

ORDINANCE O -15 - 16

AN ORDINANCE CREATING PRIVATE LEAD WATER SERVICE LATERAL  
REPLACEMENT REQUIREMENT

Introduced by Alderman Krautkramer.

The Common Council of the City of Menasha does ordain as follows:

SECTION 1: Amend by Creating Title , Chapter , SEC. of the Code of Ordinances of the City of Menasha, Wisconsin as follows:

**Title –**

**CHAPTER**

WHEREAS, the Utility Commission has requested and recommended the Common Council adopt the attached ordinance mandating the replacement of private water service laterals containing lead at the time city water mains are replaced in order to protect health and safety and to meet state and federal water quality requirements;

Sec. 1 **WATER SERVICE LATERALS.** Every water service lateral connected to the Utility shall be made of suitable material as determined by the Power and Light Commission.

Sec. 2 **LEAD WATER SERVICE REPLACEMENT PROGRAM.**

- (1) Intent and Purpose. The Common Council of the City of Menasha finds that it is in the public interest to establish a comprehensive program for the removal and replacement of lead water service laterals in use within both the Menasha Utilities Water system (Utility) and in private systems and to that end declares the purposes of this ordinance to be as follows:
  - (a) To ensure the water quality at every tap of Utility customers meets the water quality standards specified under the Federal Safe Drinking Water Act;
  - (b) To reduce the lead in City drinking water to meet Environmental Protection Agency (EPA) standards and ideally to reduce lead contaminant level to zero in City drinking water for the health of City residents;
  - (c) To eliminate the constriction of water flow caused by mineral rich surface water flowing through lead water service pipes and the consequent buildup of mineral deposits inside lead pipes; and
  - (d) To meet the Wisconsin Department of Natural Resource (WDNR) requirements for local compliance with the Lead and Copper Rule (see 56FR6460; 40 CFR part 141.80-141.90 and Chapter NR 809.541-809.55 Wisconsin Administrative Code).
- (2) Owner to Replace Lead Service. Existing lead water service laterals connected to the Utility shall be replaced with water service laterals made of suitable material and at the owner's expense. Replacement shall be completed either before or in conjunction with the next water main project in the area of the affected property.
  - (a) Affected property owners may contract with a licensed contractor to complete the replacement. If the property owner selects this option, the

lead water service lateral shall be replaced before the Utility replaces the main or during construction; or,

(b) If available, affected property owners may have the Utility contractors complete the replacement.

1. The Utility may, as part of any water main project, add an alternative to the Utility's contract requesting unit bid prices for the calculation of the cost for private lead water service lateral replacement. This will include removing the entire lateral from the main to the inside of the house and replacing all lead piping with suitable material.

2. If available and should the property owner select this option, the property owner will be charged the entire cost of the removal and replacement. In addition, all restoration will be the responsibility of the property owner (for example, top soil, concrete, steps, asphalt, bushes, and porches).

(3) WATER SYSTEM RECONSTRUCTION.

(a) Notification to Property Owners. Property owners in the project area will be notified, in writing, of capital improvement projects involving public water mains. The notification shall be at least 30 days prior to commencement of the water main construction.

(b) Inspection Required. The Water Utility Manager or his/her designee shall inspect all private connections to the public water mains for the presence of lead prior to, if possible, or at the time that the Utility system is to be reconstructed and if unable to gain access for inspection, may pursue an inspection warrant.

(c) In the event that a private water service lateral is found to contain lead the Water Utility Manager or his/her designee shall immediately notify the owner, in writing, by US Mail, of that fact along with information about the City's Lead Water Service Lateral Replacement Program.

1. The affected property owner shall provide proof of arrangements for replacement of the lead water service lateral to the Water Utility Manager or his/her designee within 30 days of the date of the notification letter.

Sec. 3

**AUTHORITY TO DISCONTINUE SERVICE.** As an alternative to any other methods for obtaining compliance with the requirements of this Municipal Code regarding replacement of illegal private water laterals, the Utility may, as provided in Water Utility Operating Rules approved by the Wisconsin Public Service Commission, discontinue water service to such property served by illegal private water service lateral after reasonable notice and an opportunity for hearing before the Menasha Utility Commission.

**SECTION 2: EFFECTIVE DATE.** The effective date of this ordinance shall be January 1, 2017

Passed and approved this                      day of                      , 2016.

ATTEST:

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Donald Merkes, Mayor

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Deborah A. Galeazzi, City Clerk



Date: September 28, 2016

To: Board of Public Works, City of Menasha

From: Tim Gosz, Water Utility Manager, Menasha Utilities

Re: Lead Ordinance

Menasha Utilities is requesting that a lead service ordinance be passed. The ordinance would require that Menasha Water Customers with lead service lines on their private property replace their portion of the service, at the same time Menasha Utilities replaces its section of the service line. The Utilities section is from the water main to the curb stop and Menasha Utilities replaces their portion of services when replacing water mains. PSC rules prohibit Utilities from replacing homeowners' portion of services.

Lead in drinking water can cause a variety of adverse health effects. Babies and children are especially vulnerable; exposure to lead in drinking water above the action level can result in delays in physical and mental development, along with slight deficits in attention span and learning abilities. In adults, it can cause increases in blood pressure. Adults who drink this water over many years could develop kidney problems or high blood pressure. The goal of this ordinance is to protect human health.

Lead is not found in our source water, but enters tap water through corrosion of plumbing materials. Lead services were installed until the late 1940s to early 1950s. Up until 1986 lead solder was used in homes and plumbing fixtures can contain lead. Menasha Water department uses DNR approved corrosion control and unidirectional flushing to maintain lead levels below action levels. We have also been replacing our portion of lead services when replacing water mains since 1990. We work diligently to provide safe quality water to Menasha's residents.

While the efforts to reduce lead in drinking water have helped and are necessary. The corrosion control, changes in flushing practices, replacing mains, and replacing our portion of lead services are only a bandage approach to correct the lead issue. Removing lead from the entire system is the only way to truly correct the problem. The lead service ordinance will start Menasha on the path to lead free drinking water for all its residence.

The cost of replacing the customer's portion of the lead service which is from the curb stop to the meter in the house can range from \$ 800.00 to \$ 2,500.00. We do realize that this is a lot of money for most families and homeowners to have to come up with. That is why we have applied for and received a grant for \$ 300,000.00 from the state for help funding private lead service replacement. Listed is the program Menasha Utilities will kick off in 2017 to provide help to residents replacing their lead service.

## **Program Details**

There are two scenarios a residence qualifies for Menasha Utilities Private Lead Service Replacement rebate:

1. If during Water Main replacement at the location of the lead service the owner replaces their portion of the service.
2. If at a prior date MU had replaced the utility's portion of the lead service and the homeowners portion was not replaced but have their portion replaced during this program.

MU will develop a list of pre-approved contractors that qualify to replace services. They must meet federal standards (Davis Bacon, American Steel and Iron) or the service replacement will not be eligible for rebate. The WDNR and Federal Government are still working out the details. If the owner uses a pre-approved contractor they will be eligible for the following rebates.

Menasha Utilities will rebate property owners fifty percent (50%) of the cost to replace the owner's portion of the lead service up to \$ 1,000.00.

If the Homeowner qualifies for energy assistance based on family income Menasha Utilities will rebate seventy five percent (75%) of the cost to replace the owner's portion of the lead service up to \$ 1,500.00.

### **Definitions:**

1. **Lead Service Line** means a service line made of lead that connects the water main to the building inlet.
2. **Partial lead service line replacement** is the practice of replacing only the portion of a lead service line on Menasha Utilities side of the service (from the shut off valve usually located in the terrace).
3. **Full lead service line replacement** involves replacing both the portion of the lead service line owned by the customer (from the shut off valve to the meter in the house) as well as that owned by Menasha Utilities

Services that both the private and utility portions are lead would only be eligible for the rebate when the water main is being replaced. The cost of road repairs prohibits total service replacements on a individual basis.

The \$ 300,000.00 funding must be used within two years; there will be funding available in 2018 from the state for lead service replacement. It has not been determined yet who will qualify for that funding. With the nationwide concern over lead in drinking water we are hopeful that more funding will become available in the coming years to continue this program.

### **Recommendation:**

The Commission approved the program at the September 28, 2016 and recommends to City Council the approval of the Private Lead Water Service Lateral Replacement Requirement Ordinance that is attached.

## Lead Service Line Replacement Ordinance

Commission recommendation 9/28/16

Tim Gosz  
Water Utility Manager

## How Much Lead is Too Much Lead?

- › There is no known level of lead exposure that is considered safe
- › Lead is measured in Parts Per Billion (PPB)
- › How small is a PPB?
  - In an Olympic size swimming pool (660,000 Gallons)
  - 1 PPM (Parts per Million) = 1 ¼ Two Liter Bottle
  - 1 PPB = ½ Teaspoon

## What Are The Sources Of Lead in Our Lives?

- › Lead Based Paints and Varnish.
- › Contaminated Soil and Dust.
- › Water Lines and Plumbing Fixtures.

## How Does Lead get into Your Drinking Water

- › Old lead services lines from the street to the house.
  - Lead was installed until about 1950.
- › Lead solder in pipes in your home
  - Banned in Wisconsin in 1984.
- › Lead plumbing fixtures including faucets.

## Health Effects of Lead

Children – Even low levels of lead in the blood of children can result in:

- Behavior and learning problems
- Lower IQ and hyperactivity
- Slowed growth
- Hearing problems
- Anemia
- In rare cases, ingestion of lead can cause seizures, coma and even death.

## Health Effects Cont.

### Pregnant Women

- Reduced growth of the fetus
- Premature birth

### Adults

- Lead is also harmful to adults. Adults exposed to lead can suffer from:
  - Cardiovascular effects, increased blood pressure and incidence of hypertension
  - Decreased kidney function
  - Reproductive problems (In both men and women)

## How is Lead Regulated in Drinking Water

- ▶ Action level of 15 PPB at the 90<sup>th</sup> percentile
- ▶ The lead action level is exceeded if the concentration of lead in more than 10% of tap water samples collected during any monitoring period conducted is greater than 15 ppb, which means if the "90th percentile" lead level is greater than 15 ppb.

## Lead And Copper Rule

- ▶ 1991 Lead and Copper Rule (LCR). The LCR established an action level for drinking water lead, above which water systems must install corrosion control treatment.
- ▶ If the action level is not met after installing corrosion control treatment, then lead service line replacement (LSLR) is required. Under the 2000 LCR revisions, water systems must replace only the portion of the lead service line that it owns. This is termed a partial LSLR (PLSLR).

## Lead and Copper cont.

- ▶ The EPA Science Advisory Board concludes that PLSLRs have not been shown to reliably reduce drinking water lead levels in the short term, ranging from days to months, and potentially even longer. Additionally, PLSLR is frequently associated with short-term elevated drinking water lead levels for some period of time after replacement, suggesting the potential for harm, rather than benefit during that time period.

## What is a Lead Service

- **Lead Service Line:** means a service line made of lead that connects the water main to the building inlet.
- **Partial lead service line replacement:** is the practice of replacing only the portion of a lead service line on Menasha Utilities side of the service (from the shut off valve usually located in the terrace).
- **Full lead service line replacement:** involves replacing both the portion of the lead service line owned by the customer (from the shut off valve to the meter in the house) as well as that owned by Menasha Utilities.

## Lead Service Lines In Menasha

- ▶ We estimate that there are between 1,200 to 1,500 lead services in Menasha
  - Older data did not include type of services.
  - Planning to door to door survey older area of City to get a accurate number of lead services.

## What are the Latest Results For Menasha Utilities?

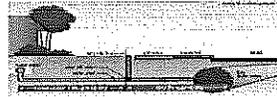
- ▶ Menasha Utilities is required to test 30 sites every 3 years.
- ▶ If the 90<sup>th</sup> percentile is less than 15 PPB our drinking water is in compliance with State regulations.
- ▶ Menasha latest test results are 11.0 PPB at the 90<sup>th</sup> percentile (6/18/2014)
- ▶ Next monitoring period June 2017.

### How is Menasha Utilities Addressing Lead in our System

- › Corrosion Control
- › Unidirectional Flushing Program
- › Removal of Lead Services
  - Partial Lead Service Replacement
- › Community Education

### Who is Responsible for the Cost of Replacing Lead Services

- › From the curb stop to the water main is owned by MU and the Utility is responsible for the cost of replacement.



- › From the curb stop to the house is owned by the homeowner and the homeowner is responsible for the cost of replacement.

### Goal: Lead Free Water for all Menasha Residents

- › Menasha Utilities has worked diligently to provide its customers the highest quality water possible to protect public health. While the efforts to reduce lead in drinking water have helped and are necessary. The corrosion control, changes in flushing practices, replacing mains, and replacing our portion of lead services are only a bandage approach to correct the lead issue. Removing lead from the entire system is the only way to truly correct the problem.

### Menasha Utilities

- › Have been replacing our portion of the lead services since the 1990s.
- › Over the past 5 years we have been encouraging the homeowner to replace their portion of the lead service line as well.
- › We have been evaluating methods to minimize the cost and burden on the homeowners who wish to replace their portion of a lead service.

### Why a Lead Service Replacement Ordinance

- › Protect Public Health
- › Partial Lead Service Line Replacement
  - Does not reduce lead exposure from the water
  - Can significantly elevate lead levels for several months in the water
- › Full Lead Service Line Replacement
  - Reduces lead exposure for a child or adult who drinks water from the residence

### Why Ordinance Cont.

- › Removes the source of lead in the Distribution system.
- › Starts Menasha on the path to a Lead Free Drinking Water Community.
- › There is no lead in our raw or finished water entering the Distribution system. All lead is coming from the Distribution system or household plumbing.

### How will the Ordinance Work

- › Requires property owner to replace their lead service when Utility is replacing the water main on the street of the residence.
- › Utility will request a price from our contractor for replacing services when doing the main.
- › Owner can find their own contractor or use the Utility contractor replacing the main.

### Where Do We Go From Here

- › WDNR
  - › State Revolving Loan Program has made money available for the replacement of customers portion of the lead service.
  - › The loan has 100% principal forgiveness so we do not have to pay back and it is dedicated to replacing private lead services.
  - › Cannot be used to replace any portion of the Utility's lead service.

### Lead Service Replacement Program

**Proposed Program Details:** We are approved for \$300,000 by the State. There are two scenarios a residence qualifies for Menasha Utilities private lead service replacement rebate:

- If during water main replacement at the location of the lead service the owner replaces their portion of the service.
- If at a prior date MU had replaced the utility's portion of the lead service and the homeowners portion was not replaced can have their portion replaced with this program.

### Program Details Cont.

- › Menasha Utilities will rebate property owners fifty percent (50%) of the cost to replace the owner's portion of the lead service up to \$1,000.00.
- › If the Homeowner qualifies for energy assistance based on family income Menasha Utilities will rebate seventy five percent (75%) of the cost to replace the owner's portion of the lead service up to \$1,500.00.

### Qualifying Income

2015 Data

HOUSEHOLD SIZE	ONE MONTH	THREE MONTH	ANNUAL INCOME
• 1	\$2,133	\$6,400	\$25,601
• 2	\$2,790	\$8,370	\$33,478
• 3	\$3,446	\$10,339	\$41,355
• 4	\$4,103	\$12,308	\$49,232
• 5	\$4,759	\$14,277	\$57,109
• 6	\$5,416	\$16,247	\$64,986
• 7	\$5,539	\$16,616	\$66,463
• 8	\$5,662	\$16,985	\$67,940

(Income amounts will change annually)

### State Requirements

MU will develop a list of pre-approved contractors that qualify to replace services. They must meet federal standards (Davis Bacon, American Steel and Iron) or the service replacement will not be eligible for rebate. The WDNR and Federal Government are still working out the details. If the owner uses a pre-approved contractor they will be eligible for the rebates.

## Recommendations

- ▶ The Menasha Utilities Commission recommends passing the Lead Service Line Replacement Ordinance.
- ▶ Along with Utilities implementing the Lead Service Replacement Program.

## Additional Support

- ▶ "The Menasha Health Department supports the development of a program to replace lead service lines to protect the public health by attempting to eliminate lead in the public drinking water supply."

Todd Drew RS  
Environmental Health Sanitarian  
City of Menasha Health Department

## CDC

- ▶ The most important step parents, doctors, and others can take is to prevent lead exposure before it occurs (CDC 2015).

??? Questions ???