

# **SUNRISE WATER SYSTEM LEAD AND COPPER TESTING PROGRAM**

## **PROGRAM DESCRIPTION**

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### **EXECUTIVE SUMMARY**

In compliance with the United States Environmental Protection Agency (USEPA) Lead and Copper Rule all public water systems are required to conduct tap water monitoring for lead and copper. Lead has been found to build up in the body over many years and can cause damage to the brain, red blood cells and kidneys. While the water leaving the City's treatment plants has no detectable level of lead, of concern to the EPA is the possibility of lead leaching from solder material used to join copper pipes in indoor plumbing, a construction method that was widely used in South Florida during the period from 1983 to June 1988.

The development and implementation of the Sunrise Water System Lead and Copper Testing Program ("Program") is the responsibility of the Utility Support Division of the City of Sunrise Utilities Department ("the Department"). In order to evaluate the potential for leaching of lead and copper into the potable water delivered through indoor plumbing, it is necessary for the Department to: 1) Identify residential properties that are connected to the Sunrise water system and have lead solder used to join copper pipes ("qualifying properties"); 2) Obtain water samples from kitchen and bathroom faucets; and 3) Test the water samples for a number of water quality parameters.

### **SUNRISE WATER SYSTEM**

The Sunrise water system provides potable water to customers in Sunrise, Davie, the Bonaventure section of Weston and Southwest Ranches. The water is produced at three separate facilities, each of which generally provides water for a separate geographical area:

1. The Springtree Water Treatment Plant produces water using Biscayne Aquifer source water and a lime softening treatment method. This facility produces approximately 11 million gallons per day ("mgd") and generally provides water to customers in Sunrise who are located east of Flamingo Road.
2. The Sawgrass Water Treatment Plant produces water using Biscayne Aquifer source water and a nanofiltration treatment method. This facility produces approximately 18 mgd and generally provides water to customers in Sunrise who are located west of Flamingo Road, as well as to customers in most of Davie and all of Weston.
3. The Southwest Water Treatment Plant produces water using Biscayne Aquifer source water and a lime softening treatment method. This facility produces approximately 1 mgd and provides water to customers in the area previously served by the South Broward Utility ("SBU"), a utility system acquired by Sunrise in 1997 (portions of Davie and Southwest Ranches).

Because each of Sunrise' three treatment plants produces water with unique quality parameters and services a separate geographical area, it is important for the Department to sample and test water from each facility's service area.

## **METHODOLOGY**

In order to verify that the Department is testing water samples from qualifying properties, it is necessary for Department staff or authorized contractors/representatives of the City to physically visit and inspect homes that could potentially have lead solder used to join copper pipes and whose owners/occupants are willing to participate in the testing Program. The verification process includes a combination of plan review, visual inspection, and electronic testing. Once the Department has determined that the home is a qualifying property, an ongoing water sampling plan will be established with the property owner or occupant. In order to maintain continuity of sampling locations for historical comparison and to reduce the effort required to continually identify new qualifying properties, the Department will give preference to selecting properties that are occupied by the property owners rather than tenants (who are frequently not long-term residents of a single property).

In accordance with USEPA requirements, the sampling of water from qualifying properties is an ongoing process that is conducted at periodic intervals (anticipated to be no more frequent than twice per year). Because the EPA rule requires the water to sit undisturbed in the residents' internal plumbing for at least 6 hours prior to collecting a sample, the Program would engage the property owners/occupants themselves to collect the water samples and then to make the samples available for pick-up by the Department. Samples are expected to be collected from up to 180 qualifying properties each sampling period.

## **PROCEDURE**

The Department will follow the following general procedures in the completion of work performed under this Program:

1. Identify the pool of potential qualifying properties serviced by each of Sunrise' three water treatment plants.
2. Mail letters initially to a subset of potential qualifying properties based on utility customer information indicating that the homeowner is the resident of the property. The letters shall describe the USEPA Lead and Copper Rule, as well as the parameters of this program, and may include additional descriptive documents. The homeowner will be asked to participate in the Program by: 1) allowing the City to enter the home and evaluate the plumbing for existence of copper pipes with lead solder; and 2) if the property is a qualifying property, agree to participate on a recurring basis in the collection of water samples.
3. Participating properties will be selected based on the order in which the homeowners respond to the Department's request for participation.
4. If the number of homeowners willing to participate in the Program is insufficient, the Department may expand its solicitation for participation to include customers that are identified as renters or tenants.
5. Provide the instructions and materials that homeowners will need in order to properly participate in the Program.
6. Provide customers an incentive to participate, as follows:
  - a. Issue a one-time \$15.00 credit to the customer's utility account for allowing the Department to enter the home and inspect the plumbing to verify that the home is a

qualifying property. The inspection must be completed before the credit would be issued.

- b. For those homes selected for continued participation in the Program after identification as a qualifying property, issue a \$10.00 credit to the customer's utility account for each collection event in which the customer properly provides the required water sample to the Department.
7. Should the occupancy of a property that is participating in the Program change, the Department will ask the new customer to continue the participation in order to preserve the continuity of the home as a sampling location.
8. To the extent that the Department requires additional customer participation in the program or has an excess of participants, the Department may:
  - a. Add or delete sampling locations
  - b. Add to or reduce the total number of sampling points required for the Program

Any deletion or reduction in sampling locations shall be effected in a manner consistent with the Program goal of maintaining continuity of sampling locations for historical comparison. Therefore, preference shall be granted to 1) properties occupied by the homeowner, and 2) customers that have most consistently participated in the sampling events as requested.

9. The Department shall have the authority to discontinue participation in the Program of any customer that it reasonably believes is not performing appropriately.

#### **AUTHORITY**

The Director of Utilities or designee is authorized to develop, implement and interpret policies, including selection of qualifying properties, related to this program.