Welcome
Statewide Drinking Water Advisory Council Meeting

We will begin the meeting shortly

- Please check to make sure your mic/phone is muted.

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MICHIGAN DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

State Drinking Water Advisory Council

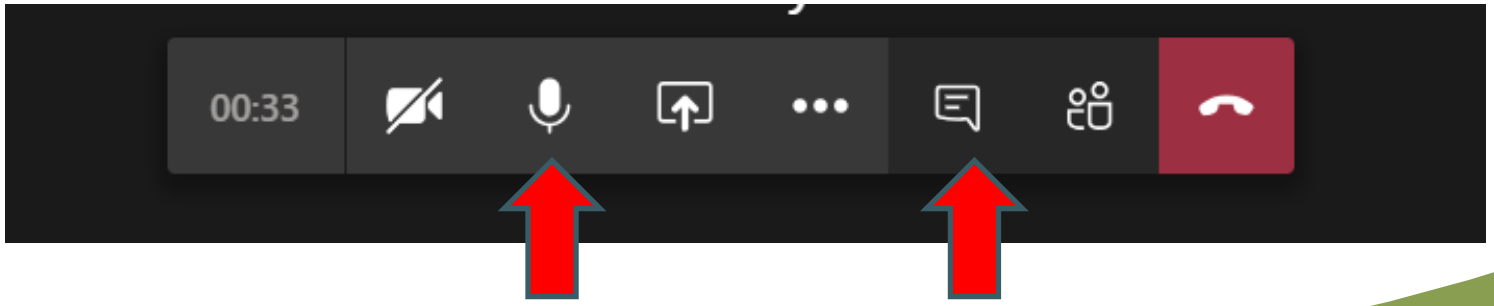
Implementation of the Lead and Copper Rule in 2020

June 9, 2020
9:30 AM to 11:00 AM

Housekeeping

- Please keep you mic/phone muted unless speaking

- Only use the “chat” function for official comments or to request to speak
- Cameras are optional



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TEAMS MEETING

Welcome and Introductions

- Keith McCormack, Chair, Retired Principal Engineer from HRC
- Wayne Jernberg, Vice Chair, Asst. Water System Manager, City of Grand Rapids
- Charlotte Jameson, Secretary, Program Director at Michigan Environmental Council
- Dr. Stuart Batterman, Professor of Environmental Health Science, University of Michigan
- Wes Goodman, Exec. Dir. Of Operations, Clarkston Schools
- Susan Manente, Health Educator MDHHS
- Jennifer Morse, Central Michigan District Health Department
- Sheryl Thompson, Deputy Director of Economic Stability, MDHHS
- EGLE Staff Members
  - Eric Oswald, Division Director
  - Ariel Zoldan
  - Kris Philip
  - Ninah Sasy
  - Regina Strong
  - George Krisztian

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Webinar Program

- Welcome & Introductions — K. McCormack
- Flushing Practices — Dr. S. Batterman
- Lead Service Line Removal
  - The Grand Rapids Experience — W. Jernberg
  - Lansing LSLR Program — A. Goodman
- Current LCR Activities — B. Onan
- ALE and Public Health Response — S. Crider
- Wrap Up — K. McCormack

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SDWAC Activities in 2020

- Are currently holding virtual meetings at least once a quarter
  - Distributing Newsletters after every meeting summarizing activities
- Distributed a survey to the Water Supply Councils May 26
  - Results will be used to guide SDWAC on future activities
- Working on various projects
  - COVID-19 crisis and resulting state revenue shortfalls affecting our resources and ability to perform our charge
  - FY19 Supplemental Appropriations had money for both the SDWAC and water supply systems for LCR activities-has been put on hold
  - Hope to enhance resources that can direct Water Supply Councils towards existing and new resources

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Flushing Practices

- Dr. Stuart Batterman

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Flushing Practices

Provides a simple, effective, “interim” response

Types of flushing

- **Daily / routine flushing**
  - Particularly for homes with lead service lines
- **Water service restoration for homes and business**
  - After mains or other work
  - After re-entry following extended vacancy or without routine water use
- Schools
- Other

Daily / routine flushing for homes

Simple instructions - *Flush your pipes before using your water.*

Get your water moving to flush your pipes. If you have not used your water for several hours, flush your pipes. If you have a lead service line or you don't know, **flush your pipes for at least five minutes**. If you do not have a lead service line flush your pipes for at least two minutes. To flush, you can do any of the following:

- Turn a **faucet on all the way**.
- Take a shower.
- Run a load of laundry
- Run your dishwasher

} + run tap being used for 2 more minutes

After flushing your pipes, you need to get the water moving from any faucet that was not used for your initial flushing. The water should be flushed for 2 minutes on cold every time before using for drinking, cooking, rinsing foods, or brushing your teeth. This flushes out any water that has been sitting in that sink's pipes and faucets.

https://www.michigan.gov/documents/mileadsafe/Lead_in_Drinking_Water_661083_7.pdf

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Daily / routine flushing for homes

Main point: minimize ingestion exposure to lead, especially for susceptible populations – younger women and children.

Use cold filtered or flushed water for:

- **Drinking, cooking, or rinsing food.**
- **Mixing powdered infant formula.**
- **Brushing your teeth.**

Do not use hot water for drinking or cooking.

- Do not cook with or drink water from the hot water tap. Lead dissolves more easily into hot water.

https://www.michigan.gov/documents/mileadsafe/Lead_in_Drinking_Water_661083_7.pdf

Daily / routine flushing for homes

Does a 5-minute flush work?

Largest study in Chicago

- **Substantial lowering of Pb**
- **5 min flush kept 98% of homes below 10 ug/L**

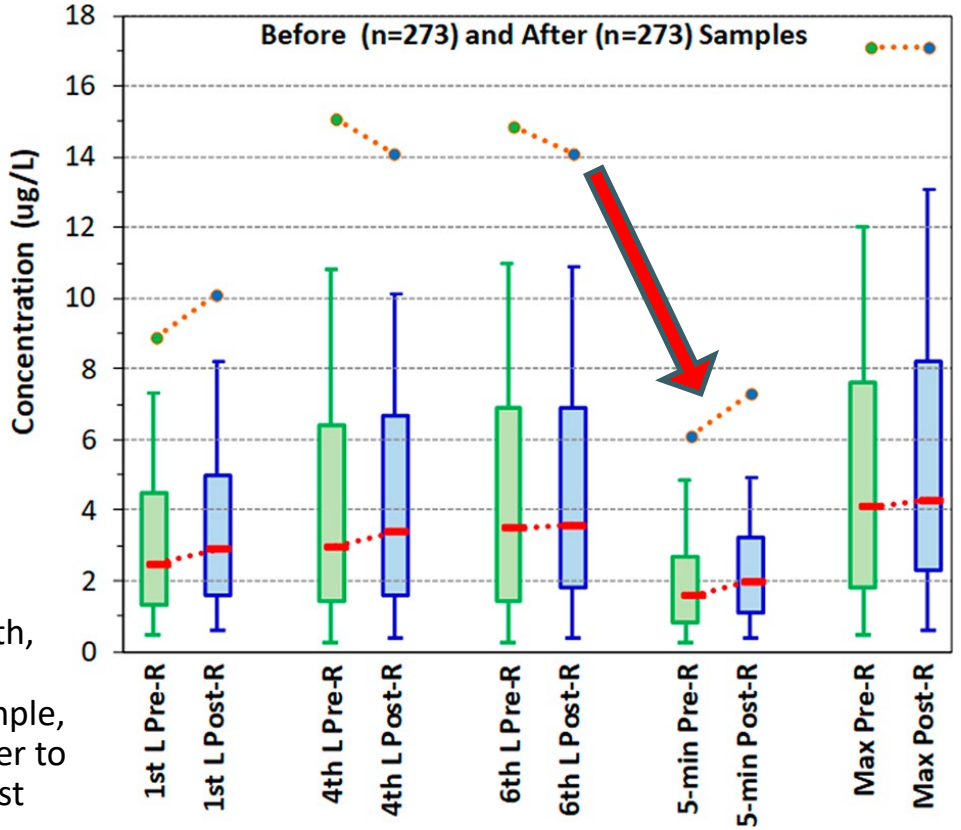


Figure 1. Pb concentrations before and after mains replacement at 273 homes. Box plots show 10th, 25th, 50th, 75th, 90th, and 95th (as points) percentile concentrations. Sample type is denoted as 1st L, 4th L, 6th L, and 5 min sample, Max is the sampling event maximum. Pre-R and Post-R refer to pre- and postmains replacement samples, respectively. Post mains-replacement data uses first sample collected after replacement.

Evaluation of Changes in Lead Levels in Drinking Water Due to Replacement of Water Mains: A Comprehensive Study in Chicago, Illinois

Stuart A. Batterman*, Steven McGinnis, Angela E. DeDolph, and Elizabeth C. Richter

Cite this: *Environ. Sci. Technol.* 2019, 53, 15, 8833−8844
Publication Date: July 15, 2019
https://doi.org/10.1021/acs.est.9b02590

Article Views 458 | Altmetric 8 | Citations 1

LEARN ABOUT THESE METRICS

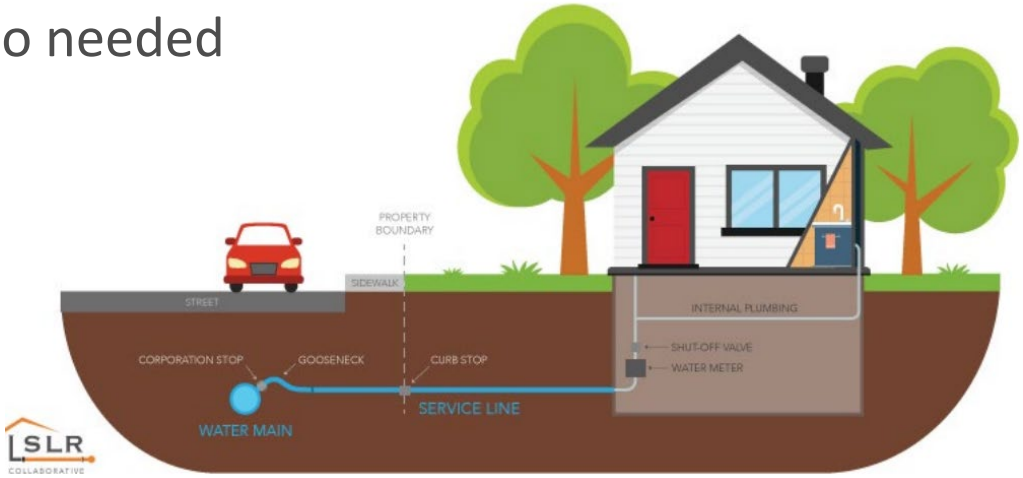
Daily / routine flushing for homes

Does a 5-minute flush work?

Technically, at most homes. Some concerns if:

- Very long LSLs
- Restricted water flow
- Highly deteriorated plumbing components which more or less continuously disintegrate
- Aerators – periodic cleaning also needed

Monitoring is still recommended



Daily / routine flushing for homes

Does a 5-minute flush work?

Human factor - does anyone really do it?

Are the folks at risk doing it?

- Need new habits
- Hard to verify

Appropriate messaging and implementation

- Instruction that culturally appropriate in English, Spanish, Arabic, etc.
- Periodic reminders (hang tags, letters, radio, TV, civic leaders, etc.)
- Helpful graphics, video

Katner, A.; Pieper, K.; Brown, K.; Lin, H.-Y.; Parks, J.; Wang, X.; Hu, C.-Y.; Masters, S.; Mielke, H.; Edwards, M., Effectiveness of Prevailing Flush Guidelines to Prevent Exposure to Lead in Tap Water. International Journal Of Environmental Research And Public Health 15, (7), 1537.

Flushing after water service restoration

1. **Locate the faucets** to be flushed and make sure the **drains are open**. • Don't forget faucets in the basement or other floors of your house. • Remove or bypass all fixture filters. You should not flush through a filter.
2. **Remove aerators** and screens from faucets and shower heads. Unscrew the aerators as shown. See guidance below about removing and cleaning your aerators.
3. **Open all cold water taps**. Leave all faucets running during this process. • First open faucets in the basement or lowest floor in the house. • Then open faucets on the next highest floor of the house. • Continue until all faucets are open on all floors, including tubs and showers (remove shower head if possible).
4. Leave **ALL faucets running for at least 30 minutes**. Discoloration may occur during flushing. This is expected.
5. **Turn off the 1st faucet** you turned on (basement or lowest floor).
6. **Turn off all other faucets** in the same order you turned them on.
7. **Turn on each kitchen or bathroom tap**, one at a time, and **run each for 10 minutes** or more. Make sure only one tap is running at a time.
8. **Clean and re-install aerators** and screens on each faucet and shower head. • See pages below for guidance on cleaning aerators and screens. • You may need to replace aerators/screens if they are too old or worn.

Take Home Points

1. Daily/routine flushing

- Generally easy, generally effective, and relatively inexpensive way to minimize lead exposure at most residences with LSLs. Interim solution.

  Aerators require additional effort – can be important

- Requires instruction and new habits - encourage with appropriate messaging and reminders
- Households at risk should be tested to ensure low lead in 5-min sample

2. Flushing after water service restoration

- Not easy, takes time, likely effective and relatively inexpensive way to minimize lead exposure at most residences with LSLs or system contamination.
- Requires instruction – videos and other materials available
- Consider supervision or follow-up

Flushing Practices - References

General EGLE References

https://www.michigan.gov/mileadsafe/0,9490,7-392-92796---,00.html

Water Service Restoration - Guidance for Flushing: Appliance Flushing and Whole House Flushing

https://content.govdelivery.com/accounts/MIDEQ/bulletins/281f593

https://www.youtube.com/watch?v=YsmUBd5ljkU&feature=youtu.be

Flushing your house plumbing system when water services are restored

https://www.michigan.gov/documents/egle/egle-tou-dweh-WaterReconnectionActions_683801_7.pdf

Batterman SA, S McGinnis, AE DeDolph, EC Richter, "Evaluation of Changes in Lead Levels in Drinking Water Due to Replacement of Water Mains: A Comprehensive Study in Chicago, Illinois, *Environ. Sci. Technol*. 2019, 53, 15, 8833–8844

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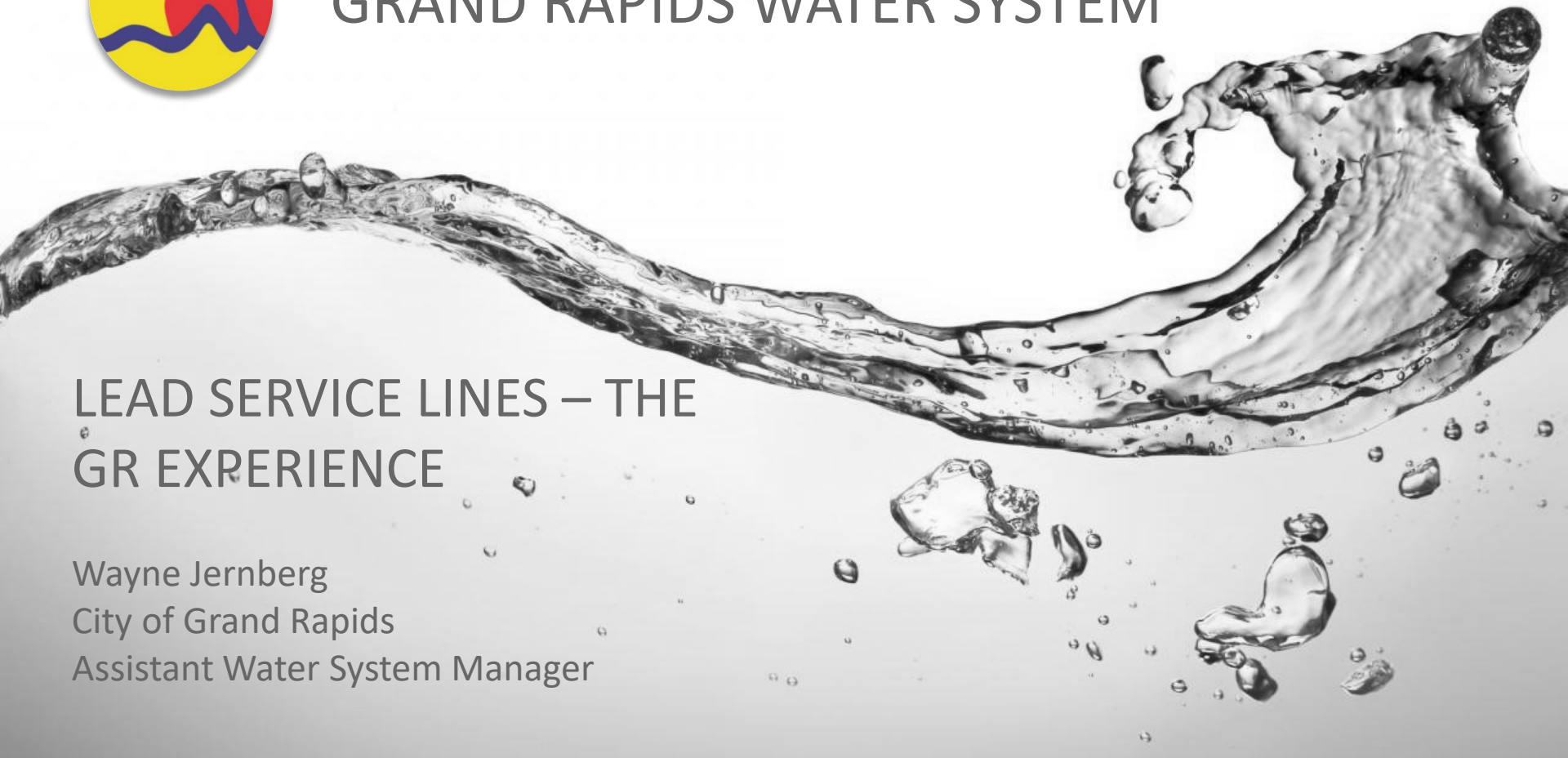
Grand Rapids Lead Service Line Replacement Experience

- Wayne Jernberg

GRAND RAPIDS WATER SYSTEM



LEAD SERVICE LINES – THE GR EXPERIENCE

Wayne Jernberg
City of Grand Rapids
Assistant Water System Manager

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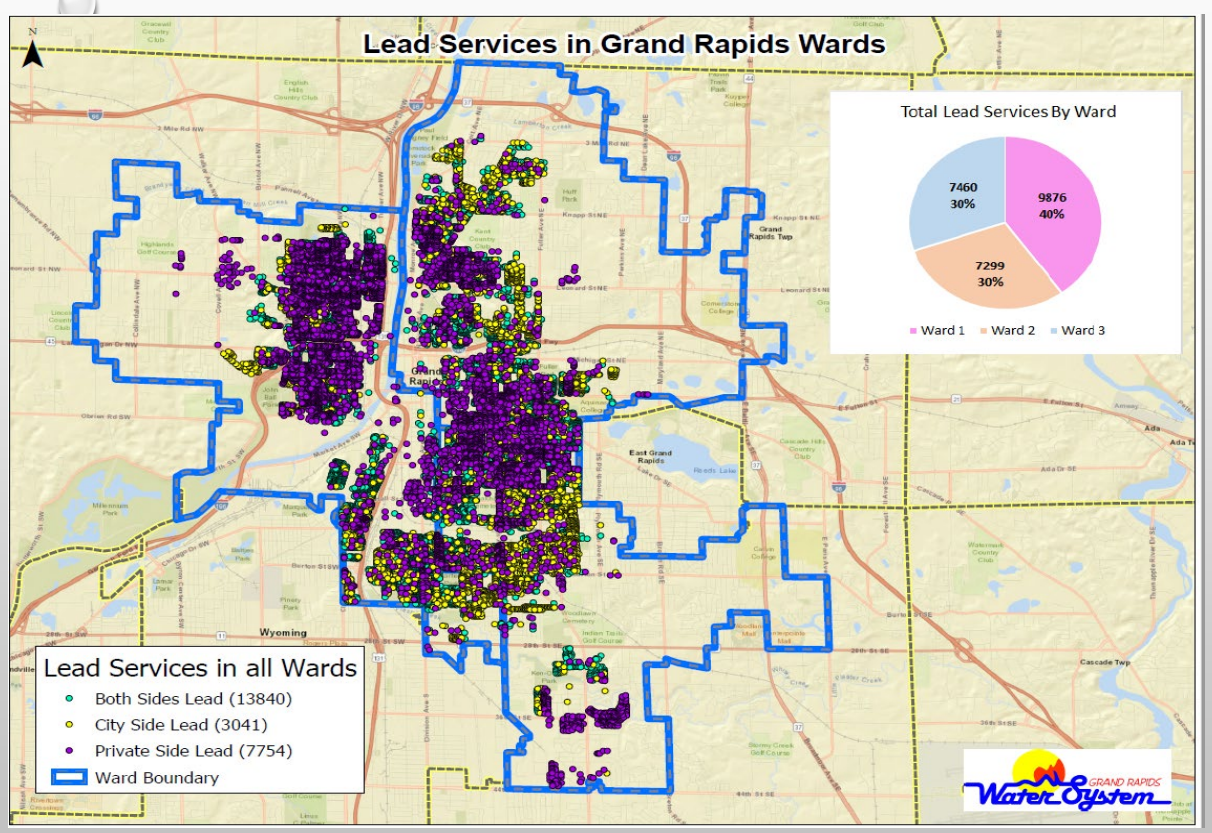
The History of Lead Service Line in GR



- Lead primarily used prior to 1940 for water service lines
- 80,000 plus accounts
- Switched to copper during WW2
- Currently have just over 24,000 lead services
- Approximately 17,000 have lead on the City side and rest are private side only
- Up to 2017, City would replace its portion of LSL at no cost
- Private portion was responsibility of owner up to 2017 with financing through 10 pay plan
- Started replacing full service LSL's in 2017 with new policy
  - Cost and legal analysis of all options

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Lead Service Line Replacement (LSLR) Program

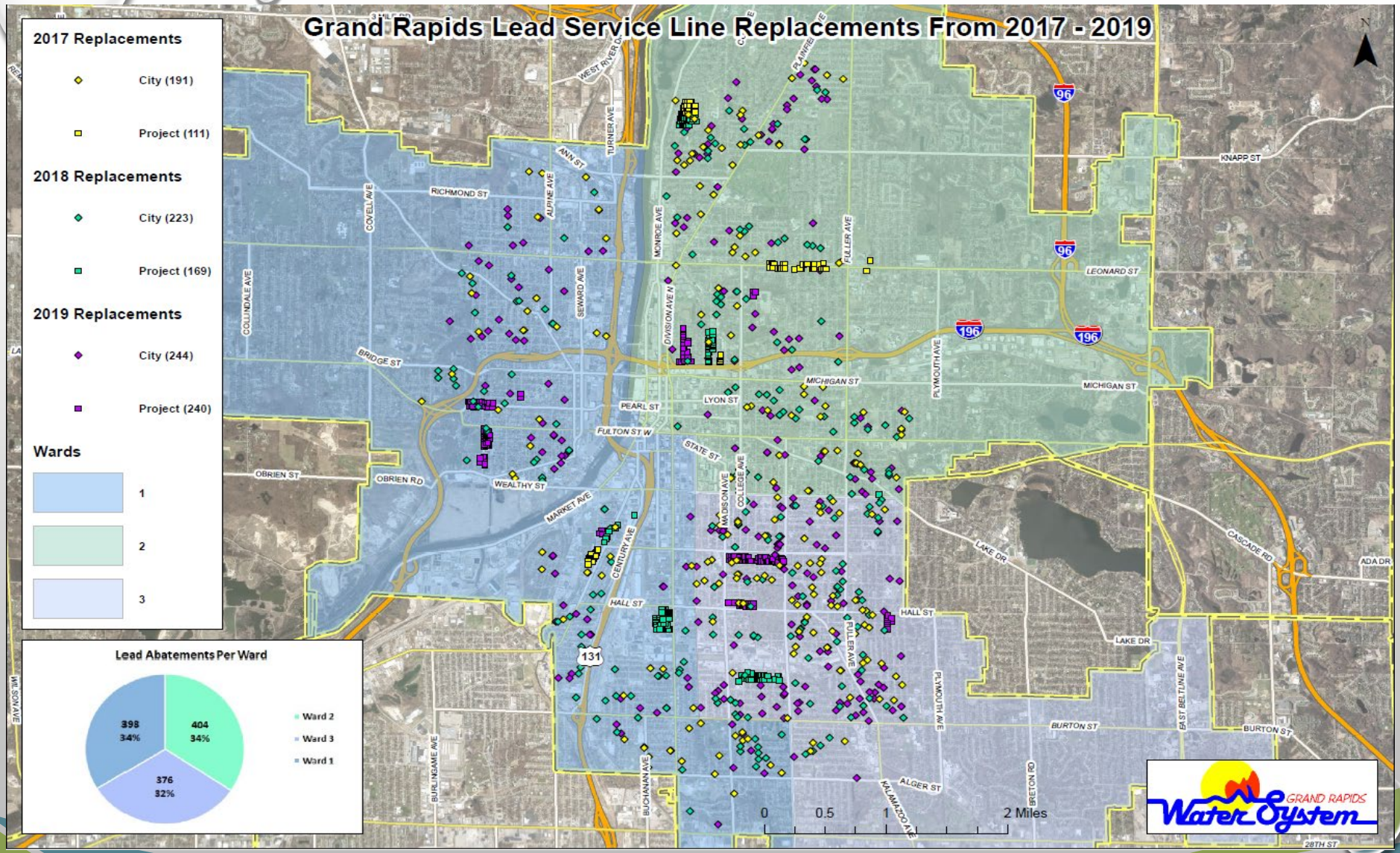
- The City of Grand Rapids is providing full lead service line replacements from the water meter to the water main to the property owner under Administrative Policy 17-01. The following conditions are:

I. Emergency leaks

II. Water main replacement and/or road reconstruction project

III. Voluntary replacement

- No partial LSLR's is allowed resulting in water shut offs


Grand Rapids Lead Service Line Replacements From 2017 - 2019
2017 Replacements
City (191)
Project (111)
2018 Replacements
City (223)
Project (169)
2019 Replacements
City (244)
Project (240)
Wards
1
2
3
Lead Abatements Per Ward
398
34%
404
34%
376
32%
Ward 2
Ward 3
Ward 1
0
0.5
1
2 Miles
GRAND RAPIDS
Water System

CUSTOMER OUTREACH

- GET INTO THE NEIGHBORHOODS WELL IN ADVANCE OF YOUR PROJECT
- NEIGHBORHOOD ASSOCIATION MEETINGS
- SHARED INFO WITH SCHOOL SYSTEMS
- SOCIAL MEDIA BLASTS
- TARGETED EMAILS TO COMMUNITY FOUNDATIONS/GROUPS
- RENTAL PROPERTY OWNERS
- A LOCAL WATER ADVISORY COUNCIL – SURROUND YOURSELF WITH THE BRIGHTEST PEOPLE YOU CAN! (LOCAL HEALTH DEPARTMENT, ENGAGED CITIZENS AND COMMUNITY GROUPS)

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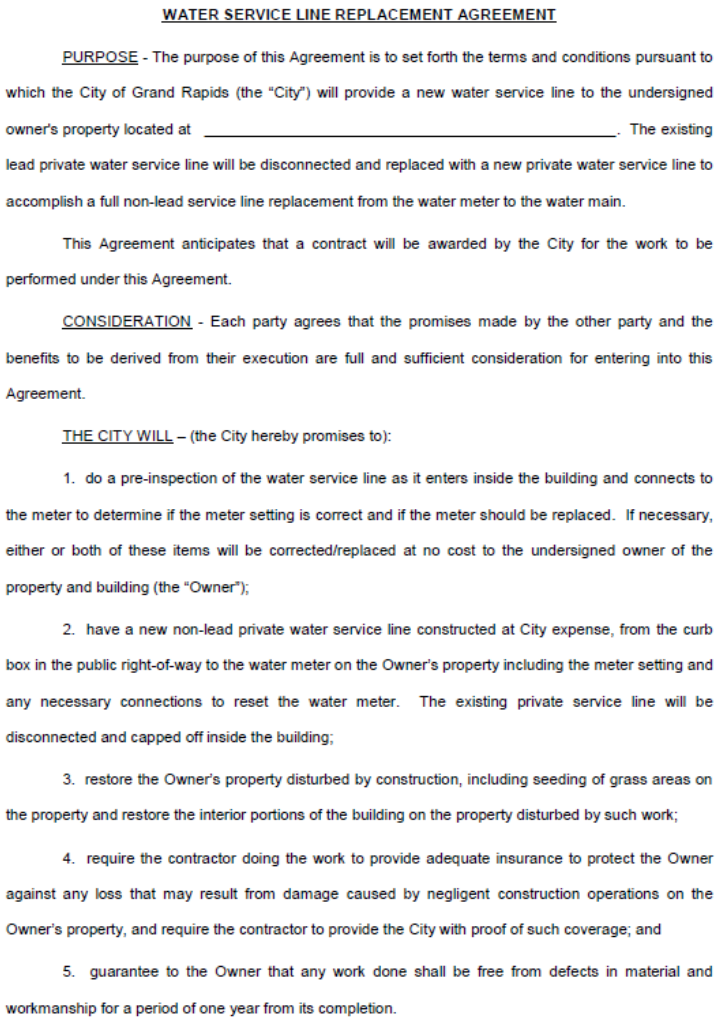
Components and Processes

- DSMI – Research Component
  - Fortunate GIS is tied to our billing and service program and that we had records back to 1880's
  - Companies out there to help with statistical analysis of LSL determination
  - City did the process in-house to help clean up our tap records and remove mis-information
- Emergency Leak – LSL Replacement
  - City Service Worker responds to emergency
  - Confirms leak on LSL and property owner signs access agreement
  - City replaces its portion of LSL and the meter
  - City's licensed contractor replaces private portion of LSL
- Capital replacements
  - Generate project list of LSL's
  - Verify LSL on private property and get agreement signed
    - Contact made with up to 3 letters as well as phone calls, emails and site visits
  - Project is bid with contractor/plumber replacing LSL's
  - City replaces meter at the time of Private LSLR



WATER SERVICE LINE REPLACEMENT AGREEMENT

PURPOSE - The purpose of this Agreement is to set forth the terms and conditions pursuant to which the City of Grand Rapids (the "City") will provide a new water service line to the undersigned owner's property located at _____. The existing lead private water service line will be disconnected and replaced with a new private water service line to accomplish a full non-lead service line replacement from the water meter to the water main.

This Agreement anticipates that a contract will be awarded by the City for the work to be performed under this Agreement.

CONSIDERATION - Each party agrees that the promises made by the other party and the benefits to be derived from their execution are full and sufficient consideration for entering into this Agreement.

THE CITY WILL – (the City hereby promises to):

1. do a pre-inspection of the water service line as it enters inside the building and connects to the meter to determine if the meter setting is correct and if the meter should be replaced. If necessary, either or both of these items will be corrected/replaced at no cost to the undersigned owner of the property and building (the "Owner");

2. have a new non-lead private water service line constructed at City expense, from the curb box in the public right-of-way to the water meter on the Owner's property including the meter setting and any necessary connections to reset the water meter. The existing private service line will be disconnected and capped off inside the building;

3. restore the Owner's property disturbed by construction, including seeding of grass areas on the property and restore the interior portions of the building on the property disturbed by such work;

4. require the contractor doing the work to provide adequate insurance to protect the Owner against any loss that may result from damage caused by negligent construction operations on the Owner's property, and require the contractor to provide the City with proof of such coverage; and

5. guarantee to the Owner that any work done shall be free from defects in material and workmanship for a period of one year from its completion.

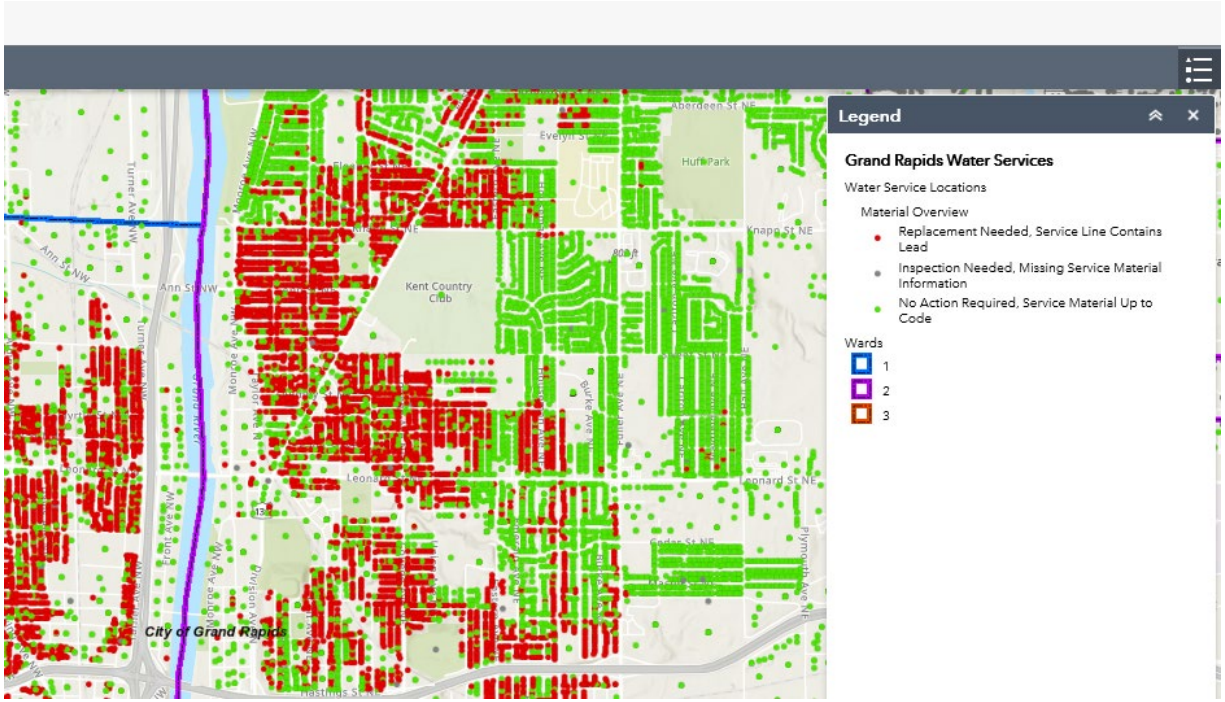
- Data Scrubbing
  - Labor intensive
  - Additional staff to help with DSMI and agreement process
- Access Issues
  - Non-respondent customers and landlords
- Language Issues
  - Use of Spanish speaking staff to help in the field or with calls
- Limitations with Policy
  - Private side only LSL's
  - Working on modification to policy for meter replacement to then require LSLR on private only portion
- Funding
  - Approx. $130M needed to replace over 24,000 LSL's
  - Looking at all funding options including DWRF and EPA
  - Rate impacts stall aggressive replacement schedule

THE UNFORESEEN ROADBLOCK

- COVID
  - No shutoffs per the Governor
    - No way to force the private replacement
  - Telesurvey
    - Stopped in-person private LSL material verification
    - Developed document that could be emailed to walk customer through material verification and agreement process
  - Communications
    - Getting staff to carry communication information about screening of City employees at beginning of shift

THE FUTURE – What is on the Horizon?

- EPA Rule changes
- Transparency to our customers
- Identifying funding sources to minimize impacts
- Planning for LSLR's to minimize impact on the neighborhoods
  - "scheduling" with road projects
- Testing and analysis of current corrosion control measures



questions?

Wayne Jernberg, P.E.
City of Grand Rapids
Assistant Water System Manager
wjernberg@grcity.us

A Successful Lansing LSR Program

- Angie Goodman

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LANSING LEAD SERVICE LINE REPLACEMENT PROGRAM

ANGIE GOODMAN

WATER QUALITY ADMINISTRATOR

JUNE 9, 2020

About Us

- Municipally owned, serving approximately 200,000 customers
- 100% Groundwater
- 125 Wells
- 2 water conditioning plants
- Total rated capacity is 50 MGD
- Average well is approximately 400 feet deep
- Average daily demand is currently around 24 MGD

Water Conditioning Process

- Remove approximately 85% of Hardness
- Disinfect using Chloramines
- Fluoridate
- Add Ortho/Poly Phosphate for Corrosion Control
- Filter
- Store for Distribution

Water Quality

- Water Quality is consistent
- Water testing at the plant and distribution system
- Zero Violations

****BWL's Water Quality Meets or Exceeds all State and Federal Water Quality Standards****

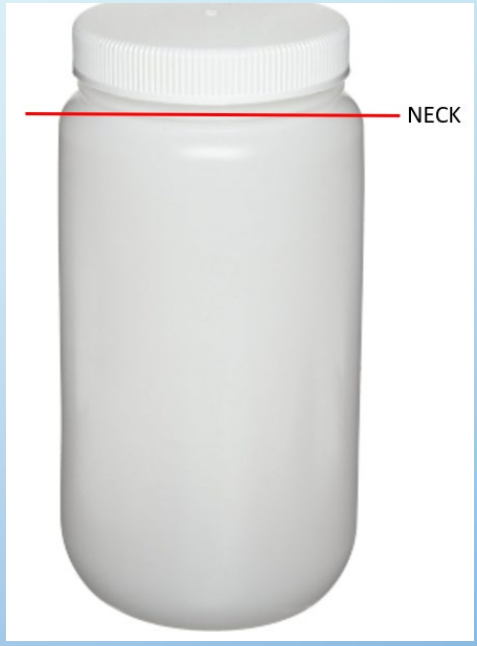
How We Are Different and Yet the Same

- **IN DECEMBER OF 2016 WE COMPLETED THE REPLACEMENT OF ALL OF OUR ACTIVE LEAD SERVICES**
- BEGAN ACCELERATED LEAD SERVICE LINE REPLACEMENT PROGRAM IN 2004

- WE OWN THE ENTIRE SERVICE LINE
- WE HAVE AN ACCURATE INVENTORY
- WE HAD BEEN ACTIVELY REPLACING LEAD LINES SINCE THE EARLY 1990'S

BWL Lead Monitoring

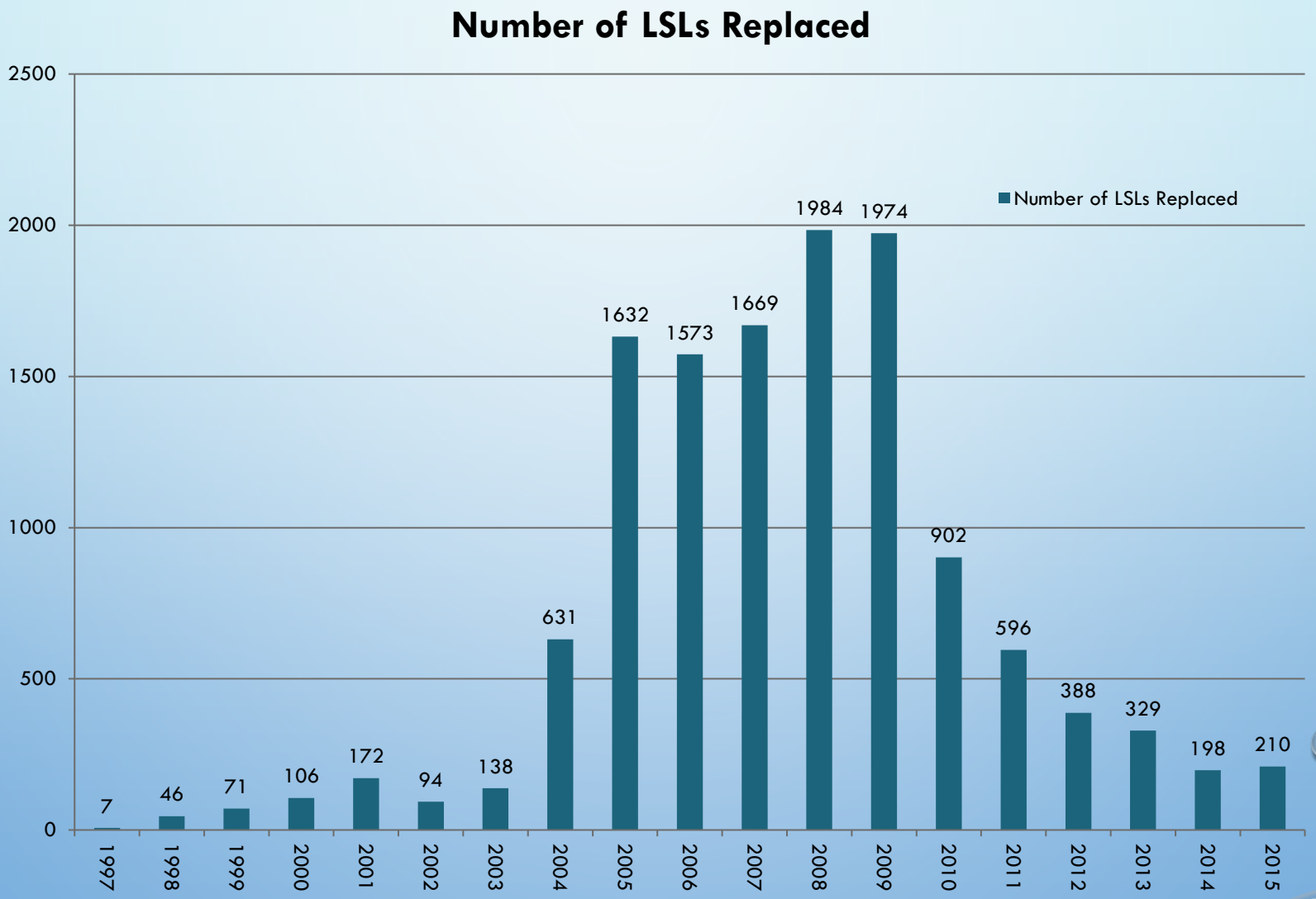
- All sampling rounds have shown 90th percentile below 15 parts per billion (ppb)
  - Maintain a specific water chemistry
  - Optimal Corrosion Control installed in 1997
- Since removing all active lead service lines, current 90th percentile is 1.1 ppb from our sample round 2017
- Reduced Monitoring with 50 locations every three years



Prioritization of Replacements

- Any lead service that is physically disturbed by such things as dig-ins, excavations, or leak repair
- Services supplying schools, day care centers, or other identified sensitive populations as defined by the USEPA
- Services where there are sample results in excess of 15 ppb
- Services in the work zone of sewer replacement or street restorations
- Multiple services within a compact area
- Length of lead pipe present in the service line

LSLR Schedule

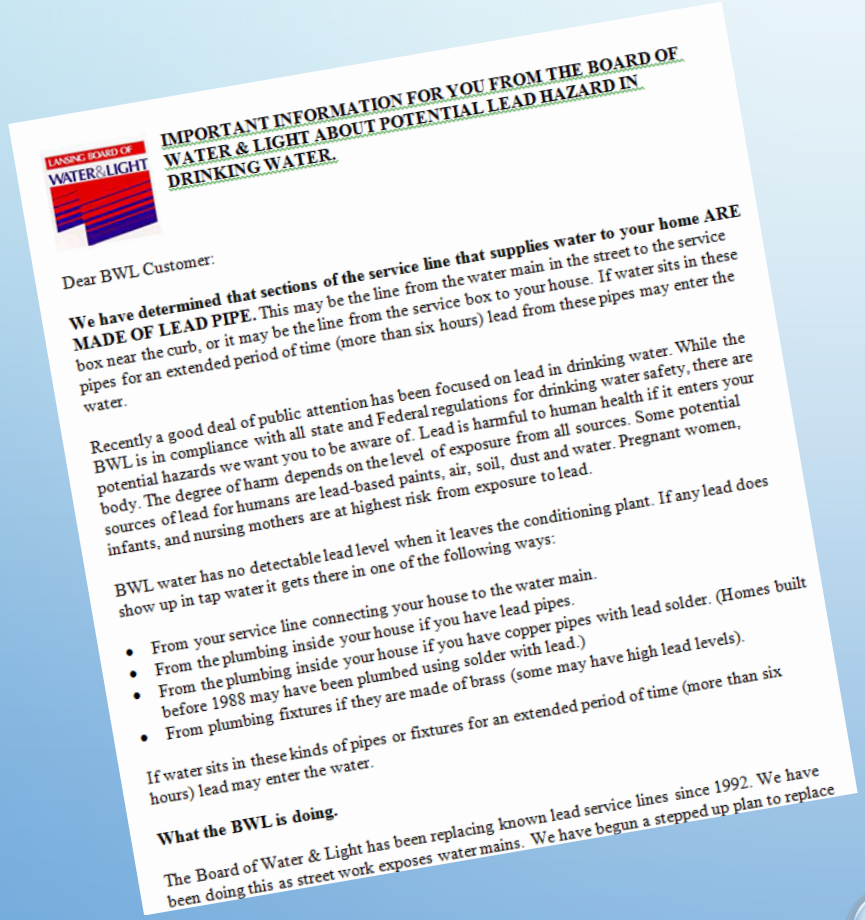


BWL Lead Communications Plan

- Bill stuffers
- Special brochures to schools, day cares, health offices
- Lead information on the BWL web site
- Lead Hotline
- Neighborhood meetings
- Meetings with local media
- BWL hosted several community open houses at various locations around the city

Further Communication

- Letters to our customers
- Communicating with our employees



IMPORTANT INFORMATION FOR YOU FROM THE BOARD OF WATER & LIGHT ABOUT POTENTIAL LEAD HAZARD IN DRINKING WATER.

Dear BWL Customer:

We have determined that sections of the service line that supplies water to your home ARE MADE OF LEAD PIPE. This may be the line from the water main in the street to the service box near the curb, or it may be the line from the service box to your house. If water sits in these pipes for an extended period of time (more than six hours) lead from these pipes may enter the water.

Recently a good deal of public attention has been focused on lead in drinking water. While the BWL is in compliance with all state and Federal regulations for drinking water safety, there are potential hazards we want you to be aware of. Lead is harmful to human health if it enters your body. The degree of harm depends on the level of exposure from all sources. Some potential sources of lead for humans are lead-based paints, air, soil, dust and water. Pregnant women, infants, and nursing mothers are at highest risk from exposure to lead.

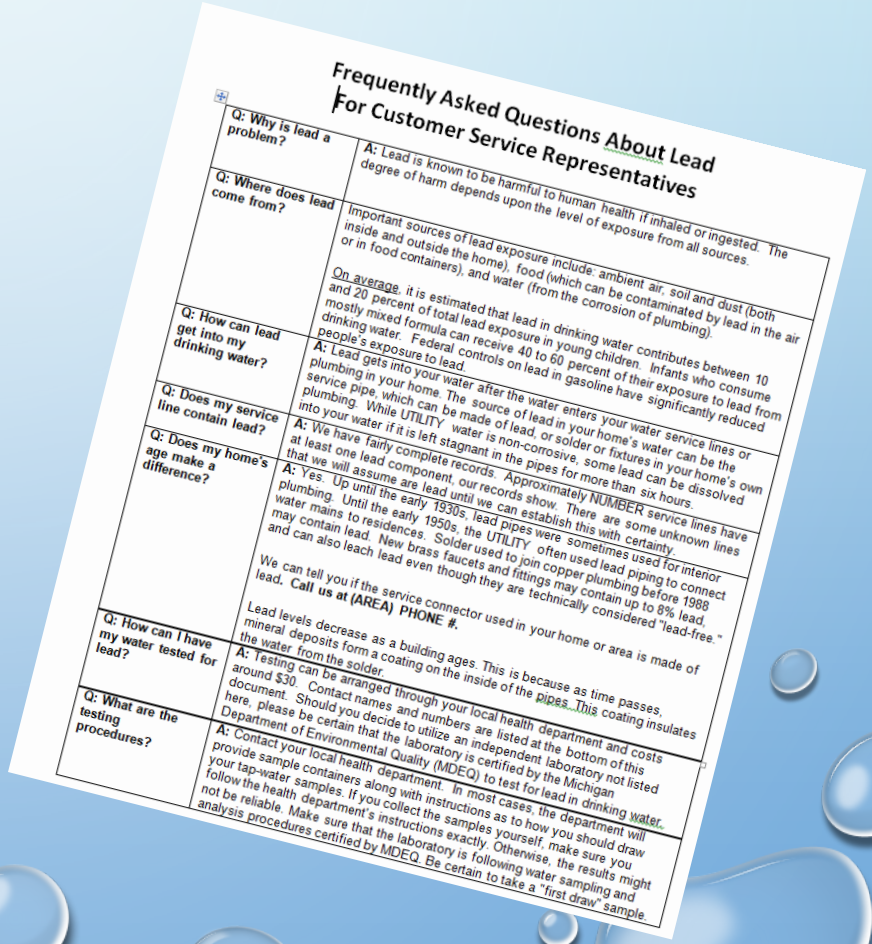
BWL water has no detectable lead level when it leaves the conditioning plant. If any lead does show up in tap water it gets there in one of the following ways:

- From your service line connecting your house to the water main.
- From the plumbing inside your house if you have lead pipes.
- From the plumbing inside your house if you have copper pipes with lead solder. (Homes built before 1988 may have been plumbed using solder with lead.)
- From plumbing fixtures if they are made of brass (some may have high lead levels).

If water sits in these kinds of pipes or fixtures for an extended period of time (more than six hours) lead may enter the water.

What the BWL is doing.

The Board of Water & Light has been replacing known lead service lines since 1992. We have been doing this as street work exposes water mains. We have begun a stepped up plan to replace



Frequently Asked Questions About Lead For Customer Service Representatives

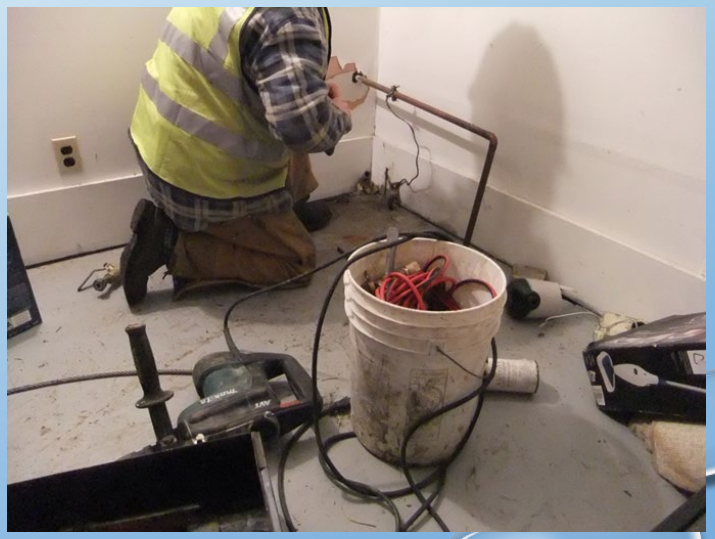
Q: Why is lead a problem?	**A:** Lead is known to be harmful to human health if inhaled or ingested. The degree of harm depends upon the level of exposure from all sources.
Q: Where does lead come from?	Important sources of lead exposure include: ambient air, soil and dust (both inside and outside the home), food (which can be contaminated by lead in the air or in food containers), and water (from the corrosion of plumbing). On average, it is estimated that lead in drinking water contributes between 10 and 20 percent of total lead exposure in young children. Infants who consume mostly mixed formula can receive 40 to 60 percent of their exposure to lead from drinking water. Federal controls on lead in gasoline have significantly reduced people's exposure to lead.
Q: How can lead get into my drinking water?	**A:** Lead gets into your water after the water enters your water service lines or plumbing in your home. The source of lead in your home's water can be the service pipe, which can be made of lead, or solder or fixtures in your home's own plumbing. While UTILITY water is non-corrosive, some lead can be dissolved into your water if it is left stagnant in the pipes for more than six hours.
Q: Does my service line contain lead?	**A:** We have fairly complete records. Approximately NUMBER service lines have at least one lead component, our records show. There are some unknown lines that we will assume are lead until we can establish this with certainty.
Q: Does my home's age make a difference?	**A:** Yes. Up until the early 1930s, lead pipes were sometimes used for interior plumbing. Until the early 1950s, the UTILITY often used lead piping to connect water mains to residences. Solder used to join copper plumbing before 1988 may contain lead. New brass faucets and fittings may contain up to 8% lead and can also leach lead even though they are technically considered "lead-free." We can tell you if the service connector used in your home or area is made of lead. **Call us at (AREA) PHONE #.** Lead levels decrease as a building ages. This is because as time passes, mineral deposits form a coating on the inside of the pipes. This coating insulates the water from the solder.
Q: How can I have my water tested for lead?	**A:** Testing can be arranged through your local health department and costs around $30. Contact names and numbers are listed at the bottom of this document. Should you decide to utilize an independent laboratory not listed here, please be certain that the laboratory is certified by the Michigan Department of Environmental Quality (MDEQ) to test for lead in drinking water.
Q: What are the testing procedures?	**A:** Contact your local health department. In most cases, the department will provide sample containers along with instructions as to how you should draw your tap-water samples. If you collect the samples yourself, make sure you follow the health department's instructions exactly. Otherwise, the results might not be reliable. Make sure that the laboratory is following water sampling and analysis procedures certified by MDEQ. Be certain to take a "first draw" sample.

The Process

- Shutting off the curb stop to prevent any water in the system from entering the customers premises
- Disconnect the service from the meter
- Excavation process at the main

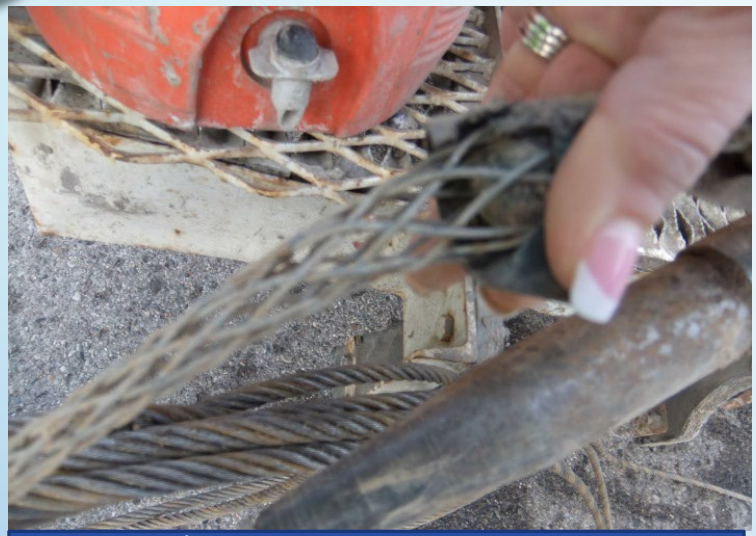
Excavation at Main

Excavation at Curb Stop



Meter Disconnect & Prep Work

New Process Developed



Sock w/ Rubber Ball – New Copper

Copper Line Connected to Pulling Harness

Backhoe – Pulling Line Through

Finishing up Attaching Copper Line

Final Step

We then provided a set of flushing instructions to the property owner for continued flushing of the premise plumbing, with each tap flushed for 5 minutes before moving to the next tap downstream from the meter.
If the customer requests it, a filter will be provided to them for use for the next 3 months as an added precaution.

LANSING BWL
Hometown People. Hometown Power.

Important Notice

The portion of your water service line that was made of lead has been replaced with copper.

Lead Service Line Replaced: _____ (Date)

Precautions were taken to prevent any lead from being released into your water supply when your new copper service line was installed. However, please take the following steps to flush any lead that could possibly be present in your home plumbing after the replacement.

Flushing Instructions

1. Remove faucet aerators from all cold water taps in the home.
2. Beginning at the faucet nearest to the meter, fully open the cold water tap, flush for 5 minutes, and shut off before moving to the next faucet.
3. Repeat this procedure at the remaining faucets throughout the home from the lowest level to the last faucet on the top floor. Be sure to run water in bathtubs and showers as well as faucets.
4. Until after the flushing is complete, do not consume tap water, open hot water faucets, or use icemaker or filtered water dispenser.
5. Clean the inside of your aerators before reinstalling on the faucet.

These flushing instructions are an additional method to ensure that any lead is removed from your home's water supply. As a final precaution you may also wish to use a home filter (NSF/ANSI 53) for the next 3 months at faucets used for drinking and cooking, particularly if you are pregnant or have children under age six. The BWL will be glad to provide a filter free of charge. You may wish to contact a licensed plumber if you need help following these instructions or installing a water filter.

If you have any questions, please contact the BWL's Water Quality Administrator, Angie Goodman at 517-702-7059.

Challenges

- Scheduling Crews
- Outside Contractors
- Good Staking
- Accurate Data

Good Staking

Inaccurate Data

Challenges

- Illegal Activities

- Customer Premise Problems

Challenges

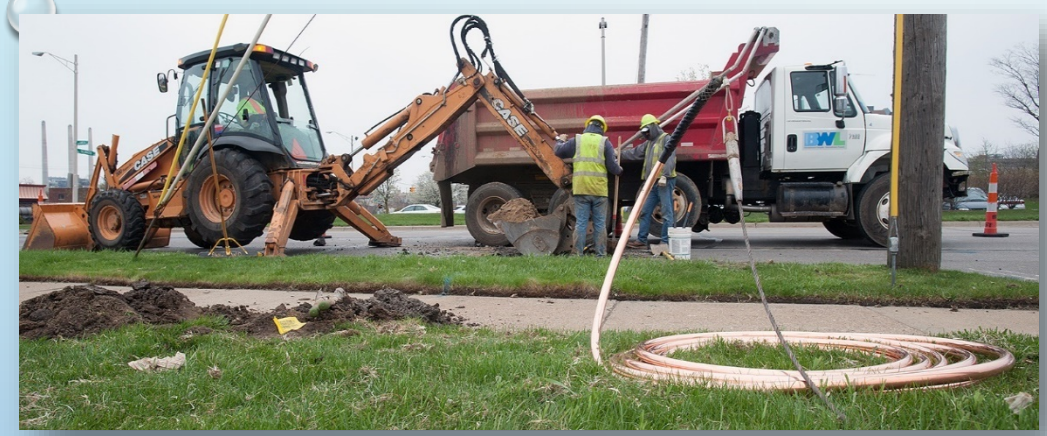
Customer Cooperation

Keys to Success

- Support of Top Management
- Dedicated Work Groups

- Well Trained Employees
- Organization Skills and Time Management

Keys to Success



Having the Right Equipment to Get the Job Done

Keys to Success

- Taking that first step
- Being flexible with our program
- Identifying potential risks

Thank you!
Please contact me with any questions.

BWL

Tommy Tap Water

Angie Goodman
Water Quality Administrator
angie.goodman@lbwl.com

Questions?

Michigan Lead and Copper Rule Update - CWS

Brandon Onan
Drinking Water and Environmental Health
616-307-6736| OnanB@Michigan.gov

EGLE

Topics

- Update on select areas of Michigan's revised lead and copper rule implementation
  - Updated sampling criteria and protocols
  - 2019 Action Level Exceedances
  - Preliminary Distribution System Inventories

Updated Sample Site Tiering Criteria

- Tiering criteria for identifying sampling sites updated to further focus on high lead risk
- Tier 1 and Tier 2 sites include only sites with lead service lines (LSL) or interior lead plumbing
- Sites with copper plumbing with lead solder now Tier 3
- Supplies required to update sampling pools to reflect the revised criteria
- Supplies must identify highest risk sites

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Updated Sampling Protocol

- Sites with LSL: **1st and 5th** liter sample required
  - 1st liter represents water in premise plumbing
  - 5th liter better represents water in contact with the LSL (based on an average home configuration)
- Sites without LSL: **1st** liter sample
- Only the **highest** lead result and highest copper result from each site are used in 90th percentile calculation

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2019 Sampling Summary

- Approximately 650 community supplies sampled, of which, approximately 138 conducted 1st/5th liter sampling
- Approximately 750 compliance sampling events (some supplies sampled twice)
- Approximately 16,000 compliance sample results processed, of which, approximately 3,550 were 5th liter samples

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2019 CWS Lead Action Level Exceedances

- There were 31 lead action level exceedances (ALE) at 29 community water supplies
- Of the 29 supplies w/ ALEs . . .
  - 18 had LSLs, therefore conducted 1st/5th liter sampling
  - Of the 18 with LSLs, 12 would **NOT** have had an ALE if not for the 5th liter sample

Preliminary Distribution System Materials Inventory

- Preliminary Distribution System Materials Inventories were due to EGLE by January 1st, 2020
- Focused on service line material identification
- Contain a summary of what supplies know based on existing information
- Included number of service lines in each of the following categories:
  - Any portion contains lead
  - Galvanized previously connected to lead
  - Unknown - likely to contain lead
  - Unknown - likely does NOT contain lead
  - Unknown - materials unknown
  - Contains neither lead nor galvanized previously connected to lead

Preliminary Distribution System Materials Inventory (cont.)

- EGLE has been tracking & reviewing submitted plans
- Partial data set available at Michigan.gov/MiLeadSafe
  - Click on Drinking Water, then on the “Water Supply Service Line Material Inventories” button
- Will be updated as additional data is reviewed
- EGLE continues to follow-up on missing submittals and submittals requiring clarification

Michigan Department of
Environment, Great Lakes, and Energy

General information about lead: Michigan.gov/MiLeadSafe

Information for water operators: Michigan.gov/lcr

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Action Level Exceedance and The Public Health Response

- Steve Crider, MDHSS

MDHHS Public Health Response

Public Water Supply
Lead Action Level Exceedance

Presented by:

MDHHS
Michigan Department of Health & Human Services

Michigan Department of Health and Human Services Response

Immediate Health Recommendations

Public Health Assistance

Outreach and Education

Drinking Water Assessment

MDHHS Immediate Recommendations When a public water supply exceeds the action level for lead	
Filter Recommendation	Children and fetuses are most at risk of harm to their health from lead. Households with a child younger than age 18 or a pregnant woman, use a filter certified to reduce lead in water. Continue to use a certified filter until MDHHS says it's no longer needed.
Children under 18 years old and pregnant women should use ONLY cold filtered or bottled water for:	• Drinking and cooking • Rinsing foods • Mixing infant powdered formula • Brushing teeth
Flushing Recommendation	All households should flush their pipes. Follow your public water supply's instructions on how long to flush your pipes. MDHHS will be testing water from various homes to verify the flushing time is sufficient to reduce lead.
Non-pregnant adults can use cold flushed water for:	• Drinking and cooking • Rinsing foods • Brushing teeth
Anyone can use water that has not been filtered or flushed for:	• Showering or bathing (avoid swallowing the water) • Washing hands, dishes, or clothes • Cleaning
Clean Your Aerator	All households should clean their faucet aerators. Small pieces of lead can get trapped in the mesh screen, or aerator, at the tip of the faucet. Cleaning the faucet aerator will remove any lead.

Public health assistance for residents on a public water supply exceeding the action level for lead

Requirement 1: Must meet both

- Household receives water from water supply with a lead action level exceedance
- Residents in the household have NOT received a water filter from water supply, local health department, or the Michigan Department of Health and Human Services

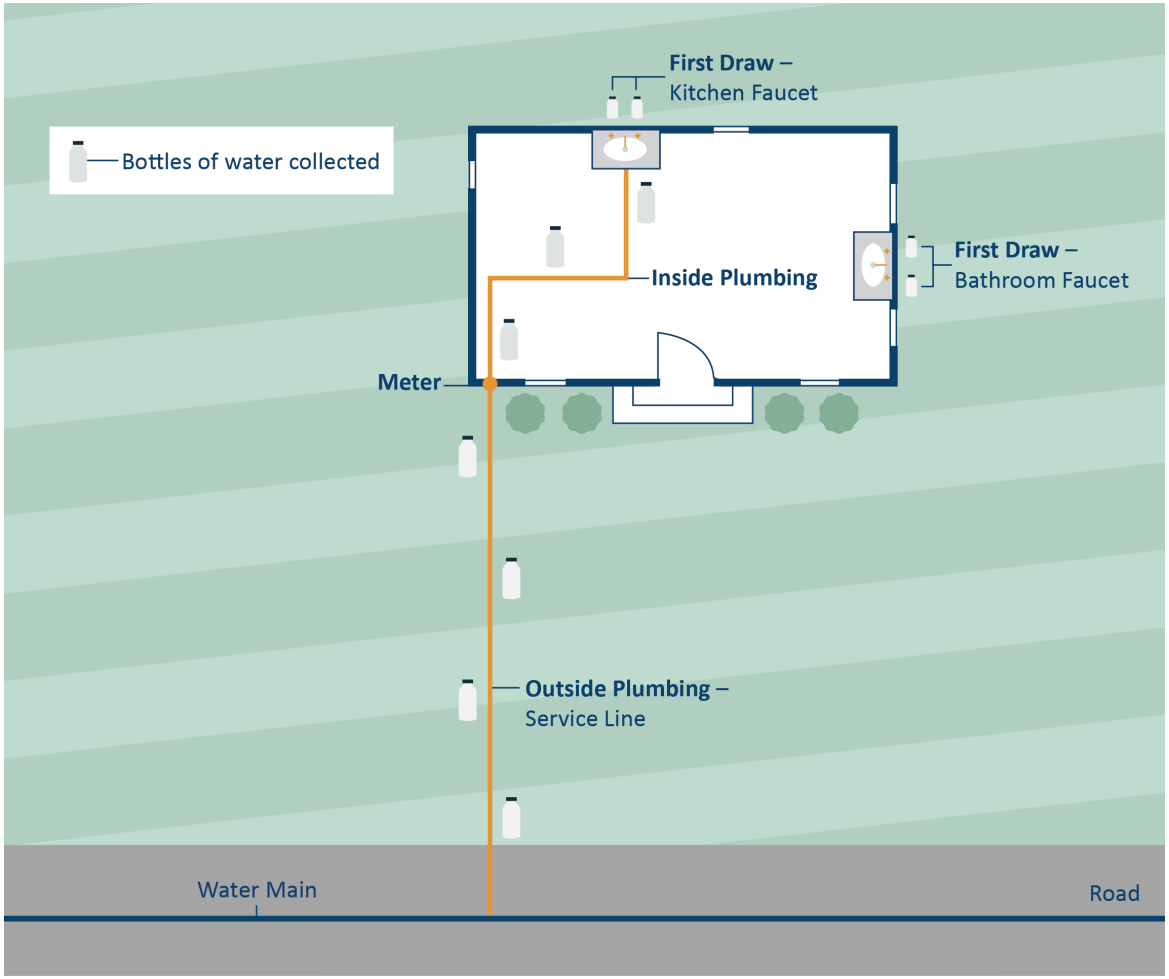
Requirement 2: Must meet at least one

- A child under 18 lives at the address
- A child under age 18 spends a few hours a day and several days a week at the address for at least 3 months of the year. Note: For-profit day care centers are not eligible.
- A pregnant woman lives at the address

Requirement 3: Must meet at least one

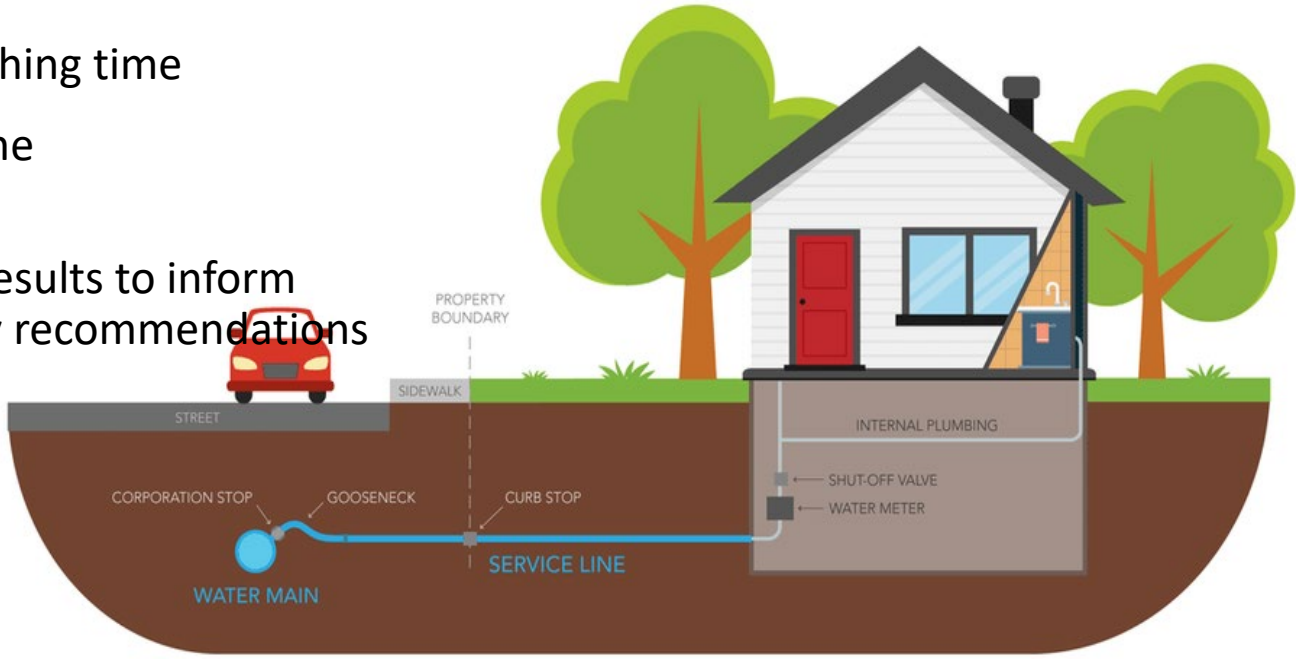
- A person receiving WIC benefits or Medicaid insurance lives at this address
- The person can't afford a filter and replacement cartridges (filters cost about $35 and replacement cartridges cost about $15.)

Sequential Sampling

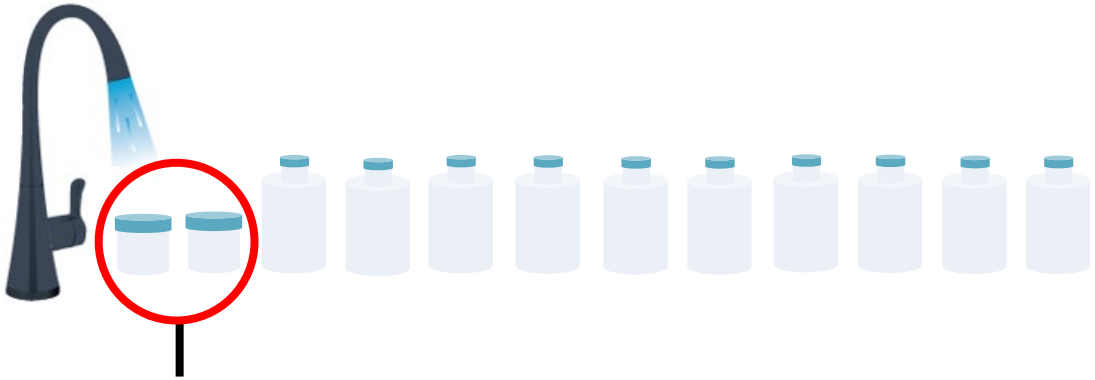


How are water test results being used?

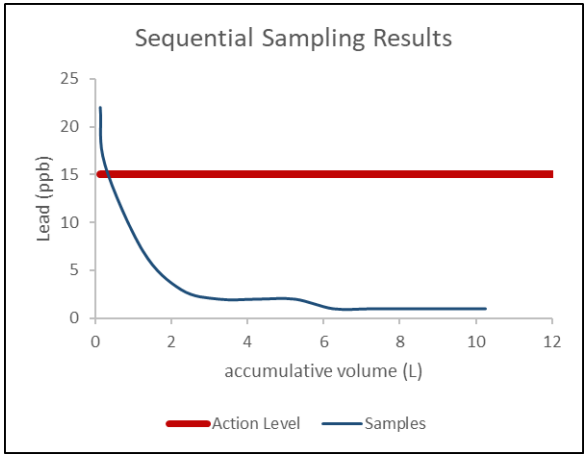
- Identify sources of lead
- Identify maximum flushing time
- Provide individual home recommendations
- Combined individual results to inform updates to community recommendations



Sequential Sampling Water Test Results Example 1

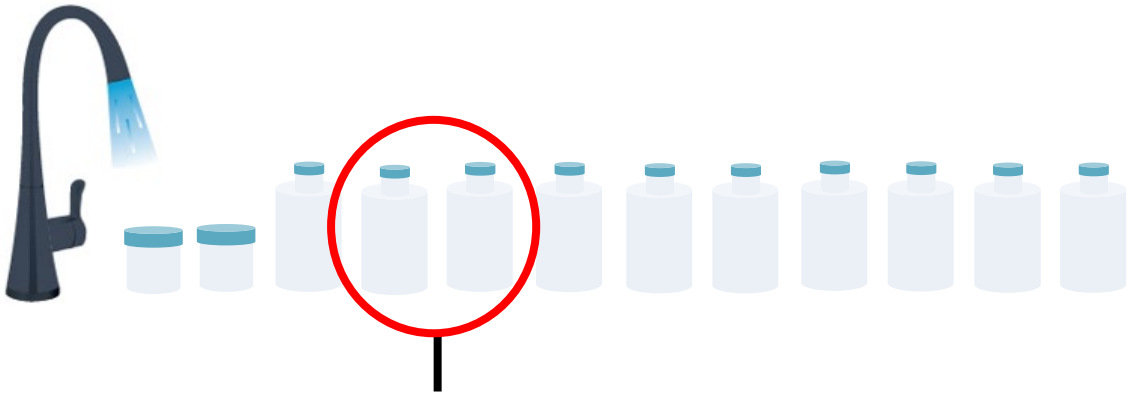


Sample Result = Higher than the 15 ppb (action level)

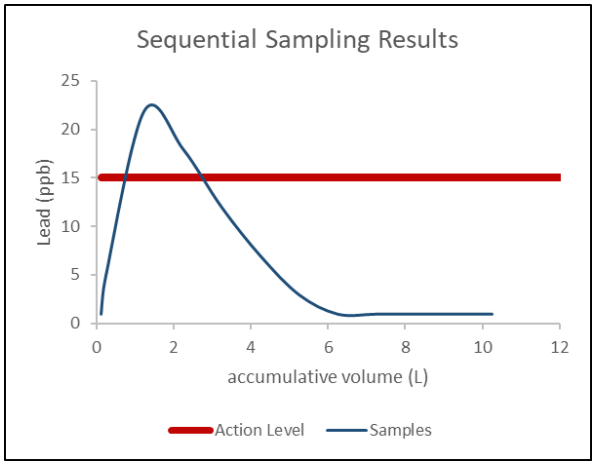


Lead in Faucet

Sequential Sampling Water Test Results Example 2

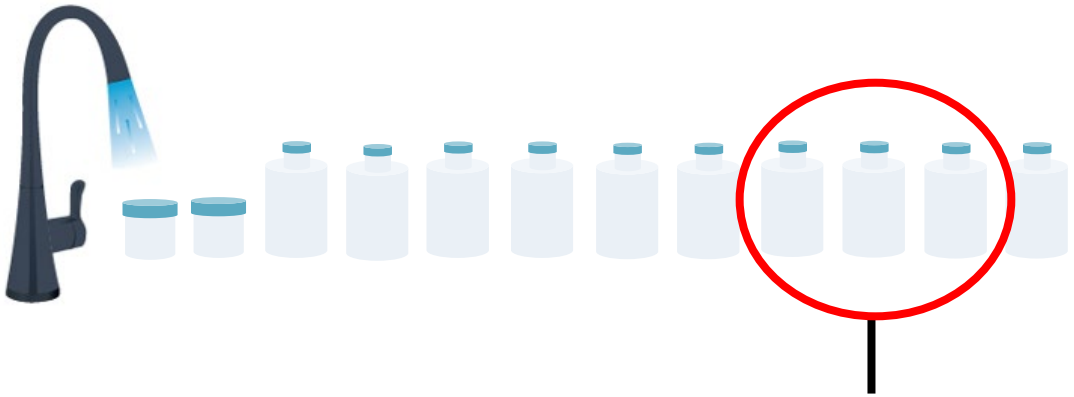


Sample Result = Higher than the 15 ppb (action level)

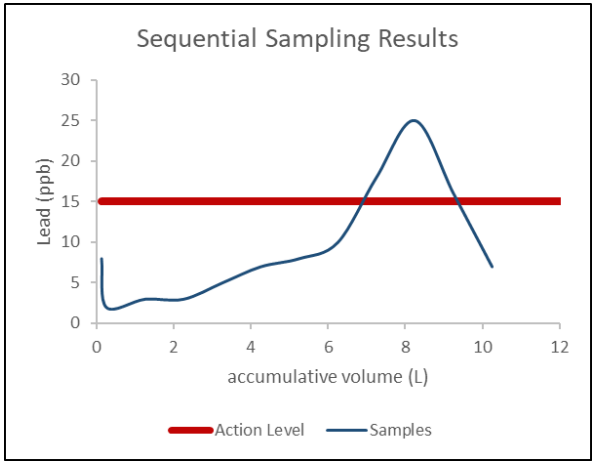


Lead in inside plumbing

Sequential Sampling Water Test Results Example 3



Sample Result = Higher than the 15 ppb (action level)



Lead in Service Line

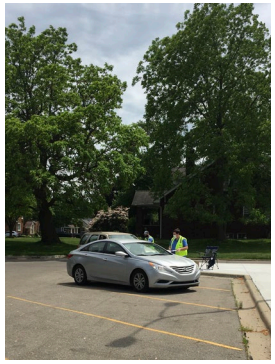
MDHHS Support to Local Health Departments

Education and Outreach

- Lead Action Level Exceedance in Drinking Water Education and Outreach Planning Guide

Residential Filter Distribution

- Lead Action Level Exceedance Residential Filter Distribution Planning Guide
- MDHHS in-person support – Filter Distribution Day 1



Sanitarian Training

Child Blood Lead Data Surveillance Reports

Reduce Lead in Drinking Water

Things you CAN do:

- Use a water filter certified for lead reduction

- Flush pipes

- Clean faucet aerators

- Replace older plumbing, pipes, and faucets that may add lead to water

Things you should NOT do:

- Do not use hot water for drinking and cooking
- Don’t try to remove lead by boiling the water

Other Ways to Reduce Lead Exposure

- Regularly wash hands, toys, and surfaces with a damp cloth or paper towel

- Wash hands before eating to avoid swallowing lead dust and soil

- Take shoes off before entering the home or living areas

- Vacuum with a High Efficiency Particulate Air (HEPA) filtered vacuum

- Grow fruits and vegetables in raised beds

- Hire certified lead professionals for remodeling houses built before 1978
  - Visit Michigan.gov/Lead to find certified lead professionals

Contact Information

- Keith McCormack – KMcCormack@hrc.engr.com
- Dr. Stuart Batterman – stuartb@umich.edu
- Wayne Jernberg – wjernberg@grand-rapids.mi.us
- Angie Goodman – Angie.Goodman@LBWL.com
- Brandon Onan – onanb@Michigan.gov
- Steve Crider – criders1@Michigan.gov

Closing

- All SDWAC meetings (including Zoom) are open to the public. Information can be found at https://www.michigan.gov/egle/0,9429,7-135-3313_3675_76638-490466--,00.html.
- MI Lead Safe page is a good resource for materials and information
  - www.michigan.gov/MiLeadSafe
- Questions to the SDWAC can be directed to the following email address: EGLE-DWMAD-DWCouncil@michigan.gov

EGLE

Questions?

Q&A Answers

- Is Grand Rapids charging for voluntary lead service line replacement customers for the work? Is EGLE ok with this?
  - Wayne Jernberg: This is correct that we will charge or voluntary LSLRs. This is done to control replacements at a regular pace.
  - EGLE: Yes, this is ok.
- Did either GR or LBWL pull plumbing permits?
  - Wayne Jernberg: Plumbing permits are required. Permits would be pulled for the portion on private property by our contractor.