

Crab Orchard Water Quality Report 2024

Water System ID: KY0690089
Manager: Bryan Mahaffey
606-355-2319

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Meeting location and time:
Crab Orchard City Hall
First Thursdays at 6:30 PM

The water for the City of Crab Orchard Water Works is surface water that comes from the Kentucky River and is treated and sold to our customers via the Lancaster Water Works Treatment Plant. A source water assessment has been completed and shows that the susceptibility to contamination from Lancaster Water Works intake on the Kentucky River below the confluence of Davis Creek in pool 8, is considered generally moderate. There are, however a few areas of concern. Several bridges, agricultural areas, a hazardous materials handler and impaired water body occurs in the immediate vicinity of the intake. These potential contaminant sources include everything from underground storage tanks and major roadways to forested areas with no potential for logging. The complete source water assessment is available for inspection at the Garrard County Judge-Executives office 859-426-4791.

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 may be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and may pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include: Microbial contaminants, such as viruses and bacteria, (sewage plants, septic systems, livestock operations, or wildlife). Inorganic contaminants, such as salts and metals, (naturally occurring or from stormwater runoff, wastewater discharges, oil and gas production, mining, or farming). Pesticides and herbicides, (stormwater runoff, agriculture or residential uses). Organic chemical contaminants, including synthetic and volatile organic chemicals, (by-products of industrial processes and petroleum production, or from gas stations, stormwater runoff, or septic systems). Radioactive contaminants, (naturally occurring or from oil and gas production or mining activities). In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water to provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Information About Lead: Lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Your local water system is responsible for providing high quality drinking water and removing lead pipes, but cannot control the variety of materials used in plumbing components in your home. You share the responsibility for protecting yourself and your family from the lead in your home plumbing. You can take responsibility by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Before drinking tap water, flush your pipes for several minutes by running your tap, taking a shower, doing laundry or a load of dishes. You can also use a filter certified by an American National Standards Institute accredited certifier to reduce lead in drinking water. If you are concerned about lead in your water and wish to have your water tested, contact your local water system. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at <http://www.epa.gov/safewater/lead>.

Service Line Inventory Information: To address lead in drinking water, EPA requires that all community water systems develop and maintain an inventory of service line materials. We have completed a service line inventory (SLI) and it is available for review at

Lead Sample Results Availability Information: We are required to periodically sample water from customer taps to determine lead and copper levels. EPA sets the lead action level at .015 mg/L (15 ppb). For a water system to be in compliance, at least 90% of tap water samples must have lead levels below this limit. This report contains the 90th percentile and range of our most recent sampling. The individual results for each location sampled can be reviewed at

We are only required to test for some contaminants periodically, so the results listed in this report may not be from the previous year. Only detected contaminants are included in this report. For a list of all contaminants we test for please contact us. Copies of this report are available upon request by contacting our office.

Some or all of these definitions may be found in this report:

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

Maximum Contaminant Level Goal (MCLG) - 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.

Maximum Residual Disinfectant Level (MRDL) - 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.

Maximum Residual Disinfectant Level Goal (MRDLG) - 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 contaminants.

Below Detection Levels (BDL) - laboratory analysis indicates that the contaminant is not present.

Not Applicable (N/A) - does not apply.

Parts per million (ppm) - or milligrams per liter, (mg/l). One part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) - or micrograms per liter, ($\mu\text{g/L}$). One part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - a measure of the clarity of water. Turbidity has no health effects. However, turbidity can provide a medium for microbial growth. Turbidity is monitored because it is a good indicator of the effectiveness of the filtration system.

Action Level (AL) - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system shall follow.

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

Spanish (Español) Este informe contiene información muy importante sobre la calidad de su agua beber. Tradúzcalo o hable con alguien que lo entienda bien.

Additional copies of this report are available in our office. If you would like a copy mailed to you, please contact our office.

Regulated Contaminant Test Results Crab Orchard Water Works							
Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.15 (highest average)	0.39 to 1.42	2024	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	57 (high site average)	24 to 71 (range of individual sites)	2024	No	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	72 (high site average)	14.8 to 118 (range of individual sites)	2024	No	Byproduct of drinking water disinfection.
Household Plumbing Contaminants							
Copper (ppm) Round 1 sites exceeding action level 0	AL = 1.3	1.3	0.067 (90 th percentile)	0.006 to 0.08	Sep-24	No	Corrosion of household plumbing systems

Violations 2024-9950555

Crab Orchard Water Works recently failed to comply with a required testing procedure. Even though this was not an emergency, as our customers, you have a right to know what happened and what we did to correct the situation.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During April we did not complete all monitoring or testing for Total Coliforms, and therefore cannot be sure of the quality of your drinking water during that time. Every month we are required to take 2 samples for Total Coliform bacteriological analysis in the distribution system and report those results to the Division of Water by the tenth of the following month. In April of 2024 we only took 1 sample by mistake. We have since taken steps to rectify the problem by keeping better track of the number of samples we pull each month. There is nothing you need to do at this time. You may continue to drink the water. If a situation arises where the water is no longer safe to drink, you will be notified within 24 hours.

For more information, please contact Nancy Baker at 606-355-2319 or PO Box 87, Crab Orchard, KY 40419.

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

Regulated Contaminant Test Results Lancaster Water Works (L) Stanford Water (S)										
Contaminant [code] (units)	MCL	MCLG	Source	Report Level	Range of Detection			Date of Sample	Violation	Likely Source of Contamination
Inorganic Contaminants										
Barium [1010] (ppm)	2	2	L=	0.02	0.02	to	0.02	2024	No	Drilling wastes; metal refineries; erosion of natural deposits
Fluoride [1025] (ppm)	4	4	L=	0.70	0.70	to	0.70	2024	No	Water additive which promotes strong teeth
			S=	0.69	0.69	to	0.69	2024	No	
Disinfectants/Disinfection Byproducts and Precursors										
Total Organic Carbon (ppm) (report level=lowest avg. range of monthly ratios)	TT*	N/A	L=	2.64	1.80	to	3.33	2024	No	Naturally present in environment.
			S=	1.54	0.82	to	1.89	2024	No	
*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.										
Other Constituents										
Turbidity (NTU) TT * Representative samples	Allowable Levels		Source	Highest Single Measurement		Lowest Monthly %		Violation	Likely Source of Turbidity	
Turbidity is a measure of the clarity of the water and not a contaminant.	No more than 1 NTU* Less than 0.3 NTU in 95% monthly samples		L=	0.24		100		No	Soil runoff	
			S=	0.11		100		No		