2023 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, 2023, 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.

City of Lincoln Transportation and Utilities
Lincoln Water System | 2021 N. 27 | Lincoln, NE

Leirion Gaylor Baird, Mayor, City of Lincoln
Elizabeth Elliott, Director, Lincoln Transportation and Utilities

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 2023, more than 14.4 billion gallons of water were pumped from these wells to serve the 295,000 residents who used an average of about 39.4 million gallons of water each day.

A source water assessment of our water supply was completed by the Nebraska Department of Environment and Energy (NDEE). 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, 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.

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 (the Maximum Contaminant Level) for arsenic is 10 parts per billion (ppb). While Lincoln's drinking water meets USEPA's standard, it does contain between 5.8 ppb and 7.0 ppb arsenic based on testing performed in 2023. 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 contains iron and manganese, which can stain clothing and plumbing fixtures if left untreated. To remove these and other unwanted substances, 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.

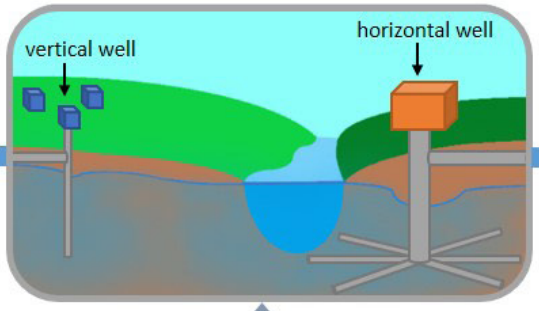
The oldest process, highly effective since the 1930s, uses aeration, chlorination, detention and filtration. An exact amount of chlorine is added to the water in a large underground reservoir. The water is held in the reservoir for up to two hours. This allows the chlorine to inactivate microbes. It also oxidizes iron and manganese to form particles which are then trapped in the sand filters.

The second process uses ozone technology. Ozone, an extremely strong oxidizer and disinfectant, quickly inactivates microbes. It also causes 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.

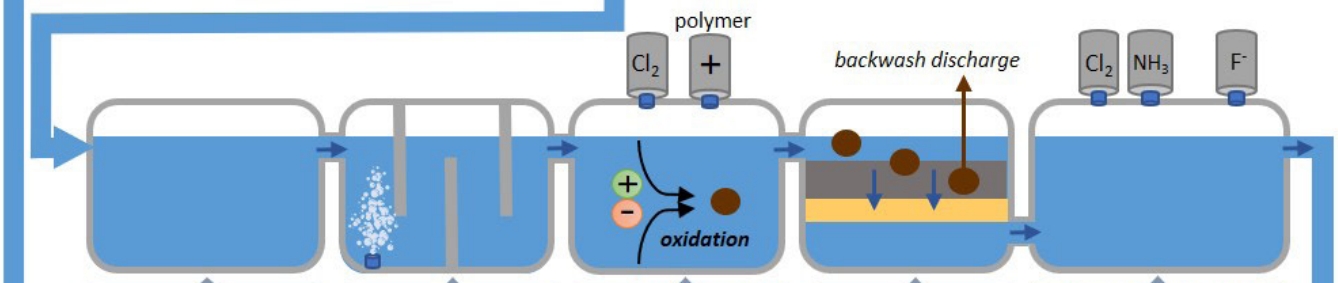
WATER TREATMENT

FROM WELLFIELD TO HOME



WELLFIELD

Water from the wells travels over 20 miles to reach Lincoln and its first stop is the Treatment Plant.



RAW WATER

Horizontal wells supply water classified as groundwater under the direct influence of surface water from the Platte River.

OZONATION

Ozone (O_3) kills microbes and oxidizes manganese and iron so they can be filtered out. Ozone is a very strong oxidizer that decays rapidly.

CHLORINATION AND FILTER-AID

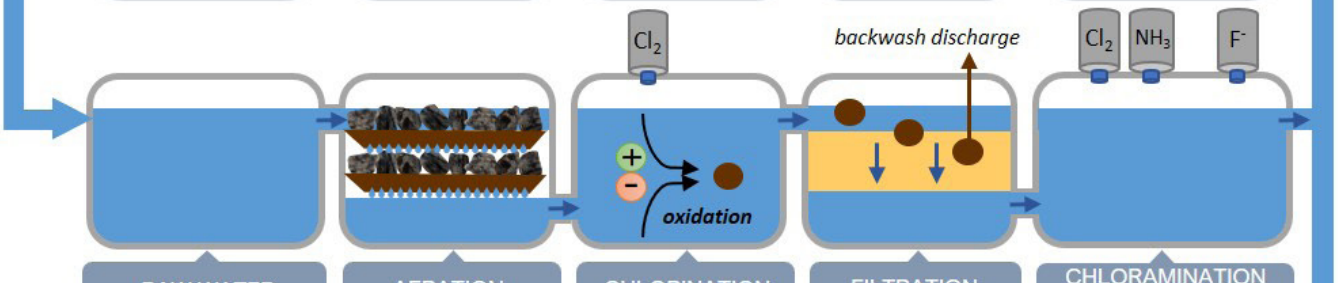
Chlorine is added to kill microbes and enhance manganese filtration. A filter-aid polymer is used to enhance solids removal in the filtration process.

FILTRATION

Water is filtered by gravity through a layer of anthracite and a layer of sand to remove impurities. The filters are regularly cleaned with backwashing.

CHLORAMINATION AND FLUORIDE

Chloramines are formed by combining chlorine and ammonia. This provides protection from microbes in the distribution system. Fluoride is added for dental health.



RAW WATER

Vertical wells supply water classified as groundwater. Since the water comes from an aquifer, water quality is not directly influenced by surface water from the Platte River.

AERATION

Water percolates through coke tray aerators, adding air to the water. This begins the oxidation process of naturally occurring manganese and iron so they can be filtered out.

CHLORINATION

Chlorine is added to kill microbes and further oxidize iron and manganese to enhance filtration. Excess iron and manganese can affect the taste and discolor the water.

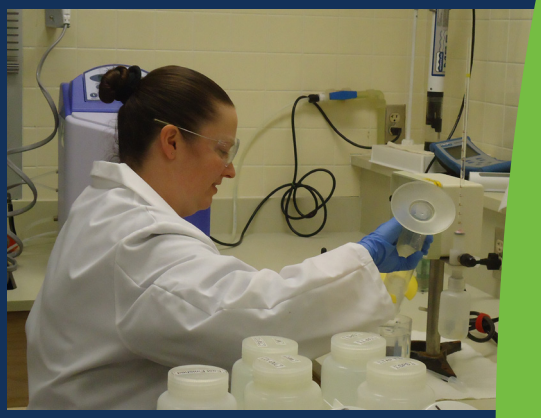
FILTRATION

Water is filtered by gravity through a layer of sand that removes impurities. The filters are regularly cleaned with backwashing.

CHLORAMINATION AND FLUORIDE

Chloramines are formed by combining chlorine and ammonia. This provides protection from microbes in the distribution system. Fluoride is added for dental health.

DISTRIBUTION SYSTEM



Key to Test Results

Action Level - The concentration of a contaminant which triggers treatment or another requirement which a water system must follow.

Treatment Technique - a required process intended to reduce the level of a contaminant in drinking water.

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.

MRDL - Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG - Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.

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.

ND - Not detected. The result is less than the amount that the laboratory can accurately detect.

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

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

LRAA - Locational Running Annual Average: An ongoing annual average calculation of data from the most recent four quarters at each sampling location.

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

Haloacetic Acids (HAA5) - Total of Dibromoacetic Acid,, Dichloroacetic Acid, Monobromoacetic Acid, Monochloroacetic Acid, Trichloroacetic Acid

Total Trihalomethanes (TTHM) - Total of Bromoform, Bromodichloromethane, Chloroform, Dibromochloromethane

What We Test For

We monitor for the regulated parameters listed below. Any contaminants found in the treated water are noted in the tables on the following pages.

Inorganic Chemicals

Antimony
Arsenic
Asbestos
Barium
Beryllium
Cadmium
Chromium
Copper
Cyanide
Fluoride
Lead
Mercury
Nickel
Nitrate
Nitrite
Selenium
Thallium
Total Chlorine

Synthetic Organic Chemicals

2,4 – D
2,4,5 - TP (Silvex)
Alachlor
Atrazine
Benzopyrene
Carbofuran
Chlordane
Dalapon
Di(ethylhexyl)adipate
Di(ethylhexyl)phthalate
Dibromochloropropane
Dinoseb
Diquat
Endothall
Endrin
Ethylene Dibromide
Heptachlor
Heptachlor epoxide
Hexachlorobenzene
Hexachlorocyclopentadiene
Lindane
Methoxychlor
Oxamyl
PCBs Total
Pentachlorophenol
Picloram
Simazine
Toxaphene

Clarity

Turbidity

Radioactive Contaminants

Gross Alpha Emitters
Radium 226 Radium
228 Uranium

Volatile Organic Chemicals

Benzene
Carbon Tetrachloride
1,2-Dichloroethane
o-Dichlorobenzene
p-Dichlorobenzene
1,1-Dichloroethylene
cis-1,2-Dichloroethylene
trans-1,2-Dichloroethylene
Dichloromethane
1,2-Dichloropropane
Ethylbenzene
Monochlorobenzene
Styrene
Tetrachloroethylene
Toluene
1,2,4-Trichlorobenzene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethylene
Xylenes (total)
Vinyl Chloride

Disinfection By-products

Bromate
HAA5
Dibromoacetic Acid
Dichloroacetic Acid
Monobromoacetic Acid
Monochloroacetic Acid
Trichloroacetic Acid
TTHM
Chloroform
Bromodichloromethane
Dibromochloromethane
Bromoform

UCMR5 Analytes

11Cl-PF3OUdS
6:2 FTS
4:2 FTS
8:2 FTS
9Cl-PF3ONS
ADONA
FPO-DA/GenX
NFDHA
PFEESA
PFMPA
PFMBA
PFBS
PFBA
PFDA
PFDoA
PFHpS
PFHpA
PFHxS
PFHxA
PFNA
PFOS
PFOA
PFPeS
PFPeA
PFUnA
NEtFOSAA
NMeFOSAA
PFTA
PFTrDA
PFUnA

Test Results

These tables show the concentrations of detected substances in comparison to the regulatory limits. Substances not detected are not included in the table.

The USEPA and Nebraska Drinking Water Program establish the safe drinking water regulations that limit the amount of contaminants allowed in drinking water. 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.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses 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.

INORGANIC & ORGANIC CHEMICALS - Tested at Water Treatment Plants

	Highest Test Result	Range of Test Results	Sample Date	EPA's MCL (Highest Level Allowed)	EPA's MCLG (Goal)	Standard Met?	Source
Arsenic	7.0 ppb	5.8 - 7.0 ppb	2023	10 ppb	0 ppb	☑	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	0.133 ppm	0.099-0.133 ppm	2022	2 ppm	2 ppm	☑	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	0.901 ppm	0.899-0.901 ppm	2022	4 ppm	4 ppm	☑	Erosion of natural deposits; water additive which promotes strong teeth; fertilizer discharge
Nitrate + Nitrite	1.14 ppm	0.20 - 1.14 ppm	2023	10 ppm	10 ppm	☑	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	5.75 ppb	ND - 5.75 ppb	2022	50 ppb	50 ppb	☑	Erosion of natural deposits; discharge from petroleum and metal refineries; discharge from mines
Atrazine	0.08 ppb	ND - 0.08 ppb	2023	3 ppb	3 ppb	☑	Runoff from herbicides used on row crops

Fluoride is added in treatment to bring the natural fluoride level of about 0.4 ppm to the State recommended level of 0.8 - 1.5 ppm. LWS continuously monitors the fluoride level in the water.

RADIOACTIVE CONTAMINANTS - Tested at Water Treatment Plants

	Highest Test Result	Range of Test Results	Sample Date	EPA's MCL (Highest Level Allowed)	EPA's MCLG (Goal)	Standard Met?	Source
Gross Alpha Emitters	14.7 pCi/L	7.91 - 14.7 pCi/L	2020 - 2021*	15 pCi/L	0 pCi/L	☑	Erosion of natural deposits

Gross Alpha Emitters includes Radon and Uranium.

*Gross Alpha Emitters are required to be tested every six years.

TURBIDITY - Tested at Water Treatment Plants

	Percent of Samples at or below 0.3 NTU	Highest Result	Sample Date	Treatment Technique Requirement	Highest Result Allowed	Standard Met?	Source
Turbidity	100%	0.24 NTU	2023	95% or more of samples must be at or below 0.3 NTU	1 NTU	☑	Soil runoff

Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system.

LEAD AND COPPER - Tested at Customer's Taps

	90% of LWS customers' homes were less than	Number of homes considered to have elevated levels	Sample Date	EPA's Action Level	EPA's MCLG (Goal)	Standard Met?	Source
Lead	1.80 ppb	1 out of 54	2022	90% of homes must test less than 15 ppb	0 ppb	☑	Corrosion of household plumbing; erosion of natural deposits
Copper	0.800 ppm	0 out of 54	2022	90% of homes must test less than 1.3 ppm	1.3 ppm	☑	Corrosion of household plumbing; erosion of natural deposits; leaching from wood preservatives

*Testing is done every 3 years. Most recent tests were done in 2022.

UNREGULATED CONTAMINANT MONITORING RULE - UCMR5

Unregulated contaminants are those for which U.S. EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of these contaminants in drinking water and whether future regulation is warranted. In 2023, Lincoln Water System participated in the fifth round of the Unregulated Contaminant Monitoring Rule (UCMR 5). For a copy of the results please call John Keith at 402-441-1622.

Parameter	Average of Test Results	Range of Test Results	Sample Data
Lithium	20.9 ppb	19.7-23.7 ppb	2023

DISINFECTION BY-PRODUCTS

	Highest Locational Running Annual Average (LRAA)	System Wide Range of Results	Sample Date	EPA's MCL (Highest Level Allowed) One Year Average	Standard Met?	Source
Total Trihalomethanes (TTHM)	27.3 ppb	12.8 - 38.3 ppb	2023	80 ppb	☑	By-product of drinking water chlorination
Haloacetic Acids (HAA5)	17.8 ppb	4.1 - 27.8 ppb	2023	60 ppb	☑	By-product of drinking water chlorination

Monitoring for TTHMS and HAA5 is conducted at 6 locations in the City of Lincoln.

	Highest Running Annual Average (RAA)	System Wide Range of Results	Sample Date	EPA's MCL (Highest Level Allowed) One Year Average	EPA's MCLG (Goal)	Standard Met?	Source
Bromate	3.02 ppb	ND - 6.3 ppb	2023	10 ppb	0 ppb	☑	By-product of drinking water ozonation

Monitoring for Bromate is conducted at Water Treatment Plant.

MICROBIOLOGICAL CONTAMINANTS - Tested throughout the Distribution System
Over 150 samples collected throughout the City each month

	Highest Monthly Positive Coliform Samples	Sample Date	EPA's MCL (Highest Level Allowed)	EPA's MCLG (Goal)	Standard Met?	Source
Total Coliform Bacteria	1 (0.7%)	2023	Treatment Technique*	0	☑	Naturally present in the environment

*Additional sampling in the distribution system is required following a positive Total Coliform Bacteria result. These results help us determine if additional actions are required. All samples were negative for E. coli.

TOTAL CHLORINE RESIDUAL - Tested throughout the Distribution System
Over 150 samples collected throughout the City each month

	Highest Running Annual Average	Range of Test Results	EPA's MRDL (Highest Chlorine Level Allowed)	EPA's MRDLG (Highest Chlorine Level Goal)	Sample Date	Standard Met?	Source
Chloramine (as Chlorine)	2.36 ppm	ND - 3.56 ppm	4 ppm	4 ppm	2023	☑	Water additive to control microbes

WATER QUALITY PARAMETERS WITH SECONDARY MAXIMUM CONTAMINANT LEVELS (SMCLs) - Tested monthly in the Distribution System

Secondary maximum contaminant levels (SMCLs) are non-enforceable guidelines to help water systems manage their drinking water for aesthetic properties, such as taste, color, and odor. These substances are not considered a risk to human health at the SMCL.

Parameter	Average of Test Results	Range of Test Results	Sample Date	EPA's SMCL (Recommended Highest Level)	Standard Met?
Chloride	22 ppm	18 - 29 ppm	2023	250 ppm	☑
Fluoride	0.82 ppm	0.73 - 0.92 ppm	2023	2 ppm	☑
Iron	ND	ND - ND	2023	300 ppb	☑
Manganese	4.0 ppb	ND - 15 ppb	2023	50 ppb	☑
pH	7.83	7.60 - 8.21	2023	6.5 - 8.5	☑
Sodium	28 ppm	22- 34 ppm	2023	500 ppm*	☑
Sulfate	64 ppm	47 - 94 ppm	2023	250 ppm	☑
Total Dissolved Solids	319 ppm	294 - 372 ppm	2023	500 ppm	☑

* The EPA has not set a SMCL for sodium, but Nebraska Department of Environment and Energy has set a Maximum Contaminant Level (MCL) for sodium which takes precedence.

ADDITIONAL WATER QUALITY PARAMETERS - Tested monthly in the Distribution System

These parameters do not have a Maximum Contaminant Level or Secondary Contaminant Level. Parameters like these can be useful when purchasing a softener or using your water for activities like brewing beer or keeping a home aquarium.

Parameter	Average of Test Results	Range of Test Results	Sample Date
Calcium	52 ppm	46 - 60 ppm	2023
Total Alkalinity (as Calcium Carbonate)	169 ppm	156 - 192	2023
Total Hardness	192 ppm or 11.2 grains per gallon	176 - 224 ppm or 10.2 - 13.0 grains per gallon	2023

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 line constructed using lead pipes, and these homes may have higher levels of lead in their drinking water.

Lead can attach to the corroded inside walls of a galvanized pipe if the water moves through a lead pipe before moving through the galvanized pipe. Lead can get into the water when pieces of the corrosion scale break loose, even after the lead service line is removed.

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 54 samples collected in 2022 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. This allows you to use fresh water from the water main for drinking and cooking. The time it takes to flush depends on how much plumbing you are clearing and how fast the water is flowing out of the faucet. A good rule of thumb is to run the water until the water is as cold as it is going to get and then 30 seconds to 3 minutes longer, depending on the length of your service line. 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. Lincoln Water System offers one free lead test kit per year per address. To request your free lead test kit, please call Lincoln Water System at 402-441-7571 option 2. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is also available from these sources:

- USEPA Safe Drinking Water Hotline at 800-426-4791.
- USEPA website at epa.gov/safewater/lead.
- Nebraska Department of Environment and Energy/ Drinking Water Program at 402-471-1009.
- The Lincoln-Lancaster County Health Department at 402-441-8023.
- Lincoln Water System website at lincoln.ne.gov/DrinkingWater.

EPA's Lead and Copper Rule Revisions Better Protects Against Exposure to Lead from Plumbing Materials

In November 2023, the U.S. Environmental Protection Agency (EPA) announced the agency's new proposed rule that will strengthen the existing regulatory framework, the Lead and Copper Rule Improvements. This announcement followed the EPA's review of the revisions to the current Lead and Copper Rule that water systems must comply with starting in 2024. Included in these revisions are requirements for water systems to perform lead testing in schools and childcare facilities and to identify locations of lead service lines. Because lead service lines found in older homes and buildings can contribute significant amounts of lead to water, the revised rule re-focuses on sampling water from these locations. These revisions will help water systems better identify high levels of lead, expand consumer awareness, and improve risk communication.

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 contaminates 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.

Typical backflow device for a lawn irrigation system.

Lincoln's Lead Service Line Replacement Program

A safer and healthier Lincoln. One water service line at a time.

The City of Lincoln is committed to improving the safety and health of residents through Lincoln's Lead Service Line Replacement program.

About Lincoln Lead Service Line Replacement (LSLR)

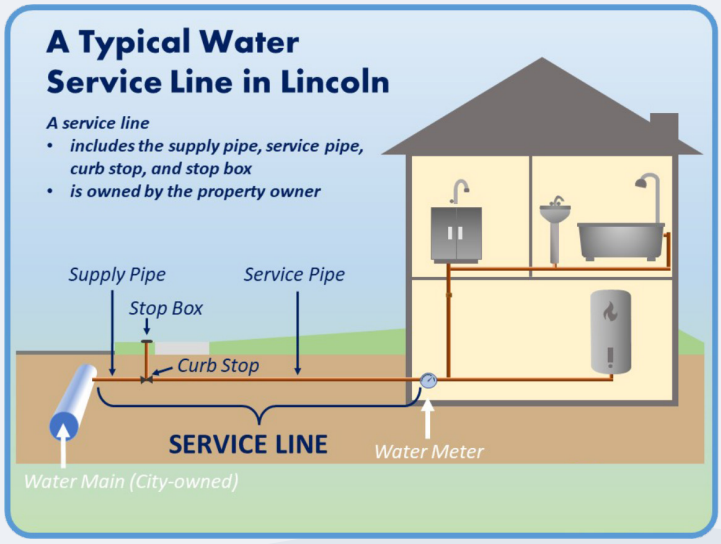
The City of Lincoln is expanding its efforts to get the lead out of Lincoln through its Lead SafeLincoln program. Lincoln Water System plans to help customers replace older drinking water service lines on their property that are made of lead or lead-contaminated metal at no cost to property owners.

The City is launching a program in 2024 to replace old, lead or lead-contaminated galvanized steel lines with safer copper lines for property owners. Areas of the City with a large number of private lead service lines will be invited to participate in Phase 1 of the program. Approximately 200 properties are targeted for replacements this year. More service line replacements are planned in the future.

Exposure to lead may put people at risk of health and development issues, especially for children and at-risk individuals.

To learn more about how the City is helping property owners whose homes and businesses have lead service lines, visit lincoln.ne.gov/LeadSafe.

The City's goal is to replace all lead and lead-contaminated galvanized water service lines across the community by 2035. Lead lines are found primarily in homes built prior to 1950. The majority of lead service lines are in homes or businesses constructed before 1930.



What's a water service line?

Your water service line brings drinking water from the City's main water pipeline into your home or business. Often, this line is constructed when your property is built. This line is considered private property, and property owners are typically responsible for repairing and replacing the service line. The City's Lead Service Line Replacement program will help replace these aging lines at no charge to property owners.

How do I know if my service line is lead or lead-contaminated?

Plumbers submit this information to the City when water service lines are installed to new properties or are repaired. These "tap records" are the best source of information about the presence of lead or galvanized steel service lines on your property. To look up your tap records, visit lincoln.ne.gov/WaterServiceLines.

Beginning in April 2024, Lincoln Water System customers will be able to look up their properties on a new user-friendly, interactive map.

Lincoln Water System will notify property owners who may have lead or lead-contaminated galvanized steel service lines in November 2024.

How do I participate in Lincoln's LSLR program?

Beginning in spring 2024, Lincoln Water System's contracted plumbers will reach out to property owners within the Phase 1 area to begin the process for replacements. Replacement of water service lines is scheduled to start in summer 2024. Replacements are planned to continue for an estimated additional 10 years.

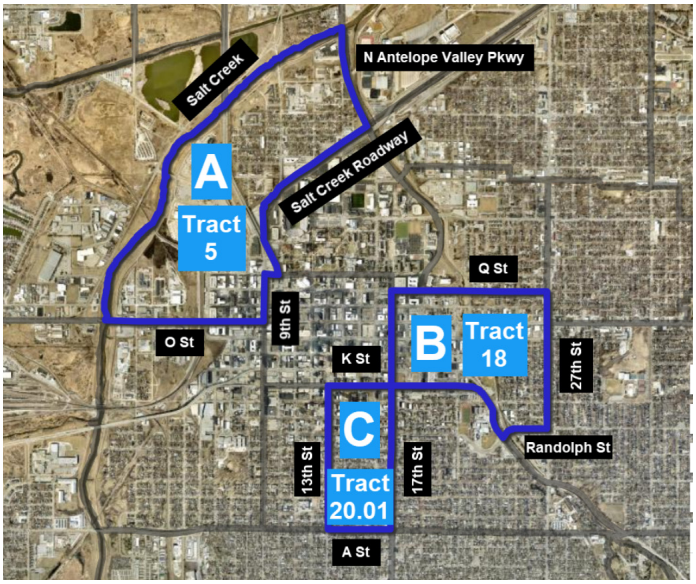
In general, property owners will be asked to:

Allow a City-approved plumbing contractor or other representative to inspect their private water service line to confirm the presence of lead or lead-contaminated galvanized steel lines.

Sign an agreement authorizing the City's plumbing contractor to replace the existing lead service line with a safer copper pipe on their property.

Residents outside of the Phase 1 area who are interested in learning more about this program are encouraged to go to lincoln.ne.gov/LeadSafe or call Lincoln Water System at 402-441-7571 (option 2) with questions.

Lead Service Line Replacement Program Phase 1 Areas



Timeline:

- Area A: 2024 (North Bottoms neighborhood)
- Area B: 2025
- Area C: 2025+

What are the benefits of this program?

New water service lines will:

- Help ensure the health and safety of Lincoln residents by removing the risk of lead exposure in water service lines for decades to come.
- Be installed at no cost to property owners.
- Include a $100 credit to property owner water accounts to assist with any cosmetic repairs (painting, landscaping, etc.).
- Come with a two-year warranty on replacement.

Conserve - Reduce Outdoor Water Use

The last time Lincoln had mandatory water conservation caused by drought conditions was during the summer of 2012. Since that time, the City has revised its Water Management Plan to simplify watering conservation. One important change, if water conservation is imposed, is 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 if water conservation is imposed.

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.

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.**	☑		☑			☑	
Single-family properties and duplexes with even-numbered addresses (ending in 0,2,4,6 or 8)	☑			☑		☑	
Single-family properties and duplexes with odd-numbered addresses (ending in 1,3,5,7 or 9)			☑		☑		☑

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

For additional information regarding the Water Management Plan and other helpful tips on water conservation, please visit water.lincoln.ne.gov.

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.

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 the treatment device is 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.

It is important to follow the manufacturer's instructions for correct use and maintenance of your home treatment device.

Special Health Requirements

While the presence of chloramines in our water is not a cause for concern among the general public, home dialysis patients, immuno-compromised 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 immuno-compromised 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 and Centers for Disease Control (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.

WATER 2.0
SECURING LINCOLN'S SECOND SOURCE

Lincoln's Water 2.0 Initiative: Securing Lincoln's Second Water Source

Water 2.0 is a strategic initiative launched by Mayor Leirion-Gaylor Baird and the Lincoln Transportation and Utilities Department to ensure Lincoln has a sufficient and reliable source of water through 2075 and beyond. In 2022, a 27-member Water Source Advisory Council was appointed to evaluate various water supply alternatives and advance a recommendation to City leaders. An initial list of fourteen water supply alternatives were first considered by the advisory council. This initial list was then narrowed to seven alternatives that were then further evaluated using various factors which represented advisory council member's stakeholder interests and concerns. Over the course of an eight-month period these factors were progressively evaluated to arrive at a final alternative ranking score and cost comparison used by the advisory council to make a final recommendation.

The recommended alternative that was announced by Mayor Leirion-Gaylor Baird in February 2023 was for Lincoln to pursue a wellfield and treatment facility along the Missouri River with direct transport of treated water to Lincoln. This alternative received the highest score when considering all of the factors used for evaluation by the advisory council. While the recommendation was one of the higher cost alternatives, it provides the greatest value to Lincoln by providing the most reliable and resilient water sources of all the alternatives. This recommendation also included fully developing the existing Platte River wellfield and treatment plant. Together these two water sources will provide a reliable and sufficient supply of water for Lincoln during the next 50 years and beyond.

With this recommendation, LTU has already started Water 2.0 work at the existing Platte River wellfield and treatment facilities as well as investigating potential wellfield sites and treatment facilities near the Missouri River.

For additional information on Lincoln's Water 2.0 initiative, visit: lincoln.ne.gov/SecondWaterSource.

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 (search: 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.

Lincoln Water System Facts

Lincoln Water System spent $1.86 million for electricity and diesel fuel to treat and pump water to Lincoln and another $1.45 million for electricity to distribute water to all parts of the City in 2023.

On average in 2023, the total amount of water used in Lincoln each day was equal to 134 gallons per day per person.

The City of Lincoln covers an area of more than 102.9 square miles.

Lincoln Water System maintains 1,296 miles of water mains, 12,664 fire hydrants, and 28,840 valves.

179 broken mains were repaired in 2023.

Water service lines between the main and private property are owned and maintained by the property owner.

Water temperature is affected by seasonal weather. In 2023, the coldest water measured at a tap in Lincoln was 44.2°F in February and the warmest was 76.5°F in August.

American Water Works Association Nebraska Section

Lincoln Water System is a proud member of AWWA.