

Cadiz, OH (PWS 3400214)

Public Water System Lead (Pb) Components

Prepared February 2017

To comply with Section 6109.21 of the Ohio Revised Code, enacted in September 2016, the Village of Cadiz, the county seat of Harrison County, Ohio has created the following report and attached maps to identify known and potential components of its public water system that contain lead (Pb).

RCAP staff and the Cadiz water department met on February 8th, 2017 to review possible presence of lead in the service area. Few applicable historical maintenance, and operational records were available consulted along with limited as-built construction maps. The water department has maintained a set of tap cards that show the location of curb stop valves throughout the water system. These cards are primarily used for showing the location of the shutoff for individual structures. Not many of the tap cards include information about the material or age of the service line, however, in rare cases the material can be seen on the tap card. In addition, operators with extensive experience and knowledge of the system were present to provide the best knowledge of the system. Existing mapping and historical maintenance knowledge are the base of the institutional memory for the water distribution system. Lead component findings were identified by Cadiz water operators and recorded in a GIS database.

Service Lines and Ownership

The Cadiz water department distributes water to customers at approximately 1600 parcels. The system owns and maintains service lines from the water distribution main to the curb stop valve. The length of service line from the curb stop valve into the meter is owned and maintained privately by the consumer account holder. The majority of publicly owned and the private portions of service line are a mix of copper, CTS plastic, and galvanized. Some service lines are known to be lead, however, it is not believed that there are any private service lines that are made of lead.

The Village of Cadiz has regulations in place that require new service lines to be installed using ¾" to 2" type K copper or CTS plastic pipe. The current regulations were adopted in year, but this has been standard operating procedure long before the adoption of the official legislation. Experienced operators currently in charge of maintaining the water distribution system replace lead service lines when they are exposed for repairs or main line replacement projects. It has been common to replace 5 to 10 lead service lines per year over the last 30+ years. The attached map shows the probability of each service address having a lead service line based on the places where lead service lines have been found and replaced. Some of these services are known based on the year of installation, others are based on what has been found during past repair and maintenance projects.

Distribution System

Cadiz Water produces treated surface water from Lake Tappan. The potable water is then distributed through approximately 35.5 miles of water main lines. The water distribution system was constructed between the 1930s and 2016. The system was constructed using copper, cast iron, ductile iron, high density polyethylene, SDR 21 PVC, and c900 PVC water pipe (all piping between 1" and 12"). Much of the original cast iron has been replaced and the system is gradually transitioning to plastic pipe. Replacement of more cast iron is scheduled for 2017.

Water Meters and Indoor Plumbing

Some of the customer water meters may contain lead. The Village of Cadiz does meter replacement as needed. While a few meters have been replaced in recent years, it is likely that the majority of meters contain >8% lead.

Buildings in Ohio built prior to 1998 or that use plumbing material or solder manufactured before 1998 may have materials with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. 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. Harrison county auditor records were unable to be obtained for this project. The Village of Cadiz has record of structures have been built since 2014. Those structures should be completely free of plumbing with components containing greater than 0.25% lead, however, nearly all other buildings in Cadiz may have some percentage of lead in the plumbing components. The buildings that are most likely to contain a high percentage of plumbing with lead in it are in the historic district. Many of the buildings downtown Cadiz have been renovated since their original construction. Since records are difficult to obtain for renovation projects, it is the buildings in the historic district that are most at risk and most highly encouraged to inspect and self-report lead findings.

Customer Self-Reporting

The information on this map regarding privately owned service lines is based on the limited information from the water system staff and Harrison County building and parcel data. Property owners are encouraged to inspect their own service lines entering the building if these are in anyway exposed, and notify the Village of Cadiz water department if they have determined whether or not a lead service line exists. Please contact the Village Administrator by calling (740) 942 - 8844. A representative from the water department will contact you to confirm and update this information for the next map release.

Contacts and Resources

If you have questions about known and potential lead components within the Village of Cadiz Public Water System, please contact:

Cadiz Village Administrator

Phone – (740) 942 - 8844

Email – cadizws@gmail.com

For more information about lead service lines and their removal, we recommend the following resources:

- **The Lead Service Line Replacement Collaborative**
<http://www.lslr-collaborative.org/resources-for-concerned-consumers.html>
- **Ohio EPA 'Learn About Lead' page**
<http://epa.ohio.gov/pic/lead.aspx>
- **US EPA Lead in Drinking Water Information Page**
<https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water>

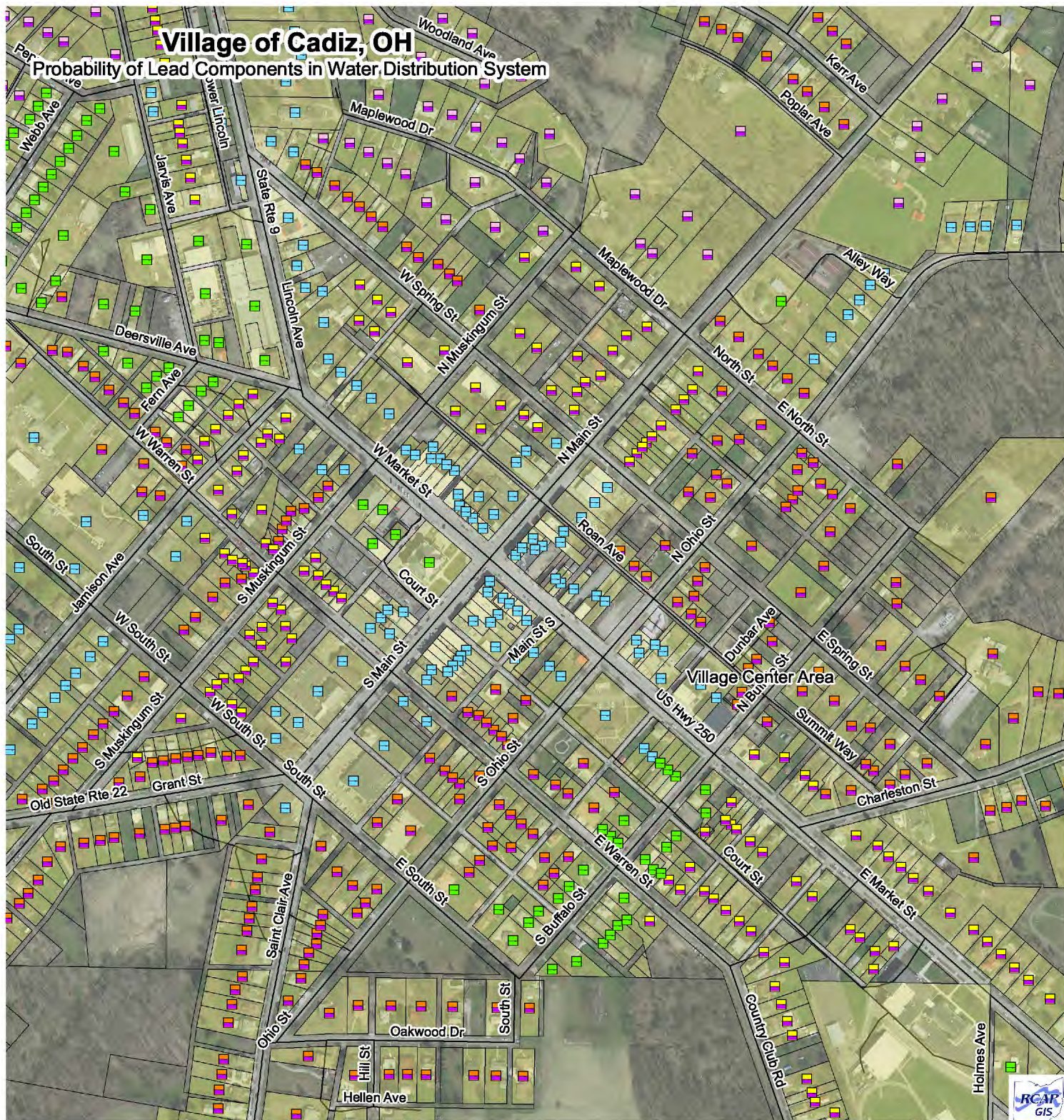
Village of Cadiz Public Water Distribution System Lead Components and Lead Service Lines Map

The following map(s) does not verify the presence of lead in any of the lines or structures shown. This map only shows the probable or possible locations based on the year that the structure was built, historical maintenance and operation records, and customer or utility staff verification.

This map is not intended for design engineering, surveying, or construction purposes. Information and data contained or accessed within this map emanates from various public and private sources and may contain errors and omissions

All data, information and documentation within this map are provided "as is" without warranty of any kind, either expressed or implied. The suitability of the data and information contained in this map is not guaranteed, and the user assumes all risk for such uses. WSOS Community Action and its employees, affiliates, agents and licensors cannot and do not warrant the accuracy, completeness, non-infringement, merchantability or fitness of any information contained within this map.

GIS Data Sources: OGRIP, OSIP, Harrison County Auditor, RCAP GIS. Datum/Projection: NAD 1983 Ohio State Plane South (ft) Date: 2/28/2016



0 370 740 1,480 Feet

Symbol representing single service line

Public Ownership of Line
Private

Probability of Lead Service Line

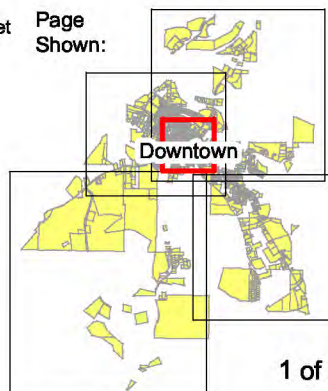
Determined by maintenance history

Very High
Moderate
Low

Cadiz Water Service Area

Material of Service Line Known

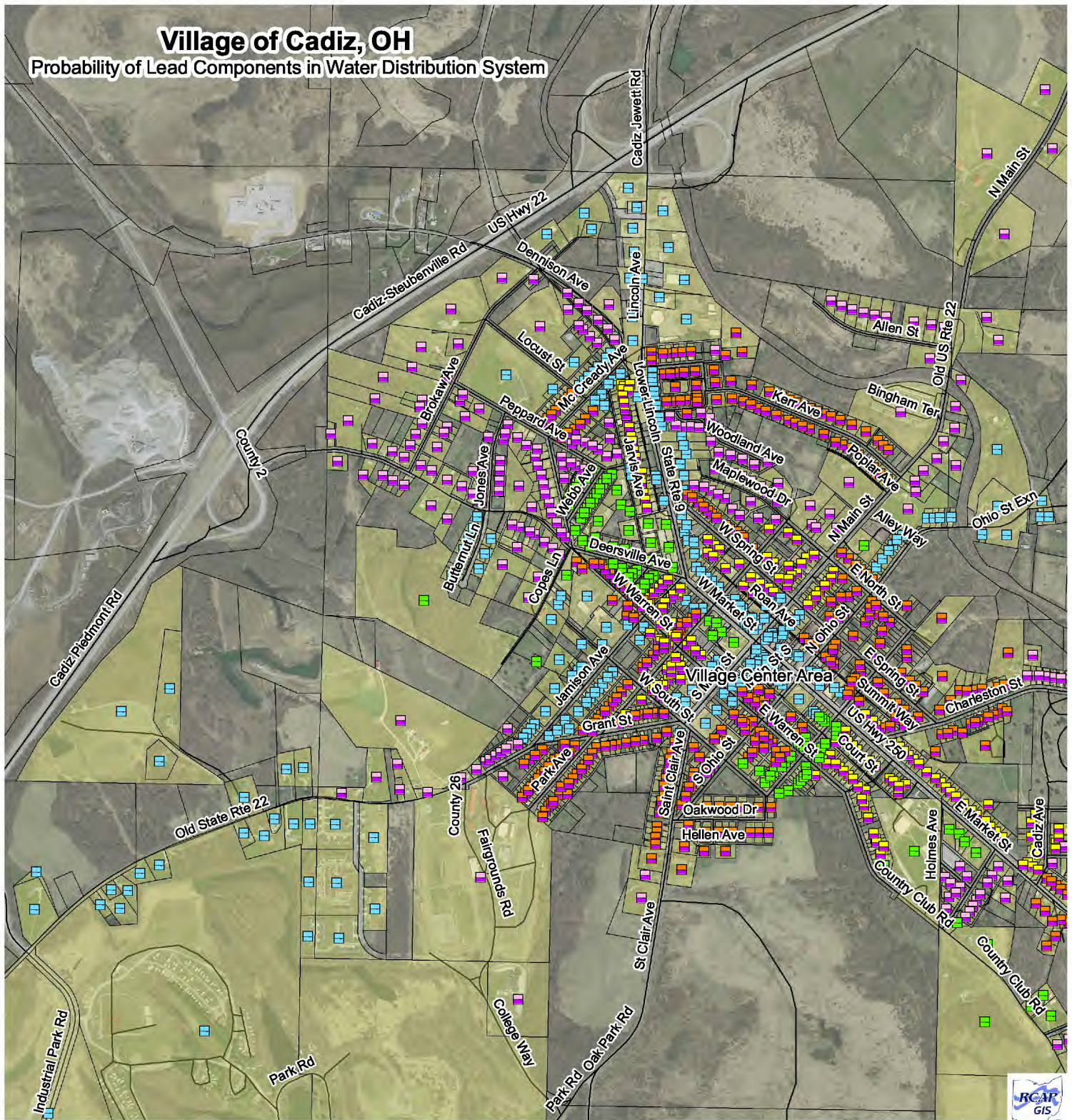
Lead
Non-Lead
≤ 8% (1998-2013)



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Village of Cadiz, OH

Probability of Lead Components in Water Distribution System



0 1,000 2,000 4,000 Feet

Symbol representing single service line

Public Ownership of Line
Private

Probability of Lead Service Line

Determined by maintenance history

Very High
Moderate
Low

Cadiz Water Service Area

Material of Service Line Known

Lead
Non-Lead
≤ 8% (1998-2013)

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Northwest

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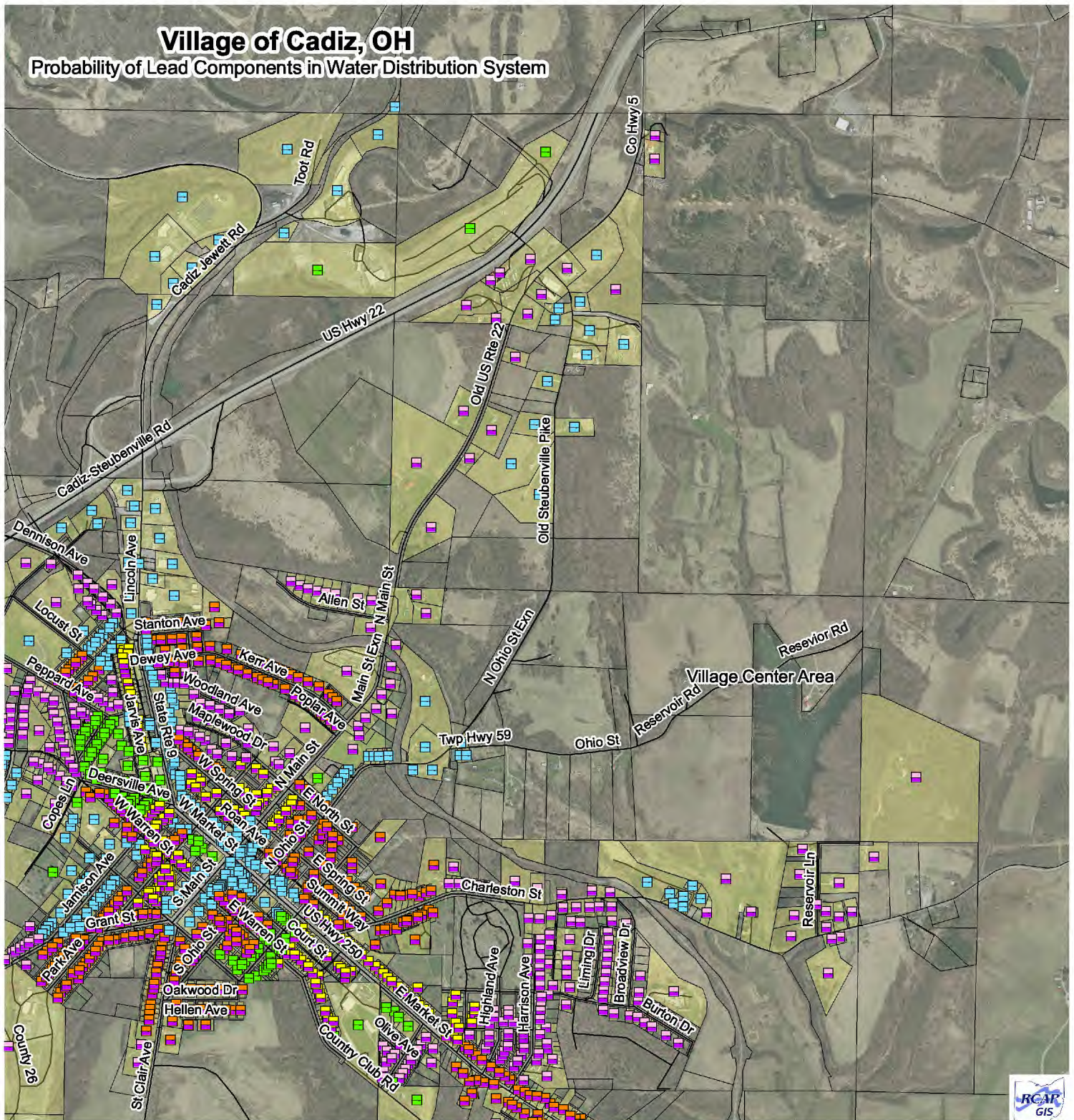
Buildings in Ohio built prior to 1998 or that use plumbing material or solder manufactured before 1998 may have materials with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998.

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Coordinate System:
NAD 1983 StatePlane Ohio South FIPS 3402 Feet
Data Sources:
Village of Cadiz, Harrison County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines

Village of Cadiz, OH

Probability of Lead Components in Water Distribution System



0 1,250 2,500 5,000 Feet

Symbol representing single service line

Public Ownership of Line
Private



Probability of Lead Service Line

Determined by maintenance history

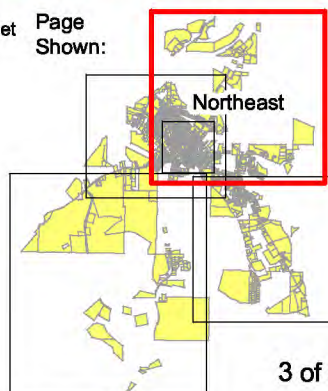
Very High
Moderate
Low

Cadiz Water Service Area

Material of Service Line Known

Lead
Non-Lead
≤ 8% (1998-2013)

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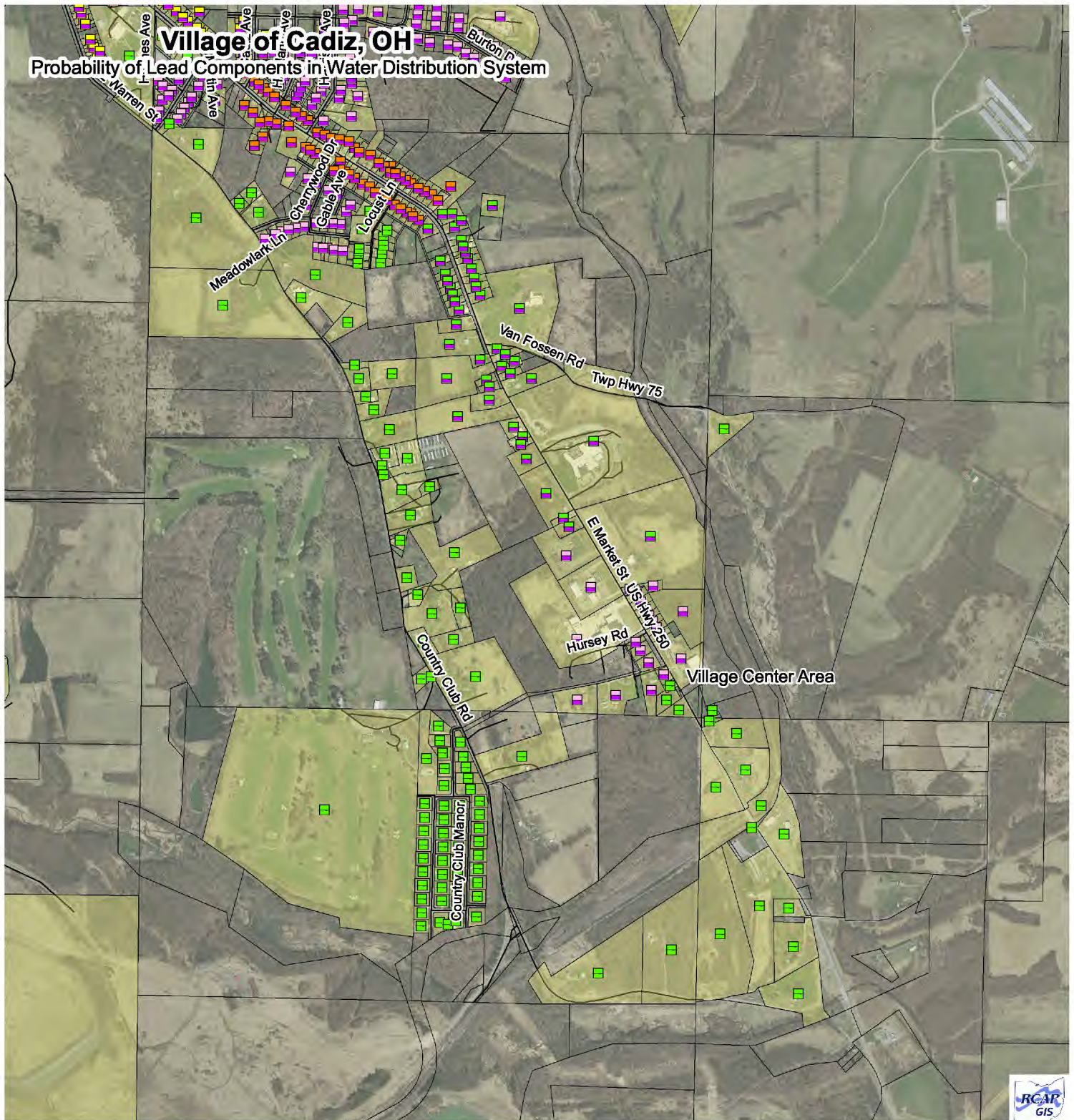


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NAD 1983 StatePlane Ohio South FIPS 3402 Feet
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Village of Cadiz, Harrison County, RCAP GIS Team,
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0 1,050 2,100 4,200 Feet

Symbol representing single service line

Public Ownership of Line
Private



Probability of Lead Service Line

Determined by maintenance history

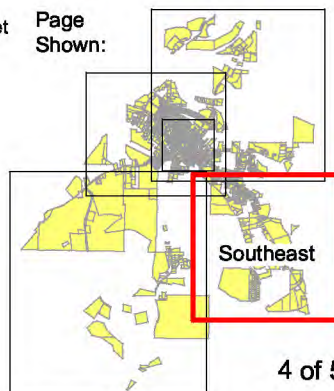
Very High
Moderate
Low

Cadiz Water Service Area

Material of Service Line Known

Lead
Non-Lead
≤ 8% (1998-2013)

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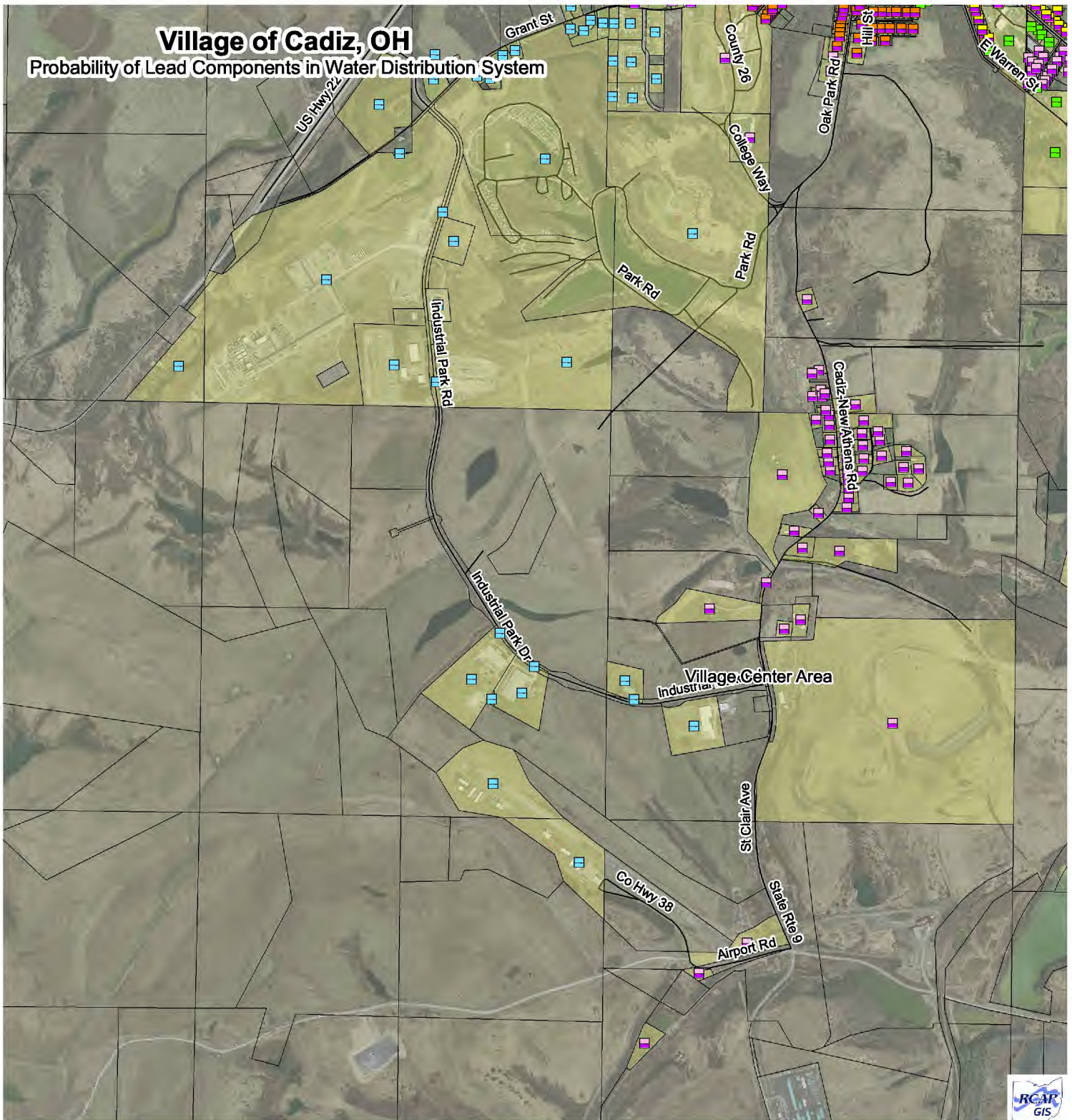
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Data Sources:
Village of Cadiz, Harrison County, RCAP GIS Team, ESRI, OGRIP, OSIP, TIGER Lines





0 1,500 3,000 6,000 Feet

Symbol representing single service line

Public Ownership of Line
Private

Probability of Lead Service Line

Determined by maintenance history

Very High
Moderate
Low

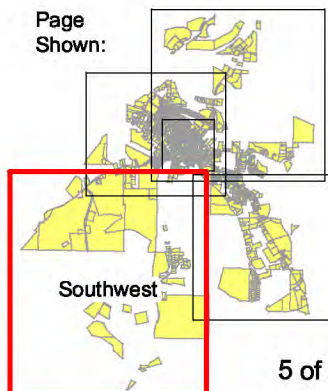
Cadiz Water Service Area

Material of Service Line Known

Lead
Non-Lead
≤ 8% (1998-2013)



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