PARS Environmental Inc.

# LEAD DRINKING WATER TESTING SAMPLING PLAN

**PREPARED FOR:** 

CHESTERFIELD TOWNSHIP SCHOOL DISTRICT 30 SADDLE WAY CHESTERFIELD, NEW JERSEY 08515

**PREPARED BY:** 

PARS ENVIRONMENTAL, INC. 500 HORIZON DRIVE SUITE 540 ROBBINSVILLE, NEW JERSEY 08691

PARS PROJECT NO.: 1190-01

**MARCH 2017** 

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#### **1. INTRODUCTION**

This Lead Drinking Water Testing Sampling Plan (Sampling Plan) was developed by the Chesterfield Township School Ditrcit (District), based on guidance developed by the New Jersey Department of Environmental Protection (NJDEP) and the United States Environmental Protection Agency (USEPA), to establish a plan for sampling lead at drinking water outlets used for consumption or food preparation in every school within the District (See Attachment A for full school listing). The data collected through the execution of this Sampling Plan will determine if immediate remedial measures are necessary and will assist in the prioritization of future water testing for lead in accordance with this Sampling Plan.

This Sampling Plan is based on the USEPA publication, "The 3Ts for Reducing Lead in Drinking Water in Schools" and NJDEP guidance.

The District has also developed a Quality Assurance Project Plan (QAPP) for the sampling program, which is available under a separate cover.

#### 2. OBJECTIVE

The 1988 Lead Contamination Control Act (LCCA) is aimed at identifying and reducing lead (Pb) in drinking water in schools and childcare facilities. In response, the USEPA prepared guidance documents to assist school districts in meeting the requirements of the LCCA. The guidance documents were used as a resource in developing this Sampling Plan.

It should be noted, for the purpose of determining immediate remedial measures (i.e. taking drinking water outlets out of service and notifying parents/guardians of results), the District is required to utilize the lead action level established in the SDWA rules by the USEPA at 40 CFR 141.80 for lead in drinking water. At the time of development of this Sampling Plan, the lead action level is 15  $\mu$ g/L, which is more stringent than the guidance provided by USEPA in their Lead in Schools Guidance which recommends action be taken at drinking water outlets greater than 20  $\mu$ g/L. Schools in New Jersey that are served by their own well (not public water), which are regulated pursuant to the Federal and New Jersey SDWA, must adhere to the 15  $\mu$ g/L value for determining compliance.

#### **3. SAMPLING PROJECT COORDINATION**

Testing for lead in schools requires a coordinated effort especially when multiple schools are to be included in the testing effort. Designated personnel and set protocols are essential to ensuring a coordinated effort.

#### 3.1 School District Program Manager (Program Manager)

**Chesterfield Township School District Program Manager:** Harold O'Neil, Jr., Business Administrator P: 609-298-6900 x1223



The School District Program Manager (Program Manager) is the overall authority in the execution of the District's lead sampling project. He/she is responsible for the initial notification to the District of the testing program, obtaining funds for testing, assigning the Sampling Project Manager, requesting/enlisting the assistance from other District departments if needed, approving the District's QAPP(s), approving the Final Report for each school and coordinating with other District officials to make the results of the testing available to the public.

#### **3.2 Sampling Project Manager (Project Manager)**

#### **Chesterfield Township School District Sampling Project Manager:**

Robert Carter, Supervisor of Buildings & Grounds P: 609-298-6900 x1208

The Sampling Plan Project Manager (Project Manager) is responsible for overseeing the execution of lead sampling at each of the District's schools. This involves the prioritization of schools to be sampled, and adherence with the District's Sampling Plan and QAPP. He/she serves as the liaison between the District, State agencies, local Health Departments, laboratories and public water systems (if applicable). He/she reports to the Program Manager.

#### **Project Manager Responsibilities**

- Prepare the District's Specific Quality Assurance Project Plan (QAPP) and Sampling Plan;
- Manage the Sampling Plan and QAPP;
- Oversight of Individual School Project Officers (Project Officers) to ensure that they adhere to the Sampling Plan procedures and the QAPP;
- Purchase of equipment needed for district lead sampling;
- Coordinate with New Jersey laboratories certified for lead testing in drinking water;
- Coordinate with Project Officers to establish sampling schedules;
- > Ensure properly signed QAPPs are in place prior to initiation of sampling;
- Verify that officials from each school are aware when sampling is scheduled and the expected duration;
- Review of the School Field Sampling Summary Reports prepared by Project Officers;
- Review of Laboratory Data Reports (LDR) from Laboratory Managers;
- Review of Final Project Reports prepared by Project Officers;
- Identify limitations in the use of any laboratory data due to information provided in the accompanying School Field Sampling Summary Report;
- Maintain the original signed QAPP(s);
- > Maintain documents, reports and records listed in QAPP, including:
  - Laboratory Data Reports (LDR)
  - Copy of Field Sampling Summary Report with copies of field logbooks,
  - Field Walk-Through reports including Attachments B, C, D E and F of this Sampling Plan,
  - Chain of custody forms and flush tags.
  - o Copy of Final Project Report



- > Maintenance of other relevant records, such as:
  - o Purchase orders for analytical costs (copy).
  - Agreement with laboratory to sample, analyze, and report with details for payment
  - Receipts (originals or copies)

#### 3.2 Individual School Sampling Project Officers (Project Officers)

An Individual School Sampling Project Officer (Project Officer) is assigned for each school. A Project Officer should be someone who is familiar with the school building layout and plumbing system. See District's QAPP for a list of the Project Officers.

#### **Project Officer Responsibilities**

- General project oversight for assigned school(s).
- Generate field log book for each assigned school. Document field activities including any changes to procedures outlined in the Sampling Plan or QAPP.
- Ensure proper completion of the Plumbing Profile Form for assigned school(s) See Attachment B.
- Oversight of completion of the following reports found in the Sampling Plan which require sign-off by Project Officer:
  - Water Outlet Inventory (Attachment C)
  - Filter Inventory (Attachment D)
  - Flushing Log (Attachment E)
  - Pre Sampling Water Use Certification (Attachment F).
- Prepare labels for outlets to be sampled.
- > Prepare for Walk-Through including acquisition of School Floor Plan.
- Attend school Walk-Through.
- Ensure proper completion of Walk-Through documentation including identification of outlets on Floor Plan, and Sampling Location Inventory with coding according to the Sampling Plan (Attachment C).
- Supervision of field activities such as Walk- Through, flushing (if required), locking school prior to sampling, and sample collection.
- ▶ Identify low use water outlets requiring flushing and attach flush tag (Attachment G).
- Ensure that Field Sampling Team has all relevant sampling supplies including sampling bottles, labels, proper reagent water and chain of custody forms prior to collection of samples.
- Ensure that all water outlets to be sampled prior to sampling event are labeled.
- > Ensure that all low use outlets identified for sampling had been flushed.
- > Remove flush tags from outlet once sampling is completed.
- Responsible for ensuring water remains motionless for a minimum of eight hours (last to leave the school) prior to sampling event by following procedures in Section 8.
- Verify that the Sampling Plan was followed prior to initiating sampling by completing the Pre-Sampling Water Use Certification (Attachment F).
- Provide supervision of sampling event.



- Document issues during sampling event in field log book.
- Prepare Field Walk-Through Report, School Field Sampling Summary Report and Final Project Report for assigned school(s).
- Maintain field log books for each school.
- Prepare samples for shipment and delivery to laboratory per certified laboratory instructions.
- Ensure that samples are delivered to laboratory within the time period specified by the certified laboratory

#### **3.3 Individual School Protocols**

A separate log book and supporting documentation shall be kept for each school. The contents of the log book are to include the Attachments A through F found at the end of this plan. A field log book should include but not be limited to: a material evaluation, filter log, drinking water outlet inventory, flushing log, and label identification codes.

#### 4. SCHOOL SAMPLING PRIORITY

The District developed a list of all school facilities scheduled for sampling. See Attachment A for the school sampling listing. Please note that the list may be updated based on conditions at the school, which prevent sampling from occurring or scheduling issues. Accordingly, the list should include a revision date.

Districts may need to prioritize the sampling schedule. For those cases, development of criteria is required and the criteria needs to be included in the Sampling Plan.

#### **5. PLUMBING SURVEY**

Prior to a sampling event, documentation of various aspects of each school's water system needs to be completed. This following information needs to be compiled and the attachments completed including:

#### **5.1 Plumbing Profile**

The purpose of a Plumbing Profile (Attachment B) is to identify and categorize plumbing and infrastructure in order to prioritize schools/outlets for testing, and to identify potential sources of lead (i.e. lead service lines, or lead piping or solder). The results of the Plumbing Profile determine the sampling locations and priority within the individual school facilities.

A Plumbing Profile should include all of the following:

- > Year school built and dates of any additions
- Building blue prints and floor diagrams
- Service line material;
- Material of internal plumbing, this is an important part of a plumbing profile, and whether it meets the current New Jersey "lead-free" plumbing code;



- Point-of-entry or point-of-use treatment being used;
- > All drinking water outlets including fountains that are permanently out of service;
- > All drinking water outlets including fountains that are temporarily out of service;
- All drinking water outlets including drinking water fountains that are leaking or evidence of staining and in need of repair;
- Type (make and model) and location of all drinking water fountains, including detailed description that identifies of whether they are lead-lined or if they have been involved in any recalls, (See USEPA Fact Sheet at <a href="http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=30005UPU.txt">http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=30005UPU.txt</a>);
- Locations of all drinking water outlets including fountains;
- > All plumbing repairs and replacements needed for internal plumbing;
- > All plumbing repairs and replacements conducted within the past year;
- Locations of any electrical wires grounded to water pipes

#### **5.2 Filter Inventory (If Applicable)**

A Filter Inventory (Attachment D) shall be prepared, including the following information:

- Location (school and outlet);
- ➢ Make and model;
- Installation date (last replaced);
- Replacement frequency;
- Documentation of repairs; and
- Contaminants the filter is capable of and/or NSF-certified for the removing e.g. lead and others

#### 6. PLANNING

#### 6.1 Walk – Through

A Walk-Through must be conducted by the Project Officer prior to sampling as part of the planning process. The Walk-Through must include every room (including but not limited to classrooms, offices, bathrooms, kitchens and recreational areas) in the facility. During the Walk-Through, all drinking water and food preparation outlets to be sampled will be labelled by the Project Officer on the Floor Diagram (6.2).

The Project Officer will also conduct an onsite assessment of each sample outlet to document (using Attachment C) specific characteristics of the outlet (e.g. leaking outlets; staining). During this assessment, the water should be turned on to determine the spray pattern, whether there is adequate flow to collect samples or if any odor or color differences are present and whether the cold water faucet is functioning properly. Only cold water faucets are to be sampled. For motion sensor and metered sinks, the hot water valve will be shut off on the day of sampling. All outlets in need of repair must be repaired prior to sampling or documented on the temporary out of service list in the Plumbing Profile (Attachment B).

#### 6.2 Floor Diagram

Each drinking water outlet shall be identified on the school schematic (floor diagram). The floor diagram should have the classroom numbers and the following locations labeled:

- $\blacktriangleright$  Service Line = SL
- $\succ$  Point of Entry<sup>1</sup>
- > Food preparation outlets (i.e. cafeteria, kitchen and home economics class faucets);
- Drinking Water Fountains; and
- Other drinking water outlets to be sampled (i.e. nurse's office, teacher's lounge, home economics, etc.), and any other room or outside facility used for water consumption.

The Project Officer must date and sign the floor diagram.

#### 7. SAMPLE LOCATIONS

#### 7.1 Sample Locations

The following locations shall be identified and labeled for each school:

- Kitchen outlets
- Food Preparation outlets
- Teacher Lounge outlets
- Nurse's Office outlets
- Home Economic Sink outlets
- Drinking Water Fountains Bubblers and Water Coolers
- > Outside drinking water fountains and food preparation areas
- ➢ Ice Machines
- > Other drinking water outlets used for consumption

Examples of outlets that do not need to be sampled include utility sinks, outside spigots, bathroom sinks and classroom sinks, unless any of these sinks are used routinely for consumption.

#### 7.2 Sample Location Codes

Each sampling location shall be identified by its location and type using the following coding system (Note additional codes as needed):

KC = Kitchen Outlet, Cold CT= Cafeteria Outlet PARS

<sup>&</sup>lt;sup>1</sup>Point of entry is the closest water outlet to the entrance of the service line into the school.



FP= Food Preparation Sink TL= Teacher Lounge Sink NS = Nurse's Office Sink EC = Home Economics Outlet, Cold DW= Drinking Water Bubbler WC = Water Cooler (Chiller Unit) IM = Ice Machine

#### 7.3 Sampling Location Inventory

Attachment C shall be used to develop a detailed inventory of each drinking water outlet in the school to be sampled. The inventory must be completed and signed by the Project Officer.

The Drinking Water Outlet Inventory shall include the following information:

- > All drinking water outlets in the school
- > The type, location, and sample location code of each drinking water outlet
- > If the drinking water outlet has a chiller unit
- ▶ If the drinking water outlet has an aerator/screen
- If the drinking water outlet is motion activated, in which the hot water at the outlet must be turned off prior to sampling
- ➢ If the drinking water outlet is operational
- > If the drinking water outlet has not been used frequently
- ➢ If the drinking water outlet is leaking
- ➢ If the drinking water outlet has a filter
- > The make and model of all drinking water fountains and water coolers

#### 8. SAMPLING PROCEDURES

#### 8.1 Timeline

Samples should be collected before the facility opens in the morning and before any water is used in the building. The water shall sit in the pipes unused for at least 8 hours, but no more than 48 hours, before a sample is collected.

### At no time should filters, aerators and screens be removed prior to or during the sampling event.

#### **Prior to Sampling**

- For buildings that have not been used for more than 48 hours, the District will perform systematic flushing 48 hours prior to the sampling event, as described in the USEPA's "3Ts For Reducing Lead in Drinking Water in Schools" (revised October 2006, see page 56). This flushing event and locations shall be documented in a log (Attachment E).
  - The flushing log must be completed and signed by the Project Officer.

- > The Project Officer will contact the laboratory to confirm sample bottles, weatherproof labels, chain of custody forms and coolers are available and ready for the sampling event.
- Every drinking water outlet to be sampled (previously identified in Attachment C) will be labeled with a specific Sample Location Code in indelible marker on the underside of the sampling fixture in the event the District has to re-visit the sample location.
- > A communication will be sent out to all staff in schools being sampled explaining what time all staff must exit the building.
- > After this time, signs shall be posted to indicate that water should not be used and access to the building shall be restricted to ensure that water sits undisturbed for a minimum of 8 hours.
- > Turn off all irrigation and outdoor water features.

#### **Day of Sampling**

The Project Officer will use Attachment F to document when the water was last used and when sampling began.

#### 8.2 Sample Collection

#### **Sample Collection Highlights**

- > All samples shall be collected in a pre-cleaned HDPE 250mL wide mouth single use rigid sample container.
- > Identify on the Sampling Plan the outlet closest to the water service line(s) entry point to be collected first, then identify the next closest outlet as second, and move away from the water service line(s) entry point until the outlet farthest away is identified to be sampled last on the sampling plan. This will minimize the chance that a sampling location will be flushed by an upstream fixture. Sampling will begin at the outlet closest to the point of entry and continue to the furthest outlet to ensure the water remains motionless in the plumbing.

#### **Sample Collection Method**

USEPA recommends a two-step sampling process be followed for identifying lead contamination. Lead in a water sample taken from an outlet can originate from the outlet fixture (the faucet, bubbler etc.), plumbing upstream of the outlet fixture (pipe, joints, valves, fittings etc.), or it can already be in the water that is entering the facility. The two-step sampling process helps to identify the actual source(s) of lead.

In Step 1, initial samples are collected to identify the location of outlets providing water with elevated lead levels and to learn the level of the lead in the water entering the facility (i.e., at the service connection). In Step 2, follow-up flush samples are taken only from outlets identified as problem locations to determine the lead level of water that has been stagnant in upstream plumbing, but not in the outlet fixture. Sample results are then compared to determine the sources of lead contamination and to determine appropriate corrective measures.

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Schools may wish to collect both initial and follow-up samples at the same time. This is more convenient and may save time and money; however, using this approach creates a trade-off between convenience and confidence. The confidence in the sample results will decrease since flushing water through an outlet immediately after taking the initial sample could compromise the flushed locations depending on the interior plumbing of buildings. Protocols for both options are provided below. School districts can decide which option works best for their situation.

All sampling must be conducted in accordance with this Sampling Plan and the District's QAPP.

#### **Option 1-** <u>Sample Collection for First Draw and Follow-up Flush Sampling Conducted on</u> <u>Different Days</u>

- 1. For each drinking water outlet sampled, a new pair of non-colored latex or nitrile gloves shall be used. This is to minimize the potential for cross contamination of sample outlets by sampling personnel.
- 2. First draw samples (i.e. samples collected from outlets where water sat undisturbed for a minimum of 8 hours) will be collected from a cold water outlet at each location identified in 7.3 above. The sample must be collected by placing the bottle under the drinking water outlet before turning the cold water outlet on. No water should be allowed to run prior to collecting a sample. For motion-activated faucets, the hot water valve must be turned off prior to sampling.
- 3. Each sample collected will be properly identified on the sample bottle and chain of custody using the Sample Location Code previously identified by the District (as identified on the label on the outlet and on the floor diagram).
- 4. Upon receiving the testing results, the District will conduct a second sample event collecting a follow-up flush sample at any drinking water outlet with an initial result of greater than 15  $\mu$ g/L (as defined as greater than or equal to 15.5  $\mu$ g/L).
- 5. The following planning will take place prior to the follow-up sampling event:
  - a. The drinking water outlets requiring a flushed sample shall be listed on a Follow-Up Sampling form (See Attachment H.vii for example), labelled with an indelible marker, and identified on the floor diagram.
  - b. Procedure for ensuring the water remains stagnant for a minimum of 8 hours shall be followed.
- 6. The drinking water outlet will be turned on and allowed to run for 30 seconds then the water will be captured in a pre-cleaned 250 mL container. Note: If the drinking water outlet is a water cooler with a cooler unit then allow the water to run for 15 minutes prior to collecting a flushed sample in a pre-cleaned 250 mL container.
- 7. Each sample collected will be properly identified on the sample bottle and chain of custody using the Sample Location Code previously identified by the District (as identified on the label on the outlet and on the floor diagram). Additionally, the follow-Up flush samples will be identified by noting "FLUSH" after the Sample Location Code on the sample bottle and on the chain of custody (e.g. MM-2F-DW-01 and MM-2F-DW-01 FLUSH).

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#### **Option 2-** <u>Sample Collection For First Draw and Follow-up Flush Sampling Conducted on</u> <u>Same Day</u>

- 1. For each drinking water outlet sampled, a new pair of non-colored latex or nitrile gloves shall be used to collect both the first draw and flush follow-up samples. This is to minimize the potential for cross contamination of outlets by sampling personnel.
- 2. First draw samples (i.e. samples collected from outlets where water sat undisturbed for a minimum of 8 hours) will be collected from a cold water outlet at each location identified in 7.3 above. The sample must be collected by placing the bottle under the outlet before turning the cold water on. No water should be allowed to run prior to collecting a sample. For motion-activated faucets, the hot water valve must be turned off prior to sampling.
- 3. Immediately after the first draw sample is collected, the sampler will collect a follow-up flush sample.
- 4. When collecting the follow-up flush sample, the outlet will be turned on and allowed to run for 30 seconds then the water will be captured in a pre-cleaned 250 mL container.
- 5. If the drinking water outlet is a water cooler with a cooler unit, DO NOT COLLECT A FOLLOW-UP FLUSH SAMPLE UNTIL ALL FIRST DRAW SAMPLES ARE COLLECTED IN THE SCHOOL.
- 6. After all sampling is completed, return to the water coolers to collect a follow-up flush sample, again starting at the water cooler located in closest proximity to the POE and then move outward. Allow the water to run for 15 minutes, then sample the drinking water outlet utilizing a pre-cleaned 250 mL container.
- 7. Each sample collected shall be properly identified on the sample bottle and chain of custody using the Sample Location Code previously identified by the District (as identified on the label on the outlet and on the floor diagram). In addition, follow-up flush samples shall be identified by noting "FLUSH" after the Sample Location Code on the sample bottle and on the chain of custody (e.g. MM-2F-DW-01 and MM-2F-DW-01 FLUSH).

The District will perform the sampling according to **Option 1**.

#### Additional Sampling Event

Upon receiving the results of the initial and follow-up flush samples at all outlets, the District will conduct additional sampling events for the following situations: any location required to be sampled previously but was not sampled (not operational during initial sampling event), where there was a possible lab error or sample collection error, and any location that was not sampled but could help pinpoint the source of lead in a sampled outlet.

#### 8.3 New Jersey Certified Laboratories

#### Laboratory Responsibilities

Certify to the District that they have received, and will follow, the Sampling Plan and QAPP.



- Each laboratory must document that laboratory personnel have previous experience sampling for lead and have been properly trained to conduct USEPA Method 200.8 or other methods that are approved sampling methods. Approved sampling methods are USEPA methods for the analysis of lead in drinking water (USEPA Method 200.9, USEPA Method 200.5, SM3113B, ASTM3559-D) provided that the reporting limit used by the laboratory for that method is less than or equal to 2 µg/L.
- ➤ The laboratory will conduct analysis of a laboratory fortified blank (Field Blank) to assess the accuracy. The acceptance criteria for accuracy for the results will be within plus or minus 15% recovery of the known value.
- Laboratories must provide the results to the District within timeframe required under contract (14 day is average).
- > Laboratories will report in  $\mu$ g/L (ppb) and to at least three significant figures.

#### **Sampling Personnel Responsibilities**

Each sampler will be responsible for the following:

- Preparation of pre-printed waterproof labels, which will include, the sampler's name, the school name, the Sample Location Code, parameter to be analyzed (lead), date of collection and any preservation technique used;
- Preparation of a chain of custody to include the field sample information;
- Obtaining from the laboratory, prior to the sampling event, ASTM Type I reagent-grade water (RGW) to be used as Field Reagent Blanks (FRB). The sampler will transport this RGW to the school to be sampled. Before the first sample is collected the RGW collected at the Laboratory will be transferred to a sample container near the first sample location inside the school building. This FRB sample will be stored and transported in the same cooler, handled and preserved in the same manner as samples collected at that school.
- Documentation of any and all observations such as automatic sensors, odors, change in water color, low water flow, water outlet leaks (i.e. 1 second drip), irregular water spray, attached filter(s), if the screen/aerator is on/off the water outlet or if the water becomes warm/hot.
- Minimizing the potential for cross contamination of sample outlets by sampling personnel. The water will be collected from the outlet directly into each container.
- > Following all of the sampling procedures outlined in the Sampling Plan and QAPP.

#### 8.4 Sampling Results

The laboratories will provide the lead sample results to the District in electronic format within the timeframe required under the contract. A spreadsheet of all results, the analytical results report, and the chain of custody forms must be included.

Within 24 hours after the District has reviewed and verified the final laboratory results, the

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District will make the results publically available and if any results exceed the action level provide written notification to the parents/guardians of all students as well as to the Department of Education.

#### **8.5 Intermediate Remedial Measures**

Upon receiving sample results, the District will turn off all outlets with results that exceed 15  $\mu$ g/L (as defined as greater than or equal to 15.5  $\mu$ g/L). If these locations must remain on for non-drinking purposes, a "DO NOT DRINK – SAFE FOR HANDWASHING ONLY" sign will be posted (Attachment H.v).



#### Glossary

Drinking Water Outlet- an outlet that can be used for the consumption of water, such as, water fountains, water coolers, bubblers, kitchen sinks and food preparation sinks; however, classroom, bathroom, and outlets used for washing dishes are not drinking water outlets.

Action Level (AL)- The lead level established by the USEPA at 40 CFR 141.80 for lead in drinking water.

Bottled Water- includes sealed purchased water from an external company (individual Drinking water dispensers that utilize purchased water are not bottles or dispensers). required to be sampled.

First Draw Sample – a sample that is collected from outlets where water sat undisturbed for a minimum of 8 hours.

Follow-up Flush Sample - sample that is collected from outlets after they have been manually flushed.

Low-Use Outlets- outlets that are not used routinely and may sit for periods of time with minimal or no use. Examples include those outlets in a wing of a school that is temporarily closed off and are not being used, or fountains and food preparation outlets that are only used during sporting or other events.

**Out of Service Outlets**- drinking water outlets as identified on Attachment C that are not operational.

- Permanently Out of Service Outlets- outlets that are not being used and the a. District plans to decommission.
- b. Temporarily Out of Service Outlets- outlets that require repair or replacement and will be put back in service once they are repaired. For example, an outlet with a broken handle.

**Point of entry (POE)-** The point at which the service line enters the building. For the purposes of sample collection, the POE sample location is the closest water outlet to the entrance of the service line into the school.

Quality Assurance Project Plan (QAPP) Template- describes the planning, implementation, and evaluation steps that will be consistently applied by those involved in a School District's Sampling Plan. The QAPP will provide a high level of confidence in the results of this sampling and aide in meeting the overall goal of ensuring any appropriate remediation measures are quickly identified and implemented.

**Sampler-** personnel responsible for collecting the drinking water outlet samples for a

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school. The individual is required to review and understand their roles and responsibilities under the District's Quality Assurance Program Plan and be able to collect samples in accordance with the District's Sampling Plan.

**Service Line-** the pipe that carries water to the school from the public water system's main in the street.

**School Wide Systematic Flush-** system flushing is required if the school has been dormant for greater than 48 hours (holiday or seasonal break). A Flushing Log (Attachment E) needs to be completed for each school flushed.

**Water Cooler-** any mechanical device affixed to drinking water supply plumbing that actively cools water for human consumption. The reservoir can consist of a small tank or a pipe coil.



#### **Attachment A - List of Chesterfield Township Schools**

#### **Priority for Sampling**

SCHOOL NAME	DATE OF SAMPLING	CERTIFIED LABORATORY	NOTES
Chesterfield Elementary School	2/21/17	EMSL	
		1	

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# Attachment B – Plumbing Profile

Note: Complete for each school. For additional information see the USEPA publication, "The 3Ts for Reducing Lead in Drinking Water in Schools"

School Grade Levels: Pre K-6	NJ 08515	Self- V Care h. Date: March 23, 2017
Name of School: <u>Chesterfield Elementary School</u>	Address: <u>30 Saddle Way, Chesterfield, NJ 0851</u>	Individual school project officer Signature:

Questions	Answers	
Background Information		
1. What year was the original building constructed?		
Were any buildings or additions added to the original		
facility?	2011	
2. If the building was constructed or repaired after 1986,		
was lead-free plumbing and solder utilized?		
What type of solder was used?		
Document all locations where lead solder was used.	A Z	
3. Where are the most recent plumbing repairs and	Location: Dor	Location: Donestic Pup Description: WATER Lide
replacements?	, S	our Geplacenen ?
4. With what materials is the service connection (the pipe	Material: 2	BRASS & CODER
that carries water to the school from the public water		
system's main in the street) made?	Location:	3216
Where is the Service Line located? (This is the POE		

Version 1.1 July 21, 2016 (NJDEP)

location.)

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Questions	Answers	
5. Is there point of entry (POE) or point of use (POU)	X / N	
treatment in use?	Type:	Location:
6. Are there tanks in your plumbing system (pressure tanks, gravity storage tanks)?	N/ X	
7. Does the school have a filter maintenance and operation	Vec Chance	Every 6 MONTHS ON
program?	100	lachine (auly Filter in
If so, who is responsible for this program?		School)
What is the process for adding filters?		
8. Have accessible screens or aerators on outlets that	× /N/	
provide drinking water been cleaned?		
Does the school have a screen or aerator maintenance	02	
program?	-	
9. Have there been any complaints about bad (metallic)	$\langle X \rangle$	
taste?		
Note location(s).	Location:	
10. Review records and consult with the public water		
supplier to determine whether any water samples have been		
taken in the building for any contaminants. If so, identify:	_	
<ul> <li>Name of contaminant(s)</li> </ul>		
Concentrations found	¥	
pH level	1 . /	
Is testing done regularly at the building?		

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Questions	Answers
<ol> <li>Other plumbing background questions include:</li> <li>Are blueprints of the building available?</li> <li>Are there known plumbing "dead-ends", low use areas, existing leaks or other "problem areas"?</li> </ol>	SS No
Are renovations planned for any of the plumbing system?	02
Walk-Through These questions should be addressed during the walk-through of the facil	Walk-Through These questions should be addressed during the walk-through of the facility, while Attachment C- Dinking Water Outlet Inventory is being completed.
<ol> <li>Confirm the material of Service Line visually.</li> <li>Confirm the presence of POF or POU treatment.</li> </ol>	
3. What are the potable water pipes made of in your facility?	
Lead     Plastic	
Galvanized Metal	
Cast Iron     Copper	
Other	
Note the water flow through the building and the areas that receive water first and which areas receive water last.	
4. Are electrical wires grounded to Water Pipes?	X / N
Note location(s).	coation:

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QuestionsAnsv5. Are brass fittings, faucets, or valves used in your drinkingComp5. Are brass fittings, faucets, or valves used in your drinkingCompNote that most faucets are brass on the inside.Document the locations of any brass water outlet to beSampled.6. Locate all drinking water outlets (i.e. water coolers,Comp	Answers Complete in "Brass" Column in Attachment C- Water Outlet Inventory.
e inking	plete in "Brass" Column in Attachment C- Water Outlet Inventory.
Φ	
0	
۵)	
	Complete in Attachment C-Water Outlet Inventory.
bubblers, ice machines, kitchen/ food prep sinks, etc.) in the	
facility.	
7. Have the brands and models of the water coolers in the $(\mathcal{V})$ /	Z
school been compared to the list of recalled water coolers in	
the Toolkit?	
Recalled Drinking Water Fountains	
Make and Model Type	
8. Have signs of corrosion, such as frequent leaks, rust- Comp	Complete in "Signs of Corrosion" column in Attachment C- Drinking
colored water, or stained fixtures, dishes, or laundry been Water	Water Outlet Inventory.
detected?	
Note the locations of water outlets.	

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Questions	Answers	
9. Are there any outlets that are not operational and	X / N	
<b>~</b> :	Complete "Operational Column" in Attachment C- Drinking Water Outlet	
	inventory.	
	Type/ Location	Description
Temporarily		

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		12017								ERPB2-8C	ERPB2-8C										-		
		2/21		Vale:						Elkay	Elkay												
J 08515		Date Completed:		Childen	Z	z	z	z	N	¥	Y	z	z	z	z	z	z	Z.	z.	z	z	z	z
Address: 30 Saddle Way, Chesterfield, NJ 08515		ä		Manual Manual	z	z	z	z	z	z	z	Z	z	z	z	z	z	z	N	z	z	z	z
30 Saddle Way,	None			Abilita Saturi XXX	Y	7	Y	¥	~	¥	¥	¥	Y	~	Y	Y	7	Y	Y	¥	¥	7	Y
Address:	Renovations/Additions: None	3		Promise Promise Distriction	Х	Y	Y	¥	٨	¥	Y	Y	Y	Y	Y	7	7	×	Y	Y	7	۲	*
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	Year School Constructed:			apenunella Am	~	¥	Y	Y	¥	¥	Y	Y	Y	*	Y	Y	۲	٨	Y	Y	Y	۲	Y
mentary School	Year Schoo	Name/Signature		Cotte	SB	TF	SB	SB	SB	WCI	WC2	SB											
Chesterfield Ele	Pre-K - 6	oject Manager		li Andrea	B220	B101	B103	B108	B109	HB112	HB112	B116	B115	B118	B117	B122	B123	B221	B222	B223	B224	B226	B227
Name of School: Chesterfield Elementary School	Grade Levels: Pre-K - 6	Individual School Project Manager Name/Signature:		8	jı,	s	ír.	í,	[J.c	μ,	į.,	ίĿ	ц.	Ŀ.	μ,	Ľ.	jir,	ia.	يتا	į2	Ϋ́	12-	ŝż.,
				ÊIJ	I	2	£	4	5	6	7	æ	6	10	-	12	13	14	15	16	17	8	6ĭ

Attachment C - Drinking Water Outlet Inventory (Complete for each school)

Attachment C - Drinking Water Outlet Inventory (Complete for each school)

Name of School: Chesterfield Elementary School

Address: 30 Saddle Way, Chesterfield, NJ 08515

Year School Constructed: Grade Levels: Pre-K - 6

Individual School Project Manager Name/Signature:

C.H. 2011

Renovations/Additions: None

21/2017 3 Date Completed:

	L D D D	Livenbar	Calo	da manaila 17 sy	Constant Constants (YND)	NUN UNI	UXX SNIP PRESID	Anna Sunda	11			- <b>B</b>	ġ
39	s	NURSE	NS2	Y	z.	Z	Y	×	z	z			
40	Ľ4	A260	SB	Y	z.	z	Y	*	z	z			
41	Ŀ	HCAF	wc1	¥	z	Y	¥	Y	z	Y	Elkay	ERPB2-8C	
42	Ľ.	HCAF	WC2	х	z	Y	Y	Y	z	γ	Elkay	ERPB2-8C	
43	s	B252	ΤĘ	¥	z	z	Y	7	z	z			
44	s	KITCHEN	MI	¥	z	Å	×	z	z	N			
45	s	KITCHEN	FP1	Y	z	Z	Y	¥	z	z			
46	S	KITCHEN	FP2	Y	Z	N	٨	¥	z	z			
47	s	KITCHEN	FP3	Y	N	N	¥	Y	Z	z			
48	s	KITCHEN	£d:4	Y	z	Z.	*	Ŷ	z	N			
49	s	KITCHEN	FP5	Å	z	N	۲	γ	z	z			
50	s	KITCHEN	5P6	Y	Z	N	Y	Y	z	N			
51	F	B246	SB	¥	z	Z.	Y	Y	z	z			
52	F	B247	SB	Y	z	Z	Ŷ	٨	z	z			
53	s	B303	TF	Y	z	N	Y	Y	z	z			
54	ja,	HB317	MCI	Y	z	Y	Y	Y	N	Y	Elkay	ERPB2-8C	
55	<u>ند</u>	HB317	WC2	Y	z	٨	γ	Υ	z	Y	Elkay	ERPB2-8C	
[ <u>]] Number out</u> [2] Document if	[4] Number outlets starting at the closest outlet to the Point of Entry [PDE]. [2] Document if permanently or temporarily out of service on the Attachment B- Plumbine Profile	closest outlet to mporarily out of	the Point of Ent service on the /	try (POE). Attachment 8- P	fumbing Profile								

[31 Signs of corrosion detected, such as but not limited to frequent leaks, rust-colored water, or stained fixtures, dishes, or laundry. [4] Document on Attachment D. Filter Inventory.

121/2017 ERPB2-8C ERPB2-8C ERPB2-8C ERPB2-8C 3 Elkay Elkay Elkay Elkay Date Completed: z z × ≻ z Z z Z z  $\mathbf{Z}$ z  $\succ$ >z z z z  $\mathbf{z}$ Address: 30 Saddle Way, Chesterfield, NJ 08515 z z Z z Z Z z z z Z z z z z Z. z Z z ≻ ≻ ×  $\succ$ ≻ ≻ γ γ ≻ ¥  $\succ$ > ≻ ≻  $\succ$ ≻ ≻  $\succ$ ≻ Renovations/Additions: None ( in the ≻ >-У  $\succ$ ≻ γ ≻  $\sim$  $\succ$ ≻ ≻ ≻ ≻ × ≻ ×  $\succ$ ≻ ≻ l Ø z z ≻ Z ≻ z  $\mathbf{z}$ Z z z z ≻ ≻ z  $\mathbf{Z}$ Z z  $\mathbf{Z}$  $\mathbf{Z}$ 18 ( IS 2011  $\mathbf{z}$ z Z.  $\mathbf{Z}$  $\mathbf{z}$ Z z  $\mathbf{Z}$ z z  $\boldsymbol{Z}$ Z. z Z. z Z z z **Z**. Year School Constructed: × ≻ ≻ > ≻ >γ ≻  $\succ$ ≻ ≻ ≻ > ≻ ≻ ≻ ≻ ≻  $\geq$ individual School Project Manager Name/Signature: Name of School: Chesterfield Elementary School WCI WC2 WCI SB SB WC2 SB SB SBSB SB SB SB41 ΤF NSI Ŧ SB ΒF HB223 HB223 HGYM НGYM NURSE NURSE NURSE B228 B230 B234 B236 B235 B242 B244 B243 B245 A203 A 205 Grade Levels: Pre-K - 6 A201 <u>ب</u> (تے <u>بن</u> μ ω, μ. ۲., щ щ <u>ا</u>ید щ <u>ات.</u> <u>ات</u> s ŝ ŝ s \$ íł. 20 21 22 23 24 25 26 27 29 30 28 32 31 33 34 35 36 33 38

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Attachment C - Drinking Water Outlet Inventory (Complete for each school)



#### **Attachment D - Filter Inventory**

(Complete for each school)

Name of School: <u>Chesterfield Elementary School</u> Grade Levels: <u>Pre-K-6</u>

Address: <u>30 Saddle Way, Chesterfield, NJ 08515</u>

Individual School Project Officer Signature: \_\_\_\_\_\_ Date: \_2/21/2017

Sample Location / Code	Brand	Type (Make & Model)	Date Installed or Replaced	Replacement Frequency	NSF Certified for Lead Reduction (Y/N)
CES-1-KITCHEN-IM-P	OPTI- PURE	CTOS-10	12/2016	6 Months	Y
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#### Attachment E – Flushing Log

(Complete for each school as applicable)

Name of School: CHESTERFIELD ELEMENTARY SCHOOL

Address: 30 SADDLEWAY CHESTERFIELD NEW JERSEY 08515

Grade Levels: PRE-K -6

Individual School Project Officer Signature:

6 Date: 2/20/17

Sample Location Description	Sample Location	Date	Time	Duration of Flushing	Reason for Flushing
Room B220	CES-1-B220-	2/20/17	320PM	5MINS	LEAD
	SB-P			/	TEST
Room B101	CES-L-B101-	2/20/17	315PM	5MINS	LEAD
	TF-P				TEST
Room B103	CES-L-B103-	2/20/17	315PM	5MINS	LEAD
	SB-P	0/00/47	2000014		TEST
Room B108	CES-L-B108- SB-P	2/20/17	309PM	5MINS	LEAD TEST
	CES-L-B109-	2/20/17	309PM	5MINS	LEAD
Room B109	SB-P		5031 W	JIMINO	TEST
	CES-L-	2/20/17	253PM	15MINS	LEAD
Hallway by B112	HB112-WC1-				TEST
	Р	1			
	CES-L-	2/20/17	253PM	15MINS	LEAD
Hallway by B112	HB112-WC2-				TEST
	Р				
Room B116	CES-L-B116-	2/20/17	304PM	5MINS	LEAD
	SB-P				TEST
Room B115	CES-L-B115-	2/20/17	304PM	5MINS	LEAD
· · · · · · · · · · · · · · · · · · ·	SB-P CES-L-B118-	2/20/17	250014	EMINIC	TEST
Room B118	SB-P	2/20/17	259PM	5MINS	LEAD TEST
	CES-L-B117-	2/20/17	254PM	5MINS	LEAD
Room B117	SB-P	2/20/17	2041 101	SIMILIAO	TEST
D D400	CES-L-B122-	2/20/17	253PM	5MINS	LEAD
Room B122	SB-P				TEST
Room B123	CES-L-B123-	2/20/17	253PM	5MINS	LEAD
	SB-P				TEST
Room B221	CES-1-B221-	2/20/17	245PM	5MINS	LEAD
	SB-P				TEST
Room B222	CES-1-B222-	2/20/17	240PM	5MINS	LEAD
	SB-P				TEST



Room B223	CES-1-B223- SB-P	2/20/17	240PM	5MINS	LEAD TEST
Room B224	CES-1-B224-	2/20/17	234PM	5MINS	LEAD
Room B226	SB-P           CES-1-B226-	2/20/17	228PM	5MINS	LEAD
	SB-P CES-1-B227-	2/20/17	228PM	5MINS	LEAD
Room B227	SB-P				TEST
Room B228	CES-1-B228- SB-P	2/20/17	228PM	5MINS	LEAD TEST
Room B229	CES-1-B229- SB-P	2/20/17		- /	REMOVED
Room B230	CES-1-B230- SB-P	2/20/17	223PM	5MINŞ	LEAD TEST
Hallway by B223	CES-1- HB223-WC1- P	2/20/17	221PM	15MINS	LEAD TEST
Hallway by B223	CES-1- HB223-WC2- P	2/20/17	221PM	15MINS	LEAD TEST
Room B234	CES-1-B234- SB-P	2/20/17	221PM	5MINS	LEAD TEST
Room B236	CES-1-B236- SB-P	2/20/17	217PM	5MINS	LEAD TEST
Room B235	CES-1-B235- SB-P	2/20/17	217PM	5MINS	LEAD TEST
Room B242	CES-1-B242- SB-P	2/20/17	212PM	5MINS	LEAD TEST
Room B244	CES-1-B244- SB-P	2/20/17	205PM	5MINS	LEAD TEST
Room B243	CES-1-B243- SB-P	2/20/17	212PM	5MINS	LEAD TEST
Room B245	CES-1-B245- SB-P	2/20/17	159PM	5MINS	LEAD TEST
Hallwaý by Gym	CES-1- HGYM- WC1-P	2/20/17	157PM	15MINS	LEAD TEST
Hallway by Gym	CES-1- HGYM- WC2-P	2/20/17	157PM	15MINS	LEAD TEST
Room A203	CES-1-A203- TF-P	2/20/17	151PM	5MINS	LEAD TEST
Room A205	CES-1-A205- TF-P	2/20/17	151PM	5MINS	LEAD TEST

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Room A201	CES-1-A201- TF-P	2/20/17	145PM	5MINS	LEAD TEST
Nurse	CES-1- NURSE-NS1- P	2/20/17	144PM	5MINS	LEAD TEST
Nurse	CES-1- NURSE-SB-P	2/20/17	144PM	5MINS	LEAD TEST
Nurse	CES-1- NURSE-BF-P	2/20/17	144PM	5MINS	LEAD TEST
Nurse	CES-1- NURSE-NS2- P	2/20/17	144PM	5MINS	LEAD TEST
Room A260	CES-1-A260- SB-P	2/20/17	138PM	5MINS	LEAD TEST
Hallway by Cafeteria	CES-1- HCAF-WC1- P	2/20/17	137PM	15MINS	LEAD TEST
Hallway by Cafeteria	CES-1- HCAF-WC2- P	2/20/17	137PM	15MINS	LEAD TEST
Room B252	CES-1-B252- TF-P	2/20/17	/ 135PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- IM-P	2/20/17	130PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- FP1-P	2/20/17	130PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- ⁄FP2-P	2/20/17	130PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- FP3-P	2/20/17	130PM	5MINS	LEAD TEST
Kitćhen	CES-1- KITCHEN- FP4-P	2/20/17	130PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- FP5-P	2/20/17	130PM	5MINS	LEAD TEST
Kitchen	CES-1- KITCHEN- FP6-P	2/20/17	130PM	5MINS	LEAD TEST
Room B246	CES-1-B246-	2/20/17	124PM	5MINS	LEAD-T



#### LEAD IN DRINKING WATER SAMPLING PLAN CHESTERFIELD ELEMENTARY SCHOOL FEBRUARY 2017

	SB-P				
Room B247	CES-1-B247- SB-P	2/20/17	124PM	5MINS	LEAD TEST
Room B303	CES-U-B303- TF-P	2/20/17	108PM	5MINS	LEAD TEST
Hallway by B317	CES-U- HB317-WC1- P	2/20/17	108PM	15MINS	LEAD TEST
Hallway by B317	CES-U- HB317-WC2- P	2/20/17	108PM	15MINS	LEAD TEST

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## Attachment F - Pre - Sampling Water Use Certification (Complete for each school)

TO BE COMPLETED BY	THE CHESTERFIELD TOWNS REPRESENTATIVE:	HIP SCHOOL DISTRICT
School Name:	Sample collection address:	
<u>Chesterfield Elementary</u> <u>School</u>	<u>30 Saddle Way, Chesterfield,</u> <u>NJ 08515</u>	
		1
Water was last used:	Time: 3:20pm	Date: 2/20/17
Sample commencement:	Time: 5:30am	Date: 2/21/17
I have read the Chesterfield To Plan and Quality Assurance Pr accordance with these plans.	wnship School District Lead Di oject Plan and I am certifying	rinking Water Testing Sampling that samples were collected in <u>3/23/2017</u> Date



#### Attachment H – Sampling Toolkit H.iv: Sampling Event Checklist

To be completed the day of sampling

Before Beginning Sampling:

- ➢ Review and Sign QAPP.
- Review School packet prior to sampling- including floor plan with sample locations, outlet inventory including all outlets to be sampled, filter inventory including which water coolers & drinking water fountains have filters, and if applicable pre-sampling event flushing schedule [includes which outlets were flushed, the duration of flushing, and when they were flushed].
- Perform a walk-through of the facility prior to sampling. Identify all outlets to be sampled, and label each outlet with its unique sample location code as it is found in the water outlet inventory.
- > Verify that the water has been stagnant for at least 8 hours, but no longer than 48 hours.

Sampling:

- ➢ Field Blank
- Start sampling at the outlet closest to the point of entry.
- > For each sampling location record the time that sampling begins.
- > Wearing gloves, collect samples into a 250 ml pre-cleaned bottle.
- > Record the time all samples are collected.
- AFTER all other samples have been collected, for follow-up flush sampling, collect fifteen minute flushed samples from water coolers.
- Indicate on the Chain of Custody (COC) if the outlet is leaking, the water is discolored, the outlet is turned on, the outlet is not working, or the outlet has a filter.
- Label all Follow-Up Flush Samples with "FLUSH" after their unique sample location code. (e.g. WHS- and WHS - ---FLUSH)

After Sampling:

- > Record the time that sampling ends.
- > Count sampling bottles to make sure all water outlets on the inventory were sampled.

<u>Print Name</u> Dulian Fernandez-obargen **Project Officer:** Signature Date Sampler: Signature Date



#### H.vi: School Sampling Package Review Checklist

Review performed by: Robert Cireten Date: 3/23/2017 Name/Title

Name of NJ Certified Laboratory who performed the analytical testing and certification number:

Name: EMSL Analyitical Certification Number: 03036

1. QAPP signed by all parties involved in sampling (Program Manager, Project Manager, Individual School Project Officers, Laboratory Manager, Laboratory QA Officer):

(Ŷ)or N

If N, obtain.

2. Completed Plumbing Profile (Attachment B):

#### (Y)or N

If N, provide details on what is missing.

If Y, should include:

- i. Material of Service line: **(Y)or N** 
  - a. Is the school served by a lead service line? **Y** , **N** , or **Unknown** 
    - i. Must provide documentation for either Y or N answer. If Unknown need to provide a plan for getting this information.
- ii. Material of potable water pipes (Y) N , or Unknown
  - a. Was lead solder used in the plumbing system? **Y** , **N** , or **Unknown** If Unknown, need to provide a plan for getting this information.
  - b. Are brass fittings, faucets, or valves used in the drinking water system? (Y) or N
- iii. Make and Model of Drinking Water Fountains/ Water Coolers (Y) or N
  - a. Checked all the drinking water fountains and coolers against the EPA list of recalled fountains: Yor N
    - i. If Y, any fountains that were on the list were taken out of service and the information was recorded in the school file.
- iv. 'Low use' areas in the drinking water system: **(N) N** 
  - a. If Y, identify where. Verify that these areas were flushed properly.
- v. Out-of-Service Outlets : **Y** or(**N**)
  - a. If Y, identify where. Verify that these areas are still out of service.
- vi. Plumbing repairs and replacements performed within the last year  $\hat{Y}$  or N
  - a. If Y, identify where.
- 3. Is Water Outlet Inventory (Attachment C) for the school completed with all information filled in **Y** or **N**

If N, provide details on what is missing.



- 4. Completed Filter Inventory (Attachment D) (Y) or N If N, provide details on what is missing.
- 5. Completed Flushing Log (Attachment E) (Y) N or NA Only applicable for facilities or specific locations in a facility that are not routinely used e.g. concession stands. If Y, does it include duration and location of flushes (Y) or N If N, provide details.
- Completed data packages for each sampling event including Chain of Custody sheets, field notes, results report and Excel spreadsheet or N If N, provide details on what is missing

#### **Data Package Review**

- 1. Is the data package complete **vor** N
  - a. If N, provide details on what is missing and contact lab if necessary.
- 2. Does the number of samples on the results report from the laboratory match the number of samples on the Chain of Custody  $\bigcirc$  or N
  - a. If N, identify which sample(s) are missing. Add these sampling locations to the Follow-Up Sampling list.
- 3. Is there a field blank? (v) or N
- Are results reported in μg/l () or N
   a. If N, remind lab to report in μg/l.
- 5. Any results not reported to at least 3 significant figures? (f) or N a. If Y, contact lab.
- 6. Any results above 100  $\mu$ g/l? Y of N a. If Y, have lab verify the results.
- 7. Compared field notes/ Chain of Custody notes with sampling results **(Y)or N** 
  - a. If Y, are there any notes and sampling results that appear to need resampling? Add those sampling locations to the Follow-Up Sampling list. (i.e. notes indicate outlet was leaking or water was discolored)
- 8. Are there outlets that could not be sampled because they were not operational? Y or N
  - a. If Y, outlets will be need to be sampled as part of follow-up sampling. Add these outlets on the Follow-Up Sampling list.



- 9. Are there sample codes not identified on the Key Code? **Y or** 
  - a. If Y, contact sampler and individual school coordinator to identify.
- 10. Verify that water outlets requiring flushing were properly flushed:  $\widehat{oldsymbol{V}}$  or N
  - a. Are there outlets that were sampled and after reviewing the field notes it is apparent they were not operational prior to sampling and/or were not flushed? Y or N
  - b. If Y, these outlets need to be resampled as part of follow-up sampling. Add these outlets on the Follow-up sampling list.
- 11. Compared first draw samples with follow-up flush samples (if collected): **Y** or N(N|h)
- 12. Are there outlets where the follow-up flush sample is required but was not collected? Y or  $\mathbf{N}$ 
  - a. If Y, these outlets need to be sampled as part of the follow-up sampling. Add these outlets to the Follow-up Sampling list.
- 13. Are there any follow-up flush sample outlets higher than the first draw? Y or  $\mathbf{N}$ 
  - a. If Y, identify the internal plumbing material.
- 14. Match up the filters with the exact locations they are installed. Determine the following:
  - a. Exact date installed: (**Y**, **N**, or Unknown 12/16
  - b. If N, return to location and identify.
  - c. If Unknown, assume the filter will need to be replaced.



#### H.viii: Fountains/Drinking Water Coolers on USEPA's Recall List

School Name: Chesterfield Elementary School

Individual School Project Officer: <u>Robert Carter</u>

Date Completed: <u>3/23/17</u>

SAMPLE ID/	MAKE	MODEL	TAKEN OUT OF	INITIALS
LOCATION			SERVICE	
			(DATE)	
N/A				
·····				

If N/A, provide signature below indicating that the school does not have any drinking water fountains/water coolers on the EPA Recall list.

\_\_\_\_\_Date\_\_\_\_3/23/2017



#### H.x\_ Data Review Summary

School	:Chesterfield Elementary School
Date S	ampled: <u>2/21/17</u> lual School Project Officer:
	Verify number of samples. • Make sure there are results for each sample taken. Number of outlets sampled: <u>55</u> Number of first draw: <u>55</u> Number of follow-up flush: <u>0</u>
Z	Confirm all results are reported with no less than three significant figures and are in units of $\mu g/l$ or ppb.
Q	Confirm follow-up flush samples are collected at all water outlets that require a flush sample.
	Number of samples >15.5 µg/l first draw: Number of samples >15.5 µg/l follow-up flush: Total Number of samples >15.5µg/l:
	nples >15.5 μg/l Compare first draw samples with follow-up flush samples.
	Number of outlets with decreased result between first draw and follow-up flush (> 15.5 $\mu$ g/l and now < 15.5 ppb): Number of outlets increased between first draw and follow-up flush (< 15.5 $\mu$ g/l and now > 15.5 $\mu$ g/l): Number of outlets that remained > 15.5 $\mu$ g/l (both results greater than 15.5 $\mu$ g/l):
	<ul> <li>Verify follow-up flush samples that are higher than the first draw sample.</li> <li>O Check field notes and chain of custody for notes on the collection of these samples.</li> <li>O Check with lab to verify the sample result of these samples.</li> </ul>
4	<ul> <li>Verify results &gt; 100 µg/l</li> <li>Call the lab to verify the results .</li> <li>Make sure the lab report indicates that the sample was diluted.</li> </ul>
9	<ul> <li>Verify sample results with field notes and chain of custody.</li> <li>O Use the field notes on the Chain Custody to provide insight on what may have caused certain high results.</li> </ul>



	nformation is based on field notes and the chain of custody:
Number of outle	ets not sampled:
Sample ID of ou	utlets that do not work/broken:
	ets leaking/dripping (not repaired): utlets leaking/dripping:
Number of outl Sample ID of o	ets with low pressure/slow flow:1
Number, descri	ption, and Sample ID of other outlet issues (i.e. color, odor, plumbing turned off,
Verify t	he water outlets requiring pre-sampling flushing were flushed. Check the low use outlet flush log located in the school package to verify that outlets were flushed properly prior to sampling.
Verify t Verify t verify t	he water outlets requiring pre-sampling flushing were flushed. Check the low use outlet flush log located in the school package to verify that
Verify to Verify to	he water outlets requiring pre-sampling flushing were flushed. Check the low use outlet flush log located in the school package to verify that outlets were flushed properly prior to sampling. Drinking Water Fountain & Water Cooler Filters. Use the filter inventory in the school package to document whether or not