



# **LEAD IN DRINKING WATER MANAGEMENT PLAN**

**Archdiocese of Newark  
St. Joseph FEDCAP  
8 St. Cloud Place  
West Orange, NJ 07052**

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**Program Manager – Steven Belloise**

Developed By: Omega Environmental Services, Inc.  
280 Huyler Street, S. Hackensack, NJ 07606  
(22-26070A)

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## 1. INTRODUCTION

This Lead Drinking Water Testing Sampling Plan (Sampling Plan) was developed by Omega Environmental for the Archdiocese of Newark, **St. Joseph FEDCAP** 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 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 Archdiocese of Newark has also developed a Quality Assurance Project Plan (QAPP) for the sampling program which is available under separate cover.

**Several forms are included in this plan which are to be used for each flushing/sampling event. These are to be filled in and signed by the appropriate personnel for each event. The documents are to be maintained by the facility.** The documents include:

- Attachment E: Flushing Log
- Attachment F: Pre-sampling Water Use Certification
- Attachment G - Sample Flush Tag
- Attachment H.iv: Sampling Event Checklist.

**Omega recommends reviewing this Plan on an annual basis.** In particular, Attachments B (Plumbing Profile) and Attachment C (Drinking Water Outlet Inventory) should be updated to reflect any plumbing changes and/or outlets that have been taken out of or returned to regular service.

### 1.1 Building Specific Description

St. Joseph FEDCAP building was constructed between 1954-1966 and is a one-story building with a basement.

A total of 20 outlets have been identified consisting of the following:

- Unchilled Water Fountains (Bubblers): 0
- Chilled Water Fountains and/or Bottle Fillers: 0
- Nurse’s Room Sink: 1
- Kitchen Sinks: 5
- Misc. Room Sinks: 2
- Bathroom Sinks: 12
- Science/Art Room Sinks: 0
- Exterior hose Bib:

## **2. OBJECTIVE**

The 1988 Lead Contamination Control Act (LCCA) is aimed at identifying and reducing lead (Pb) in drinking water in schools and child care 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 µg/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 µg/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 µg/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 ensure a coordinated effort.

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

Archdiocese of Newark Program Manager:  
Steven Belloise

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)**

Archdiocese of Newark Project Manager:  
Valentina Baldessarre

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 (in conjunction with an environmental consultant)**

- 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 Individual School's 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 of 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.
  - Copy of Final Project Report
- Maintenance of other relevant records, such as:
  - Purchase orders for analytical costs (copy).
  - Agreement with the 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 to 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 (in conjunction with an environmental consultant)**

- General project oversight for assigned school(s).
- Generate a field logbook 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 the 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 the acquisition of the 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 a flush tag (Attachment G).
- Verify with consultant 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 have been flushed.
- Remove flush tags from outlet once sampling is completed.
- Ensure 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 logbook.
- Project Officer or Environmental Consultant to prepare Field walk-through Report, School Field Sampling Summary Report, and Final Project Report for assigned school(s).
- Project Officer or Environmental Consultant to maintain field logbooks for each school.
- Project Officer or Environmental Consultant to prepare samples for shipment and delivery to laboratory per certified laboratory instructions.
- Project Officer or Environmental Consultant to 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 logbook 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. PLUMBING SURVEY

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

### 4.1 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, 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 blueprints 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 a detailed description that identifies whether they are lead-lined or if they have been involved in any recalls, (See USEPA Fact Sheet at <http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=30005UPU.txt> );
- 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

### 4.2 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 removal e.g. lead and others



## **5. PLANNING**

### **5.1 Walk–Through**

A walk-through must be conducted by the Project Officer and/or Environmental Consultant 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 labeled 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 an 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 sensors 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).

### **5.2 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:

- Service Line = SL
- 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.

## **6. SAMPLE LOCATIONS**

### **6.1 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

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

- 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 may be used for consumption. **However, accessible sinks (such as bathrooms and classrooms) that are not to be sampled should have DO NOT DRINK signs posted.**

## 6.2 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  
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  
BF = Bottle Filler

## 6.3 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

## 7. SAMPLING PROCEDURES

### 7.1 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 or the Environmental Consultant 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.

### 7.2 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.

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.

### **Sample Collection for First Draw and Follow-up Flush Sampling Conducted on Different Days**

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 µg/L (as defined as greater than or equal to 15.5 µg/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), labeled 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).

### **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 the 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. **Positive outlets may also be sampled if still in service for handwashing only.**

### **7.3 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 the timeframe required under contract (14 day is average).
- Laboratories will report in µg/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.

### **7.4 Sampling Results**

The laboratories will provide the lead sample results to the District in an 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. These requirements are detailed in the QAPP.

The District will (1) review and verify the final laboratory results within 72 hours of receipt, (2) within 24 hours of this review shall make the test results of all water samples publicly available at the school facility(ies), and (3) within 24 hours of the review make the most recent required Statewide testing results available on the District's website. These test results shall remain

publicly available in accordance with the timeline established at the Department of Treasury in the Records Retention schedule under record series number 0021 – 0000.

If any results exceed the lead action level, the District shall provide written notification to the parents/guardians of all students attending the facility, facility staff, and the Department of Education (DOE). This written notification shall also be posted on the District's website and shall include a description of the following:

- Measures taken by the District to immediately end use of each drinking water outlet where water quality exceeds the lead action level;
- Any additional remedial actions taken or planned by the District;
- Measures taken to ensure that alternate drinking water has been made available to all students and staff members at the school facility(ies) where the water outlet(s) is located; and
- Information regarding the health effects of lead.

### **7.5 Intermediate Remedial Measures**

Upon receiving sample results, the District will **turn off all outlets with results that exceed 15 µg/L** (as defined as greater than or equal to 15.5 µg/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).

All data, plumbing profile information, Drinking Water Outlet Inventory information, including the Filter Inventory information, and the Chain of Custody observations should be reviewed to determine the appropriate remedial measures. NJDEP has developed a Flow Chart to assist schools with remedial measures. It is helpful to develop a Short-term Remedial Action Plan that details short-term immediate actions that should be implemented if the results exceed the action level. For example:

For sample sites with Initial First Draw Sample results over 15ppb:

#### **IMMEDIATE ACTIONS**

- Shut off all water outlets (e.g. fountains, sinks) used for drinking.
- Provide alternate drinking water (e.g. bottled water), as necessary.
- Post “Do Not Drink- Safe for Handwashing Only” notice at faucets that are used for purposes other than drinking and food preparation (e.g. handwashing).
- Inform the public as described in the Board of Education Regulations.

Some remedial measures are described in detail in Section 5 of USEPA’s guidance document “3Ts for Reducing Lead in Drinking Water in Schools” (2006 Revision).

## **7.6 Follow Up (Long-Term Solutions)**

If a remedial measure, such as flushing or treatment, is installed, schools should:

- Develop and adhere to an Operation and Maintenance Plan that includes periodic inspection/maintenance of the treatment and/or flushing equipment.
- Maintain a service agreement for maintenance and repair of installed treatment units.
- Develop a regular testing schedule to ensure that treatment continues to be effective.

For further guidance on selecting long-term remediation see [Guidance for Schools Selecting a Water Treatment System for Removal of Lead](#).



## 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 bottles or dispensers). Drinking water dispensers that utilize purchased water are not 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** - a 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.

- a. **Permanently Out of Service Outlets-** outlets that are not being used and the 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 aid 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 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.





Questions	Answers
7. Does the school have a filter maintenance and operation program? If so, who is responsible for this program? What is the process for adding filters?	No filter maintenance program.
8. Have accessible screens or aerators on outlets that provide drinking water been cleaned? Does the school have a screen or aerator maintenance program?	No aerator maintenance program.
9. Have there been any complaints about bad (metallic) taste? Note location(s).	No
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 style="list-style-type: none"> <li>• Name of contaminant(s)</li> <li>• Concentrations found</li> <li>• pH level</li> </ul> Is testing done regularly at the building?	No information provided.
11. Other plumbing background questions include: <ul style="list-style-type: none"> <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> </ul> Are renovations planned for any of the plumbing system?	No known dead legs, no planned renovations.
<b>Walk-Through</b> <i>These questions should be addressed during the walk-through of the facility, while Attachment C- Drinking Water Outlet Inventory is being completed.</i>	
1. Confirm the material of Service Line visually.	Unknown
2. Confirm the presence of POE or POU treatment.	None

Questions	Answers	
<p>3. What are the potable water pipes made of in your facility?</p> <ul style="list-style-type: none"> <li>• Lead</li> <li>• Plastic</li> <li>• Galvanized Metal</li> <li>• Cast Iron</li> <li>• Copper</li> <li>• Other</li> </ul> <p>Note the water flow through the building and the areas that receive water first, and which areas receive water last.</p>	Unknown	
<p>4. Are electrical wires grounded to Water Pipes?          Note location(s).</p>	Unknown	
<p>5. Are brass fittings, faucets, or valves used in your drinking water system?          Note that most faucets are brass on the inside.          Document the locations of any brass water outlet to be sampled.</p>	See “Brass” Column in Attachment C- Water Outlet Inventory. Brass fittings presumed to be present	
<p>6. Locate all drinking water outlets (i.e. water coolers, bubblers, ice machines, kitchen/ food prep sinks, etc.) in the facility.</p>	See Attachment C-Water Outlet Inventory.	
<p>7. Have the brands and models of the water coolers in the school been compared to the list of recalled water coolers in the Toolkit?</p> <p>Recalled Drinking Water Fountains</p> <p>Make and Model</p>	Yes – no recalled fountains.	
<p>8. Have signs of corrosion, such as frequent leaks, rust-colored water, or stained fixtures, dishes, or laundry been detected?          Note the locations of water outlets.</p>	See “Signs of Corrosion” column in Attachment C- Drinking Water Outlet Inventory.	

<b>Questions</b>	<b>Answers</b>	
9. Are there any outlets that are not operational and therefore out of service? Permanently? Temporarily?	Permanently  None known	Temporarily  None Known

## Attachment C – Drinking Water Outlet Inventory

**Name of School:** St. Joseph FEDCAP

**Address:** 8 St. Cloud Place, West Orange, NJ 07052

**Grade Levels:** 7<sup>th</sup> – 12<sup>th</sup>

**Year School Constructed:** 1954-1966

**Renovations/Additions:**

**Individual school project officer**

**Date Completed:** 6/17/2022

**Name/Signature:**

Sample Location Codes

DW= Drinking Water Bubbler (unchilled)

DDW=Double Drinking Water Bubbler (unchilled)

WC = Water Cooler (Chilled Bubbler Unit)

DWC = Double Water Cooler (Chilled Bubbler Unit)

SWC= Combination Sink Chilled Water Cooler (chilled Bubbler Unit)

SDW= Combination Sink Water Bubbler

S= Misc. Sink; possible potable use

/A Aerator Present

/F= Outlet has a filter

BF = Bottle Filler

KC = Kitchen Outlet, Cold

TL= Teacher Lounge Sink

CT= Cafeteria Outlet

EC = Home Economics Outlet, Cold

NS = Nurse's Office Sink

FP= Food Preparation Sink (not otherwise specified)

IM = Ice Machine

BS = Bathroom Sink



# <sup>2</sup>	Type	Location	Code	Operational <sup>3</sup> (Y/N)	Signs of Corrosion <sup>4</sup> (Y/N)	Filter <sup>5</sup> (Y/N)	Brass Fittings, Faucets or valves? (Y/N)	Aerator/ Screen (Y/N)	Motion Activated (Y/N)	Chiller (Y/N)	Water Cooler		Comments
											Make	Model	
1	Ice Machine	Basement New Kitchen Rm 003	IM	Y	N	N	Y	N	N	Y			Manitowoc
2	Food Prep Sink	Basement New Kitchen Rm 003	FP	Y	N	N	Y	Y	N	N			
3	Pot Scrubber	Basement New Kitchen Rm 003	KC	Y	N	N	Y	N	N	N			
4	Kitchen Double Sink	Basement New Kitchen Rm 003	KC	Y	N	N	Y	N	N	N			
5	Handwash Sink	Basement New Kitchen Rm 003	KC	Y	N	N	Y	Y	N	N			
6	Bathroom Sink	Basement Girls Bathroom	BS	Y	N	N	Y	Y	N	N			
7	Bathroom Sink	Basement Boys Bathroom	BS	Y	N	N	Y	Y	N	N			
8	Bathroom Sink	Office Bathroom Rm 107	BS	Y	N	N	Y	Y	N	N			
9	Bathroom Sink L	1 <sup>st</sup> Floor Girls Rm 100	BS	Y	N	N	Y	Y	N	N			
10	Bathroom Sink M	1 <sup>st</sup> Floor Girls Rm 100	BS	Y	N	N	Y	Y	N	N			
11	Bathroom Sink R	1 <sup>st</sup> Floor Girls Rm 100	BS	Y	N	N	Y	Y	N	N			

<sup>2</sup> Number outlets starting at the closest outlet to the Point of Entry (POE). (L = Left, M = Middle, R = Right)

<sup>3</sup> Document if permanently or temporarily out of service on the Attachment B- Plumbing Profile.

<sup>4</sup> Signs of corrosion detected, such as but not limited to frequent leaks, rust-colored water, or stained fixtures, dishes, or laundry.

<sup>5</sup> Document on Attachment D- Filter Inventory.

# <sup>2</sup>	Type	Location	Code	Operational <sub>3</sub>	Signs of Corrosion <sup>4</sup>	Filter <sup>5</sup> (Y/N)	Brass Fittings,	Aerator/ Screen	Motion Activated	Chiller (Y/N)	Water Cooler		Comments
12	Bathroom Sink	Nurse's Office Rm 111	NS	Y	N	N	Y	N	N	N			
13	Room Sink	Classroom 104	RS	Y	N	N	Y	Y	N	N			
14	Bathroom Sink	Classroom 104	BS	Y	Y	N	Y	N	N	N			
15	Room Sink	Ms. Marci Office 105	RS	Y	N	N	Y	Y	N	N			
16	Bathroom Sink L	Boys Bathroom Rm 112	BS	Y	N	N	Y	Y	N	N			
17	Bathroom Sink M	Boys Bathroom Rm 112	BS	Y	N	N	Y	Y	N	N			
18	Bathroom Sink R	Boys Bathroom Rm 112	BS	Y	N	N	Y	Y	N	N			
19	Bathroom Sink	Girls Bathroom in Multi-purpose Room 114	BS	Y	N	N	Y	Y	N	N			
20	Bathroom Sink	Boys Bathroom in Multi-purpose Room 114	BS	Y	N	N	Y	Y	N	N			



**Attachment E – Flushing Log**

Name of School: **St. Joseph FEDCAP**

Address: **8 St. Cloud Place, West Orange, NJ 07052**

Individual School Project Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#	Type	Sample Location	Code	Date	Time	Duration of Flushing	Reason for Flushing
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

## Attachment F - Pre – Sampling Water Use Certification

TO BE COMPLETED BY THE SCHOOLS REPRESENTATIVE:		
School Name: <b>St. Joseph FEDCAP</b>		
Sample collection address: <b>8 St. Cloud Place, West Orange, NJ 07052</b>		
Water was last used:	Time:	Date:
Sample commencement:	Time:	Date:
I have read the <b>St. Joseph FEDCAP</b> Lead Drinking Water Testing Sampling Plan and Quality Assurance Project Plan and I am certifying that samples were collected in accordance with these plans.		
Signature		Date

**Attachment G - Example of a Sample Flush Tag**

FLUSH TAG

**Water outlet sampling in progress. Please do not use water**

School District Name: **Archdiocese of Newark**

School Name: **St. Joseph FEDCAP**

Date Flushed:

School Address: **8 St. Cloud Place, West Orange, NJ 07052**

Start Time:

End Time:

Location of flushed outlet:

Is the fountain front cover removed for the sampler to determine the reservoir type (circle one):  
YES / NO

Person responsible for the flushing process (print name): \_\_\_\_\_

*Note to the person responsible for the flushing process:*

- A. Turn-off lawn sprinkler outlet(s) until water sampling is complete.
- B. Make sure sampling outlets are accessible.

## Attachment H – Sampling Toolkit

### H.i: Recalled Water Cooler List

#### USEPA’s Water Cooler Recall List

*Tables from EPA’s 3Ts for Reducing Lead in Drinking Water in Schools Revised Technical Guidance*

<u>Table E-1</u>					
<u>Halsey Taylor Water Coolers With Lead-Lined Tanks<sup>2</sup></u>					
The following six model numbers have one or more units in the model series with lead-lined tanks:					
<u>WM8A</u>	<u>WT8A</u>	<u>GC10ACR</u>	<u>GC10A</u>	<u>GC5A</u>	<u>RWM13A</u>
The following models and serial numbers contain lead-lined tanks:					
<u>WM14A Serial No.</u> <u>843034</u>	<u>WM14A Serial No.</u> <u>843006</u>	<u>WT11A Serial No. 222650</u>			
<u>WT21A Serial No.</u> <u>64309550</u>	<u>WT21A Serial No.</u> <u>64309542</u>	<u>LL14A Serial No. 64346908</u>			

<sup>2</sup>Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

**Table E-2**  
**Water Coolers With Other Lead Components**

**EBCO Manufacturing**

All pressure bubbler water coolers with shipping dates from 1962 through 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.

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

<u>CP3</u>	<u>DP15W</u>	<u>DPM8</u>	<u>7P</u>	<u>13P</u>	<u>DPM8H</u>	<u>DP15M</u>	<u>DP3R</u>	<u>DP8A</u>
<u>DP16M</u>	<u>DP5S</u>	<u>C10E</u>	<u>PX-10</u>	<u>DP7S</u>	<u>DP13SM</u>	<u>DP7M</u>	<u>DP7MH</u>	<u>DP7WMD</u>
<u>WTC10</u>	<u>DP13M-60</u>	<u>DP14M</u>	<u>CP10-50</u>	<u>CP5</u>	<u>CP5M</u>	<u>DP15MW</u>	<u>DP3R</u>	<u>DP14S</u>
<u>DP20-50</u>	<u>DP7SM</u>	<u>DP10X</u>	<u>DP13A</u>	<u>DP13A-50</u>	<u>EP10F</u>	<u>DP5M</u>	<u>DP10F</u>	<u>CP3H</u>
<u>CP3-50</u>	<u>DP13M</u>	<u>DP3RH</u>	<u>DP5F</u>	<u>CP3M</u>	<u>EP5F</u>	<u>13PL</u>	<u>DP8AH</u>	<u>DP13S</u>
<u>CP10</u>	<u>DP20</u>	<u>DP12N</u>	<u>DP7WM</u>	<u>DP14A-50/60</u>				

**Halsey Taylor**

1. Lead solder was used in these models of water coolers manufactured between 1978 and the last week of 1987:

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

2. The following coolers manufactured for Haws Drinking Faucet Company (Haws) by Halsey Taylor from November 1984 through December 18, 1987, are not lead-free because they contain 2 tin-lead solder joints. The model designations for these units are as follows:

<u>HC8WT</u>	<u>HC14E</u>	<u>HC6W</u>	<u>HWC7D</u>	<u>HC8WTH</u>	<u>HC14E</u> <u>H</u>	<u>HC8W</u>	<u>HC2F</u>	<u>HC14WT</u>
<u>HC14FL</u>	<u>HC14W</u>	<u>HC2FH</u>	<u>HC14WTH</u>	<u>HC8FL</u>	<u>HC4F</u>	<u>HC5F</u>	<u>HC14WL</u>	<u>HCBF7D</u>
<u>HC4FH</u>	<u>HC10F</u>	<u>HC16WT</u>	<u>HCBF7HO</u>	<u>HC8F</u>	<u>HC8FH</u>	<u>HC4W</u>	<u>HWC7</u>	



## H.ii: Ice Machines Sample Collection Procedure

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### Sample Collection Procedures:

- Initial Screening Sample 1E

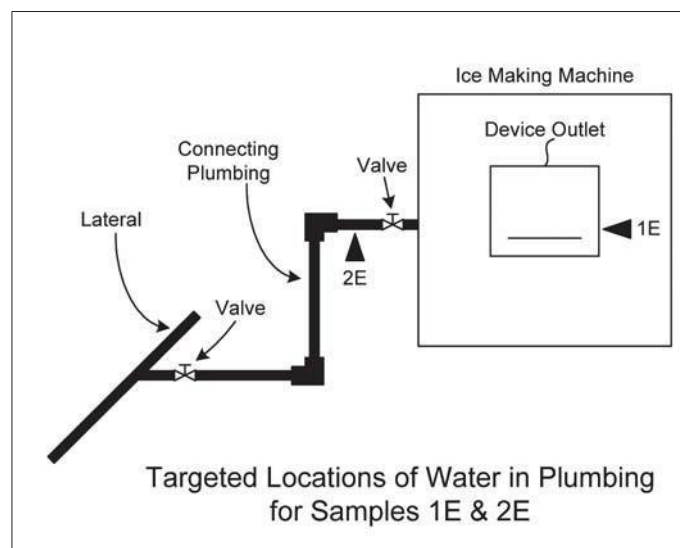
Fill a suitable container (250 mL or larger, wide-mouthed bottle or other container) provided by the laboratory at least three-quarters full of ice. Do not touch the ice with your hands. Use the non-metal scoop or disposable plastic gloves provided by the laboratory to place the ice in the container.

If the lead level in Sample 1E exceeds 15  $\mu\text{g/L}$  (ppb), collect a follow-up sample to determine if the source of the lead is the plumbing or the ice machine itself.

- Follow-Up Sample 2E

Disconnect the ice machine from the plumbing and look for a screen at the inlet. Remove the screen. If debris is present, forward a sample of the debris to the laboratory for analysis and clean out the remaining debris. The laboratory will determine whether lead solder is present. Clean the screen routinely to avoid accumulations of debris.

Collect the sample from the disconnected plumbing as close to the ice machine as possible. Fill the sample container with 250 mL of water. If no outlet is available, contact the ice machine manufacturer for recommendations that will minimize disruption of existing plumbing. Adding outlets or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, section 8. If a sample outlet or valve is available, collect the sample immediately after opening the outlet or valve.



### **H.iii: School Wide Flushing Procedure**

Each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in the Flushing Log (Attachment E) for each school and completed prior to sampling.

- Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes.
- Open all kitchen faucets (and other faucets where water will be used for drinking and/or food preparation) and let the water run for 30 seconds to one minute, or until cold.



## H.v: Sample Signs



# WATER TESTING IN PROGRESS

PLEASE DO NOT USE ANY  
WATER SOURCES – SINKS,  
FOUNTAINS, TOILETS, ETC.

**DO NOT DRINK**



**SAFE FOR HANDWASHING**



**H.vii: FOLLOW-UP SAMPLING INVENTORY**

Name of School: **St. Joseph FEDCAP**

Address: **8. St. Cloud Place, West Orange, NJ 0752**

Individual School Project Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

#	Type	Sample Location	Code	Reason For Follow-Up Sampling*	Date Resampled

**H.viii: FOUNTAINS / DRINKING WATER COOLERS ON EPA’S RECALL LIST**

Name of School: **St. Joseph FEDCAP**

Address: **8 St. Cloud Place, West Orange, NJ 07052**

Individual School Project Officer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**No Recalled Water Coolers**

#	Type	Sample Location	Code	Make	Model	Taken Out Of Service (Date)	Initials

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 \_\_\_\_\_





