

US EPA ARCHIVE DOCUMENT

### 1. What are the sources of perfluorochemical (PFC) contamination in Decatur, Alabama?

The Decatur Utilities Dry Creek Wastewater Treatment Plan (Decatur Utilities) receives wastewater from residential and industrial sources.

EPA has identified three local facilities that historically used or manufactured PFCs and discharged wastewater to Decatur Utilities: the 3M Company, Daikin America, Inc., and Toray Carbon Fibers America, Inc. In addition, the Morgan County Landfill discharges leachate containing PFCs to Decatur Utilities.

Treated sewage sludge, called "biosolids," from Decatur Utilities was applied as a fertilizer on approximately 5000 acres of farmland in Lawrence, Morgan and Limestone Counties from 1996 to 2008.

In 2007, EPA determined that the biosolids, along with soil where biosolids had been applied, contained PFCs. Extensive sampling since has revealed that PFCs migrated to ground and surface water in the area.

### 2. What has been done to reduce the sources of PFC contamination?

After learning its biosolids contained PFCs, including perfluorooctyl sulfonate (PFOS) and perfluorooctanoic acid (PFOA), Decatur Utilities voluntarily stopped distributing them in November 2008. The biosolids have since been disposed of in a landfill.

Industries in Decatur have also made significant progress over the last few years to reduce and prevent the release of PFCs to the environment. The industries have stopped manufacturing PFOS and are currently phasing out PFOA.

The Alabama Department of Environmental Management (ADEM) continues to use its permitting

programs and existing Memorandum of Understanding with 3M to reduce PFCs entering the environment.

### 3. Is my public drinking water safe to drink?

EPA and local industries tested public water supplies in Moulton, Decatur, West Morgan/East Lawrence (WM/EL), Limestone County and Swann Creek between 2008 and 2009.

No detectable concentrations of PFCs were found in the Moulton, Decatur, Limestone County and Swann Creek System public water systems. The levels of PFCs detected in West Morgan/East Lawrence (WM-EL) system was below EPA's Provisional Health Advisory (PHA) levels for drinking water (0.4 ppb for PFOA and 0.2 ppb for PFOS).

Since these values have remained below PHA levels, EPA believes residents may continue to rely upon these public water systems as their primary drinking water sources.

WM-EL is located downstream of industrial facilities that manufactured PFCs in the past, and the Decatur Utilities wastewater treatment plant. Both the industries and Decatur Utilities have discharges of wastewater to the Tennessee River.

Several entities, including the WM-EL system and the 3M industrial facility, have monitored on occasion for PFCs at the raw and finished water of the water supply system. These occasional data indicate the concentrations in the finished water of the WM-EL system have been below EPA's PHA levels.

WM-EL has agreed to conduct monthly sampling and analysis of PFOA and PFOS in its raw and finished water beginning in March 2013. Customers will be notified if concentrations exceed EPA's PHA levels.

#### 4. Why is blood serum elevated if the public water supply has been below EPA's Provisional Health Advisory Level?

PHA levels are the concentrations of PFOA or PFOS in drinking water that will not cause adverse health effects from short term consumption. Accumulation of PFOA and PFOS in blood will occur at the PHA levels, although the magnitude of the accumulation is not known.

The Decatur community has been exposed to PFOA and PFOS through many potential pathways, such as the use of consumer products containing PFCs, the consumption of contaminated fish caught in the Tennessee River, and even through air.

Another factor complicating the understanding of the elevated blood levels is the lack of complete data on past (pre-2005) concentrations of PFOA and PFOS in the Tennessee River, which is the source of WM-EL's drinking water system.

#### 5. Is my private well water safe to drink?

EPA, Decatur Utilities and a group of local industries conducted a comprehensive survey to identify and test private drinking water wells located from one-quarter mile to one mile from the biosolids application sites.

Of the 19 wells tested between 2009 and 2011, three had PFC levels above EPA's PHA levels for drinking water. These three residences received bottled water until they were connected to the public drinking water system.

Two other homes with private wells that did not have elevated levels of PFCs were also connected to public drinking water (at the owners' requests).

EPA is not aware of any residents presently drinking private well water with elevated levels of PFCs.

If you think you reside near a site where biosolids from Decatur Utilities were applied and rely of private well water—but your well has not been tested—please contact: Lee Thomas, EPA Hydrogeologist at 404-562-9786 or [Thomas.Lee@epa.gov](mailto:Thomas.Lee@epa.gov).

#### 6. Is the soil where biosolids were applied safe?

None of the soil samples exceeded EPA Region 4's soil screening values for protection of children's health (which is also protective of adult health). Decatur Utilities voluntarily stopped making them available for land application as a fertilizer almost five years ago, in November 2008.

#### 7. What additional precautions can residents take?

If persons are concerned about PFC compounds in their drinking water, some water filtration devices (point-of-use devices that are installed at an individual tap, faucet, or outlet) may remove some of these compounds from water, based on a study conducted by the Minnesota Department of Health.

Individuals should contact the company that makes the water filtration device to determine whether the device is effective in removing PFC compounds, and ask for advice on how often they should change their filters.

Further, the Alabama Department of Public Health has issued a 'no consumption' fish advisory for all species of fish in the Baker's Creek embayment of Wheeler Reservoir. Future testing will determine if this advisory needs to be expanded or reduced. The entire advisory can be found at: [www.adph.org](http://www.adph.org).

For more information, contact:

Lee Thomas, U.S. EPA Region 4, 404-562-9786 or [Thomas.Lee@epa.gov](mailto:Thomas.Lee@epa.gov)