











Narrative: PWS OH8301512 Richard A. Renneker Public Water System Lead Mapping

The properties served by this public water system are grouped into six (8) distinct categories based on the date of construction and type of structure listed in the Warren County Auditor's Records and the following interpretation of the general end dates of eras after which lead solder was banned, lead content was limited, or lead content was essentially eliminated.

Because it is practically impossible to determine the lead content of an installed fixture, fitting or pipe, it is assumed that the date of installation (first listed date of home construction) and age of water main servicing those buildings will be used as the two (2) primary indicators of potential lead content. Buildings constructed in Ohio prior to 1988 could contain lead pipe and/or lead based solder, buildings constructed prior to 1998, or utilized plumbing materials or solder manufactured before 1998 may contain materials with greater than 8% lead content and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. In addition, buildings constructed after 2014 which incorporated plumbing materials manufactured after 2014, which were required to contain less than 0.25% lead by weight, will have the lowest risk for contributing lead to the drinking water. It should be noted that, although prohibited by law, some use of leaded solder or lead bearing components may have occurred after the prohibition became effective.

Based on this criteria, we have identified, by map color code, the following divisions of potential for private side lead component content:

-  Residential Properties Constructed before 1988 served by mains installed before 1960
-  Residential Properties Constructed before 1988
-  Residential Properties Constructed after 1988 but before 2014
-  Residential Properties Constructed in 2014 and after
-  Commercial Properties Constructed before 1988 served by mains installed before 1960
-  Commercial Properties Constructed before 1988
-  Commercial Properties Constructed after 1988 but before 2014
-  Commercial Properties Constructed in 2014 and after

Warren County has historically identified the public portion of the service lines to be comprised of the water mains, tapping device, waterline from the main to the meter pit, the meter pit, the water meter, and support devices including angle valves, shut-off valves and corp stops; and the private side of the service consist of the water service lateral from the outbound side of the meter pit to the home (structure). Also, all of the plumbing inside the home (structure) including water line, solder, fittings, fixtures, and appurtenances are considered private side as well. All private side waterline and appurtenances from the outbound side of the water meter pit are the property of the owner and must be maintained appropriately under that ownership.

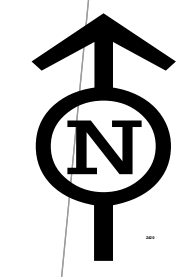
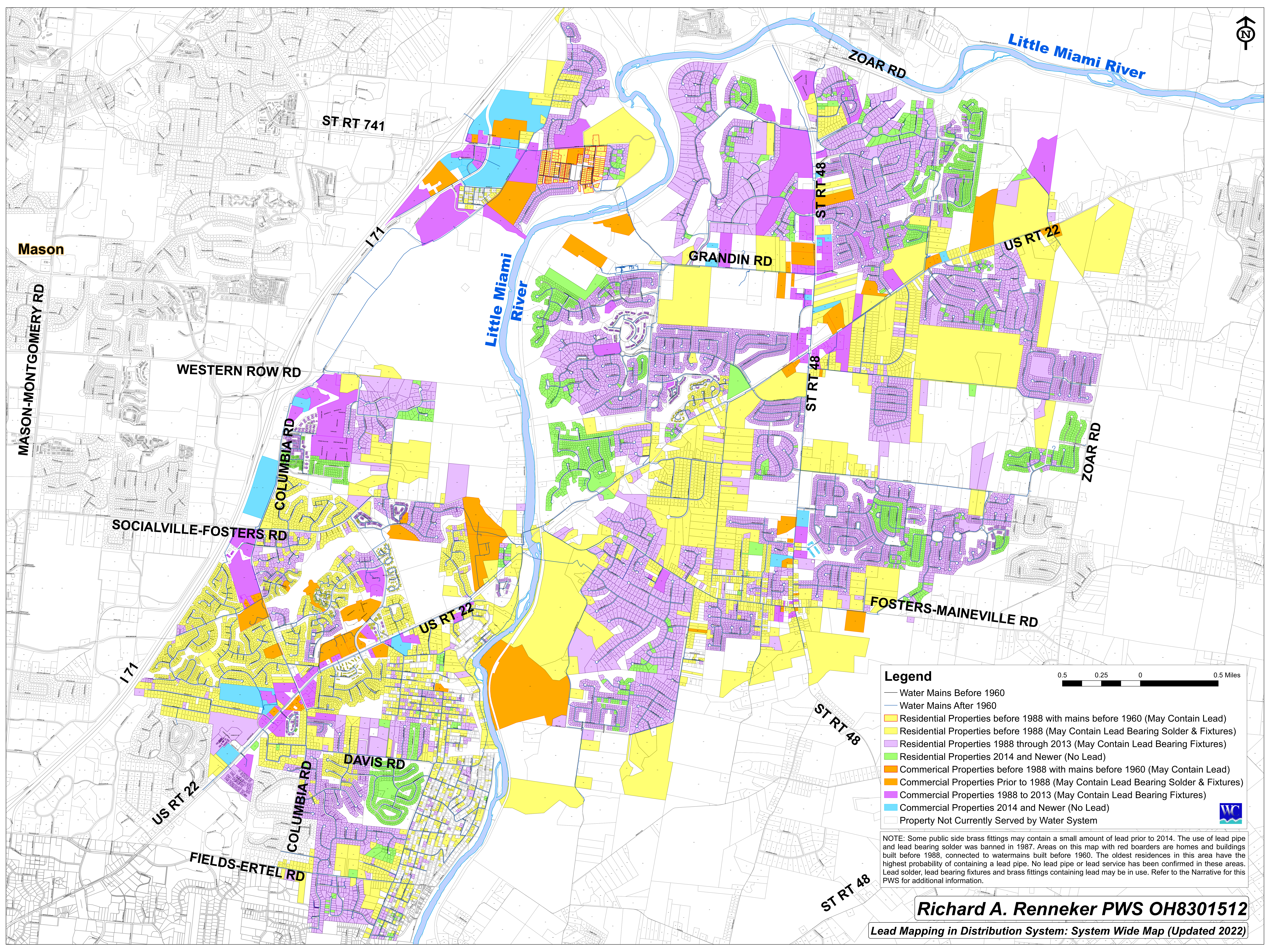
In the context of these Lead Maps prepared for the OEPA, the color coding is mostly indicative of the first date of construction found for each home. It does not directly indicate presence or absence of Lead piping in the home or in the yard (private side service line). Properties indicated in yellow shading with a red border on the map were built in the late 1800's, many in the 1920's and 1950's. Since these homes and the Kings Mills water system existed before the Warren County Water Department was formed in 1962, no records exist of actual materials used during construction of the old system except main line construction drawings dating the pipe as "old existing main" in the 1962 Nelson Watson Jr. & Associates, Inc. plan set. The "new" cast iron mains installed in 1962 for the "new" water plant and system were connected to the "old" mains in town. These oldest designated homes on mains constructed prior to 1960 have the highest potential of containing lead pipe in the home, lead service lines both private and public side, but no services or pipes are known to be lead or contain lead in this PWS at this time.

Further investigation into existing records on water taps/service lines has proven fruitless with regard to original service line installation records or legislative acts banning the use of Lead in this PWS. According to the mainstream literature, as well as suggested in the OEPA "Guidelines for Lead Mapping in Distribution Systems" (published 01/06/2017), use of Lead service lines was discontinued around the end of the 1950's. Therefore, the remainder of the properties in this PWS constructed after 1962 but before 1988 (identified in yellow shading with brown border) likely have public side cast iron or ductile iron mains with service laterals to the meter pit consisting of K Type copper tubing with brass corp stops, angle valves, water meters and other appurtenances.

Further designation of homes constructed between 1988 and 2014, as designated in pink shading, most likely do not contain any lead pipe or lead based solder, but may have plumbing fittings and fixtures in the home which contain a portion of lead, up to 8%. The homes constructed after 2014 most likely utilized plumbing components considered to be essentially lead free, and are indicated with green shading.

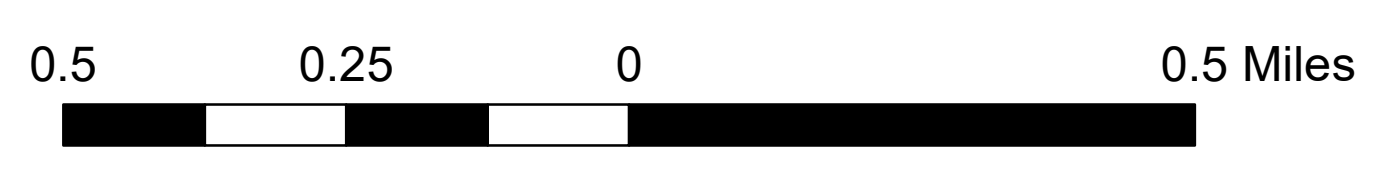
Warren County tests for Lead content in water samples obtained inside private residences in this PWS, every third year. This is a reduced sampling schedule as allowed by current OEPA regulation due to the very low levels of Lead detected in each sampling round.

In summary, this PWS's Lead Map is color coded to identify potential for private side Lead content based on the age of construction of the home. All homes in this PWS constructed prior to 1988 have the highest risk of having some portion of the private water service lines contain lead pipe, lead solder or lead bearing fixtures. All of the public side brass valves, meters, and appurtenances installed from 1962 (inception of the Warren County Water Department) through 2013 have the potential to contain some Lead. Historical records show the measured Lead levels in drinking water are very low in homes in this area.



Legend

- Water Mains Before 1960
- Water Mains After 1960
- Residential Properties before 1988 with mains before 1960 (May Contain Lead)
- Residential Properties before 1988 (May Contain Lead Bearing Solder & Fixtures)
- Residential Properties 1988 through 2013 (May Contain Lead Bearing Fixtures)
- Residential Properties 2014 and Newer (No Lead)
- Commercial Properties before 1988 with mains before 1960 (May Contain Lead)
- Commercial Properties Prior to 1988 (May Contain Lead Bearing Solder & Fixtures)
- Commercial Properties 1988 to 2013 (May Contain Lead Bearing Fixtures)
- Commercial Properties 2014 and Newer (No Lead)
- Property Not Currently Served by Water System



NOTE: Some public side brass fittings may contain a small amount of lead prior to 2014. The use of lead pipe and lead bearing solder was banned in 1987. Areas on this map with red borders are homes and buildings built before 1988, connected to watermains built before 1960. The oldest residences in this area have the highest probability of containing a lead pipe. No lead pipe or lead service has been confirmed in these areas. Lead solder, lead bearing fixtures and brass fittings containing lead may be in use. Refer to the Narrative for this PWS for additional information.

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Lead Mapping in Distribution System: System Wide Map (Updated 2022)