



2019 Annual Drinking Water Quality Report

LINCOLN WATER SYSTEM OPERATING PHILOSOPHY

Lincoln Water System is dedicated to providing quality water and customer service to the community.

This philosophy results in reliable and cost-effective operations, efficient service to customers, and a safe and adequate supply of water.



Why This Report?

The Safe Drinking Water Act requires Lincoln Water System to annually issue a report describing the quality of your drinking water. This report fulfills that obligation and puts important information about the quality of your drinking water into the hands of our valued customers. This report provides an overview of last year's water quality data collected from January 1 through December 31, 2019, including details about the source of your water, what it contains and how it compares to state and federal standards.

Este formulario tiene información muy importante acerca del agua que usted bebe. Consiga que alguien se lo lea en español.

Báo cáo này chứa thông tin quan trọng về nước bạn uống. Tìm một người đọc nó cho bạn bằng tiếng Việt.

 *This report and other information about water are available on the City's website at water.lincoln.ne.gov.*



Lincoln Water System | 2021 N. 27th | Lincoln, NE
Leirion Gaylor Baird, Mayor
Elizabeth Elliott, Director, Lincoln Transportation and Utilities

Test Results (2019 data unless otherwise noted)

Regulated Contaminants

Tested and Detected	Units	Regulatory Limit (MCL)	Goal (MCLG)	Ashland Plants	Lincoln (a)	Violation Yes/No	Likely Source (in U.S. drinking water systems)
Inorganic Contaminants							
Antimony - Ashland (08/16)	ppb	6	6	ND-0.672	N/A	No	Discharge from petroleum refineries, Fire retardants; ceramics; electronics; solder
Arsenic - Ashland	ppb	10	N/A	6.13-6.22	N/A	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production
Atrazine	ppb	3	3	ND-0.08	N/A	No	Runoff from herbicide used on row crops
Barium - Ashland	ppb	2000	2000	110-112	N/A	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper (a) - Lincoln (06/16) 90th percentile	ppm	1.3*	1.3	N/A	0.006-1.56 0.724	No	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives
Fluoride (b) (monthly)	ppm	4	4	0.91-0.97	0.91-1.01 (b)	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Lead (a) - Lincoln 90th percentile	ppb	15*	0	N/A	ND-13.7 3.12	No	Corrosion of household plumbing; erosion of natural deposits
Nickel - Ashland (08/16)	ppb	100	N/A	1.48-2.15	N/A	No	Erosion of natural deposits; leaching
Nitrate+Nitrite - Ashland	ppm	10	10	0.61-0.65	N/A	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium (07/16)	ppb	50	50	ND-6.61	N/A	No	Erosion of natural deposits
Radioactive Contaminants							
Combined Radium 226 and 228 (11/15)	pCi/L	5	0	0.62-1.04	N/A	No	Erosion of natural deposits
Gross Alpha (including Radon & U)	pCi/L	15	0	7.91	N/A	No	Erosion of natural deposits
Radium - 228 (11/15) Ashland	ug/L	30	0	0.62-1.04	N/A	No	Erosion of natural deposits
Disinfection - Byproducts (d)							
Trihalomethanes - Lincoln maximum RAA	ppb	80	N/A	26.5 (05/16)	29.2-49.9 38.2	No	Byproduct of drinking water chlorination
Total Haloacetic Acid Lincoln maximum RAA	ppb	60	N/A	N/A	8.64-35.2 21.8	No	Byproduct of drinking water chlorination
Bromate	ppb	10	0	ND - 2.3	N/A	No	Byproduct of drinking water ozonation
Clarity							
Turbidity (c)	NTU	0.3	N/A	0.03-0.11	N/A	No	Soil runoff
Microbiological	Total Coliform Maximum Contaminant Level	Goal (MCLG)	Highest Monthly Positive Coliform Samples	Total Positive E. Coli or Fecal Coliform Samples in 2019	Violation	Fecal Coliform or E. Coli Maximum Contaminant Level	Likely Source of Contamination
Coliform Bacteria	5% of monthly samples are positive	0	1 (0.66%)	0	No	Fecal Coliform or E. Coli MCL; A routine sample and a repeat sample are total coliform positive, and one is also fecal coliform or E. Coli positive.	Total Coliform bacteria are naturally present in the environment. Fecal coliform and E. Coli are present in human and animal fecal waste.

Key to Test Results

MCL - Maximum Contaminant Level: The highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

ppm (parts per million) = mg/L (milligrams per liter) - One ppm corresponds to 1 gallon of water in 1 million gallons of water.

ppb (parts per billion) - One ppb corresponds to 1 gallon of water in 1 billion gallons of water.

N/A - Not applicable

ND - Not detected

pCi/L - pico curies per liter (measure of radioactivity)

NTU - Nephelometric Turbidity Unit: A measure of the cloudiness of the water

LRA - Locational Running Average

RAA - Running Annual Average: An ongoing annual average calculation of data from the most recent four quarters.

90th Percentile – Represents the highest value found out of 90 percent of the samples taken in a representative group. If the 90th percentile is greater than the action level, it will trigger a treatment or other requirements that a water system must follow.

- (a) Water from the treatment plant does not contain detectable lead or copper. Tests for lead and copper are collected from the customer's tap to ensure the substances have not been dissolved from the customer's service lines or interior piping system.
- (b) Fluoride is added in treatment to bring the natural level of about 0.4 ppm to the State required level of 0.8-1.2 ppm.
- (c) TT - Treatment Technique
- (d) Samples collected quarterly from 10/1/2018- 9/30/2019

* Action Level is the concentration of a contaminant which triggers treatment or another requirement which a water system must follow.

Water Quality Parameters 2019

(Average of 12 monthly water quality analyses)

pH (in pH units)	7.63
Total Alkalinity (CaCO ₃)	174 ppm
Total Hardness (CaCO ₃) (13 grains per gallon)	207 ppm
Total Dissolved Solids	365 ppm
Calcium	61 ppm
Chloride	23 ppm
Iron	<0.05 ppm
Manganese	2.2 ppb
Sodium	33.2 ppm
Sulfate	86.3 ppm



Repeated Testing

Unregulated Contaminants Tested

Lincoln Water System monitors the following unregulated contaminants:

Tested and Detected	Ashland	Units
Total Organic Carbon	2.94-4.43 (d)	ppm
Sulfate	84.5-85.6	ppm

The City of Lincoln is required to test for the following

contaminants: Coliform Bacteria, Antimony, Arsenic, Asbestos, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Sodium, Thallium, Alachlor, Atrazine, Benzo(a)pyrene, Carbofuran, Chlordane, Dalapon, Di(2-ethylhexyl)adipate, Dibromochloropropane, Dinoseb, Di(2-ethylhexyl)- phthalate, Diquat, 2,4-D, Endothall, Endrin, Ethylene dibromide, Glyphosate, Heptachlor, Heptachlor epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Metolachlor, Methoxychlor, Oxamyl (Vydate), Pentachlorophenol, Picloram, Polychlorinated biphenyls, Simazine, Toxaphene, Dioxin, Silvex, Benzene, Carbon Tetrachloride, o-Dichlorobenzene, Para-Dichlorobenzene, 1,2-Dichloroethane, 1,1-Dichloroethylene, Cis-1,2-Dichloroethylene, Trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, 1,2,4-Trichloro- benzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, Styrene, Tetrachloroethylene, Toluene, Xylenes (total), Gross Alpha (minus Uranium & Radium 226), Radium 226 plus Radium 228, Sulfate, Chloroform, Bromodichloromethane, Chlorodibromomethane, Bromoform, Chlorobenzene, m-Dichlorobenzene, 1,1-Dichloropropene, 1,1-Dichloroethane, 1,1,2,2-Tetrachloroethane, 1,2-Dichloropropane, Chloromethane, Bromomethane, 1,2,3-Trichloropropane, 1,1,1,2-Tetrachloroethane, Chloroethane, 2,2-Dichloropropane, o-Chlorotoluene, p-Chlorotoluene, Bromobenzene, 1,3-Dichloropropene, Aldrin, Butachlor, Carbaryl, Dicamba, Dieldrin, 3-Hydroxycarbofuran, Methomyl, Metolachlor, Metribuzin, Propachlor.

Lincoln's water is moderately hard.

Alkalinity, pH and hardness are important when considering a water softener.

Additional Sampling Results

As required by the United States Environmental Protection Agency (USEPA), Lincoln Water System tested for several unregulated contaminants in 2018 and 2019 and will continue additional sampling in 2020. Unregulated contaminants are those that do not yet have a drinking water standard set by USEPA. The purpose of testing for these contaminants is to help USEPA decide whether they should have a standard. Below are the test results from our treatment plant and our distribution system. If you wish to see the full set of results, please contact Lincoln Water System, John Keith at 402-441-1622 or PO Box 144, Ashland, NE 68003.

Detected Unregulated Contaminants (Treatment Plant Samples)	Monitoring Period	Average	Range	Unit
Bromide	2019	2.4	2.4 - 2.4	ug/L

Detected Unregulated Contaminants (Distribution System Samples)	Monitoring Period	Average	Range	Unit
MonoBromoAcetic Acid	2019	0.63	0.57 - 0.7	ug/L
DichloroAcetic Acid	2019	10.3	7.0 - 12.5	ug/L
TriChloroAcetic Acid	2019	6.58	5.6 - 7.2	ug/L
BromoChloroAcetic Acid	2019	6.1	5.1 - 6.8	ug/L
BromoDiChloroAcetic Acid	2019	4.97	4.0 - 6.0	ug/L
DiBromoAcetic Acid	2019	2.07	1.6 - 2.3	ug/L
ChloroDiBromoAcetic Acid	2019	1.99	1.7 - 2.2	ug/L
HAA5 Group	2019	19.4	15.5 - 22.7	ug/L
HAA6Br Group	2019	15.6	13.9 - 18.0	ug/L
HAA9 Group	2019	32.5	27.5 - 37.7	ug/L

Tested For But Not Detected Unregulated Contaminants

Germanium, Ethoprop, alpha-Hexachlorocyclohexane, Dimethipin, Chloropyrifos, Profenofos, Tribufos, Oxyfluorfen, Tebuconazole, Total Permethrin (cis- & trans-), butylated hydroxyanisole (BHA), o-toluidine, Quinoline, 2-propen-1-ol (allyl alcohol), 1-butanol, 2-methoxyethanol, MonochloroAcetic Acid, TriBromoAcetic Acid, Anatoxin, Total Microcystins, Cylindrospermopsin

Home Water Treatment Devices

Lincoln Water System meets all state and federal water quality standards. Use of a supplemental filter or home water treatment device is a personal preference, however, if not properly maintained, it could cause water quality problems. In selecting a filter or home water treatment device, determine what substance you want to remove and look for a filter that has a National Sanitation Foundation / Underwriter's Laboratories (NSF/UL) certification to remove those specific substances. Information on plumbing fixtures and in-home filters is available by calling 1.800.NSF.MARK or visiting nsf.org.

Special Health Requirements

While the presence of chloramines in our water is not a cause for concern among the general public, home dialysis patients, immunocompromised individuals and aquarium owners must take special precautions before the water can be used.

Water used for kidney dialysis equipment may require further treatment. Please contact your doctor or dialysis technician to ensure that your home equipment is adequate and proper tests are being made every time it is used.

Some people may be more vulnerable to contaminants in drinking water than the general population. This includes immunocompromised persons, such as those with cancer who are undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly people and infants. These customers and caregivers should seek advice about drinking water from their health care providers. USEPA/CDC guidelines on how to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the Safe Drinking Water Hotline at 800-426-4791.

What does this information mean?

The USEPA and Nebraska Drinking Water Program establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. As the regulations require, Lincoln Water System routinely tests your water for numerous contaminants. The test results in this report show the concentrations of detected substances in comparison to the regulatory limits. The State requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be older than one year.

The presence of contaminants does not necessarily indicate a health risk. More information about contaminants and potential health effects can be obtained by visiting the USEPA's website at epa.gov, calling the USEPA hotline at 800-426-4791 or calling the Lincoln-Lancaster County Health Department at 402-441-8000.

What is the source of our water?

In the United States, drinking water sources include rivers, lakes, streams, ponds, reservoirs, springs and groundwater. Lincoln's water source is groundwater that is naturally high in quality. It comes from wells along the Platte River near Ashland. Approximately one-half of the supply is groundwater and approximately one-half is groundwater under the direct influence of surface water. In 2019, more than 11.6 billion gallons of water were pumped from these wells to serve the 287,401 people who use an average of about 31.9 million gallons of water each day.

A source water assessment of our water supply has been completed by the Nebraska Department of Environmental Quality (NDEQ). The assessment includes maps, an inventory of potential contaminant sources and a determination of the vulnerability of the system to contamination. If you have any questions or would like to view the source water assessment, call John Keith, 402-441-1622, to schedule an appointment.

As water travels over the surface of the land or through the ground, naturally occurring minerals dissolve, and the water can pick up substances resulting from the presence of animal or human activities. Factors that can impact the quality of our source water include microbial contaminants, organic or inorganic contaminants, and even pesticides, herbicides and radioactive contaminants. To ensure that tap water is safe, U.S. Environmental Protection Agency (USEPA) Safe Drinking Water standards limit the amount of contaminants in the water supplied to customers.

Following the treatment process, Lincoln's drinking water continues to meet all of these standards. Lincoln's water does contain small amounts of atrazine, trihalomethanes and arsenic but these levels remain below USEPA Safe Drinking Water standards.

Atrazine is a herbicide used by farmers to kill weeds in corn and grain sorghum. Atrazine is applied to the fields at planting time. When it rains, atrazine is washed from fields and enters streams and rivers.

Trihalomethanes include four chemicals formed when chlorine, which is added to the water to limit microbial growth, reacts with naturally occurring organic matter in the water. The maximum level allowed is 80 parts per billion, and Lincoln's water has always been below this level. It

should be noted that any harmful health effects caused by disinfection byproducts are small compared with the health risks associated with inadequate disinfection.

Arsenic, a naturally occurring element associated with soil and rock, is also detected in Lincoln's drinking water and remains below USEPA limits. The Safe Drinking Water standard (MCL) for arsenic is 10 ppb. While Lincoln's drinking water meets USEPA's standard, it does contain between 6.1 ppb and 6.2 ppb arsenic based on testing performed in 2019. USEPA's standard balances arsenic's possible health effects against the cost of removing it from drinking water. USEPA continues to research the health effects. At concentrations much higher than regulatory levels, arsenic is known to cause some types of cancer and other health problems. Lincoln Water System continues to evaluate options for future treatment and removal of arsenic as regulations require.

How is our water treated?

Thanks to the natural filtration of groundwater, nature has already done much of the work in enhancing the quality of Lincoln's water. Lincoln's source water still contains iron and

manganese, which can stain clothing and plumbing fixtures if left untreated. To remove these unwanted elements, water is pumped to the water treatment plants. The water flows through one of two processes before it is distributed to your home or business.

The oldest process, highly effective since the 1930s, uses aeration, chlorination, detention and filtration. An exact amount of chlorine is added to the water in a large underground reservoir.

The water is held in the reservoir for up to two hours. The iron and manganese form particles which are then trapped in the sand and gravel filters. The filters are cleaned every 120 hours using a process called backwashing.

The second process uses ozone technology. Ozone, an extremely strong oxidizer and disinfectant, reacts quickly with iron and manganese to form particles which are then removed in the filtration process.

The next step is vital to protecting the health of our community. Once the water passes through the filters, small but exact amounts of chlorine and ammonia are added. These chemicals combine to form a disinfectant called "chloramine," which limits the growth of bacteria in the City's water distribution pipes. Finally, fluoride is added to help prevent tooth decay.



Conservation Tips

- Check household faucets and toilets for leaks. A faucet with even a slow drip takes 10 to 25 gallons of water per month. Just think, 15 drips per minute add up to almost 3 gallons of water wasted per day, 65 gallons wasted per month and 788 gallons wasted per year!
- Keep showers to five minutes or less in length. A five-minute shower takes 10 to 25 gallons of water.
- Install water saving plumbing fixtures.
- Keep a pitcher of water in the refrigerator. Then you won't have to run tap water to cool it.
- Use a broom to sweep your driveway, garage or sidewalk instead of using water.
- Use a bucket of water to wash your bike or the family car, and rinse quickly with a hose.
- Water your lawn in the evening or in the early morning to avoid evaporation. Be careful to water only the lawn and not the sidewalk or the street.
- Use water only when you need it. Don't leave water running, and be sure to turn it off when you are finished.



Water Conservation Poster Contest

Lincoln fifth-graders participate annually in a water conservation poster contest sponsored by the Mayor's Environmental Task Force. The top entry received in 2019 was submitted by Hope Harshman of Lincoln Christian School. Her artwork was displayed on a StarTran bus, on a large poster during a press conference and on bookmarks.

Conserve - Reduce Outdoor Water Use

The last time Lincoln had mandatory water restrictions caused by drought conditions was during the summer of 2012. Since that time, the City has revised its Water Management Plan to simplify watering restrictions. One important change was placing all multi-family, commercial, industrial and governmental properties, street medians and single-family properties with a common irrigation system on a set schedule regardless of address. Designated watering days for these properties are on Sundays, Tuesdays and Fridays. Single-family properties and duplexes will be on the designated day schedule shown below based on even/odd numbered addresses.

Designated Day Outdoor Watering Schedule

Property Type	Sun	Mon	Tue	Wed	Thu	Fri	Sat
Multi-family, commercial, industrial, governmental, institutional properties, street medians and single family properties (townhome developments) with a common irrigation system. All addresses.	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	
Single-family properties and duplexes with even-numbered addresses (ending in 0,2,4,6 or 8)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Single-family properties and duplexes with odd-numbered addresses (ending in 1,3,5,7 or 9)			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

On warm summer days, several million gallons of treated drinking water are used to irrigate lawns in Lincoln. Customers are reminded that the designated three-day watering schedule is available to provide flexibility when watering. The schedule is not meant to suggest that lawns be watered all three days. Rather, property owners should consider using only minimal amounts of water to maintain landscapes, and restrict weekly watering to one or two days, if possible.



The Water Management Plan allows occasional outdoor watering at any time using an attended, handheld hose. This provides for watering of landscape materials, container plantings and bird baths without risk of ticketing during mandatory restrictions.

For additional information regarding the Water Management Plan and other helpful tips on water conservation, please visit water.lincoln.ne.gov, or contact the Water Management Hotline at 402-441-1212.

2019 – The Year of Historic Flooding

Historic flooding occurred in March 2019 across much of eastern Nebraska, resulting from heavy rain, snowmelt and ice jam break-ups. Images of the Platte River flooding revealed how Lincoln's well fields in Ashland were threatened by this historic event. Flood conditions resulted in power outages in and around our well fields and a temporary loss of water production capacity.

Water safety was never compromised throughout the event; however, there was widespread damage to our well fields and access roads. Through good planning, preparation, and response actions, Lincoln Water System provided continuous and safe water supply to Lincoln during this event. Reduced water supply did require Lincoln to implement mandatory water restrictions.

After the Flood

After assessment of the damage, emergency repairs were conducted to restore as much capacity as possible. This was successful although all wells are not operational.

As the damage is restored during the next year, Lincoln Water System will be making additional improvements to make facilities more resilient and protected from future flood events.

Lincoln Water System is working closely with the Federal Emergency

Management Agency (FEMA), Nebraska Emergency Management Agency (NEMA), and the City's insurance provider. The cost of the damage is estimated to be

nearly \$15 million with much of the cost eligible for insurance coverage and Federal and State reimbursement.

While this historic event caused significant damage to Lincoln Water System wellfields, continuous and safe water supply was maintained with assistance from many resources including various City of Lincoln departments, Omaha Public Power District, Lancaster County Emergency Management, Sarpy County Public Works, Nebraska Department of Environment and Energy Drinking Water Division, Nebraska Emergency Management Agency, and Nebraska Army National Guard.

Thank You Lincoln

Lincoln Transportation and Utilities extends a sincere thank you to all citizens and businesses in Lincoln for their willingness to meet the challenge of reducing water use and practicing good conservation measures during water restrictions. These extraordinary efforts helped ensure the community had sufficient water supply during this historical event.



Lincoln Water System Facts

- Lincoln Water System spends \$1.43 million for electricity and diesel fuel to treat and pump water to Lincoln and another \$1.21 million for electricity to distribute water to all parts of the City.
- Each person in Lincoln used an average of 111 gallons of water every day in 2019.
- The City of Lincoln covers an area of more than 99.1 square miles.
- Lincoln Water System maintains 1,230 miles of water mains, 11,934 fire hydrants and 27,903 valves.
- 115 broken mains were repaired in 2019.
- Water service lines between the main and private property are owned and maintained by the property owner.
- Water delivered to your home or business can vary in temperature from 49°F to 76°F.



To Learn More

For answers to questions you may have or to learn more about the water you drink, call John Keith, Manager of Laboratory Services, Lincoln Water System, at 402-441-1622. This report and other information about water are available on the City's website at water.lincoln.ne.gov.

Drinking water quality and the infrastructure required to deliver water to homes and businesses in Lincoln are essential to the community. The Lincoln Water System Facilities Master Plan, available at lincoln.ne.gov (keyword: water master plan) is a great way to learn more about Lincoln's water system and its future plans for providing the community an adequate supply of high-quality drinking water. The Mayor and City Council make decisions regarding Lincoln Water System. To participate or provide input, contact your City Council representative. A list is available at council.lincoln.ne.gov.

How can residents help protect our water?

You, our customers, also play an important role in protecting Lincoln's drinking water. One way to help is by preventing "cross connections"; any connection between the drinking water supply and a source of possible contamination or pollution. Cross connections are controlled either by eliminating them or installing approved backflow prevention devices that stop contaminants from flowing back into the drinking water supply.

Contaminants and pollutants can enter the drinking water supply when there is a sudden loss of pressure from heavy usage or a fire in the area of a broken water main. When that happens, contaminated water could be siphoned through the plumbing system into the public water mains. These pressure drops occur somewhere in the City almost



every day. Backflow prevention devices are important in preventing contaminants from entering the water supply in these situations.

Every five years, property owners and tenants are required

by Nebraska Department of Health and Human Services regulations to inspect their plumbing systems and report any suspected or potential cross connections to Lincoln Water System. Residential and commercial customers are notified when a "premise survey" is required. These surveys must be completed and sent back to Lincoln Water System. All cross connections to the public water supply must be protected with a suitable backflow prevention device.

Property owners and tenants have the responsibility to identify if any cross connections exist on their property and to ensure they are properly protected with an approved backflow prevention device. Property owners and tenants must have these devices tested annually to ensure proper, continuous operation. A list of registered testers can be obtained from Lincoln Water System by calling 402-441-5912. The cost of the test is the responsibility of the owner. For more information on the cross connection program, visit the City's website at water.lincoln.ne.gov.

Lawn Irrigation Systems

The Lincoln Plumbing Code requires a backflow device on lawn irrigation systems. Backflow devices on lawn irrigation systems are exempt from annual testing. However, to ensure proper operation and to protect against contamination of the interior plumbing system, it is recommended these devices are also inspected and tested at regular intervals. Contact your local irrigation system contractor or plumbing contractor for additional information.



American Water Works Association
Nebraska Section

Lincoln Water System is a proud member of AWWA.

Lead And Copper

Lincoln's drinking water does not contain detectable levels of lead and copper in its source water or after treatment. However, the presence of lead and copper used in plumbing systems can introduce detectable levels of these contaminants into the drinking water at individual homes or businesses. Water testing conducted by Lincoln Water System has found detectable levels of lead and copper in homes built before 1988. These homes are more likely to have pipes, fixtures, and solder that contain lead. In Nebraska, plumbing materials containing high concentrations of lead were banned in 1987. Homes built before 1950 may have a portion of the water service actually constructed using lead pipes, and these homes may have higher levels of lead in their drinking water.

Safe drinking water properties vary across the country depending on the water source. Lincoln's drinking water chemistry does not promote excessive lead and copper leaching from plumbing systems. As a result, Lincoln Water System remains in compliance with USEPA requirements for lead and copper.

Lead and copper sampling is performed by Lincoln Water System every three years as required by the USEPA Lead and Copper Rule (LCR). The collective test results for the 66 samples collected in 2019 were below the USEPA action level of 15 parts per billion lead and 1,300 parts per billion copper. The statistical analysis of the test results continues to show Lincoln's drinking water remains in compliance with USEPA requirements for lead and copper.

If present, elevated levels of lead and copper can cause serious health problems, especially for infants, young

children and pregnant women. Lead and copper in drinking water comes primarily from materials and components associated with service lines and home plumbing. Other sources of lead exposure can be lead-based paint and lead-contaminated dust, as reported by the U.S. Centers for Disease Control and Prevention (CDC).



Lincoln Water System is responsible for providing high quality drinking water, but cannot control the variety of materials used in household and business plumbing components. When the water in your pipes has been sitting for several hours, USEPA recommends minimizing the potential for lead exposure by flushing your cold water tap for 30 seconds to two minutes before using the cold water for drinking or cooking. Because private plumbing system construction varies, Lincoln Water System recommends flushing for at least five minutes in homes constructed prior to 1950. Consider filling a water pitcher for drinking water to avoid repeated flushing.

If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from these sources:

- USEPA Safe Drinking Water Hotline at 800-426-4791.
- USEPA website at [epa.gov/safewater/lead](https://www.epa.gov/safewater/lead).
- Department of Health and Human Services / Division of Public Health / Office of Drinking Water at 402-471-2541.
- The Lincoln-Lancaster County Health Department at 402-441-8000.

Do I have a lead service line?

The water service line is the pipe that is owned by the property owner which connects their home to the public water main. Using existing records, LWS has identified approximately 4,000 privately owned water service lines that may contain lead. In some cases, records have limited or missing information that make it difficult to determine the exact material used in the installation of the service line.

Customers should also be aware that lead-containing materials can be found in other locations of the home plumbing constructed before 2014 when lead-containing materials were banned from use.

Hire a Plumber

We recommend you use an experienced, certified plumber to assist in reviewing your service line record and in identifying lead-containing materials in your plumbing system, fittings, fixtures, or other potential sources of lead.

Access our records

You can view information on your water service line by accessing records online. Knowing this information can be helpful in determining the risk of your service line contributing to lead in your water.

Access our tap record interactive map at <https://www.lincoln.ne.gov/asp/both/gis/tap/default.aspx> or keyword search "tap" at www.lincoln.ne.gov. The database is searchable by address, owner, parcel number, or by clicking on a property on the map. If there are records associated with the selected address, they will appear under the heading "TAP Images". Click on all the records labeled "Water" to see the images of our records. Please feel free to call Lincoln Water System at 402-441-7571 for help interpreting these records. It is important to look over all the records listed as many older service lines have been partially or fully replaced and will have additional records indicating this. If the supply line was replaced, you should see the words "old tap abandoned" and/or "replacement tap". Please be aware these records may not be complete, may have missing information, or may not have been updated if the property owner had work performed and it was not reported to Lincoln Water System.

You can also call Lincoln Water System at 402-441-7571 for information about your service line.

