



*Evergreen
Water Works
Lead and Copper
Sample Plan
Requirements*

PWSID NUMBER: AL0000338

Table of Contents

Section 1:

System Information.....	3
Purpose.....	4
System Well Data.....	4
Materials Inventory Data.....	4
Lead and Copper Sample Site Plan Selection Criteria for Community Systems.....	5
Current Sample Site Locations (Primary).....	6
Current Sample Site Locations (Alternate).....	7
Lead and Copper Sampling Procedures.....	8
Sites and Situations to Avoid.....	8
Procedures for Collecting Lead and Copper Samples.....	9

Section 2:

Making Changes to Sample Site Locations.....	10
Lead & Copper Rule: Change of Sample Site Form.....	11
Lead & Copper Rule Reduced Monitoring Site Selection.....	12

Section 3:

Important Health Information about Lead and Copper.....	13
Lead and Copper Analysis Results.....	14

Section 1

System Information

Address: 355 East Front Street
P.O. Box
Evergreen, AL 36401

Contact: Darlene Johnson, Water and Wastewater Superintendent
251-578-7200
djohnson@evergreenal.gov

System Type: Ground

Population Served: 3370, 1748 service connections

Water Sources: Tallahatta and Nanafalia Aquifer

Regulating Agency: Alabama Department of Environmental Management (ADEM)

Laboratory: Alabama Department of Public Health
Bureau of Clinical Laboratories – Mobile Laboratory
757 Museum Drive
Mobile, AL 36608
(251) 344-6049

Laboratory: Pace Analytical Services, LLC
1168 Whigham Place
Tuscaloosa, AL 35405
(205) 614-6630

Purpose

In 1992, the Alabama Department of Environmental Management (ADEM) adopted the Environmental Protection Agency (EPA) Lead and Copper Rule. According to ADEM, this is a critical component of ADEM's effort to protect public health and ensure the safety of the state's drinking water. This Lead and Copper Monitoring Plan has been prepared in accordance with the guidelines and regulatory requirements established by the Alabama Department of Environmental Management (ADEM) and includes the following topics:

- Monitoring Requirements and Sites
- Sample Collection Protocol
- Sample Site Change
- Consumer Notification
- Violation Notification Requirements

The Evergreen Water Works has adopted and acknowledged the five topics above of this plan as part of its ongoing commitment to providing safe drinking water. Additional information on lead and copper can be located on EPA's and ADEM's websites and ADEM's Regulations, Division 7 Water Supply Program, Chapter 335-7-11 Control of Lead and Copper.

System Well Data

The Evergreen Water Works water system consists of three wells with a pumping capacity of 2,480 gallons per minute, three storage tanks with a capacity of 1,500,000 gallons. The wells pump water from the Tallahatta or Nanafalia Aquifers

All sources feed fluoride and chlorine.

Currently, there are 20 sample sites and alternate sites for monitoring lead and copper, all sites are Tier 1.

Materials Inventory Data

The Evergreen Water Works water system currently contains approximately 70 miles of water distribution pipe which serves approximately 3,370 customers. Of those 70 miles approximately 44 miles are cast/ductile iron, approximately 24 miles of PVC and approximately 2 miles HDPE. A number of system valves, hydrants, meters and fittings are installed that are typically constructed of ductile/cast iron or brass.

Water service lines are primarily copper with minimal plastic and galvanized piping. There are no known lead service lines on the system side of the water meter. In the past, a minimal number of lead "gooseneck" taps were encountered and replaced. In regards to materials of construction from the meter to the point of customer delivery, it is believed that the majority of materials are plastic (PVC, Pex, Polybutylene) or copper and some galvanized.

Lead and Copper Sample Site Plan Selection Criteria for Community Systems

Evergreen Water Works has completed a material evaluation of the system to identify sample sites. Samples will be collected from Tier 1 sites only unless there are none in the distribution system, then Tier 2 sites will be used. If there are not sufficient Tier 1 nor 2 sites, then Tier 3 sites will be used. If there are no sites that meet the Tier site selection criteria, then sites representative of the materials in the distribution system may be used. No site will be used where there is a point-of-entry treatment device (e.g., whole-house water softener) or a faucet with a point-of-use treatment device designed to remove inorganic contaminants such as hardness or iron.

Tier definitions are as follows:

1. Tier 1 – includes single family structures that;
 - Contain copper pipes with lead solder which was installed after 1982 or;
 - Contain lead pipes or;
 - Is served by a lead service line
 - Multi-family structures may be used as a Tier 1 site when multi-family structures comprise at least 20% of the structures served by the water system.
2. Tier 2 – includes multi-family structures and buildings that;
 - Contain copper pipes with lead solder which was installed after 1982 or;
 - Contain lead pipes or;
 - Is served by a lead service line
3. Tier 3 – Includes single family structures that contain copper pipes with lead solder which were installed prior to 1983

Tier Categories - Use the following to identify the Tier and category of each site:

Tier 1

- A. Single family – copper pipe with lead solder constructed after 1982
- B. Single family – lead pipes
- C. Single family – lead service line
- D. Multi-family – copper pipe with lead solder constructed after 1982
- E. Multi-family – lead pipes
- F. Multi-family – lead service line

Tier 2

- A. Building – copper pipe with lead solder constructed after 1982
- B. Building – lead pipes
- C. Building – lead service line

Tier 3

- A. Single family – copper pipe with lead solder constructed before 1983

System Name: Evergreen Water Works

PWSID#: AL0000338

Number of Samples Required: 20

NO.	Address	Tier Level	Selection Criteria	Primary or Alt.
01	720 Factory Street (1986)	1	A	Primary
02	102 N. Jordan (1986)	1	A	Primary
03	408 Cemetery Avenue (1985)	1	A	Primary
04	120 Salter Street (1987)	1	A	Primary
05	112 N. Jordan Street (1985)	1	A	Primary
06	406 Cemetery Avenue (1985)	1	A	Primary
07	205 Knoxville Road (1985)	1	A	Primary
08	401 MLK Drive (1985)	1	A	Primary
09	205 Cunningham Drive (1987)	1	A	Primary
10	135 Knoxville Road (1983)	1	A	Primary
11	114 Highland Court (1987)	1	A	Primary
12	203 Knoxville Road (1986)	1	A	Primary
13	105 Stella Street (1984)	1	A	Primary
14	141 Knoxville Road (1985)	1	A	Primary
15	230 Cunningham Drive (1988)	1	A	Primary
16	114 N. Jordan Street (1985)	1	A	Primary
17	101 Merriwood Drive (1986)	1	A	Primary
18	201 Knoxville Road (1985)	1	A	Primary
19	632 South Shipp Street (1986)	1	A	Primary
20	108 N. Jordan Street (1986)	1	A	Primary

System Name: Evergreen Water Works

PWSID#: AL0000338

Number of Samples Required: 20

NO.	Address	Tier Level	Selection Criteria	Primary or Alt.
01	125 Railroad Street (1986)	1	A	Alternate
02	520 South Shipp Street (1984)	1	A	Alternate
03	423 Reynolds Avenue (1984)	1	A	Alternate
04	234 Cunningham Drive (1985)	1	A	Alternate
05	721 Perryman Street (1984)	1	A	Alternate
06	107 Finch Street (1983)	1	A	Alternate
07	608 Magnolia Avenue (1986)	1	A	Alternate
08	682 Factory Street (1986)	1	A	Alternate
09	129 Railroad Street (1986)	1	A	Alternate
10	229 Cunningham Drive (1986)	1	A	Alternate
11	206 McGehee Street (1986)	1	A	Alternate
12	139 Railroad Street (1985)	1	A	Alternate
13	110 N. Jordan Street (1986)	1	A	Alternate
14	207 Knoxville Road (1985)	1	A	Alternate
15	702 Magnolia Avenue (1986)	1	A	Alternate
16	227 Cunningham Drive (1987)	1	A	Alternate
17	106 N. Jordan Street (1985)	1	A	Alternate

Lead and Copper Sampling Procedures

All lead and copper samples must be first-draw samples and must be 1 liter in volume. The water must be motionless (not used) in the plumbing system of each residence or building for a minimum of six hours. While the water cannot be used for more than six hours, do not collect samples from sites which have not been used for an extended period of time; such as a site which has had no water use for several days, e.g., a weekend.

First-draw residential samples shall be collected from the cold, hard water kitchen or bathroom sink only. First-draw nonresidential samples shall be collected from an interior, cold, hard water tap from which water is typically drawn for consumption.

Sample sites must not include faucets which have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants. This includes devices such as filters, softeners, reverse osmosis (RO) systems, etc.

First-draw samples may be collected by the system or the system may allow residents to collect samples after receiving instruction on the proper sampling procedures.

A water supply system shall collect each first-draw tap sample from the same sample sites used in the previous round of sampling unless a change of sample site is documented and submitted Alabama Department of Environmental Management (ADEM).

The water system is required to collect samples every three (3) years. This sampling occurs in the months of June, July, August, or September unless written approval from ADEM for an alternative monitoring period is received per ADEM Regulations, Division 7 Water Supply Program, Chapter 335-7-11 Control of Lead and Cooper. The last samples were collected in 2020.

Sites and Situations to Avoid

Do not use

4. A mop sink, outside faucet, or a tap that is not generally used or intended for human consumption.
5. A site which is vacant (don't make special arrangements to get access to site).
6. A site which has undergone recent (within the last 6 months) plumbing improvements or changes including faucets at the specific sample location.
7. A tap that has any type of treatment.
8. A site where the owner or resident is uncooperative.

Caution

Improper sampling by a resident may not be grounds for invalidation of a sample result by the Alabama Department of Environmental Management (ADEM). The Evergreen Water Works water department staff must provide clear instructions to the residents when the sample containers are provided to the property owner and should thoroughly review the information and comments provided on the sample sheet prior to submitting the sample to the laboratory.

Procedures for Collecting Lead and Copper Samples

1. **DO NOT LET TAP RUN BEFORE FILLING.** The container needs to be filled up with water first thing in the morning, or after the water has NOT been used for at least (6) six hours. Do not rinse or overfill the bottle
2. Do not rinse, Open the bottle and hold under the faucet.
3. Turn the cold water on to a low flow and collect the first water that comes out of the faucet. **The samples must be taken from the bathroom or kitchen taps that is used frequently, not from tap rarely used.** This sample must be taken, however, prior to any use of the water, such as flushing of the toilet, or running the tap.
4. Fill the bottle to the shoulder. Do not overfill bottle.
5. Place lid on bottle and tighten cap securely.
6. Fill in label completely except for the sample ID
7. Place bottle in shipping or pickup container.
8. A Water Department Staff will come by to collect the sample.

Please note on the sample sheet and notify Evergreen Water Works of the following conditions:

- If any plumbing repairs or pipe replacements have been done in the last 5 years.
- If you have a water softener or other home treatment, or water filter on the faucet you used to collect the sample.

Your assistance and cooperation in this testing program is greatly appreciated.

If you have any questions about how to take the sample, contact Darlene Johnson @ (251) 578-7200

To Be Completed by The Resident

Water was last used: Time _____ Date _____

Sample was collected: Time _____ Date _____

I have read the directions and have taken a tap sample in accordance with these instructions.

Signature: _____ Date: _____

Section 2

Making Changes to Sample Site Locations

Evergreen Water Works Water Department staff will make an assessment of our ability to sample a sufficient number of appropriate sites from the lead and copper plan well in advance of the monitoring period. Making contact with the resident early and determining whether their home still meets the selection criteria as a sample location will eliminate this variable. Furthermore, lead and copper samples will be collected early in the monitoring period to ensure samples arrive at the lab in a timely fashion and are analyzed well before the end of the monitoring period.

Changes to sample sites are allowed when Evergreen Water Works Water Department staff can no longer gain access to the site or if the original site location no longer meets the Tier selection criteria. For example, if a home is vacant or demolished, if a softener is added or plumbing upgrades have been made then the structure no longer meets the Tier selection criteria.

Evergreen Water Works will submit a site change request before the Water Department takes routine lead and copper samples. The change in location will be submitted to the department no later than the 10th of the month following the end of the sampling period, using the Sample Site Identification and Certification/Change of Sample Site form provided on the next page (11).

Evergreen Water Works can add new sampling sites provided we meet the requirements of a proper sampling location. Evergreen Water Works Water Department will submit a site change request before taking the routine lead and copper samples.

Evergreen Water Works lead and copper plan will be updated whenever there is an addition or deletion of a site. Evergreen Water Works will update the plan to identify sites that meet the requirements of proper sampling locations that can be readily substituted if needed during future monitoring events.

Contact your Alabama Department of Environmental Management (ADEM) Water Supply Operations Section permit writer for a comprehensive list of sample locations that were used in the past.

Lead & Copper Rule: Change of Sample Site Form

PWSID #: _____ PWS NAME: _____

Month & Year Samples were collected: _____ Today's Date: _____

Original Site Address: _____

New Site Address: _____

Distance between sites (approximately): _____

Selection Criteria: NEW: _____ Tier _____

OLD: _____ Tier _____

Reason for Change (attach additional pages if necessary): _____

Original Site Address: _____

New Site Address: _____

Distance between sites (approximately): _____

Selection Criteria: NEW: _____ Tier _____

OLD: _____ Tier _____

Reason for Change (attach additional pages if necessary): _____

Signature (Name & Title): _____

KEEP A COPY OF THIS FORM FOR YOUR RECORDS!

Send to: Alabama Department of Environmental Management
P.O. Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700

Lead & Copper Rule Reduced Monitoring Site Selection

Reduced sample sites shall be selected using the following procedure:

1. From the two most recent six-month rounds of testing, select the round of testing that had the OVERALL HIGHEST lead result.
2. Using the selected round, arrange the sample sites in order, based on the lead test result, from highest to lowest.
3. Beginning with and including the site with the highest lead result, select and include every other site for reduced monitoring (i.e., highest result, 3rd highest, 5th highest, 7th highest, etc.).
4. After selecting every other site (see #3 above), if it is determined that a specific selected site can no longer be included in the sample pool, replace the site with the next site on the original list (i.e., replace the 7th highest site with the 6th highest site).
5. This reduced sample plan must be kept in your file for future reference. You must return to these same sites for each reduced sampling period.

If either the lead or copper action level IS EXCEEDED at the 90th percentile during any reduced monitoring period, you are required to conduct water quality parameter monitoring in accordance during the monitoring period in which the action level was exceeded, and resume standard or base monitoring for at least two consecutive six-month monitoring periods.

Section 3

Important Health Information about Lead and Copper

Alabama Department of Environmental Management (ADEM) Administrative Code r.335-7-11.01 defines Action Level as the concentration of lead or copper in water which is used to determine compliance with the regulations; or the 90th percentile level determined from monitoring water at specific sites in the distribution system.

Utilities, such as Evergreen Water Works must ensure that drinking water from customer's tap does not exceed the Action Level for lead in at least 90 percent of the homes sampled (90th percentile value). Under the authority of the Safe Drinking Water Act, the Environmental Protection Agency (EPA) set the Action Level for lead in drinking water 0.015 milligrams per liter (mg/L) and the Action Level for copper at 1.3 mg/L. Because lead may pose serious health risks, EPA also set a Maximum Contaminant Level Goal (MCLG) for lead of zero. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. The Action Level is the concentration which, if exceeded, triggers further treatment or other requirements that a water treatment and distribution system must follow.

What are the health effects of lead and how can I reduce my exposure?

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Evergreen Water Works is responsible for providing drinking water that meets all federal and state standards, but cannot control the variety of materials used in plumbing components.

When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using the water and using only cold water for drinking or cooking. Information on lead in drinking water and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/your-drinking-water/basic-information-about-lead-drinking-water>. When replacing your bathroom or kitchen faucet, consider a "lead-free" faucet that meets NSF/ANSI Standard 61 Annex G (California), which is less than 0.25% lead by weight.

What are the health effects of copper and how can I reduce my exposure?

Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short period of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor. Flushing your tap before using the water as previously described will also reduce copper levels.

Lead and Copper Notice

All customers for whom lead and copper samples were tested will be notified within 30 days of receipt of the results by Evergreen Water Works of the sample test results. The notice to the customer will be mailed or provided by an alternate method approved by the Alabama Department of Environmental Management (ADEM).

Who can I contact at Evergreen Water Works for more information?

Phone number: 251-578-7200

E-mail address: djohnson@evergreenal.gov

Evergreen Water Works
P.O. Box 229
Evergreen, AL 36401
Water Distribution System Lead and Copper Analysis Results

Evergreen Water Works is required to periodically collect tap water samples to determine the lead and copper levels in our system. Your residence was selected for this monitoring as part of our system's sample plan. This notice is provided to you with the analytical results of the tap water sample collected at your home.

In the following table are the lead and copper results from the _____ compliance monitoring of the Evergreen Water Works distribution system.

SAMPLE DATE	LOCATION (PHYSICAL ADDRESS)	LEAD RESULTS Action Level (15ppb)	COPPER RESULTS Action Level (1.3ppm)

Definitions:

- Actions Level or AL – The concentration of a contaminant that triggers treatment or other requirement a water system shall follow.
- Maximum Contaminant Level Goal or MCLG – The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG allow for a margin of safety
- Parts per million (ppm) or milligrams per liter (mg/L) – one part per million corresponds to one minute in 2 years or a single penny in \$10,000.
- Parts per billion (ppb) or micrograms per liter – one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Lead or Copper in Your Drinking Water

Lead and copper are metals found in natural deposits as ores containing other elements. They are sometimes used in household plumbing materials or in water service lines used to bring water from the main to the home.

Why are Lead and Copper Being Regulated?

In 1974, Congress passed the Safe Drinking Water Act. This law required EPA to determine safe levels of chemicals in drinking water which do or may cause health problems. These non-enforceable levels, based solely on possible health risks and exposure, are called Maximum Contaminant Level Goals. The MCLG for lead has been set at 0 ppm and the MCLG for copper has been set at 1.3 ppm because EPA