



Water - Essential for Life

Powell's Valley Water District Water Quality Report for year 2015

KY0990357

Manager: **Kendall Knox**

Phone: **606-663-5870**

PO Box 550
Clay City, KY 40312

Meetings: Water District Office

CCR Contact: **Kendall Knox**

Meeting Dates and Time: 2nd Monday each month 10:00 AM

Phone: **606-663-5870**

This report is designed to inform the public about the quality of water and services provided on a daily basis. Our commitment is to provide our customers with a safe, clean, and reliable supply of drinking water. We want to assure that we will continue to monitor, improve, and protect the water system and deliver a high quality product. Water is the most indispensable product in every home and we ask everyone to be conservative and help us in our efforts to protect the water source and the water system.

We purchase water from Beech Fork Water Commission. Their raw water source is surface water from the Red River. The overall susceptibility to contamination is generally moderate. However, there are a few areas with high susceptibility ratings which are of concern. The airport at Stanton has a high susceptibility rating and is a potential contaminant source because of on-site chemical and fuel storage. Additionally, sixteen bridges or culverts are also located near the intake. There are numerous activities of moderate concern which increase the potential for pollution such as: wastewater discharges, row crops, sewer lines, hazardous chemical users and fuel storage. Activities and land uses within the watershed can pose potential risks to your drinking water. These activities, and how they are conducted, are of interest to the entire community because they potentially affect your health and the cost of treating your water. The completed source water assessment can be reviewed at the Bluegrass Area Development District in Lexington.

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).

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

Information About Lead:

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, (µg/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.

Variations & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

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.

If present, elevated levels of 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 public water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. 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 the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

The data presented in this report are from the most recent testing done in accordance with administrative regulations in 401 KAR Chapter 8. As authorized and approved by EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data in this table, though representative, may be more than one year old.

Beech Fork Water Commission

| | Allowable Levels | Highest Single Measurement | Lowest Monthly % | Violation | Likely Source |
|------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------|------------------|-----------|---------------|
| Turbidity (NTU) TT * Representative samples of filtered water | No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples | 0.244 | 99.9 | No | Soil runoff |

Regulated Contaminant Test Results

| Contaminant [code] (units) | MCL | MCLG | Report Level | Range of Detection | Date of Sample | Violation | Likely Source of Contamination |
|----------------------------|-----|------|--------------|--------------------|----------------|-----------|--------------------------------|
|----------------------------|-----|------|--------------|--------------------|----------------|-----------|--------------------------------|

Radioactive Contaminants

| | | | | | | | |
|-------------------------------|----|---|---|--------|--------|----|-----------------------------|
| Alpha emitters [4000] (pCi/L) | 15 | 0 | 3 | 3 to 3 | May-14 | No | Erosion of natural deposits |
|-------------------------------|----|---|---|--------|--------|----|-----------------------------|

Inorganic Contaminants

| | | | | | | | |
|-----------------------|----|----|-------|----------------|--------|----|------------------------------------------------------------------------------------|
| Barium [1010] (ppm) | 2 | 2 | 0.018 | 0.018 to 0.018 | Apr-15 | No | Drilling wastes; metal refineries; erosion of natural deposits |
| Fluoride [1025] (ppm) | 4 | 4 | 0.83 | 0.83 to 0.83 | Apr-15 | No | Water additive which promotes strong teeth |
| Nitrate [1040] (ppm) | 10 | 10 | 0.2 | 0.2 to 0.2 | Jul-15 | No | Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits |

Disinfection Byproducts Precursor

| | | | | | | | |
|-----------------------------------------------------------------------|-----|-----|-----------------------|-------------------------------|------|----|-----------------------------------|
| Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio) | TT* | N/A | 1.36 (lowest average) | 1.00 to 1.82 (monthly ratios) | 2015 | No | Naturally present in environment. |
|-----------------------------------------------------------------------|-----|-----|-----------------------|-------------------------------|------|----|-----------------------------------|

*Monthly ratio is the % TOC removal achieved to the % TOC removal required. Annual average must be 1.00 or greater for compliance.

Powell's Valley Water District

Inorganic Contaminants

| | | | | | | | |
|----------------------------------------------------|----------|-----|-------------------------|------------|------|----|-----------------------------------------|
| Copper [1022] (ppm) sites exceeding action level 0 | AL = 1.3 | 1.3 | 0.047 (90th percentile) | 0 to 0.106 | 2013 | No | Corrosion of household plumbing systems |
| Lead [1030] (ppb) sites exceeding action level 0 | AL = 15 | 0 | 0 (90th percentile) | 0 to 3.2 | 2013 | No | Corrosion of household plumbing systems |

Disinfectants/Disinfection Byproducts

| | | | | | | | |
|----------------------------------------------|----------|-----------|------------------------|-------------------------------------|------|----|-------------------------------------------|
| Chlorine (ppm) | MRDL = 4 | MRDLG = 4 | 1.74 (highest average) | 1.11 to 2.26 | 2015 | No | Water additive used to control microbes. |
| HAA (ppb) (Stage 2) [Haloacetic acids] | 60 | N/A | 36 (high site average) | 8 to 44 (range of individual sites) | 2015 | No | Byproduct of drinking water disinfection |
| TTHM (ppb) (Stage 2) [total trihalomethanes] | 80 | N/A | 51 (high site average) | 7 to 57 (range of individual sites) | 2015 | No | Byproduct of drinking water disinfection. |

Maximum Contaminant Levels (MCL's) are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

THE 2015 ANNUAL WATER QUALITY REPORT WILL NOT BE MAILED UNLESS REQUESTED. ADDITIONAL COPIES ARE AVAILABLE AT THE WATER DISTRICT OFFICE.

Consumer Confidence Report (CCR) Certification

PWS Name: Powell's Valley Water District PWSID#: KY0990357 Population Served: 7,128

I, the undersigned, certify that our system's Consumer Confidence Report for calendar year 2015 was prepared and distributed according to the requirements for our system in 40 CFR 141.153, 141.154, and 141.155 and appropriate notices of availability have been given. Also, I certify that the report contains information that is correct and consistent with the monitoring data previously submitted to the Division of Water.

Date information to purchasers: N/A Written agreed alternative date on file. (Required if after April 1)
PWSIDs of purchasers: _____

Date CCR distributed to customers: _____ Date CCR sent to Division of Water: _____

1. CCR main/primary distribution method: Mailed Hand Delivered Electronic Delivery* Newspaper**

*Electronic Delivery list URL: N/A

*Electronic Delivery CCR Final Packet sent to DOW shall include hard copies of: Copy of CCR from Website, Bill insert/bill with notification of e-delivery, email notification to e-pay/auto-pay e-delivery including subject line, the # of emails sent and the # bounce back emails with a statement that indicates hardcopies were mailed to the bounced back customers along with a copy of the notification Good Faith Effort Distribution method for e-delivery must be a non-electronic method.

**Name of newspaper & date printed with the newspaper clipping of CCR showing the date the report was printed is required. To use newspaper as the primary distribution method, your system must:

- a) Have a POPULATION less than 10,000; b) Publish the report in a local newspaper by July 1; c) Notify your customers by July 1st that the report will not be mailed unless requested, and it is available upon request.

Indicate how you notified customers that CCR will not be mailed unless requested. (example: Message on water bill, statement in newspaper, etc.) (Required if published in newspaper): Statement in newspaper

If your system serves a population of less than 500, you only need to notify your customers by July 1 that the report is available upon request. Indicate how customers were notified & how the report was made available upon request: N/A

2. CCR secondary/"Good faith" efforts (GFEs) to reach the non-bill-paying customers (indicate methods used)

Posting the CCR on the Internet URL: N/A
(N/A with E-delivery as main distribution method)

- a) Delivering multiple copies to non-bill-paying consumers at apartments, rest homes, hospitals, schools, factories, & etc. (list locations).
b) Delivering to community organizations (attach list).
c) Posting the CCR or an announcement of its availability in public places (attach list of locations).
d) Publishing CCR or an announcement of its availability in local newspaper (attach copy).
e) Advertising availability of the CCR in news media. (attach copy of announcement) (N/A with E-delivery as main distribution method)
f) Mailing CCR to postal patrons within the service area (attach zip codes used).
g) Other (attach description of additional methods used or explanation or use back of sheet).

Name: Kendall Knox Signature: _____

Title: Superintendent Phone: 606-663-5870 email: kendell.knox@pwwd.org

Address: PO Box 550 Clay City, KY 40312 Date: _____

Mail CCR & certification to: **Kentucky Division of Water
Compliance Technical Assistance Section ATTN: CCR
200 Fair Oaks Lane, 4th Floor
Frankfort, KY 40601**

