






2017

CLEVES, OHIO PUBLIC SIDE - PRIVATE SIDE

-  NONLEAD - NONLEAD 2014 NEWER
-  NONLEAD - NONLEAD OLDER THAN 1982
-  POSSIBLE LEAD CONTAINING LEAD COMPONENTS NEWER 1982
-  HISTORIC_SERVICES
-  HISTORIC DISTRICT

Disclaimer for Lead and Copper Services for the Village of Cleves, Ohio Water Works Because it is practically impossible to determine the lead content of an installed fixture, fitting or pipe, it should be assumed that the manufacture or installation date is the primary indicator of the lead content. Therefore, the characteristics of buildings and piping solder or fixtures would be buildings in Ohio built prior to 1998 or that have used plumbing material or solder manufactured before 1998. Such materials may have lead with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. In addition, buildings built and plumbing materials manufactured after 2014 were required to have less than 0.25% lead by weight and have the lowest risk for contributing lead to the drinking water. It should be noted however that, although prohibited, some use of leaded solder or leaded components may have occurred after the prohibitions became effective. Actual lead pipe services were generally assumed to be on buildings less than 1930. The Historic Area as highlighted indicates where possible lead pipes existed on the public and private side. While no remaining lead pipes exist on the public side with a possible exception according to water records reviewed to date, the property owner should verify if any lead pipe exists on the private side. More information on lead in the public water systems can be obtained from the OEPA, Division of Drinking and Ground Water under the Lead and Copper in Public Systems web page.

Cleves is a Village founded in 1818, named for John Cleves Symmes who lived and laid out the original town site and sold lots. The Village lies along the Great Miami River along US 50 Highway. The Village of Cleves is due north of the adjacent Village of North Bend along the Ohio River that it serves water. Cleves and North Bend began to grow in earnest from 1880 through 1930 primarily in the historic area as shown on the map with a population of 1,211 in 1930. Some of the remaining historic buildings still exist.

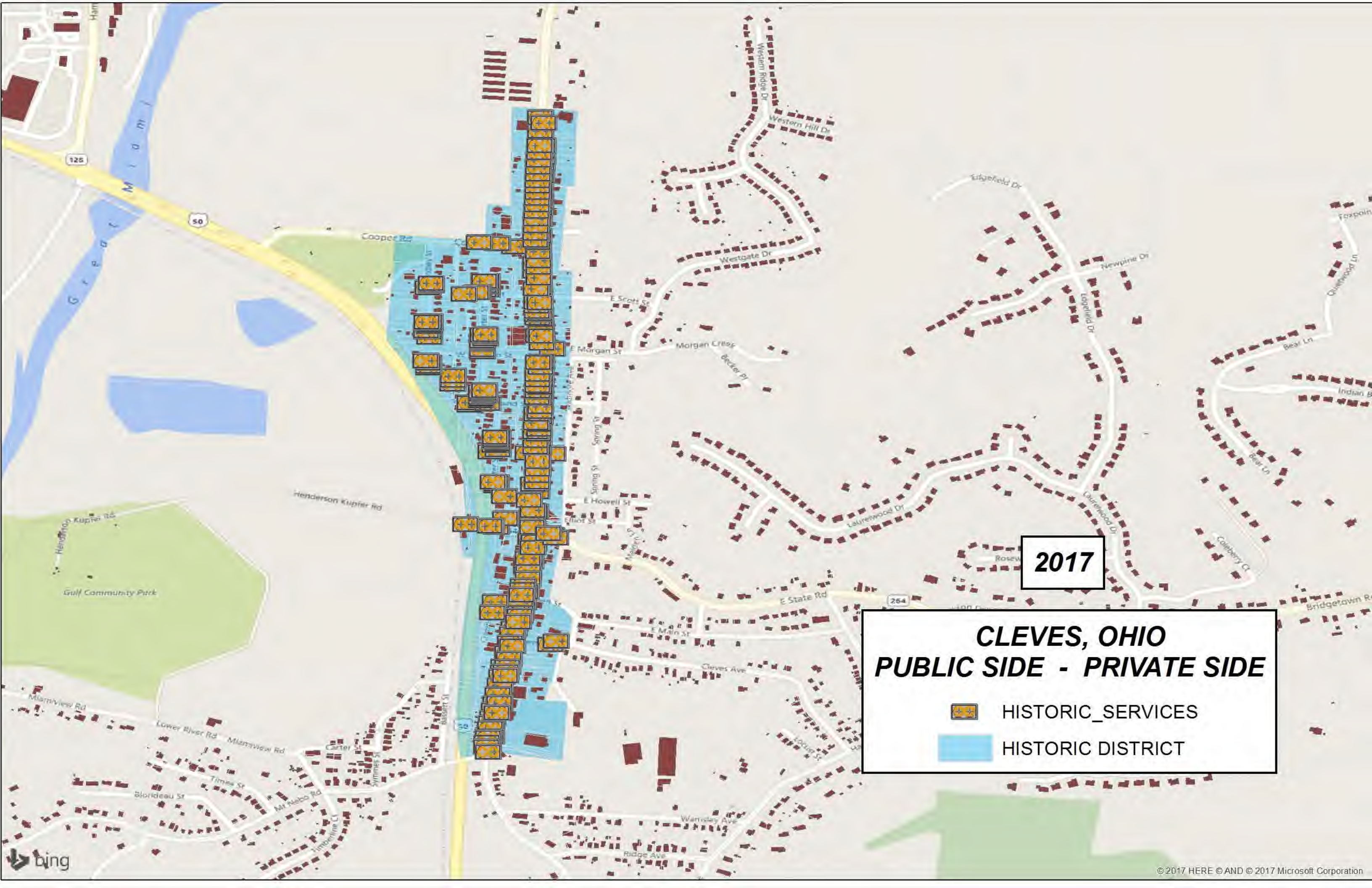
The Greater Cincinnati Water Works owned and operated the Cleves Water System from 1928 through 1958. After 1958, the Village of Cleves acquired ownership and operations of the Cleves and North Bend water systems. During this time from 1928 through present day, no lead pipes were installed in the Cleves Water system that included the Village of North Bend by either Cincinnati or Cleves based on historical records. Cleves Water Works has reviewed water records and has determined that the water system is without any lead pipes; however, lead components as described above have been used in the water system similar to most other water systems in Ohio, including Cincinnati. Today, the Cleves Water Works owns a water system within the Villages of Cleves and North Bend as well as portions of Whitewater and Miami Townships. The current water service branches or taps are highlighted on this map and are made of copper pipe materials. These water services do use leaded solder joint materials as described above.

In summary, water services installed after 1958 are assumed to be copper pipe with some brass piping used prior to 1960. Water services installed from 1955 to 1959 may have used the 85 lead solder that could leach into the water through joints on services in the street portion (public) and or within the home or business (private side). The property owner should verify lead content issues on the private side. A review of water services installed between 1930 and 1982 and 1982 and 1998 used copper pipe with lead solder for joining pipe materials. The 1982 to 1998 service pipes may have a higher risk of lead joints leaching because of less normal water mineral buildup inside the pipes.

Public and private water mains constructed from 1880 through 1960 in general were constructed of cast iron hub and spigot pipe generally in 18 foot sections joined together using lead joint materials. These cast iron pipes (used with water mains, fire hydrant piping, fire hydrants, and valves) are connected using yarn and lead or leadline (Subhur based additive for easier lead pour) for each pipe joint. These leaded joint water mains are being replaced but many of these pipes exist throughout the water system, typically for Ohio water systems.

Water mains generally installed in the late 1950's were installed using mechanical joint pipe with bolted connections. However, around 1960 compression joint pipe was introduced eliminating bolted connections on pipe. These water main piping materials since about 1960 in the public water system did not use in general lead joints on public water mains.

March 2017



2017

CLEVES, OHIO
PUBLIC SIDE - PRIVATE SIDE

 HISTORIC_SERVICES
 HISTORIC DISTRICT

March 5th, 2017

Ohio Environmental Protection Agency (OEPA)
Division of Drinking and Ground Waters
401 E. Fifth Street
Dayton, Ohio 45402

Re: Village of Cleves, Ohio
PWS ID No. OH3100512
Lead and Copper Mapping of Water Services on a GIS Based Distribution Map

In June 2016 State House Bill 512 was passed with the resulting regulation, Ohio Revised Code 6109.121 requesting that community public water systems comply with lead and copper mapping of water services within their distribution system. The Village of Cleves water operator and engineer submits this lead and copper report, lead and copper sampling plan locations and GIS distribution water map identifying lead and copper services with an OEPA requested disclaimer for your review and acceptance.

The Mr. Dan Schaefer met with the OEPA's on Friday March 3rd, 2017 to perform a checklist review of the necessary documents to insure that requirements for the lead and copper per this regulation are met. We were advised to proceed and given strong support of our efforts to date. We understand that violation letters could be mailed out on Tuesday, March 7th, 2017 to any PWS not submitting a mapping plan and report so this report and plan is being submitted at this time to eliminate any potential violation letter sent to the Village.

The comments below describe the Village's best effort on the location, identification as to material type and status of lead and copper service branches in the Village's water system. This below information and disclaimer has been placed on the Lead and Copper Map of Water Services for the Village.

Cleves is a Village founded in 1818, named for John Cleves Symmes who lived and laid out the original town site and sold lots. The Village lies along the Great Miami River along US 50 highway. The Village of Cleves is due north of the adjacent Village of North Bend along the Ohio River that it serves water. Cleves and North Bend began to grow in earnest from 1880 through 1930 primarily in the historic area as shown on the map with a population of 1,711 in 1930. Some of the remaining historic buildings still exist.

The Greater Cincinnati Water Works owned and operated the Cleves Water System from 1928 through 1958. After 1958, the Village of Cleves acquired ownership and operations of the Cleves and North Bend water systems. During this time from 1928 through present day, no lead pipes were installed in the Cleves Water system that included the Village of North Bend by either Cincinnati or Cleves based on historical records. Cleves Water Works has reviewed water records and has determined that the water system is without any lead pipes; however, lead components as described above have been used in the water system similar to most other water systems in Ohio, including Cincinnati. Today, the Cleves Water Works owns a water system within the Villages of Cleves and North Bend as well as portions of Whitewater and Miami Townships. The current water service branches or taps are highlighted on this

map and are made of copper pipe materials. These water services do use leaded solder joint materials as described above.

In summary, water services installed after 1935 are assumed to be copper pipe with some brass piping used prior to 1940. Water services installed from 1935 to 1998 may have used the 8% lead solder that could leach into the water through joints on services in the street portion (public) and or within the home or business (private side). The property owner should verify lead content issues on the private side. A review of water services installed between 1935 and 1982 and 1982 and 1998 used copper pipe with lead solder for joining pipe materials. The 1982 to 1998 service pipes may have a higher risk of lead joints leaching because of less normal water mineral buildup inside the pipes.

Public and private water mains constructed from 1880 through 1960 in general were constructed of cast iron hub and spigot pipe generally in 18 foot sections joined together using lead joint materials. These cast iron pipes (used with water mains, fire hydrant piping, fire hydrants, and valves) are connected using yarn and lead or leadite (Sulphur based additive for easier lead pour) for each pipe joint. These leaded joint water mains are being replaced but many of these pipes exist throughout the water system, typically for Ohio water systems. Water mains generally installed in the late 1950's were installed using mechanical joint pipe with bolted connections. However, around 1960, compression joint pipe was introduced eliminating bolted and poured lead joint connections on pipe. These newer water main piping materials including PVC since about 1960 in the public water system did not use lead joints on water mains.

Disclaimer for Lead and Copper Services for the Village of Cleves, Ohio Because it is practically impossible to determine the lead content of an installed fixture, fitting or pipe, it should be assumed that the manufacture or installation date is the primary indicator of the lead content. Therefore, the characteristics of buildings and piping solder or fixtures would be buildings in Ohio built prior to 1998 or that used plumbing material or solder manufactured before 1998. Such materials may have lead content with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. In addition, buildings built and plumbing materials manufactured after 2014 were required to have less than 0.25% lead by weight and have the lowest risk for contributing lead to the drinking water. It should be noted however that, although prohibited, some use of leaded solder or leaded components may have occurred after the prohibitions became effective. Actual lead pipe services are generally assumed to be possible prior to 1935. The Historic Area as highlighted shows where possible lead pipes may still exist but cannot be confirmed through existing records and should be verified on both sides for each water service tap or branch through approved OEPA testing methods.

If the OEPA should have any questions or require any follow up information or corrections, please do not hesitate to contact this below team.

Sincerely,

Eric Winhusen, Water Operator and Superintendent

Dan Schaefer P.E., Water Engineer, Brandstetter Carroll Inc.

**VERIFICATION FORM FOR COMMUNITY PUBLIC WATER SYSTEMS
CLAIMING NO LEAD SERVICE LINES**

The owner or operator of all community public water systems must identify and map areas of their distribution system that are known or are likely to contain lead service lines. Systems must submit a copy of the applicable map to the Ohio Department of Health and the Ohio Department of Job and Family Services. Systems must also submit a report to the director containing at least both of the following: (1) The applicable map with narrative, and (2) A list of sampling locations used to collect samples as required by Ohio Revised Code (ORC) Section 6109.121 and any rules adopted thereunder, including contact information for the owner and occupant of each sampling site.

Should a water system determine no lead service lines exist in their distribution system, they must provide information stating they reviewed, at the minimum, historical permit records and local ordinances, distribution maintenance records and information pertaining to installation dates or materials for all services lines. This information must be verified below.

I HEREBY CERTIFY THAT THE FOLLOWING METHOD(S) WERE USED TO DETERMINE NO LEAD SERVICE LINES EXIST IN THIS WATER SYSTEM'S DISTRIBUTION SYSTEM, AS REQUIRED BY ORC 6109.121(F):

LEAD SERVICE LINE VERIFICATION

This PWS states they have no lead service lines and has reviewed the following information (select one or more of the following):

- ☒ Historical permit records and/or local ordinances
- ☒ Distribution maintenance records (i.e. meter replacement, waterline break repairs)
- ☒ Information pertaining to installation dates for all service lines (i.e. after 1986 when lead services lines were banned)
- ☐ Service line material of all service lines is known (i.e. all service lines are known to be PVC)

Eric J. Winhusen
Signature of Responsible Person

2/23/17
Date

Eric J. Winhusen Superintendent
Printed Name and Title of Responsible Person

WS3-1008146-90

PWS NAME: Cleves Village

PWS ID:

OH 3100512

COUNTY: Hamilton

For Ohio EPA use only:

Date Verification Rec'd: _____