry Kizirian Elementary	Teacher room		5/26/16	3.6
Providence	Highlander Charter School	1st floor main	Water fountain	1/18/17	<1
Providence	Highlander Charter School	2nd floor art room hallway	Water fountain	1/18/17	<1
Providence	Feinstein Elem., Sackett St.	Kitchen	Faucet	2/17/17	1.3
Providence	Feinstein Elem., Sackett St.	Nurse's office	Faucet	4/25/16	<1
Providence	Feinstein Elem., Sackett St.	Across from Room 304	Water fountain	2/17/17	<1
Providence	Feinstein Elem., Sackett St.	Bubbler at 103	Water fountain	4/25/16	<1
Providence	Feinstein Elem., Sackett St.	Bubbler at main office	Water fountain	4/25/16	<1
Providence	Feinstein Elem., Sackett St.	Recreation	Water fountain	2/17/17	<1
Providence	Mary E. Fogarty Elementary	Nurse's office	Faucet	4/25/16	1.36
Providence	Mary E. Fogarty Elementary	Teacher/Copy room	Faucet	4/25/16	9.38
Providence	Mary E. Fogarty Elementary	Corridor Bubbler across from m-5b	Water fountain	4/25/16	3.2
Providence	Meeting Street			12/20/06	ND
Providence	Nathan Bishop Middle	Kitchen sink (from sink)	Faucet	6/15/16	1.98

Providence	Nathan Bishop Middle	Nurse's office bathroom	Faucet	6/15/16	<1
Providence	Nathan Bishop Middle	Nurse's office exam room	Faucet	6/15/16	<1
Providence	Nathanael Greene Middle	Kitchen sink	Faucet	6/15/16	<1
Providence	Nathanael Greene Middle	Nurse's bathroom	Faucet	6/15/16	<1
Providence	Nathanael Greene Middle	Bathroom (m) at 1st floor east		6/15/16	<1
Providence	Paul Cuffee Charter	Barton-Staff lounge	Water conditioner	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Staff lounge	Water Conditioner	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Lounge Water Cooler	Water cooler	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Lounge Water Cooler	Water cooler	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Basement Gym	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Basement Gym	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 201	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 201	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 202	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 202	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 203	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 203	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 204	Water fountain	12/21/15	8.1
Providence	Paul Cuffee Charter	Barton-Rm 204	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 205	Water fountain	12/21/15	5.9
Providence	Paul Cuffee Charter	Barton-Rm 205	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 301	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 301	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 302	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 302	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 304	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 304	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 305	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 305	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Barton-Rm 306	Water fountain	12/21/15	5.4
Providence	Paul Cuffee Charter	Barton-Rm 306	Water fountain	12/21/15	6.1
Providence	Paul Cuffee Charter	Elmwood-2nd floor	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Elmwood-2nd floor	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Elmwood-3rd floor	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Elmwood-3rd floor	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-2nd floor SW corner-Left	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-2nd floor SW corner-Left	Water fountain	12/21/15	<5

Providence	Paul Cuffee Charter	Promenade-2nd floor SW corner-Right	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-2nd floor SW corner-Right	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 150-left side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 150-left side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 150-rt side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 150-rt side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 161- right side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 161- right side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 161-left side	Water fountain	12/21/15	<5
Providence	Paul Cuffee Charter	Promenade-Rm 161-left side	Water fountain	12/21/15	<5
Providence	Pleasant View	Main office	Faucet	5/26/16	2.18
Providence	Pleasant View	Nurse's office	Faucet	5/26/16	7.5
Providence	Pleasant View	café	Water fountain	5/26/16	<1
Providence	Reservoir Avenue	Main office bathroom	Faucet	3/28/16	<1
Providence	Reservoir Avenue	Nurse's office bathroom	Faucet	3/28/16	<1
Providence	Reservoir Avenue	3nd floor corridor bubbler	Water fountain	3/28/16	<1
Providence	Reservoir Avenue	Basement corridor bubbler	Water fountain	3/28/16	<1
Providence	RI School for the Deaf	Room 301	Faucet	8/27/14	5
Providence	RI School for the Deaf	Hall	Water fountain	8/27/14	4
Providence	RI Nurses Institute Middle College Charter High	cafetaria (hand wash sink)	Faucet	1/11/17	1.4
Providence	RI Nurses Institute Middle College Charter High	3rd floor (near restroom)	Water fountain	1/11/17	<1
Providence	RI Nurses Institute Middle College Charter High	4th floor (near restroom)	Water fountain	1/11/17	<1
Providence	Robert F. Kennedy Elementary	Nurse's office	Faucet	5/26/16	<1
Providence	Robert F. Kennedy Elementary	Teacher room	Faucet	5/26/16	<1
Providence	Robert F. Kennedy Elementary	Corridor	Water fountain	5/26/16	<1
Providence	Roger Williams Middle	Corridor at Nurse's office	Faucet	6/15/16	<1
Providence	Roger Williams Middle	Nurse's office	Faucet	6/15/16	<1
Providence	Roger Williams Middle	Across from library	Water fountain	6/15/16	<1
Providence	Leadership Acad., Capital Campus	Kitchen sink	Faucet	1/19/17	1.4
Providence	Leadership Acad., Capital Campus	Classroom	Water cooler	1/19/17	<1
Providence	SouthSide Elementary Charter	Cafeteria	Faucet	1/27/17	3.2
Providence	SouthSide Elementary Charter	Cafeteria	Water fountain	1/27/17	4.9
Providence	SouthSide Elementary Charter	Downstairs	Water fountain	1/27/17	<1

Providence	The Met - Entrepreneurial Center	Conference "E" center room	Faucet	12/14/16	1.7
Providence	The Met - Equality School	Kitchen prep area	Faucet	12/14/16	2.8
Providence	The Met - Equality School	Water fountain 1st floor near restrooms	Water fountain	12/14/16	<1
Providence	The Met - Equality School	Water fountain 2nd floor near rest rooms	Water fountain	12/14/16	<1
Providence	The Met - Equality School	Water fountain fitness area hallway	Water fountain	12/14/16	<1
Providence	The Met - Justice School	Kitchenette prep area	Faucet	1/11/17	2.3
Providence	The Met - Justice School	Kitchenette prep area	Faucet	12/15/16	100
Providence	The Met - Justice School	Water fountain 1st floor near restrooms	Water fountain	12/15/16	<1
Providence	The Met - Justice School	Water fountain 2nd floor near rest rooms	Water fountain	12/15/16	<1
Providence	The Met - Liberty School	Kitchenette prep area	Faucet	12/15/16	<1
Providence	The Met - Liberty School	Water fountain 1st floor near restrooms	Water fountain	12/15/16	<1
Providence	The Met - Liberty School	Water fountain 2nd floor near rest rooms	Water fountain	12/15/16	<1
Providence	The Met - Liberty School	Water fountain, in Media and Arts	Water fountain	12/15/16	<1
Providence	The Met - Paul Crowley Campus	Kitchen prep area	Faucet	12/14/16	1.2
Providence	The Met - Paul Crowley Campus	Fountain 2, 2nd fl., near food service line	Water fountain	12/14/16	<1
Providence	The Met - Paul Crowley Campus	Water fountain 3rd floor	Water fountain	12/14/16	<1
Providence	The Met - Peace Street Campus	Kitchen - Kitchen storage	Faucet	12/15/16	2.6
Providence	The Met - Peace Street Campus	Breakroom across from main desk	Water fountain	12/15/16	<1
Providence	The Met - Peace Street Campus	Water fountain common area	Water fountain	12/15/16	<1
Providence	The Met - Unity School	Kitchenette food prep area	Faucet	12/15/16	5
Providence	The Met - Unity School	Water fountain 1st floor near restrooms	Water fountain	12/15/16	<1
Providence	The Met - Unity School	Water fountain 2nd floor near restrooms	Water fountain	12/15/16	<1
Providence	Urban Collab. Accelerated Pgm.	1st floor Old art room	Faucet	2/15/17	<1
Providence	Urban Collab. Accelerated Pgm.	Kitchen	Faucet	2/15/17	<1
Providence	Urban Collab. Accelerated Pgm.	1st floor gym	Water fountain	2/15/17	<1
Providence	Vartan Gregorian Elementary	Nurse's office	Faucet	5/26/16	<1
Providence	Vartan Gregorian Elementary	Wash station	Faucet	5/26/16	<1
Providence	Vartan Gregorian Elementary	Corridor	Water fountain	5/26/16	<1

Providence	Veazie Street	Nurse's office	Faucet	5/26/16	<1
Providence	Veazie Street	Corridor	Water cooler	5/26/16	<1
Providence	Veazie Street	Main office		5/26/16	2.63
Providence	Village Green Virtual Charter	LC3	Water cooler	2/28/17	<1
Providence	Village Green Virtual Charter	LCC	Water cooler	2/28/17	<1
Providence	Village Green Virtual Charter	Main hall	Water fountain	2/28/17	<1
Providence	Webster Avenue	Main office bathroom	Faucet	5/26/16	1.43
Providence	Webster Avenue	Nurse's office		5/26/16	1.57
Providence	Webster Avenue	Teacher's lounge		5/26/16	2.3
Providence	West Broadway Middle	Nurse's office bathroom sink	Faucet	6/15/16	2.4
Providence	West Broadway Middle	Bubbler in Corridor next to 101	Water fountain	6/15/16	23.9
Providence	West Broadway Middle	Bubbler in corridor next to 101	Water fountain	9/14/16	37.9
Providence	West Broadway Middle	Bubbler in Corridor next to 102	Water fountain	6/15/16	4.59
Providence	William D'Abate Elementary	Nurse's office	Faucet	5/26/16	3.04
Providence	William D'Abate Elementary	Nurse's office	Faucet	4/25/16	5.87
Providence	William D'Abate Elementary	Nurse's office bathroom	Faucet	5/26/16	1.24
Providence	William D'Abate Elementary	Principal Bathroom sink	Faucet	4/25/16	<1
Providence	William D'Abate Elementary	Bubbler at corridor/café	Water fountain	4/25/16	<1
Providence	William D'Abate Elementary	Corridor	Water fountain	5/26/16	<1
Richmond	Chariho Career/Technical Center	Kitchen sink by coffee	Faucet	3/1/17	<1
Richmond	Chariho Career/Technical Center	North	Water cooler	3/1/17	1.1
Richmond	Chariho Career/Technical Center	South	Water cooler	3/1/17	<1
Richmond	Chariho Regional High	Schoolwide	90th Percentile	6/8/16	2
Richmond	Chariho Regional High	Kitchen by ice machine	Faucet	2/28/17	1.6
Richmond	Chariho Regional High	B hall	Water fountain	2/28/17	3.2
Richmond	Chariho Regional High	D Hall	Water fountain	2/28/17	<1
Richmond	Chariho Regional Middle	Schoolwide	90th Percentile	6/18/15	<1
Richmond	Chariho Regional Middle	Kitchen back wall 2 bay sink	Faucet	2/28/17	<1
Richmond	Chariho Regional Middle	Auditorium foyer	Water fountain	2/28/17	<1
Richmond	Chariho Regional Middle	Gym foyer	Water fountain	2/28/17	<1
Richmond	Meadowbrook Waldorf	Schoolwide	90th Percentile	9/26/16	<1
Richmond	Richmond Elementary	Faculty kitchen sink	Faucet	3/1/17	2.2
Richmond	Richmond Elementary	Kitchen prep sink	Faucet	3/1/17	2.4
Richmond	Richmond Elementary	By boiler room	Water cooler	3/1/17	3
Richmond	The R.Y.S.E. School	Kitchen	Faucet	2/28/17	<1
Richmond	The R.Y.S.E. School	Back	Water fountain	2/28/17	<1

Richmond	The R.Y.S.E. School	Front	Water fountain	2/28/17	<1
S. Kingstown	Academic Success Academy	Kitchen	Faucet	3/2/17	18
S. Kingstown	Academic Success Academy	Office	Faucet	3/2/17	9.4
S. Kingstown	Academic Success Academy	Science Lab	Faucet	3/2/17	2.7
S. Kingstown	Broad Rock Middle	Kitchen	Faucet	3/2/17	1.4
S. Kingstown	Broad Rock Middle School	Nurse	Faucet	3/2/17	<1
S. Kingstown	Broad Rock Middle	First Floor right	Water fountain	3/2/17	<1
S. Kingstown	Curtis Corner Middle	Kitchen	Faucet	3/2/17	2.3
S. Kingstown	Curtis Corner Middle	Nurse	Faucet	3/2/17	1.4
S. Kingstown	Curtis Corner Middle	Hall	Water fountain	3/2/17	<1
S. Kingstown	Kingston Hill Academy	Schoolwide	90th Percentile	9/17/14	7
S. Kingstown	Kingston Hill Academy	5 samples		9/14/16	7
S. Kingstown	Matunuck	Kitchen	Faucet	3/2/17	98
S. Kingstown	Matunuck	Nurse	Faucet	3/2/17	8.1
S. Kingstown	Matunuck	Cafeteria	Water Fountain	3/2/17	3.1
S. Kingstown	Peace Dale Elementary	Kitchen	Faucet	3/2/17	31
S. Kingstown	Peace Dale Elementary	Nurse	Faucet	3/2/17	1.3
S. Kingstown	Peace Dale Elementary	Hallway (outside room 4)	Water fountain	3/2/17	1.6
S. Kingstown	South Kingstown High	2nd floor	Bottle Filler	3/2/17	2
S. Kingstown	South Kingstown High	1st floor nurse	Faucet	3/2/17	2
S. Kingstown	South Kingstown High	Kitchen	Faucet	3/2/17	7.9
S. Kingstown	Inclusionary Preschool	Nurse room 13	Faucet	3/2/17	11
S. Kingstown	Inclusionary Preschool	Room 215	Faucet	3/2/17	3.6
S. Kingstown	Inclusionary Preschool	Room 9 Teachers lounge	Faucet	3/2/17	18
S. Kingstown	The Compass School	Farm house Kitchen	Faucet	5/2/16	<1
S. Kingstown	The Compass School	Main Building	Water fountain	5/2/16	<1
S. Kingstown	The Compass School	New Modular	Water fountain	5/2/16	<1
S. Kingstown	The Compass School	Old modular	Water fountain	5/2/16	<1
S. Kingstown	Wakefield Elementary	Kitchen	Faucet	3/2/17	2.1
S. Kingstown	Wakefield Elementary	Nurse	Faucet	3/2/17	2.3
S. Kingstown	Wakefield Elementary	Outside library	Water Fountain	3/2/17	<1
S. Kingstown	West Kingston Elementary	Kitchen	Faucet	3/2/17	38
S. Kingstown	West Kingston Elementary	Nurse	Faucet	3/2/17	16
S. Kingstown	West Kingston Elementary	Cafeteria	Water Fountain	3/2/17	13
S. Kingstown	Academic Success Academy	Kitchen sink	Faucet	4/6/17	<1
S. Kingstown	Academic Success Academy	Kitchen sink	Faucet	4/6/17	<1
S. Kingstown	Academic Success Academy	Kitchen sink	Faucet	4/6/17	<1

S. Kingstown	Matunuck	Kitchen sink	Faucet	4/6/17	61
S. Kingstown	Matunuck	Kitchen sink	Faucet	4/6/17	1.9
S. Kingstown	Matunuck	Kitchen sink	Faucet	4/6/17	1.4
S. Kingstown	Inclusionary Preschool	Teacher's lounge sink	Faucet	4/6/17	3.8
S. Kingstown	Inclusionary Preschool	Teacher's lounge sink	Faucet	4/6/17	2.2
S. Kingstown	Inclusionary Preschool	Teacher's lounge sink	Faucet	4/6/17	2.1
S. Kingstown	Peace Dale Elementary	Kitchen sink	Faucet	4/6/17	1.8
S. Kingstown	Peace Dale Elementary	Kitchen sink	Faucet	4/6/17	<1
S. Kingstown	Peace Dale Elementary	Kitchen sink	Faucet	4/6/17	<1
S. Kingstown	West Kingston Elementary	Kitchen sink	Faucet	4/6/17	13
S. Kingstown	West Kingston Elementary	Kitchen sink	Faucet	4/6/17	3.7
S. Kingstown	West Kingston Elementary	Kitchen sink	Faucet	4/6/17	3.4
S. Kingstown	West Kingston Elementary	Nurse's sink	Faucet	4/6/17	5.7
S. Kingstown	West Kingston Elementary	Nurse's sink	Faucet	4/6/17	2.8
S. Kingstown	West Kingston Elementary	Nurse's sink	Faucet	4/6/17	1.7
Scituate	North Scituate Elementary	Schoolwide	90th Percentile	12/14/16	8.5
Scituate	Ponaganset High	Schoolwide	90th Percentile	9/25/15	2
Scituate	Scituate Early Learning Center	Schoolwide	90th Percentile	10/2/16	<1
Scituate	Scituate Middle and High	Schoolwide	90th Percentile	9/28/15	3
Smithfield	Anna M. McCabe	Water Fountain Near Rm 16	Bottle Filler	1/7/17	<1
Smithfield	Anna M. McCabe	Kitchen	Faucet	1/7/17	<1
Smithfield	Anna M. McCabe	Bottle Filler near Cafeteria	Water fountain	1/7/17	2.9
Smithfield	Old County Road	Bottle Filler near Room 214	Bottle Filler	1/7/17	<1
Smithfield	Old County Road	Kitchen	Faucet	1/7/17	<1
Smithfield	Old County Road	Water Fountain Near room 107	Water fountain	1/7/17	<1
Smithfield	Raymond C. LaPerche	Kitchen	Faucet	1/7/17	3.3
Smithfield	Raymond C. LaPerche	Water fountain in cafeteria	Water fountain	1/7/17	1.9
Smithfield	Raymond C. LaPerche	Water Fountain Near Room 3	Water fountain	1/7/17	2.2
Smithfield	Smithfield Senior High	Gym	Bottle Filler	1/7/17	<1
Smithfield	Smithfield Senior High	Kitchen	Faucet	1/7/17	1.8
Smithfield	Smithfield Senior High	Cafeteria	Water fountain	1/7/17	<1
Smithfield	Vincent J. Gallagher Middle	Kitchen	Faucet	1/7/17	<1
Smithfield	Vincent J. Gallagher Middle	Water Fountain Near Cafeteria	Water fountain	1/7/17	<1
Smithfield	Vincent J. Gallagher Middle	Water Fountain Near Room 128	Water fountain	1/7/17	<1
Smithfield	William Winsor	Kitchen	Faucet	1/7/17	<1
Smithfield	William Winsor	Near Room 13	Water fountain	1/7/17	2.7

Smithfield	William Winsor	Near Room 2	Water fountain	1/7/17	<1
Tiverton	Fort Barton	Gym	Water fountain	2/8/17	<1
Tiverton	Fort Barton	Room 120	Water fountain	2/8/17	<1
Tiverton	Fort Barton	Room 222	Water fountain	2/8/17	<1
Tiverton	Pocasset	Outside gym	Water fountain	2/8/17	<1
Tiverton	Pocasset	Room 108	Water fountain	2/8/17	<1
Tiverton	Pocasset	Room 213	Water fountain	2/8/17	<1
Tiverton	Sakonnet Early Learning Center	Schoolwide	90th Percentile	9/28/15	1
Tiverton	Tiverton High	1st floor	Water fountain	3/1/17	1.7
Tiverton	Tiverton High	1st floor	Water fountain	2/8/17	3.8
Tiverton	Tiverton High	3rd floor	Water fountain	3/1/17	3.8
Tiverton	Tiverton High	3rd floor	Water fountain	2/8/17	24
Tiverton	Tiverton High	Commons	Water fountain	2/8/17	8.2
Tiverton	Tiverton High	Commons	Water fountain	3/1/17	<1
Tiverton	Tiverton Middle	North East 1st Floor	Water fountain	2/8/17	<1
Tiverton	Tiverton Middle	Outside Music	Water fountain	2/8/17	6.1
Tiverton	Tiverton Middle	South West 2nd Floor	Water fountain	2/8/17	1
Tiverton	Walter E. Ranger	Room 306	Water fountain	2/8/17	<1
Tiverton	Walter E. Ranger	Room 404	Water fountain	2/8/17	<1
Tiverton	Walter E. Ranger	Room 505	Water fountain	2/8/17	<1
W. Greenwich	Exeter/W. Greenwich Junior High	Office Sink	Faucet	2/2/17	1.7
W. Greenwich	Exeter/W. Greenwich Junior High	Outside Boys Locker Room	Water fountain	1/31/17	1.1
W. Greenwich	Exeter/W. Greenwich Junior High	Upstairs, between two bathrooms	Water fountain	2/1/17	<1
W. Greenwich	Exeter/W. Greenwich Jr./Sr. High	Schoolwide	90th Percentile	1/1/2014-12/31/2016	2
W. Greenwich	Exeter/W. Greenwich Senior High	Cafeteria Kitchen Double Sink	Faucet	1/31/17	<1
W. Greenwich	Exeter/W. Grenwich Senior High	Office Sink	Faucet	2/2/17	4.1
W. Greenwich	Exeter/W. Greenwich Senior High	Upstairs Lobby, between two bathrooms	Water fountain	2/1/17	1.5
W. Greenwich	Greenwich Village Nursery School	Schoolwide	90th Percentile	1/8/17	<1
W. Greenwich	Mildred E. Lineham	Schoolwide	90th Percentile	11/24/16	5
W. Greenwich	The Greene School - Building 1	Schoolwide	90th Percentile	9/25/14	7
W. Greenwich	The Greene School - Building 2 & 3	Schoolwide	90th Percentile	12/22/16	8.8
W. Warwick	Greenbush Elementary	Kitchen Bay Sink	Faucet	1/31/17	5.1
W. Warwick	Greenbush Elementary	Nurse's office	Water fountain	1/31/17	<1
W. Warwick	Greenbush Elementary	Teacher room	Water fountain	1/31/17	<1
W. Warwick	John F. Deering Middle	Serving Line	Faucet	1/31/17	2
W. Warwick	John F. Deering Middle	2nd floor left side	Water fountain	1/31/17	2.2
W. Warwick	John F. Deering Middle	Cafeteria	Water fountain	1/31/17	<1

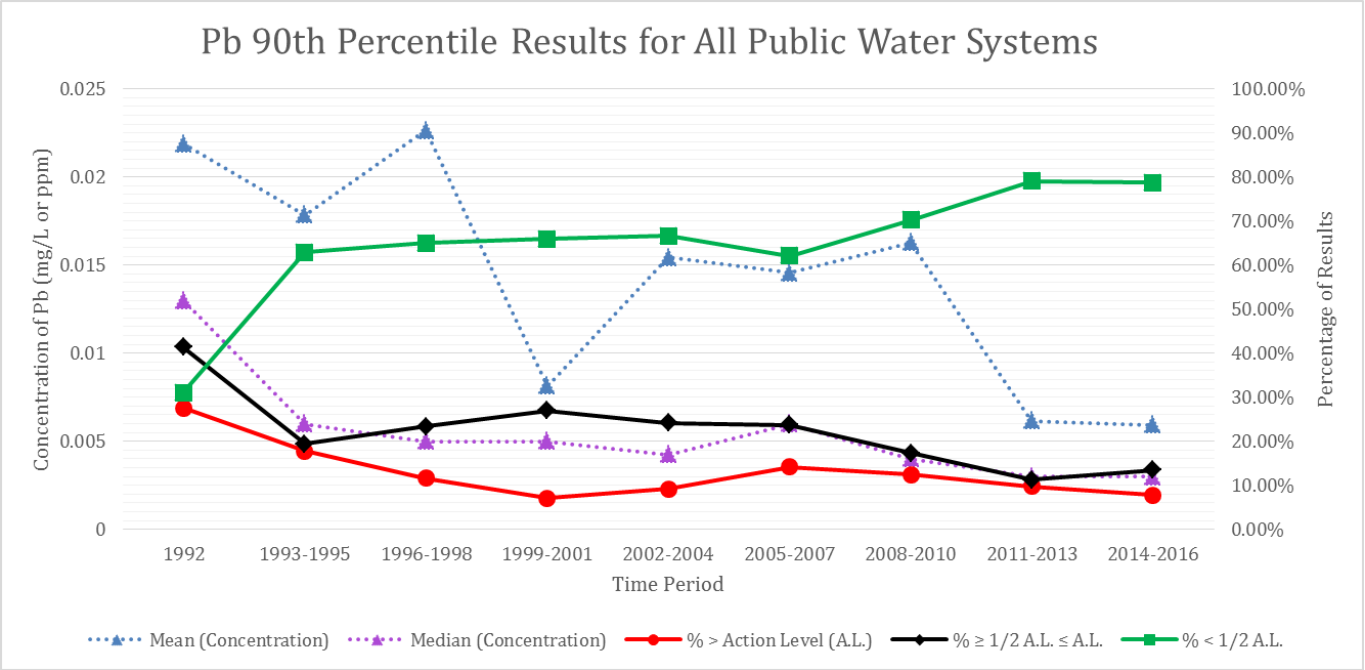
W. Warwick	John F. Horgan Elementary	Kitchen	Faucet	2/2/17	<1
W. Warwick	John F. Horgan Elementary	Cafeteria	Water fountain	2/2/17	<1
W. Warwick	John F. Horgan Elementary	Library	Water fountain	2/2/17	<1
W. Warwick	Maisie E. Quinn Elementary	Kitchen	Faucet	1/31/17	2.9
W. Warwick	Maisie E. Quinn Elementary	Sink Room 7-Cwing	Faucet	1/31/17	2.2
W. Warwick	Maisie E. Quinn Elementary	B wing	Water fountain	1/31/17	120
W. Warwick	Maisie E. Quinn Elementary	B wing	Water fountain	3/13/17	36
W. Warwick	Wakefield Hills Elementary	Kitchen Bay Sink	Faucet	2/2/17	1.4
W. Warwick	Wakefield Hills Elementary	1st Floor	Water fountain	2/2/17	<1
W. Warwick	Wakefield Hills Elementary	Cafeteria	Water fountain	2/2/17	<1
W. Warwick	West Warwick Senior High	Kitchen	Faucet	1/31/17	1.3
W. Warwick	West Warwick Senior High	Across from Room 189	Water fountain	1/31/17	<1
W. Warwick	West Warwick Senior High	Cafeteria	Water fountain	1/31/17	<1
Warren	Highlander Charter	1st floor near office	Water fountain	1/18/17	<1
Warren	Highlander Charter	2nd floor	Water fountain	1/18/17	<1
Warren	Highlander Charter	Cafeteria	Water fountain	1/18/17	<1
Warren	Highlander Charter	Gym near locker room	Water fountain	1/18/17	1.6
Warren	Hugh Cole	Kitchen	Faucet	9/12/16	<2
Warren	Hugh Cole	Adj Music	Water fountain	9/12/16	<2
Warren	Hugh Cole	Adj Rm 61	Water fountain	9/12/16	<2
Warwick	Cedar Hill	K room 7	Faucet	11/25/16	2.3
Warwick	Cedar Hill	Room 14	Water Fountain	11/25/16	<2
Warwick	Cottrell F. Hoxsie	K room	Faucet	11/23/16	<2
Warwick	Cottrell F. Hoxsie	All purpose room	Water Fountain	11/23/16	<2
Warwick	Drum Rock Early Childhood Center	Room 1	Faucet	11/28/16	<2
Warwick	Drum Rock Early Childhood Center	Foyer	Water fountain	11/28/16	<2
Warwick	E. G. Robertson	K room 14	Faucet	11/22/16	<2
Warwick	E. G. Robertson	All purpose room	Water Fountain	11/22/16	<2
Warwick	Francis	K room	Faucet	11/23/16	<2
Warwick	Francis	Nurse's office	Faucet	11/23/16	<2
Warwick	Greenwood	K rooom 8	Faucet	11/22/16	<2
Warwick	Greenwood	All purpose room	Water Fountain	11/22/16	<2
Warwick	Harold F. Scott	Room 1	Faucet	11/25/16	<2
Warwick	Harold F. Scott	Kitchen	Water Fountain	11/25/16	<2

Warwick	Holliman	K room	Faucet	11/25/16	3.6
Warwick	Holliman	Library	Water fountain	11/25/16	<2
Warwick	John Wickes	Room 23	Faucet	11/22/16	<2
Warwick	John Wickes	Room 13	Water Fountain	11/22/16	<2
Warwick	Lippitt	K room 9	Faucet	11/23/16	<2
Warwick	Lippitt	Room 22	Water Fountain	11/23/16	<2
Warwick	Norwood	K room 2	Faucet	11/25/16	<2
Warwick	Norwood	All purpose	Water fountain	11/25/16	3.7
Warwick	Oakland Beach Elementary	Pre-K	Faucet	11/23/16	<2
Warwick	Oakland Beach Elementary	Library	Water Fountain	11/23/16	<2
Warwick	Park	K room 20	Faucet	11/22/16	<2
Warwick	Park	Room 8	Water Fountain	11/22/16	<2
Warwick	Pilgrim High	Daycare	Faucet	11/25/16	3.2
Warwick	Randall Holden	K room	Faucet	11/22/16	<2
Warwick	Randall Holden	Office	Water Fountain	11/22/16	<2
Warwick	Sherman	K room	Faucet	11/23/16	<2
Warwick	Sherman	Room 12	Water Fountain	11/23/16	<2
Warwick	Career and Technical Center	Kitchen faucet near ice machine	Faucet	3/23/17	2.7
Warwick	Career and Technical Center	Adjacent to room 12	Water fountain	3/23/17	2.9
Warwick	Career and Technical Center	Adjacent to room 26	Water fountain	3/23/17	1.1
Warwick	Warwick Neck	K room 4	Faucet	11/23/16	7.3
Warwick	Warwick Neck	Office	Water Fountain	11/23/16	<2
Warwick	Veterans Jr. High	Kitchen faucet in front of refridgerators	Faucet	3/7/17	1.3
Warwick	Veterans Jr. High	B200 wing	Water Fountain	3/7/17	11
Warwick	Veterans Jr. High	Large gymansium	Water Fountain	3/7/17	10
Warwick	West Bay Collaborative - Draper	Office	Faucet	2/14/17	5.4
Warwick	West Bay Collaborative - Draper	Sink outside bathroom	Faucet	2/14/17	3.7
Warwick	West Bay Collaborative - Draper	Bubbler end of hall	Water fountain	2/14/17	4.2
Warwick	Wyman	K room 5	Faucet	11/22/16	<2
Warwick	Wyman	Science	Water Fountain	11/22/16	2.4
Westerly	Bradford Elementary	Kitchen	Faucet	2/28/17	<1
Westerly	Bradford Elementary	Across from 11	Water fountain	2/28/17	<1
Westerly	Bradford Elementary	Across from 3	Water fountain	2/28/17	<1
Westerly	Dunn's Corners	Kitchen	Faucet	3/2/17	<1
Westerly	Dunn's Corners	Cafeteria	Water fountain	3/2/17	1.3
Westerly	Dunn's Corners	Lobby	Water fountain	3/2/17	<1
Westerly	Springbrook Elementary	Kitchen	Faucet	3/1/17	<1
Westerly	Springbrook Elementary	Gym (lower)	Water fountain	3/1/17	<1

Westerly	Springbrook Elementary	Lower level (lower)	Water fountain	3/1/17	<1
Westerly	State Street	Kitchen	Faucet	3/3/17	<1
Westerly	State Street	Outside cafeteria	Water fountain	3/3/17	<1
Westerly	State Street	Outside nurse	Water fountain	3/3/17	<1
Westerly	Westerly High	Kitchen	Faucet	3/3/17	<1
Westerly	Westerly High	Babcock 2nd floor - higher fountain	Water fountain	3/3/17	<1
Westerly	Westerly High	Culinary	Water fountain	3/3/17	<1
Westerly	Westerly High	Fitness Center	Water fountain	3/3/17	<1
Westerly	Westerly High	Gym lobby	Water fountain	3/3/17	<1
Westerly	Inclusion Preschool, Babcock Hall	B101 sink	Faucet	3/3/17	<1
Westerly	Inclusion Preschool, Babcock Hall	B104 higher sink	Faucet	3/3/17	<1
Westerly	Inclusion Preschool, Babcock Hall	B107 higher sink	Faucet	3/3/17	<1
Westerly	Westerly Middle	Kitchen pot filler	Faucet	3/3/17	3.7
Westerly	Westerly Middle	Cafeteria	Water fountain	3/3/17	<1
Westerly	Westerly Middle	Gym hallway	Water fountain	3/3/17	<1
Woonsocket	Beacon Charter	Kitchen 3 bay sink	Faucet	2/15/17	<1
Woonsocket	Beacon Charter	2nd floor by elevator	Water fountain	2/15/17	2.5
Woonsocket	Beacon Charter	Café 1st floor bubbler	Water fountain	2/15/17	<1
Woonsocket	RISE Prep Mayoral Academy	Boys' bathroom - 1st floor	Faucet	1/11/17	<1
Woonsocket	RISE Prep Mayoral Academy	Kitchen Prep Sink	Faucet	1/11/17	<1
Woonsocket	RISE Prep Mayoral Academy	1st floor	Water fountain	1/11/17	<1

Appendix E: Lead 90th Percentile Results

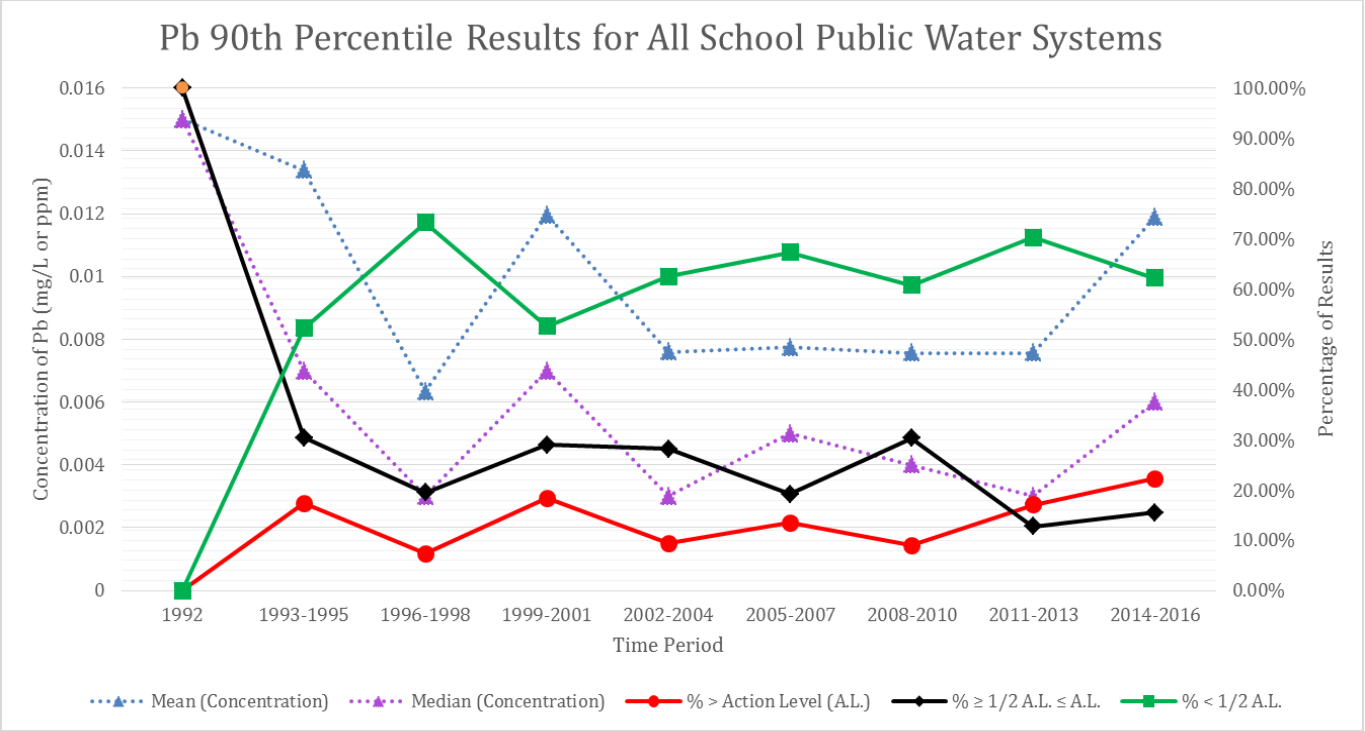
Figure 1: Lead 90th Percentile Results, All Public Water Systems, Rhode Island, 1992-2016



	1992	1993-1995	1996-1998	1999-2001	2002-2004	2005-2007	2008-2010	2011-2013	2014-2016
Mean (Concentration)	0.021886	0.01784	0.022637	0.008149	0.015438	0.014565	0.016273	0.006161	0.00594
Median (Concentration)	0.013	0.006	0.005	0.005	0.00425	0.006	0.004	0.003	0.003
% > Action Level (A.L.)	27.59%	17.79%	11.66%	7.11%	9.14%	14.18%	12.46%	9.74%	7.79%
% ≥ 1/2 A.L. ≤ A.L.	41.38%	19.37%	23.32%	27.01%	24.19%	23.76%	17.33%	11.24%	13.52%
% < 1/2 A.L.	31.03%	62.85%	65.02%	65.88%	66.67%	62.06%	70.21%	79.03%	78.69%
# of 90th Percentile Results	29	253	223	211	186	282	329	267	244
# of Different PWS	23	111	106	118	121	146	158	149	153

For all public water systems regulated under the LCR, the data from the past 24 years of monitoring has shown that the average 90th percentile lead concentration has decreased. The majority of the 90th percentile lead results reported to RIDOH have been less than half of the action level. Only a small number of 90th percentile lead results reported to RIDOH were above the action level.

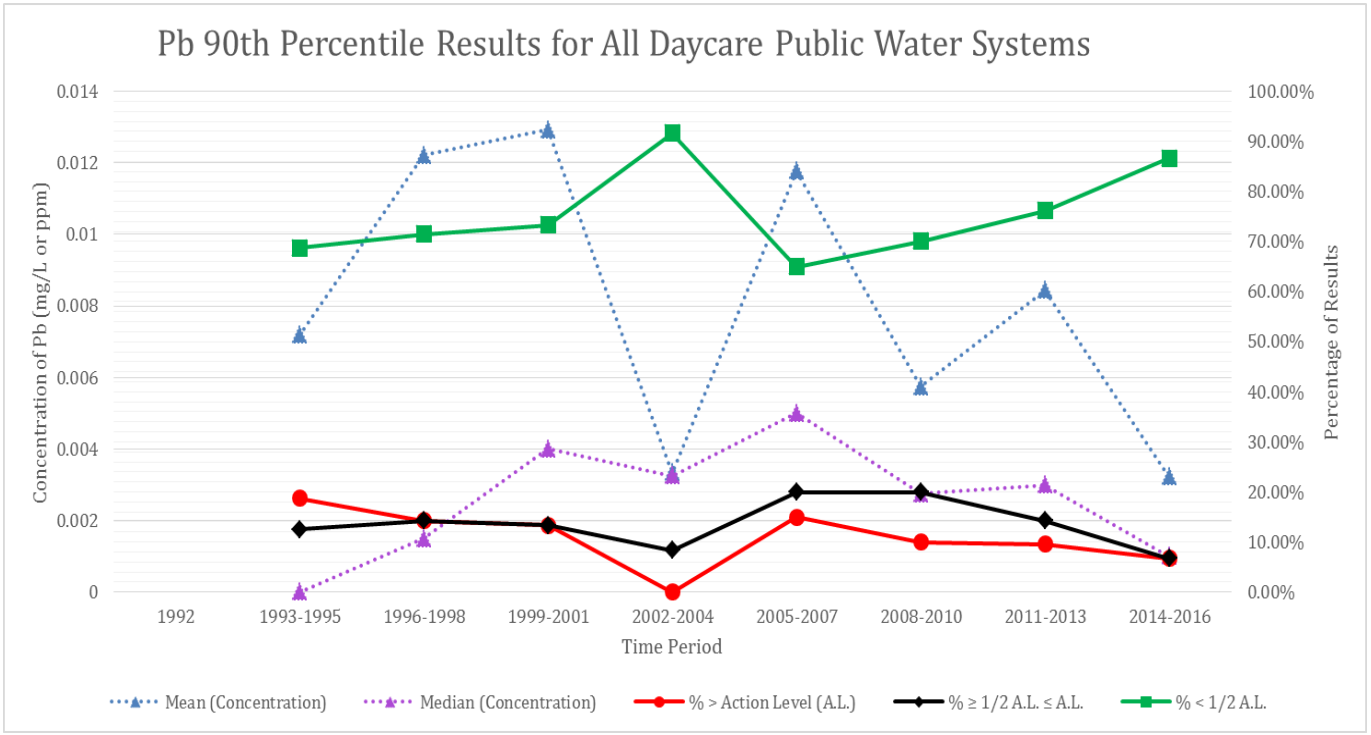
Figure 2: Lead 90th Percentile Results, All School Public Water Systems, Rhode Island, 1992-2016



	1992	1993-1995	1996-1998	1999-2001	2002-2004	2005-2007	2008-2010	2011-2013	2014-2016
Mean (Concentration)	0.015	0.013383	0.006341	0.011961	0.007594	0.007748	0.007568	0.007562	0.011871
Median (Concentration)	0.015	0.007	0.003	0.007	0.003	0.005	0.004	0.003	0.006
% > Action Level (A.L.)	0.00%	17.39%	7.32%	18.42%	9.38%	13.46%	8.93%	17.02%	22.22%
% ≥ 1/2 A.L. ≤ A.L.	100%	30.43%	19.51%	28.95%	28.13%	19.23%	30.36%	12.77%	15.56%
% < 1/2 A.L.	0.00%	52.17%	73.17%	52.63%	62.50%	67.31%	60.71%	70.21%	62.22%
# of 90th Percentile Results	1	46	41	38	32	52	56	47	45
# of Different PWS	1	20	19	20	20	25	27	23	25

For schools that are licensed public water systems, the average 90th percentile lead levels have decreased in the past 24 years and had remained consistent from 2002-2013. In the most recent five years, the average 90th percentile lead level has increased, and is likely due to aging treatment systems and lack of maintenance. However, it is important to note that the majority of 90th percentile lead levels reported to RIDOH remain below the EPA action level.

Figure 3: Lead 90th Percentile Results, All Childcare Public Water Systems, Rhode Island, 1992-2016



	1992	1993-1995	1996-1998	1999-2001	2002-2004	2005-2007	2008-2010	2011-2013	2014-2016
Mean (Concentration)		0.007188	0.012214	0.012933	0.003333	0.011775	0.00575	0.008443	0.003227
Median (Concentration)		0	0.0015	0.004	0.00325	0.005	0.00275	0.003	0.001
% > Action Level (A.L.)		18.75%	14.29%	13.33%	0.00%	15.00%	10.00%	9.52%	6.67%
% ≥ 1/2 A.L. ≤ A.L.		12.50%	14.29%	13.33%	8.33%	20.00%	20.00%	14.29%	6.67%
% < 1/2 A.L.		68.75%	71.43%	73.33%	91.67%	65.00%	70.00%	76.19%	86.67%
# of 90th Percentile Results		16	14	15	12	20	30	21	15
# of Different PWS		7	7	9	8	11	14	13	11

For child care centers that are licensed as public water systems, data reported to RIDOH has shown that the average 90th percentile level of lead has decreased overall at the taps. The majority of 90th percentile lead levels reported to RIDOH have been less than half of the action level, and the percentage of 90th percentile lead levels reported to RIDOH less than half of the action level has increased. Similarly, the percentage of 90th percentile lead levels reported higher than the action level has decreased.

Glossary

Action level: The concentration of lead or copper in water specified by the federal government which determines, in some cases, the treatment requirements that a water system is required to complete. For lead, the EPA action level is 15 parts per billion.

Aerator: The screw-on tip of a water faucet that determines the flow rate; can be used for household water conservation measures.

Bilateral compliance agreement: An agreement between RIDOH and a water system that details a plan to return the water system to compliance, describes mutually agreeable actions, and outlines penalties for failure to perform actions

Community water system: Water system that serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents

Corrosion: Dissolving and eroding of metal caused by a chemical reaction (between water and water pipes)

Corrosion inhibitor: Substance that slows the rate of corrosion of metal plumbing materials by water (especially lead and copper materials) by forming a protective film on interior surfaces

Corrosion potential: Potential for galvanic corrosion to occur; dependent on the metals involved and the chemical composition of the water

Corrosivity: Quantitative indication of the corrosiveness of a water supply; described by the water's pH, alkalinity, hardness, temperature, total dissolved solids, dissolved oxygen concentration, and the Langelier Index

First-draw sample: Sample of tap water that has been collected prior to the use of any household water within the last six hours

Flushed sample: Sample of tap water collected after the tap has been allowed to run at its maximum flow rate for at least one minute

Flushing: Method used to clean water distribution lines

Galvanic corrosion: Chemical reaction that releases metals into the water when pipes made of different types of metal are connected and exposed to water; rate of corrosion and which metal is released depends on the chemical properties of the water and the piping; grounding of electrical components of homes and buildings to water piping greatly increases the corrosion rate

Lead: metal that is hazardous to health if breathed or swallowed; use in gasoline, paints, and plumbing compounds has been restricted or eliminated by federal laws and regulations

Lead and Copper Rule (LCR): enacted in June 1991; set action limits for lead and copper in drinking water; requires public water systems to monitor a fixed number of customers throughout their distribution systems; public schools and licensed child care facilities served by municipal water systems are not subject to LCR monitoring and treatment requirements

Lead Contamination Control Act: Authorizes the CDC to initiate efforts to eliminate childhood lead poisoning in the United States; led to creation of the CDC Childhood Lead Poisoning Prevention Program

Lead-free plumbing: Defined by the Safe Drinking Water Act as solder and flux that does not contain more than 0.2% lead and pipes/pipe fittings/well pumps may not contain more than 8% lead; outlet plumbing fittings and fixtures must meet standards established under the lead leaching requirements of the Safe Drinking Water Act

Lead-free water sample: First draw sample with a lead level of less than five parts per billion

Lead-safe water sample: First draw sample with a lead level of 5-14 parts per billion or a flushed sample with a lead level of lower than 15 parts per billion

Lead-safe bottled water: No lead pipes are used in the bottling of water; lead level must be lower than five parts per billion

Maximum contaminant level (MCL): Highest level of a contaminant that is allowed in drinking water; set as low as is feasible using the best available treatment technology and taking cost into consideration

Method Detection Level (MDL): Lowest concentration of a substance that can be measured; must be no higher than five parts per billion to be in compliance with state regulations

Micrograms per liter: One microgram of a substance dissolved in one liter of water; unit of measure is parts per billion (ppb)

Milligrams per liter (mg/L): Measure of concentration of a dissolved substance; unit of measure is parts per million

National Primary Drinking Water Regulations: Legally enforceable standards that apply to public water systems; protects drinking water quality by limiting the levels of specific harmful contaminants that are known or anticipated to occur in public water supplies

Non-transient, non-community water system: Public water system that supplies water to 25 or more of the same people for at least six months per year in a place other than their residences; examples include schools, factories, office buildings, or hospitals that have their own water systems

Non-public school: Schools that are not part of a Local Education Agencies

Plumbing profile: Created by answering a series of questions about a facility's plumbing to assess factors that can contribute to lead contamination and the extent to which contamination might occur

Potable water: Water that is safe and satisfactory for drinking and cooking

Public water system: Water system that has 15 or more service connections and is in operation at least 60 days per year or any water system serving 25 or more people daily at least 60 days per year

Safe Drinking Water Act (SWDA): Passed by Congress in 1974; established a cooperative program among local, state and federal agencies to insure safe drinking water for consumers; public schools and licensed child care facilities on municipal water systems are not subject to SDWA monitoring and treatment requirements

Service line: Pipeline extending from the water main to the building served or to the consumer's system; usually owned by the property owner.

Service or water main: Pipeline distributing water from the well, treatment plant, or other primary source throughout the water supply system

Transient Non-Community Water System (Transient Water System): Non-community water system that does not serve 25 of the same non-resident people per day for more than six months a year

Water supplier: Person who owns or operates a public water system

Water supply system: Collection, treatment, storage, and distribution of potable water from source to consumer