Clean Water Ambassador Meeting

May 26, 2022

How to ask a question

Type your question into the chat.

Click the “hand” icon at the top of your screen.

Type #2 to raise your hand.

Agenda

Welcome and Review of Agenda
Anita Singh, EGLE

EGLE Updates
Emily Posthumus, EGLE

Action Level Exceedances
Jeni Bolt, EGLE

Ambassador Updates & Discussion

Wrap up & Reminders
Emily Posthumus, EGLE

Updates from EGLE

Emily Posthumus, EGLE

Updates

- Drinking Water Concern System, 2021 Summary
  - 157 concerns reported
  - > 50% related to a public water supply
  - ~ 25% unsure of water supply type
  - Appearance/Taste was the most common concern type (43%), followed by Other (27%) and Safety (22%)

Upcoming Events

- EGLE Water Resources Division webinar: How Michigan's Water Use Program Preserves and Manages our Water Resources
  - June 7 from 1 – 2 pm
  - Register via EGLE's Calendar
- Listening sessions (TBD)
- Upcoming CWA Meetings:
  - June 30 – Consumer Confidence Reports
  - August 25 – Environmental Education
  - Fall – Updates on the Water Leak Pilot and Statewide DW Advisory Council Report

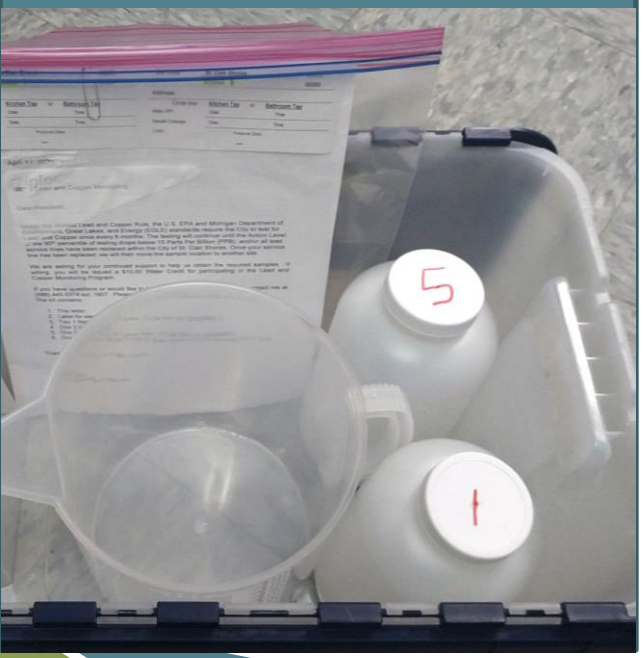
General Review of Lead in Drinking Water and Action Level Exceedances (ALE)

Jeni Bolt, Lead and Copper Rule Specialist
Lead and Copper Unit
Drinking Water and Environmental Health Division
Department of Environment, Great Lakes, and Energy

How does lead get into drinking water? https://youtu.be/6usRvbG0lWo

Purpose of the Lead and Copper Rule

- Reduce water corrosivity to prevent corrosion of plumbing and distribution system components;
- Minimize lead and copper in drinking water;
- Establish action levels (AL), which when exceeded, require supplies to take actions to reduce corrosion



Identify high-risk locations for sampling

- Based on lead-containing service line and plumbing materials

Sample for lead and copper at taps used for consumption

- Community water supplies
  - 1-L, first draw samples at sites without lead service lines
  - 1st/5th liter samples at sites with lead service lines
- Non-transient, Non-community water supplies

Sample for water quality parameters

- Supplies that treat their water for corrosion control

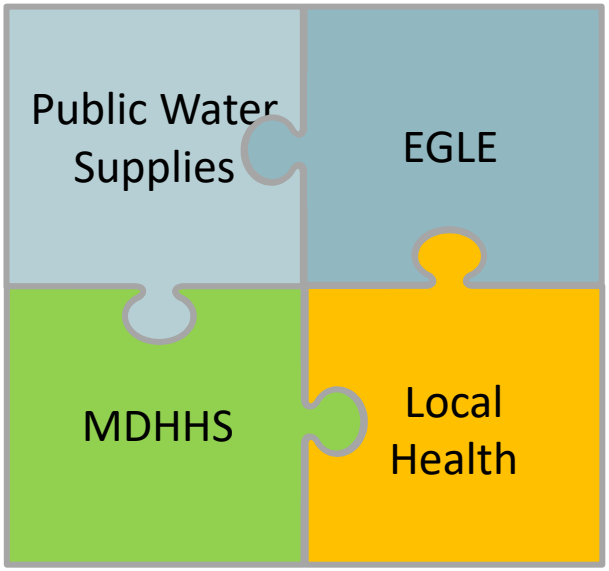
Calculate the 90th percentile of the lead and copper results

Compare with Action Levels to determine if additional actions are necessary

What happens when EGLE receives results?

Individual Elevated Result

- EGLE notifies agencies of high results
  - EGLE Management
  - MDHHS EH Mailbox
  - Water System
  - EGLE District Office



Individual Elevated Results

EGLE sends an email to the water system

Requiring a Water System to

- Consumer Notice within 30 days
  - Results and basic steps to reduce exposure

Recommending a Water System to

- Educate homeowner
  - Basic maintenance
  - Possible sources of lead and copper
- Collect resample
- Collect investigative samples

Evaluation of All Sample Results

- A statistical calculation is done with all results to find the “90th percentile” value
- The 90th is compared to the Action Levels (ALs) to determine if treatment technique actions are needed
  - If the values are below the ALs, it indicates that 90% of distribution system sites are in compliance with the LCR
  - If the values are above the ALs, it indicates that more than 10% of all samples are over the ALs

❖ **ALs are not health standards, they help determine if treatment changes are needed**

90th Percentile Calculations
>15 ug/L (0.015 mg/L) Lead
>1300 ug/L (1.3 mg/L) Copper

→ **Action Level Exceedance**

Action Levels (AL)

Maximum Contaminant Level Goal (MCLG)

Action Level

- Corrosion based standard
- 90th percentile of all results
  - Lead Action Level = 15 parts per billion (ppb)
  - Copper Action Level = 1.3 parts per million (ppm)

Maximum Contaminant Level Goal

- Health based standard
- Individual results
  - Lead Action Level = 0 parts per billion (ppb)
  - Copper Action Level = 1.3 parts per million (ppm)

90th Percentile Calculation Steps

- Step 1: Place results in ascending order
- Step 2: Multiply number of sites by 0.9*
  - Example: 20 sites x 0.9 – 18th site
- Step 3: Compare result with action level
  - Example above, 90th percentile is value of 18th site

* If number of sites x 0.9 is not a whole number, interpolation is used

90th Percentile Calculation Example

	1st Liter		5th Liter	
	Lead (ppm)	Copper (ppm)	Lead (ppm)	Copper (ppm)
123 Main St	0.001	0.6	0	0.04
124 ABC Rd	0.001	0.2	0	0
125 North St	0.002	0.01	0.010	0
126 South Blvd	0.002	0.04	0.002	0.02
127 West Ave	0.002	0.025	0.030	0.01

Highest values for each analyte are circled.

5 sites x 0.9 = 4.5
The 90th percentile will be the 4.5th site,
so interpolation will be used.

Lead (ppm)	Copper (ppm)
0.001	0.01
0.001	0.025
0.002	0.04
0.010	0.2
0.030	0.6

4.5th site

90th percentiles
Lead = 0.020 ppm
Copper = 0.4 ppm

Lead ALE

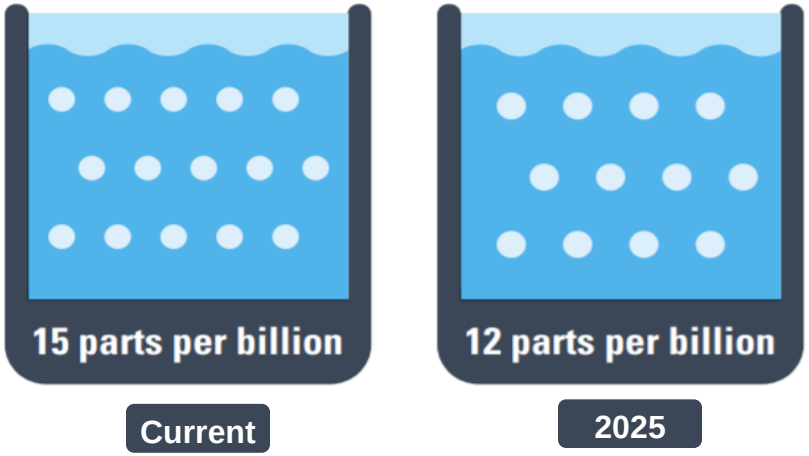
Action Level Exceedance (ALE)

>10% of the sites have elevated results

Lead Action Level

- The lead action level of 15 ppb remains in effect through December 31, 2024
- The new lead action level of 12 ppb takes effect January 1, 2025
- Copper action level of 1,300 ppb

(1.3 mg/L) will not change



2019-2021 CWS Sampling Summary

- Approximately 1,363 CWS sampled
- Approximately 2,326 compliance sampling events (some supplies sampled multiple times)
  - This relates to 101,607 lead and copper samples collected by operators and the results hand entered by EGLE staff
- Approximately 212 CWS sampled using 1st/5th method

2019-2021 CWS Lead Action Level Exceedances

62 Lead ALEs from 2019-2021

- 36 ALEs at 24 supplies with LSLs (subject to 1st/5th)
- 26 ALEs at 19 supplies without LSLs (subject to 1st)

Of the 36 Lead ALEs at supplies with LSLs

- 36 based on highest of 1st and 5th liter (Michigan 90th)
- 13 based on 1st liter only (current federal LCR)
- 25 based on 5th liter only (new federal LCRR)

Note: MI lead action level is currently 15 ppb. It will reduce to 12 ppb in 2025.

	Lead 90th (ppb)		
	1st Liter Only	5th Liter Only	Highest of 1st & 5th
Supply 1	21	22	27
Supply 1	23	25	32
Supply 1	20	10	23
Supply 1	20	20	24
Supply 1	21	11	24
Supply 2	8	13	17
Supply 3	26	27*	27
Supply 3	21	24*	24
Supply 4	8	34	34
Supply 4	12	15	17
Supply 5	9	16	19
Supply 6	7	14	28
Supply 7	9	24	26
Supply 8	10	21*	21
Supply 9	10	15	17
Supply 10	20	9.5	20
Supply 11	5	16	16
Supply 11	7	16	18
Supply 12	57	20	57
Supply 13	6	12*	17
Supply 13	11	17	18
Supply 14	12	15	19
Supply 15	8	19	19
Supply 15	7	13	16
Supply 15	8	18	18
Supply 16	19	19	31
Supply 17	34	264	370
Supply 18	9	25	25
Supply 19	10	12	21
Supply 20	43	55	58
Supply 20	39	83	89
Supply 21	6	23	23
Supply 22	10	22*	22
Supply 23	5	21*	21
Supply 23	5	18	18
Supply 24	3.4	16	17
	13 ALEs	25 ALEs	36 ALEs

* Mixed tiers. Calculated using only 5th liter from LSL sites and 1st liter from other sites.

Why Higher 90th Values?

- 1st & 5th liter sampling protocol
- Updated Tiering Criteria
- Re-evaluation, updating, & submission of sampling pools
- Increased awareness and training on site selection & sampling
- Prohibition on pre-stagnation flushing and aerator removal
- Change in MI consecutive system sampling requirements (unrelated to, but timed with, Michigan rule implementation)
- Other

Action Level Exceedance (ALE)

Requirements and Regulatory Response

ALE Letter and Timetable

- Extensive letter detailing the triggered requirements
  - Emailed to supply, operator and District
- Provides a chronological list of requirements
  - Not on monitoring schedule
- **Each requirement has the opportunity to be a monitoring, reporting or treatment technique violation**

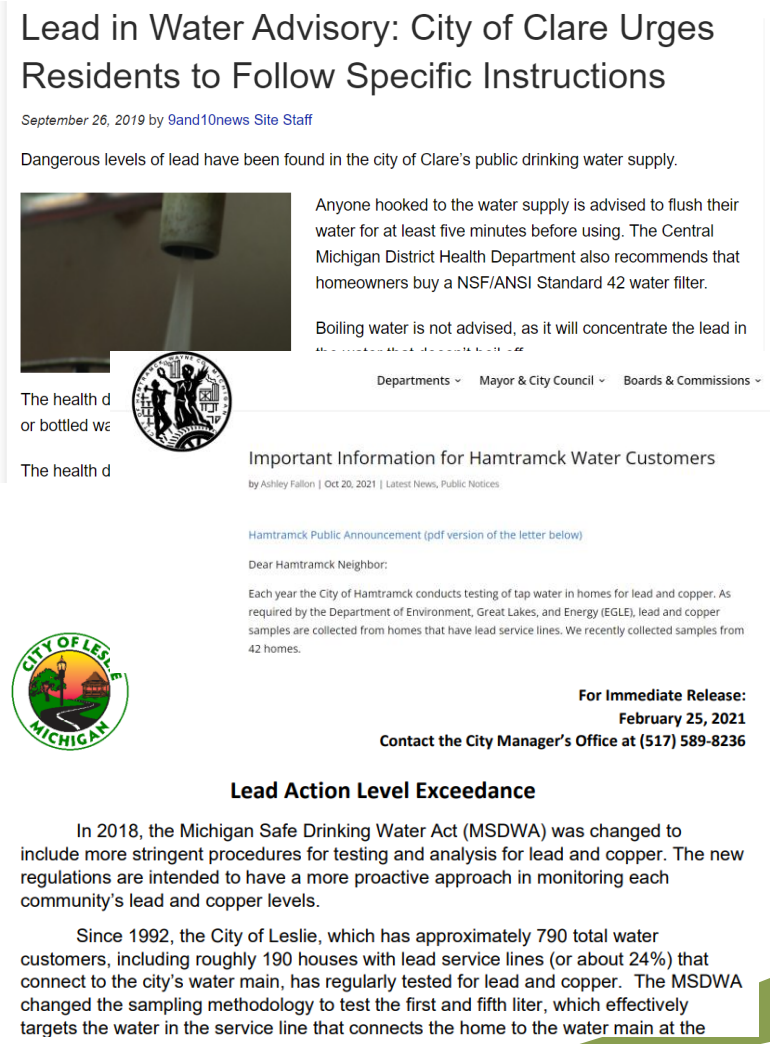
Timetable of Upcoming Requirements

Complete By	Requirement	Comments
Within three business days	Distribute a Public Advisory	Distribute a public advisory to inform all persons served by the water supply of the lead AL exceedance. Distribution of the notice must be in a form and manner designed to fit the specific situation and must be reasonably calculated to reach all persons served by the public water supply.
Right away	Deliver *Consumer Notice of Lead and Copper Results* to persons served at each site tested within 30 days of knowing the result.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Microsoft Word or PDF format from http://michigan.gov/deqleadcopper.
November 29, 2018	Perform PE activities including delivering PE materials to all consumers.	PE required activities are listed in enclosed template and checklist. Repeat every year until the lead AL is met in the most recent round of sampling.
November 30, 2018	Collect WQP samples.	Collect two sets of WQP samples from your entry point to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.
December 9, 2018	Send us certification of PE compliance along with a sample copy of the materials delivered.	Sample certification enclosed. Required within 10 days of PE distribution.
December 29, 2018	For the Jun-Sep 2018 monitoring, send us certification of consumer notice of lead and copper results compliance along with a sample copy of the notice delivered.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Microsoft Word or PDF format from http://michigan.gov/deqleadcopper.
Between January 1 and June 30, 2019	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to the DEQ and deliver the consumer notice of individual lead and copper results using the downloadable *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate*. **Report due July 10, 2019.**
Between January 1 and June 30, 2019	Collect WQP samples.	Collect two sets of WQP samples from your entry point to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.
March 31, 2019	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.
March 31, 2019	Submit a proposal for optimal corrosion control treatment or a corrosion control study.	Contact us for guidance on corrosion control options. Corrosion control study and treatment installation may cease if both ALs are met during two consecutive six-month monitoring periods.
July 1, 2019	Report the 2018 AL exceedance in the Consumer Confidence Report.	Specific lead health effects language must be included.
Between July 1 and December 31, 2019	Collect 60 samples from the distribution system and have them analyzed for lead and copper.	Report the results to the DEQ and deliver the consumer notice of individual lead and copper results using the downloadable *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate*. **Report due January 10, 2020.**
Between July 1 and December 31, 2019	Collect WQP samples.	Collect two sets of WQP samples from your entry point to the distribution system. Collect two sets of WQP samples at least 24 hours apart from ten locations in the distribution system. Repeat each lead and copper monitoring period until both ALs are met.
September 28, 2019	For the Jan-June 2019 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Word or PDF format from http://michigan.gov/deqleadcopper.
March 31, 2020	For the July-Dec 2019 monitoring, send us certification of Consumer Notice of Lead and Copper results compliance along with a sample copy of the notice delivered.	Download *Lead and Copper Report and Consumer Notice of Lead and Copper Results Certificate* in Word or PDF format from http://michigan.gov/deqleadcopper.
March 31, 2022	Collect one lead and copper sample from your entry point to the distribution system.	Repeat every third year until both ALs are met for the whole three-year period.

Public Advisory

Requirement to notify water customers of a lead Action Level exceedance within <u>three business days</u>

- Inform the residents of the Action Level exceedance
- Provide steps to reduce exposure to lead in drinking water
- Opportunity to provide information about filter distribution or other public events



Lead in Water Advisory: City of Clare Urges Residents to Follow Specific Instructions

September 26, 2019 by 9and10news Site Staff

Dangerous levels of lead have been found in the city of Clare's public drinking water supply.

Anyone hooked to the water supply is advised to flush their water for at least five minutes before using. The Central Michigan District Health Department also recommends that homeowners buy a NSF/ANSI Standard 42 water filter.

Boiling water is not advised, as it will concentrate the lead in

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Departments Mayor & City Council Boards & Commissions

Important Information for Hamtramck Water Customers

by Ashley Fallon | Oct 20, 2021 | Latest News, Public Notices

Hamtramck Public Announcement (pdf version of the letter below)

Dear Hamtramck Neighbor:

Each year the City of Hamtramck conducts testing of tap water in homes for lead and copper. As required by the Department of Environment, Great Lakes, and Energy (EGLE), lead and copper samples are collected from homes that have lead service lines. We recently collected samples from 42 homes.

For Immediate Release:
February 25, 2021
Contact the City Manager's Office at (517) 589-8236

Lead Action Level Exceedance

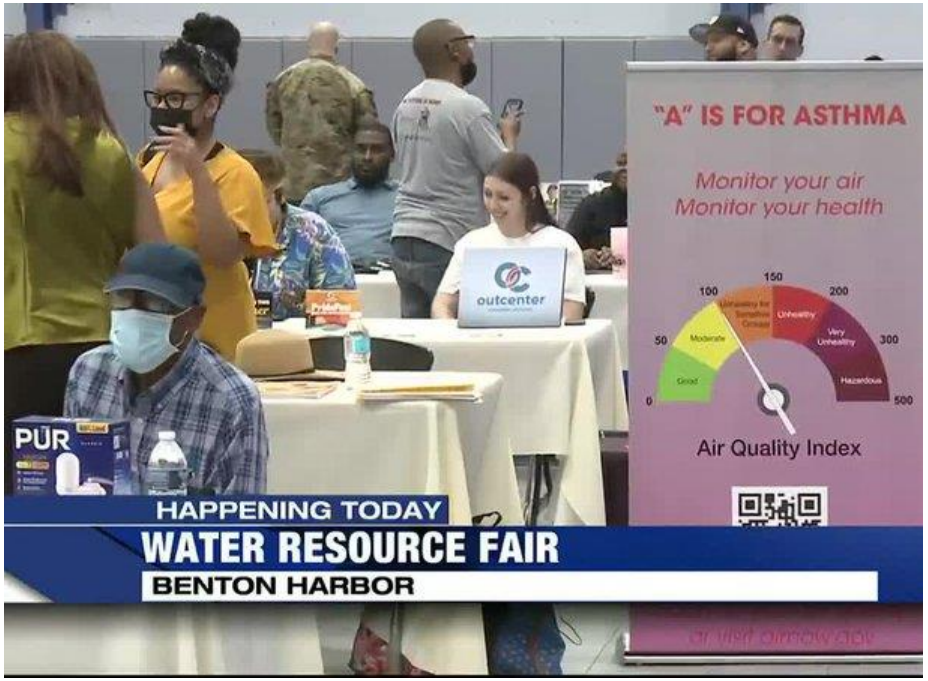
In 2018, the Michigan Safe Drinking Water Act (MSDWA) was changed to include more stringent procedures for testing and analysis for lead and copper. The new regulations are intended to have a more proactive approach in monitoring each community's lead and copper levels.

Since 1992, the City of Leslie, which has approximately 790 total water customers, including roughly 190 houses with lead service lines (or about 24%) that connect to the city's water main, has regularly tested for lead and copper. The MSDWA changed the sampling methodology to test the first and fifth liter, which effectively targets the water in the service line that connects the home to the water main at the

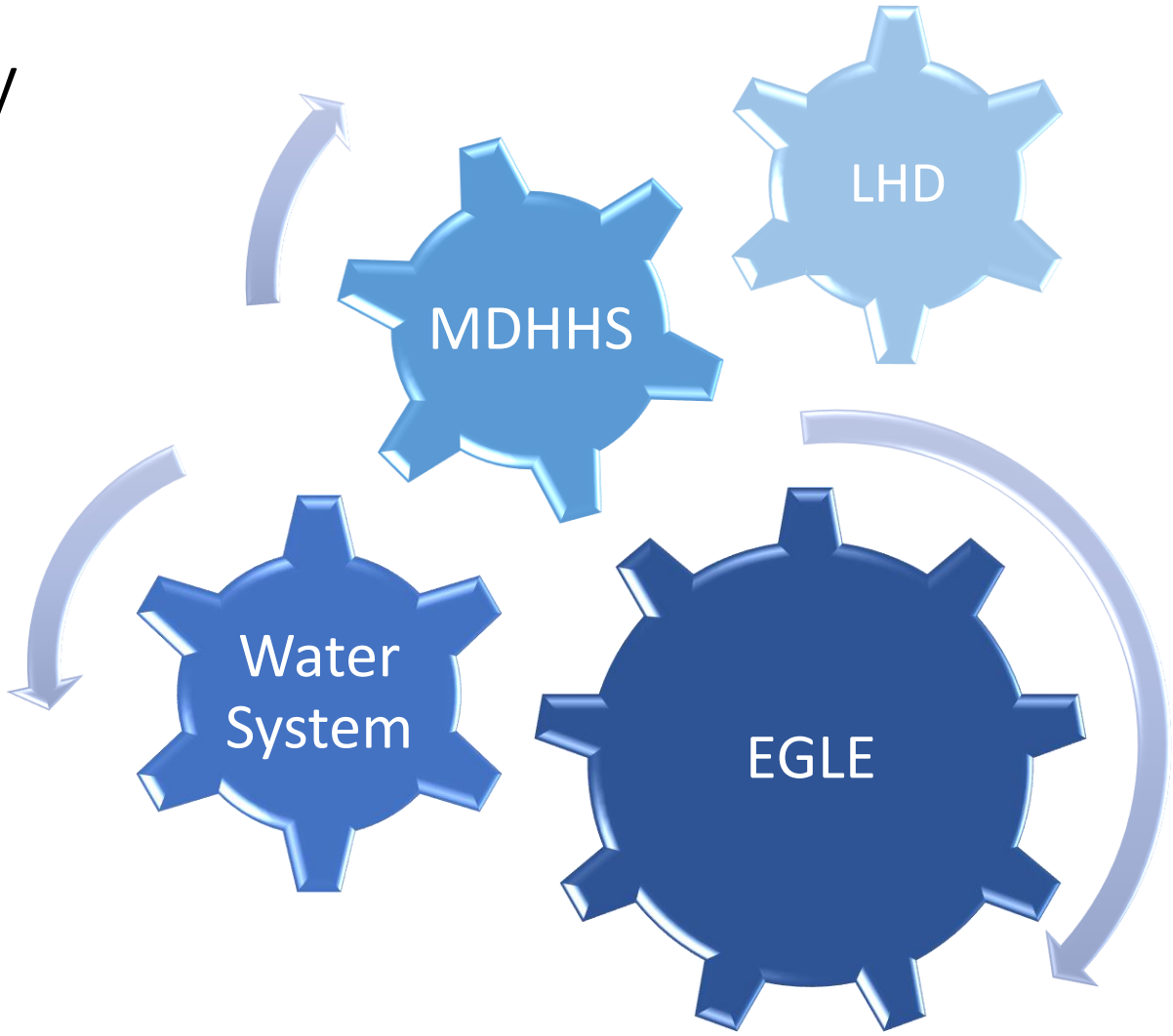
Public Education

Comprehensive document about lead sources and how to reduce risks due to residents with 60 days

- Required language per Safe Drinking Water Act
  - Verbatim and in order
- Required distribution
  - All water customers
  - Schools and school boards, WIC and Head Start programs, hospital and medical clinics, pediatricians, family planning clinics, local welfare agencies, community centers, and adult foster cares
  - Childcare centers, public and private preschools, OB/GYNs
  - Press release to media (population dependent)
  - Other public meetings or PSAs (population dependent)
- Notice in bill
- Notice in other languages (if >10% non-English speaking)

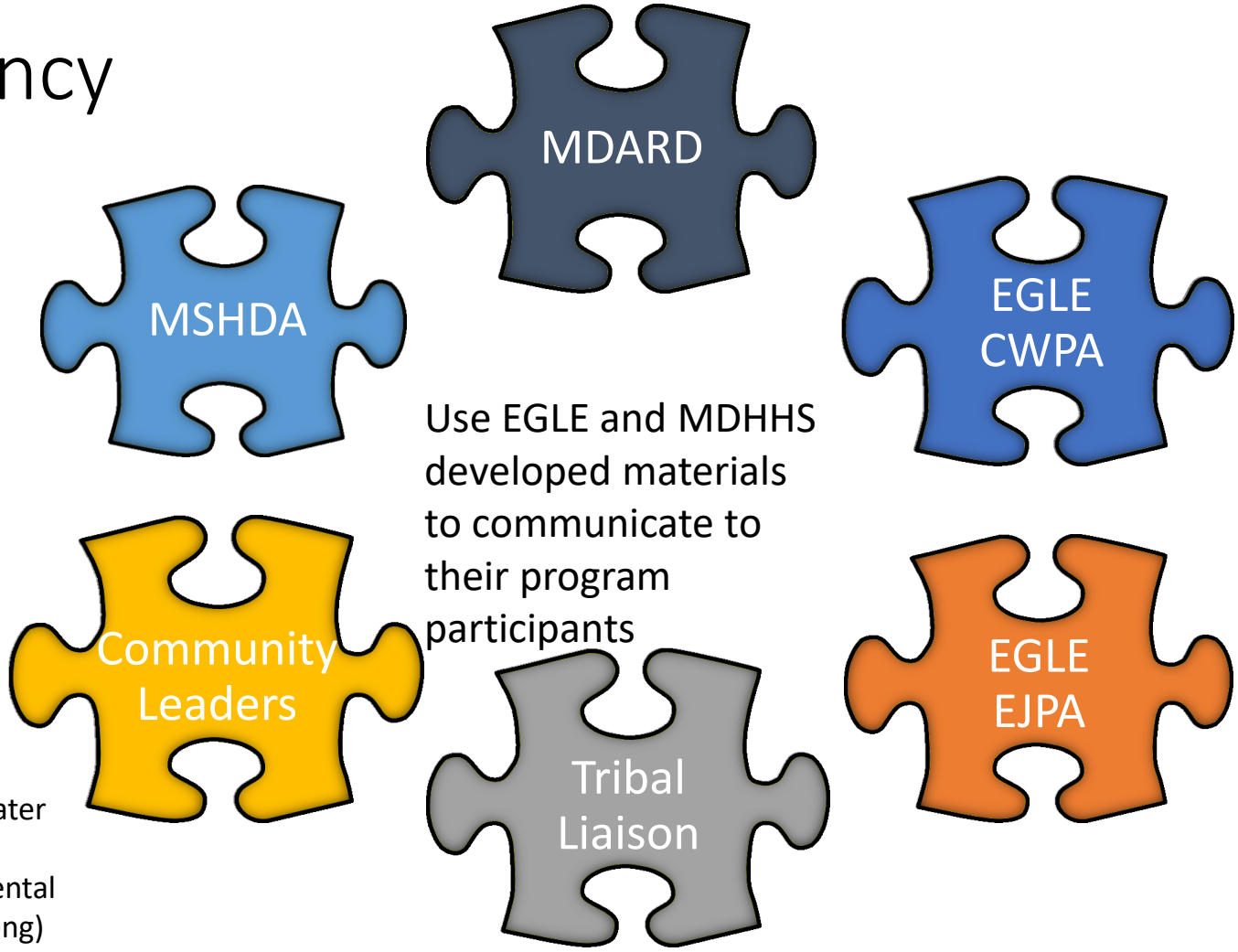


ALE Multiagency Coordination



Acronyms:
EGLE – Michigan Department of Environment, Great Lakes, and Energy
Water System – a community or non-community, non-transient system
MDHHS – Michigan Department of Health and Human Services
LHD – Local Health Department

ALE Multiagency Awareness



Use EGLE and MDHHS developed materials to communicate to their program participants

Acronyms:
MSHDA – Michigan State Housing Development Authority
MDARD – Michigan Department of Agriculture & Rural Development
EGLE CWPA – Office of the Clean Water Public Advocate (Kris Donaldson)
EGLE EJPA – Office of the Environmental Justice Public Advocate (Regina Strong)

Other ALE Requirements for Water Systems

- Increased lead and copper sampling (frequency and locations)
- Water quality parameter monitoring
- Source water assessment
- Corrosion control treatment steps
- Increased service line replacement

How an ALE is resolved per the Safe Drinking Water Act

- Demonstrates though sampling
  - Two consecutive 6-month rounds of sampling are below Action Levels

- If the supply continues to exceed
  - Corrosion control treatment steps
  - Removal of lead and galvanized previously connected to lead service lines

Questions?

www.Michigan.gov/lcr

https://www.michigan.gov/mileadsafe/

BoltJ@michigan.gov

EGLE- Lead and Copper Unit
Brandon Onan, P.E.- Unit Supervisor

Environmental Specialists

- Jeni Bolt- Rule Specialist
- Holly Gohlke- School Specialist
- Matt Sylvester, P.E.- Corrosion Control Engineer
- Vacant-LSLR Specialist

Environmental Quality Analysts

- Heather Jackson- EQA
- Stephen Pennington- EQA
- Aislinn Deely- EQA
- Tyler Postma- EQA
- Heather Brown- EQA
- Vacant Position-EQA/Engineer

Open Discussion & Updates from Ambassadors

Thank you, Ambassadors!