

Consumer Confidence Report (CCR) Certification

PWS Name: Village of Buckhorn PWSID#: KY0971007 Population Served: 832

I, the undersigned, certify that our system's Consumer Confidence Report for calendar year 2016 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.

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

*Electronic Delivery list URL: www.krwa.org/2016ccr/buckhorn.pdf

*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.

Copy of newspaper page attached.

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): _____

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: _____

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

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

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

Name: Dillard Wilder Signature:  Date: 4-18-17

Title: Manager Phone: 606-398-7900 email: joy.stamper@buckhorn.org

Address: P.O. Box 135

City, State, Zip: Buckhorn, KY

Mail CCR & certification to: **EEC - Division of Water**
Drinking Water Compliance and Technical Assistance Section
Attn: CCR
300 Sower Boulevard
Frankfort, KY 40601

Village of Buckhorn Water Water Quality Report 2016

Water System ID: KY0971007
Manager: Dillard Wilder
606-398-7000

CCR Contact: Joy Stamper
606-398-7000

Mailing Address:
PO Box 135
Buckhorn, KY 41721

Meeting location and time:
Buckhorn City Hall
Third Monday monthly at 5:45 PM

Buckhorn Water purchases water from Hazard. Following is a summary of the Hazard water systems susceptibility to contamination. The Hazard Water Department treats surface water from the North Fork of the Kentucky River. An analysis of the susceptibility of the Hazard water supply to contamination indicates that susceptibility is generally moderate. However, there are a few areas of concern. A major road runs parallel to the river just upstream of the intake and six bridges are within close proximity to the intake to pose an immediate threat in the event of a release of hazardous materials. Some logging has occurred and there is potential for more. Other areas of concern are close proximity of several underground storage tanks and business activities that have the potential for release of hazardous chemicals. There is limited mining activity near the intake and substantial mining throughout the watershed. There are substantial amounts of oil and gas wells in the protection area but are generally some distance from the intake. The complete source water assessment is available in the Perry County Water Supply Plan. That plan is available for viewing at the Kentucky River Area Development District office in Hazard.

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:

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>.

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, (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.

Variances & 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.

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

Hazard Results

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.

	Allowable Levels	Highest Single Measurement	Lowest Monthly %	Violation	Likely Source of Turbidity
Turbidity (NTU) TT * Representative samples of filtered water	No more than 1 NTU* Less than 0.3 NTU in 95% of monthly samples	0.37	99	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
Arsenic [1005] (ppb)	10	N/A	0.5	0.5 to 0.5	Feb-16	No	Natural erosion; runoff from orchards or glass and electronics production wastes
Barium [1010] (ppm)	2	2	0.031	0.031 to 0.031	Feb-16	No	Drilling wastes; metal refineries; erosion of natural deposits
Cyanide [1024] (ppb)	200	200	20	20 to 20	Feb-16	No	Discharge from steel/metal factories; plastic and fertilizer factories
Fluoride [1025] (ppm)	4	4	1.00	1 to 1	Feb-16	No	Water additive which promotes strong teeth
Nitrate [1040] (ppm)	10	10	0.3	0.3 to 0.3	Feb-16	No	Fertilizer runoff; leaching from septic tanks, sewage; erosion of natural deposits
Total Organic Carbon (ppm) (measured as ppm, but reported as a ratio)	TT*	N/A	1.21 (lowest average)	1.00 to 1.82 (monthly ratios)	2016	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.

	Average	Range of Detection
Fluoride (added for dental health)	0.9	0.62 to 1.3
Sodium (EPA guidance level = 20 mg/L)	24.2	24.2 to 24.2

Buckhorn Water Test Results

Contaminant [code] (units)	MCL	MCLG	Report Level	Range of Detection	Date of Sample	Violation	Likely Source of Contamination
Total Coliform Bacteria # or % positive samples	TT	N/A	1	N/A	2016	No	Naturally present in the environment
Copper [1022] (ppm) sites exceeding action level 0	AL = 1.3	1.3	0.178 (90 th percentile)	0.001 to 0.262	Aug-16	No	Corrosion of household plumbing systems
Lead [1030] (ppb) sites exceeding action level 0	AL = 15	0	0 (90 th percentile)	0 to 2	Aug-16	No	Corrosion of household plumbing systems
Chlorine (ppm)	MRDL = 4	MRDLG = 4	1.49 (highest average)	0.74 to 2.16	2016	No	Water additive used to control microbes.
HAA (ppb) (Stage 2) [Haloacetic acids]	60	N/A	88 (high site average)	32 to 139 (range of individual sites)	2016	Yes	Byproduct of drinking water disinfection
TTHM (ppb) (Stage 2) [total trihalomethanes]	80	N/A	85 (high site average)	33 to 129 (range of individual sites)	2016	Yes	Byproduct of drinking water disinfection.

Violations 2016-9948510, 2017-9948512, 2017-9948513, 2017-9948514

Buckhorn Water exceeded the MCL for haloacetic acids (HAA) during each of the four quarters of 2016. The standard for haloacetic acids is 0.060 mg/L. Listed below are the periods and values for each quarter.

1/1/2016 through 3/31/2016	0.074 mg/L
4/1/2016 through 6/30/2016	0.077 mg/L
7/1/2016 through 9/30/2016	0.088 mg/L
10/1/2016 through 12/31/2016	0.078 mg/L

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer. We are continuing to work to minimize the formation of haloacetic acids while ensuring we maintain an adequate level of disinfectant.

Violation 2017-9948515

Buckhorn Water exceeded the MCL for trihalomethanes (TTHM) during the fourth quarter of 2016. The standard for trihalomethanes is 0.080 mg/L. During the fourth quarter (10/1/2016 – 12/31/2016) the TTHM level was 0.085 mg/L.

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system, and may have an increased risk of getting cancer.

Our supplier is evaluating treatment processes and chemical changes at the water treatment plant. We are monitoring water storage tank levels and water flow patterns within our distribution system. We anticipate resolving the problem within the next year.

Public notices were distributed for each of the above violations.

Violation 2016-9948511

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 1/1/2016 – 3/31/2016, we did not complete all monitoring by failing to report or correctly report testing for Haloacetic Acids and Trihalomethanes (OEL). Therefore, we could not verify the quality of your drinking water to the primacy agency during that time.

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. For the Stage 2 DBPR requirements we monitor for trihalomethanes (THM) and haloacetic acids (HAA). The standard for THM is 0.080 mg/L and the standard for HAA is 0.060 mg/L.

A calculation of analytical results is part of an Operational Evaluation Level Report (OEL) to determine the potential of exceeding these standards. The operational evaluation requirements are intended as an indicator of operational performance and to allow systems to identify proactive steps to remain in compliance. Failure to submit an evaluation report to the State in the required time frame is a violation and requires a public notification.

We failed to submit an OEL for the period 1/1/2016 – 3/31/2016. There is nothing you need to do. The OEL report has been submitted.

For more information, please contact Dillard Wilder at 606-398-7000 or P.O. Box 15, Buckhorn, KY 41721.

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.

Water Quality – Consumer Confidence Report “Good Faith Effort”

System: Village of Buckhorn

PWSID: KY0971007

State and Federal regulations require that a community water system provide an annual report to its customers containing information on the quality of the water delivered by the system. The report must also include the risks from exposure to contaminants detected in the drinking water.

The water system must also make a good-faith effort to reach consumers who do not get water bills. A good-faith effort is to be tailored to the consumer who is served by the system but is not a bill-paying customer, such as a renter or worker.

Date	Name of Facility
<u>4-18-17</u>	<u>Corps of Engineers Buckhorn, Ky. 41721</u>
<u>4-18-17</u>	<u>Sparks Store Buckhorn, Ky. 41721</u>
<u>4-18-17</u>	<u>Cody's Corner Buckhorn, Ky. 41721</u>
<u>4-18-17</u>	<u>Buckhorn High School Buckhorn, Ky 41721</u>
<u>4-18-17</u>	<u>Buckhorn Children's Center Buckhorn Ky 41721</u>
<u>4-18-17</u>	<u>Buckhorn State Park Gays Creek, Ky 41721</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

I, the undersigned, confirm that a copy of the Consumer Confidence Report was prepared and distributed to the above listed facilities. Information contained in the report furnished to the facilities is identical to information provided to the billed consumers.

Printed Name: Joy Stamper
Signature: Joy Stamper

Date: 4-18-17