

Georgia Department of Natural Resources

Environmental Protection Division

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Fact Sheet:

Georgia Environmental Protection Division Oversight of Safe Drinking Water and Lead-related Issues

- This document is a brief summary of how the Georgia Environmental Protection Division (EPD) works to ensure that the drinking water provided by permitted public water systems in Georgia is safe.
- There are approximately 2,400 permitted public drinking water systems in the state. About 150 systems get their water from surface water sources such as streams and reservoirs. The remaining 2,250 systems pump groundwater from wells.
- The EPD Watershed Protection Branch currently employs 59 associates in its regulatory programs who work on issues related to safe drinking water. In addition, there are 70 associates in the EPD laboratory who process more than 50,000 drinking water samples each year. More than 7,000 analyses for lead are conducted annually.
- When a new drinking water source is proposed, that source goes through a rigorous source water approval process. This process includes a significant amount of physical and chemical screening of the proposed source water for at least for two (2) quarters analyzed by a certified lab and the results submitted to EPD for review. In conjunction with the lab results, a professional engineer must demonstrate and certify that the delivered water will meet all the state and federal drinking water standards with respect to bacteriological, physical, chemical and radiological quality requirements. This engineering analysis must be reviewed and approved by the engineers in the EPD Drinking Water program. The source water may not be used until it has been approved by EPD.
- Once the source water is approved and is put into service, federal regulations require a substantial amount of ongoing compliance monitoring to ensure that the drinking water is safe. The potential for human exposure to lead is primarily due to the corrosion of plumbing materials that contain lead, such as lead solder in household piping. The regulations are designed to protect public health primarily by reducing water corrosivity. The lead is not present in the treated water produced at the treatment facility, but rather comes from reactions within the pipes between the treatment plant and the consumer's faucet. Therefore the regulations require significant sampling from the water taps within the homes of consumers.
- Samples are collected at interior cold water kitchen or bathroom taps inside individual homes within the distribution system and are most often collected by the homeowners based on instructions provided to them by their water system officials. The number of

samples required is based on the size of the population served (this can be as little as 5 samples for a system serving fewer than 500 people or as high as 100 samples for a system serving more than 100,000) and is initially done on a 6-month basis. The sampling frequency is reduced for systems that demonstrate ongoing compliance.

- The action level is exceeded when more than 10% of the samples for any compliance period have lead concentrations of more than 15 ug/L (micrograms per liter). Exceeding the action level is a 'trigger' for the water system to conduct public education, review sampling protocols and take steps to optimize corrosion control. Monitoring for lead is conducted on a 6-month basis until the water system is below the action level for two consecutive 6-month compliance periods.
- When the action level is exceeded, the water system must complete public education within 60 days after the end of the compliance period through notices in customer bills, flyers, web notices, etc. The water system must certify and send copies of these notices to EPD. Public education must be repeated periodically until the water system no longer exceeds the action level.
- Also when the action level is exceeded, the water system must begin corrosion control optimization by sampling and monitoring water quality parameters and source water. EPD contracts with the Georgia Rural Water Association to provide sampling and technical assistance to water systems that need assistance meeting this requirement.
- If sampling results indicate that the water has a corrosive quality, the water system will work with its engineer and EPD to evaluate corrosion control options and implement the appropriate corrosion control treatment (usually the addition of a chemical to increase the pH and/or the addition of a corrosion inhibitor).
- US EPA has developed a brochure to distribute to the public when high levels of lead are discovered that includes the steps being taken by the water provider to reduce the lead levels and also includes steps that the consumer can take such as 1) flushing the water at the tap before using the water; 2) using only cold water for cooking and drinking; or 3) purchasing an in-home treatment device that can remove lead.