



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGIONAL ADMINISTRATOR
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

John J. Kim, Director
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Dear Director Kim:

The U.S. Environmental Protection Agency appreciates the ongoing efforts by the Illinois Environmental Protection Agency to reduce lead in drinking water by requiring the City of Elgin to evaluate and optimize corrosion control treatment (CCT). I understand that our teams had discussions on September 12 and September 27, and that IEPA participated in the October 13 call with Elgin regarding CCT studies and other efforts to evaluate and mitigate lead in Elgin's drinking water. Based on recent drinking water data, however, more needs to be done to protect public health.

As you know, Elgin had a lead action level exceedance (ALE) in July-December 2021 based on its 90th percentile lead level of 22.5 parts per billion (ppb), above the Lead and Copper Rule (LCR) Action Level of 15 ppb based on 101 LCR compliance samples. After the January-June 2022 round (90th percentile 14.2 ppb) Elgin did not exceed the action level. However, available data indicates another lead ALE may be issued for July-December 2022, based on the 90th percentile of 21 ppb for 100 LCR compliance samples collected to date. EPA is further concerned by additional information about levels of lead in drinking water at lead service line (LSL) homes sampled in Elgin, including peak stagnated sequential samples with results ranging from 35 to 82 ppb in 2020 and 5-minute flushed samples with lead levels in 2021-2022 ranging from below the reporting limit of 2 ppb (10% of samples) to 33.9 ppb (average 9.4 ppb).

It is critical to move forward as quickly as possible to protect public health. As we are all mindful that no level of lead is safe, EPA supports the steps Elgin has taken to offer water testing and filters to some residents. However, in light of the above data and the other factors impacting the situation, including the large population served, the large number of lead service lines (approximately [11,900-14,000 LSLs](#)), environmental justice (EJ) concerns,¹ and the long timeline Elgin anticipates it will take to optimize CCT, EPA recommends that IEPA work with Elgin to ensure Elgin implements additional short-term measures to protect public health beyond LCR requirements. EPA's recommended short-term measures to reduce lead exposure are listed in Enclosure 2, in the following areas:

- enhanced public outreach and education;

¹ 47% pop. Hispanic origin, 46% households speak language other than English at home; EJScreen: 12 of 20 Environmental and Socioeconomic Indicators above region-wide 80th percentile (see Enclosure 1).

- enhanced lead in water testing;
- enhanced water filter distribution; and
- accelerated LSL replacement.

EPA recognizes Illinois has a broad array of authorities that the state may invoke to protect public health through evaluation and mitigation of lead exposure and that the state may invoke to require Elgin, as necessary, to complete the protective measures recommended in this letter.² EPA strongly recommends that IEPA issue a letter to Elgin regarding its lead ALE for July to December 2022 as soon as possible (e.g., within 5 business days after responding to this letter, unless additional information is available to show the 90th percentile does not exceed 15 ppb).

EPA also recommends IEPA coordinate with the Illinois Department of Public Health (IDPH) and local health departments on the following activities:

- incorporate water sampling into lead exposure assessments related to individuals with reported elevated blood lead levels (BLLs), to assess the potential effects of lead in drinking water;
- review available data regarding lead in drinking water exposure at Elgin schools and childcare facilities and ensure any necessary mitigation actions have been completed; and
- consider offering BLL testing at community events and for vulnerable populations in Elgin.

EPA requests your response as soon as possible, but no later than December 9, 2022, with state commitments, including anticipated timing, to address these recommendations. EPA recommends that IEPA and Elgin begin working on these efforts immediately. If EPA does not receive commitments from Illinois in a timely manner, EPA will consider all available options to ensure the protection of public health.

EPA is providing these recommendations to encourage you to build on IEPA's and Elgin's efforts, including the CCT study due in July 2023, to evaluate and mitigate lead in drinking water in Elgin. These recommendations are fact specific. Further, EPA reserves the right to recommend, order, or take additional steps as EPA determines may be necessary.

My team and I also appreciate your staff's participation in EPA's inspection of the Elgin Public Water System during the week of October 24th to assess the compliance status of the system. We are committed to issuing the inspection report to the Elgin Public Water System, with a copy to you, within in our 70-day target for report timeliness.

Through Illinois's primary enforcement authority under the Safe Drinking Water Act and EPA's independent oversight, which includes technical support and enforcement authority, we can make progress in assuring safer drinking water for the Elgin community. EPA Region 5 Water Division and EPA Office of Research and Development are willing to provide technical support

² For example, owners and official custodians of a public water supply in Illinois must provide continuous operation and maintenance of public water supply facilities to assure that the water is safe in quality, clean, adequate in quantity, and of satisfactory mineral characteristics for ordinary domestic consumption. *See* 35 Ill. Adm. Code. 601.101(a); *see also* 415 ILCS 5/18(a)(1) ("No person shall [k]nowingly cause, threaten or allow the distribution of water from any public water supply of such quality or quantity as to be injurious to human health.").

to IEPA and Elgin, including enhancing and implementing public outreach strategies, continuing to evaluate CCT optimization, and identifying LSLs. Enclosure 3 provides examples to illustrate how other states and communities have implemented similar efforts that go beyond LCR requirements to protect people from lead in drinking water.

If you have any questions, please feel free to contact me or your staff may contact Scott Ireland, Acting Director, Water Division, at ireland.scott@epa.gov or 312-886-8121.

Sincerely,

**DEBRA
SHORE**

Digitally signed by
DEBRA SHORE
Date: 2022.11.23
14:26:12 -06'00'

Debra Shore
Regional Administrator
& Great Lakes National Program Manager
US EPA Region 5

Enclosures

1. July 19, 2020 EJ Screen report for City of Elgin, Illinois
2. EPA recommendations for mitigating lead in drinking water exposure in Elgin, IL
3. Example efforts to limit lead exposure from other states and communities

cc: Sanjay Sofat, IEPA (via email)
Mike Brown, IEPA (via email)
David Cook, IEPA (via email)
Mike Roubitchek, IEPA (via email)
Sameer Vohra, Illinois Department of Public Health (via email)
Lead Poisoning Prevention Program, Kane County Health Department (via email)
Lead Poisoning Prevention Program, Cook County Health Department (via email)

EJScreen Report (Version 2.0)

City: Elgin, ILLINOIS, EPA Region 5

Approximate Population: 110,559

Input Area (sq. miles): 37.89

Elgin, IL (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	State Percentile	EPA Region Percentile	USA Percentile
Environmental Justice Indexes			
EJ Index for Particulate Matter 2.5	61	73	58
EJ Index for Ozone	61	73	58
EJ Index for 2017 Diesel Particulate Matter*	64	76	61
EJ Index for 2017 Air Toxics Cancer Risk*	61	73	57
EJ Index for 2017 Air Toxics Respiratory HI*	63	75	59
EJ Index for Traffic Proximity	74	83	74
EJ Index for Lead Paint	76	85	82
EJ Index for Superfund Proximity	71	81	69
EJ Index for RMP Facility Proximity	76	86	79
EJ Index for Hazardous Waste Proximity	75	85	79
EJ Index for Underground Storage Tanks	80	90	87
EJ Index for Wastewater Discharge	89	95	93



This report shows the values for environmental and demographic indicators and EJSscreen indexes. It shows environmental and demographic raw data (e.g., the estimated concentration of ozone in the air), and also shows what percentile each raw data value represents. These percentiles provide perspective on how the selected block group or buffer area compares to the entire state, EPA region, or nation. For example, if a given location is at the 95th percentile nationwide, this means that only 5 percent of the US population has a higher block group value than the average person in the location being analyzed. The years for which the data are available, and the methods used, vary across these indicators. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJSscreen documentation for discussion of these issues before using reports.

EJScreen Report (Version 2.0)

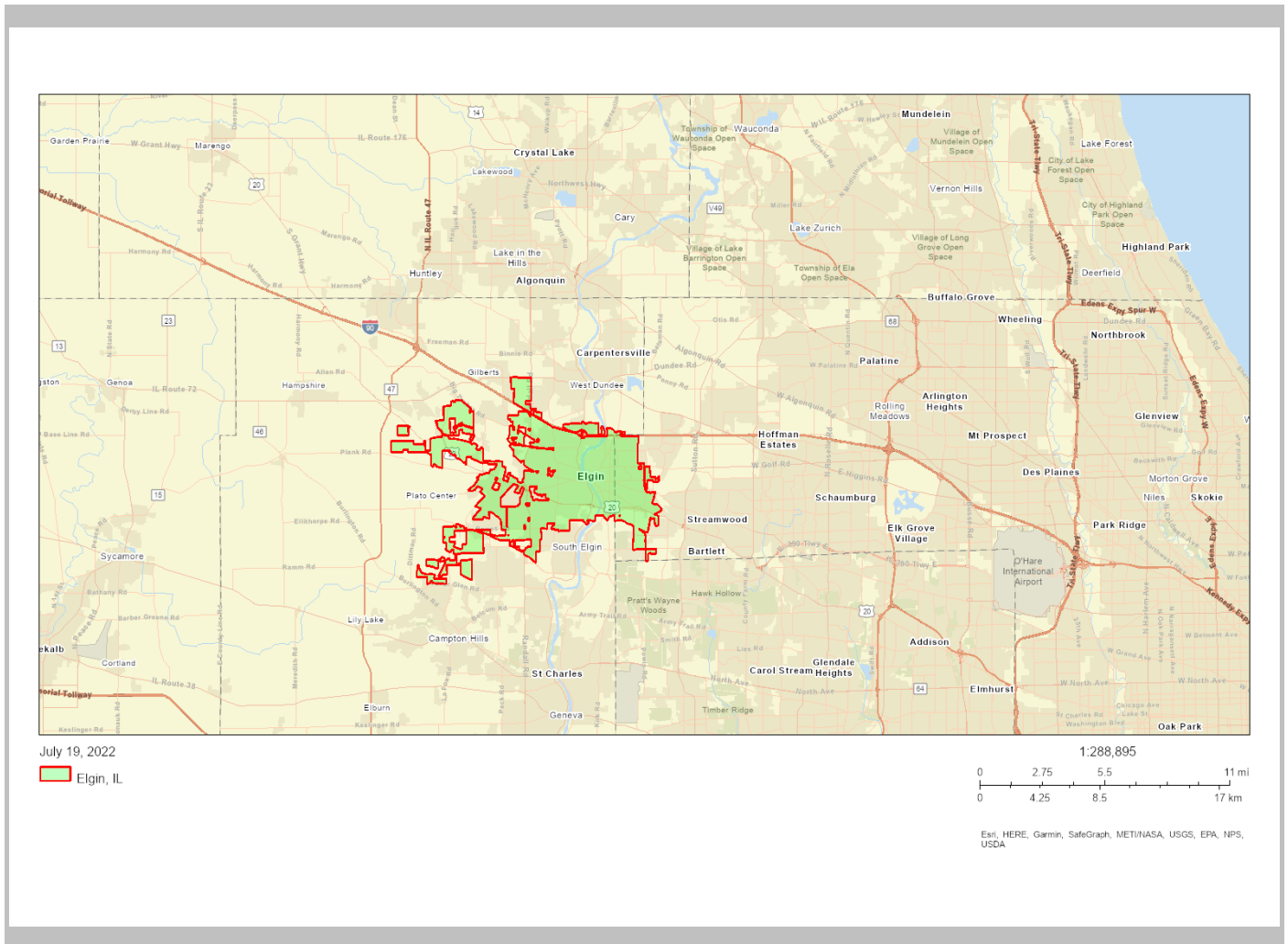


City: Elgin, ILLINOIS, EPA Region 5

Approximate Population: 110,559

Input Area (sq. miles): 37.89

Elgin, IL (The study area contains 1 blockgroup(s) with zero population.)



Sites reporting to EPA	
Superfund NPL	0
Hazardous Waste Treatment, Storage, and Disposal Facilities (TSDF)	11

EJScreen Report (Version 2.0)

City: Elgin, ILLINOIS, EPA Region 5

Approximate Population: 110,559

Input Area (sq. miles): 37.89



Elgin, IL (The study area contains 1 blockgroup(s) with zero population.)

Selected Variables	Value	State Avg.	%ile in State	EPA Region Avg.	%ile in EPA Region	USA Avg.	%ile in USA
Pollution and Sources							
Particulate Matter 2.5 ($\mu\text{g}/\text{m}^3$)	10.1	9.96	52	8.96	86	8.74	85
Ozone (ppb)	45.7	45.3	67	43.5	85	42.6	80
2017 Diesel Particulate Matter* ($\mu\text{g}/\text{m}^3$)	0.349	0.407	48	0.279	70-80th	0.295	70-80th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	30	29	87	24	95-100th	29	80-90th
2017 Air Toxics Respiratory HI*	0.33	0.38	53	0.3	80-90th	0.36	50-60th
Traffic Proximity (daily traffic count/distance to road)	560	760	66	610	71	710	71
Lead Paint (% Pre-1960 Housing)	0.32	0.4	45	0.37	52	0.28	65
Superfund Proximity (site count/km distance)	0.15	0.095	90	0.13	81	0.13	79
RMP Facility Proximity (facility count/km distance)	1.2	1.2	67	0.83	77	0.75	80
Hazardous Waste Proximity (facility count/km distance)	3.3	2.7	71	1.8	83	2.2	80
Underground Storage Tanks (count/km ²)	7.8	8	66	4.8	81	3.9	85
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.26	36	73	9	88	12	88
Socioeconomic Indicators							
Demographic Index	45%	34%	70	28%	81	36%	68
People of Color	59%	39%	73	26%	85	40%	71
Low Income	30%	28%	60	29%	59	31%	54
Unemployment Rate	6%	6%	61	5%	67	5%	63
Linguistically Isolated	8%	4%	78	2%	89	5%	79
Less Than High School Education	21%	11%	84	10%	89	12%	81
Under Age 5	7%	6%	70	6%	70	6%	68
Over Age 64	13%	15%	43	16%	37	16%	42

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's 2017 Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: <https://www.epa.gov/haps/air-toxics-data-update>.

For additional information, see: www.epa.gov/environmentaljustice

EJScreen is a screening tool for pre-decisional use only. It can help identify areas that may warrant additional consideration, analysis, or outreach. It does not provide a basis for decision-making, but it may help identify potential areas of EJ concern. Users should keep in mind that screening tools are subject to substantial uncertainty in their demographic and environmental data, particularly when looking at small geographic areas. Important caveats and uncertainties apply to this screening-level information, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators. Please see EJScreen documentation for discussion of these issues before using reports. This screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location. EJScreen outputs should be supplemented with additional information and local knowledge before taking any action to address potential EJ concerns.

Enclosure 2 – EPA recommendations for mitigating lead in drinking water exposure in Elgin, IL

Enhanced Public Outreach and Education

- EPA strongly recommends Elgin notify the public regarding its July-December 2022 lead ALE as soon as possible (e.g., within 5 business days after Elgin receives IEPA’s letter to Elgin regarding its lead ALE for July to December 2022 or equivalent notice from the state, unless additional information is available to show the 90th percentile does not exceed 15 ppb), in a form and manner reasonably calculated to reach all persons served. Public notification methods may include website updates, press releases, public service announcements (radio/television), email to water system customers and other municipal listservs, social media postings, etc. EPA recommends Elgin consult with IEPA to maximize effectiveness of the messaging in the lead ALE notification.
- EPA strongly recommends Elgin publicize information about where LSLs are present, or are likely to be present, in the community as soon as possible, along with a summary of the utility’s lead testing results at LSL sites. While the utility’s public-facing LSL map is under development, anticipating the LCR Revisions requirement 40 C.F.R. § 141.84(a)(8)(ii) due in 2024, the utility could share a map to communicate the likelihood of LSLs based on neighborhood/parcel development dates.
- EPA strongly recommends Elgin complete the remaining LCR public education requirements as soon as feasible in advance of the LCR deadlines (e.g., as soon as possible but within 30 calendar days of the lead ALE public notice recommended above).
 - o Elgin should determine appropriate flushing times and update its flushing guidance for LSL homes in the public education [flyer](#) and [Elgin’s website](#) to recognize longer flushing times for LSLs. Running water simply until it becomes consistently cold, as recommended in the February 2022 flyer, may be more likely to result in consumption of water which has been sitting in the LSL (see 40 C.F.R. § 141.86(b)(3)(iii)). This recommendation should be removed.
 - o For each period in which public education is required, Elgin must complete at least three additional outreach activities [40 C.F.R. § 141.85(b)(vi)]. EPA recommends that Elgin consider including more than the required number of additional outreach activities and that the utility website posting, required under 40 C.F.R. § 141.85(b)(iv), not be considered as one of the three activities under 40 C.F.R. § 141.85(b)(vi).
 - o EPA recommends adding language clarifying that water filters are a recommended protective measure at Elgin locations served by lead service lines, particularly for formula-fed infants and other more vulnerable populations (e.g., young children, pregnant women). Available sampling results show that 82% of flushed, unfiltered water samples from Elgin homes with LSLs exceed 5 ppb. [EPA’s A Consumer Tool for Identifying Point of Use \(POU\) Drinking Water Filters Certified to Reduce Lead](#) recommends residents select filters that are tested and certified to NSF/ANSI Standard 42 for particulate reduction (Class I) in addition to NSF/ANSI-53.
- EPA recommends Elgin send targeted notices to residents served by known/potential LSL sites as soon as feasible (e.g., within 30 days of determining a service line contains lead or is likely to contain lead, in advance of the LCR Revisions requirement 40 C.F.R.

§ 141.85(e), required in 2024). As noted above, available sampling results show that 82% of flushed, unfiltered water samples from Elgin homes with LSLs exceed 5 ppb.

- Include a brief summary of Elgin’s sequential sampling and other LSL sampling results, along with information about how to participate in Elgin’s [lead in water testing program](#).
- Recommend residents consult their health care providers about BLL testing, especially for vulnerable populations such as children under 6 and pregnant women.
- EPA recommends adding language clarifying that water filters are a recommended protective measure at Elgin locations served by lead service lines, particularly for formula-fed infants and other more vulnerable populations (e.g., young children, pregnant women).
- EPA also recommends Elgin conduct public outreach about proper installation and maintenance of water filters.

Enhanced Lead in Water Testing

- EPA strongly recommends Elgin enhance its outreach about Elgin’s [lead in water testing program](#) to encourage more resident participation.
- EPA recommends Elgin consider expanding its lead testing program to include residents of other building types, including small multi-family units with service line diameters 2 inches or less and any schools or childcares served by known or potential LSLs.

Enhanced Water Filter Distribution

- EPA strongly recommends Elgin expand its filter distribution program to provide free or discounted lead-reducing water filters to all locations served by known/potential LSLs, to locations with low-income, vulnerable populations, or potentially community-wide. Elgin could consider partnering with the local health departments and the state of Illinois for filter distribution program expansion.
- As also discussed in the public education section above, EPA also recommends Elgin conduct public outreach about proper installation and maintenance of water filters.

Accelerated LSL Replacement

- EPA also recommends Elgin continue work with IEPA to pursue funding and explore other options to accelerate its LSL replacement program and move quickly to remove this major source of lead in drinking water.

Enclosure 3 – Example efforts to limit lead exposure from other states and communities

- Many communities have notified the public of lead ALEs as soon as possible, rather than waiting for the end of the monitoring period or the allowable 60 days for public education.
 - [Ohio](#) communities with lead ALEs must complete accelerated public notification, often prior to the end of the monitoring period, within “two business days of the receipt of the laboratory results indicating there is a lead action level exceedance.”
 - [Michigan](#) communities with lead ALEs must complete accelerated public advisory of lead ALEs, sometimes prior to the end of the monitoring period “within 3 business days after the department notifies the supplier of water that an exceedance of the lead action level occurred.”
 - Portland OR completed public notification for its July-December 2021 Pb ALE on [November 30, 2021](#), within 24 hours of receipt of validated laboratory results for the LCR compliance samples. Portland’s media release included audio and video clips from utility staff for the media outlets to include in their reporting.
- Many communities, including the examples below, have notified the public regarding where LSLs are present in advance of the 2024 Revised Lead and Copper Rule compliance date.
 - [Milwaukee WI](#) has an address-based look-up for known LSLs in either the utility-owned section or the privately-owned section.
 - [Cincinnati OH](#) has a searchable map with information about both the public-side and private-side material of water service line.
 - [Springfield OH](#) has an interactive map where private-side LSL information is simply based on the age of the building.
 - Portland OR (which has stated it has no LSLs), has completed annual outreach since 2018 to [residents in homes most likely to contain leaded solder \(built between 1970 and 1985\)](#).
- Many large communities, including the examples listed below, offer free testing programs to help residents evaluate lead in their drinking water.
 - [Chicago IL](#) (which has no recent Pb ALEs) offers free water testing for any customer in Chicago.
 - Portland OR (which has had recent Pb ALEs attributed to interior plumbing) [offers free water testing](#); in addition, they completed follow-up sampling at locations where initial results showed Pb>10ppb consisting of two 125mL to evaluate fixture and internal plumbing contributions, then a “running” sample after flushing the tap for 30 seconds to 2 minutes. [based on 1/7/2022 letter from PWB to state]
 - [Leslie MI](#) – Following recent Pb ALEs, the city has offered free water testing for any home with a lead or galvanized service line.
- Some communities and state/local health departments have offered free or low-cost water filters to all residents, LSL homes, homes with high water test results, and/or to vulnerable, low-income populations.
 - Michigan DHHS, through local health departments, provides free pitcher and faucet filters to low-income, vulnerable persons in Pb ALE communities (not

including for-profit community water systems or non-transient non-community water systems), such as:

- [Wayne MI](#) for a past Pb ALE (Wayne MI also distributed free water filters following its [2021 Pb ALE](#)).
 - [East Pointe MI](#) following a recent Pb ALE (City is providing free filters to LSL homes.)
 - [Leslie MI](#) for recent Pb ALEs where low-income is described as “received WIC benefits, Medicaid insurance, or cannot afford a water filter.” (City has offered filters to anyone with lead levels over 15 ppb.)
 - [St. Clair Shores MI](#) following its 2021 Pb ALE (City has provided free water filters to verified LSL homes.)
- Clarksburg WV has provided free pitcher filters to [suspected/confirmed LSLs, unknowns, and city test results Pb >= 15 ppb](#) while also working to optimize CCT.
 - [Denver Water](#) is providing free pitcher filters to “confirmed” and “likely” LSL sites, under an EPA variance allowing pH/Alkalinity to continue to be used as CCT, following a Pb ALE a few years ago. In addition, [Denver Water](#) is providing free water filters for expectant families and infants under 24 months in homes built in 1983-1987 where water quality results are above 3 ppb.
 - Hamtramck MI offered free water filters [to all residents following its 2021 Pb ALE](#) and has provided free water filters to individual locations where testing results show [lead >15 ppb](#).
 - Highland Park MI distributed free water filters following its [2019 Pb ALE](#).
 - [Menasha WI](#), following recent Pb ALE, has made low-cost water filters available through the local health department.
 - Portland OR – following a 2021 Pb ALE attributed to interior plumbing, Portland Water Bureau provided water filters to customers who are unable to reduce lead levels to below 5ppb through flushing for 30 seconds to 2 minutes [1/7/2022 PWB letter to OR]. Since early 2022, the utility is also offering free water filters where any Pb results (including non-compliance) are [at or above 10 ppb](#).
 - [Newark NJ](#) has provided free water filters following a Pb ALE a few years ago (single-family and multi-family homes that are serviced by the Pequannock Water System and have LSLs, Pb solder, and/or city test results Pb >= 15 ppb).
 - Chicago IL – No recent Pb ALEs, but high lead in many LSL homes. Chicago provides a [discount](#) on pitcher filters to any resident. The [free filter distribution program includes testing results Pb > 15 ppb, as well as potential LSL disturbances \(water meter installed or water or sewer main replacement project\)](#).
 - Milwaukee WI – No recent Pb ALEs, but high lead in some LSL homes.
 - [General guidance to vulnerable populations at LSL sites to use a filter and filter discount program community-wide](#).
 - The [local health department](#) offers free filters to: Any City of Milwaukee home with a lead service line which has at least one of the following in the home: A child under age 6, pregnant or breastfeeding woman, or woman who may become pregnant. All City of Milwaukee homes with a 0-6 year

old child with a Blood Lead Level of 5 ug/dL or greater. All new parents/guardians in high-risk areas for lead poisoning in Milwaukee.

- [University Park IL](#) – Aqua Illinois is providing water filters and bottled water following a source/treatment change and 2018-2021 Pb ALEs.
- State of Michigan is providing water filters upon request to residents in Flint and Benton Harbor.
- Some communities and state/local health departments have completed outreach on how to properly select, install, and use water filters.
 - [EPA's A Consumer Tool for Identifying Point of Use \(POU\) Drinking Water Filters Certified to Reduce Lead](#) recommends residents select filters that are tested and certified to NSF/ANSI Standard 53 for lead reduction and NSF/ANSI Standard 42 for particulate reduction (Class I).
 - EPA's video [Water Filter Installation and Maintenance English V 2 - YouTube](#) aimed at Flint residents demonstrates how to install a faucet-mounted filter, including initial flush through the filter, as well as how to bypass the filter for unfiltered water and also demonstrates indicator lights for a faucet-mounted filter, and indicates the importance of timely cartridge replacement.
 - Michigan factsheets (e.g., [How to Use Your PUR® Faucet Filter Certified to Reduce Lead in Drinking Water](#), also in Spanish: [Filtro de agua para grifo PUR](#)) have been used by communities in Michigan.
 - State of Michigan has also partnered with [University of Michigan](#) and community groups for enhanced community outreach on proper installation/operation of the filters including demonstrating filter use and aerator cleaning at community events and resource fairs, training community water ambassadors to have conversations with their personal networks, and providing door-to-door assistance.
- Some communities have worked with local health departments and/or health care providers to boost blood lead level testing of vulnerable populations. For example, free blood lead level testing has been offered at community events in Benton Harbor and Flint, Michigan.
- Some states and local health departments have incorporated drinking water testing into their follow-up [environmental investigations](#) for individuals with reported elevated blood lead levels (EBLL).
 - HUD includes water-related screening questions and drinking water testing within its [Chapter 16: Investigation and Treatment of Dwellings Housing Children With Elevated Blood Lead Levels \(hud.gov\)](#)
 - Based on a 2019 Chicago Department of Water Management presentation to ISAWWA, Chicago has incorporated water testing into EBLL investigations.
- Many states and water systems have implemented various strategies to accelerate LSL replacement and to mitigate lead in drinking water at schools and childcares.
 - Example: Denver case study on LSL replacement at schools/childcares [final_lslc - working with critical customers - interview denver water - formatted.pdf \(lslr-collaborative.org\)](#)