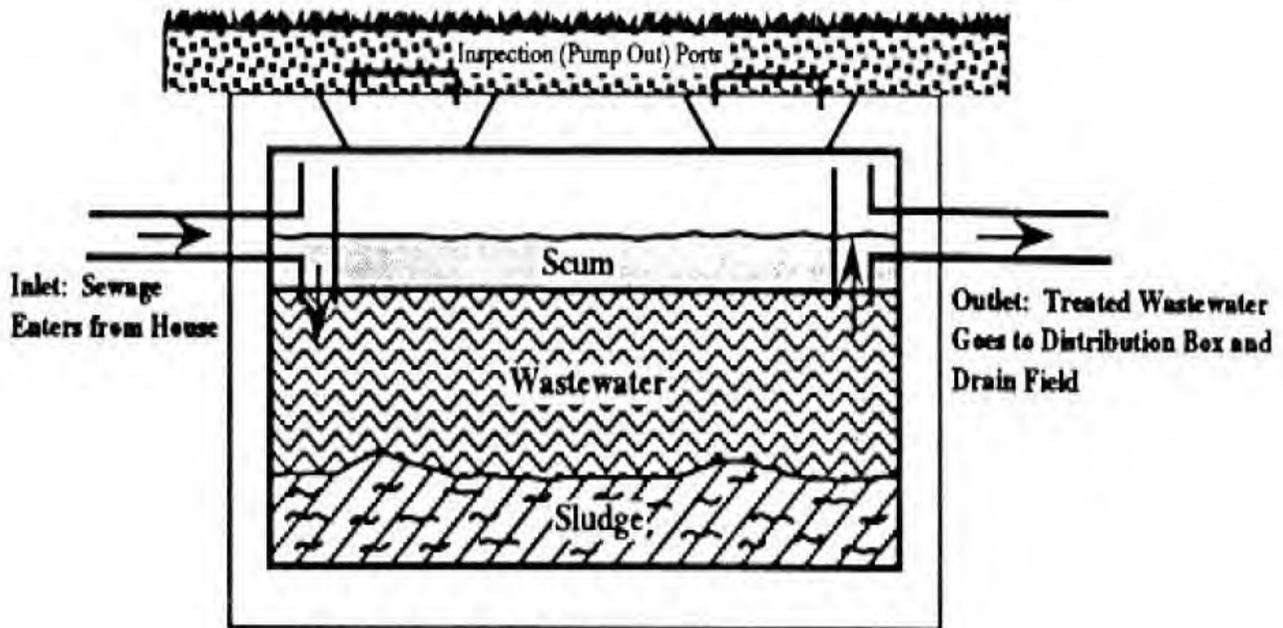


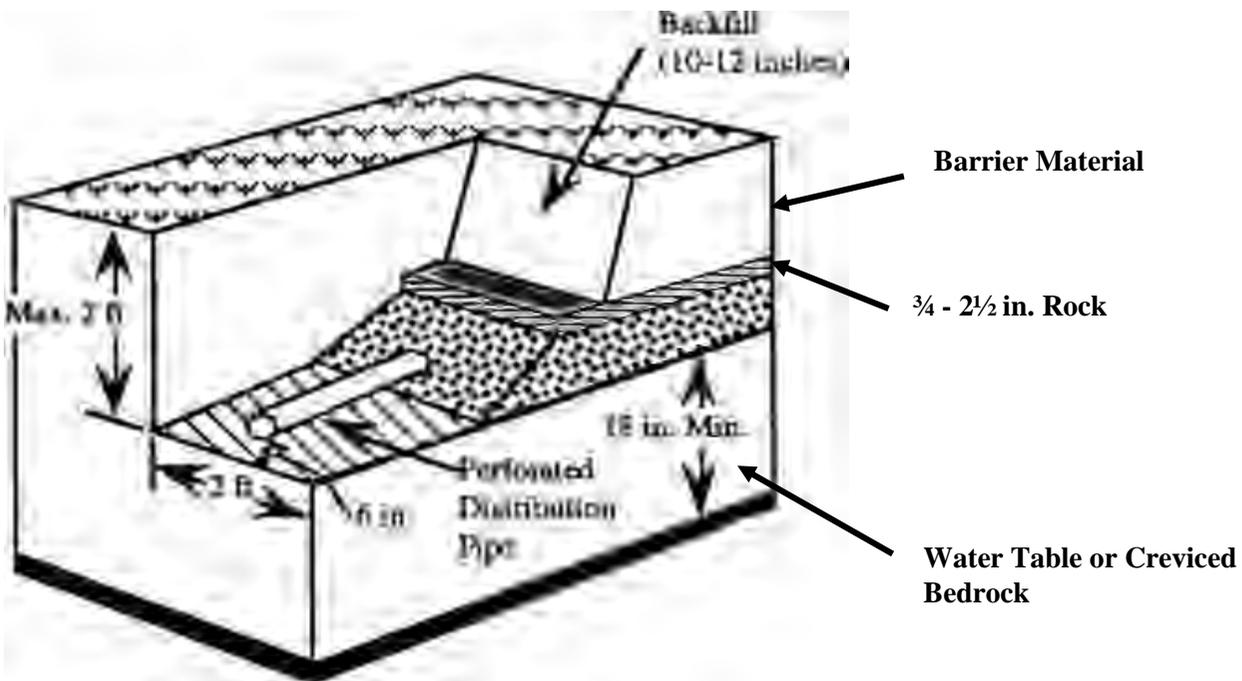
SEPTIC TANK

The septic tank provides the first step in treatment by separating the solids from the liquids. The wastewater is retained in the tank for 24 hours or more. During this time the heavier solids settle the bottom to form a sludge layer while the lighter solids float to the top to form a scum layer. Bacteria break down the solids, producing carbon dioxide, hydrogen sulfide, and other gases in the process. These gases are vented through the plumbing vent on your house roof. Since the bacteria reduce only about 40 percent of the sludge and scum volume, the tank must be pumped regularly (approximately every three to five years) to remove the accumulated solids. If the tank fills with sludge and scum, the solids will overflow into the drainfield and quickly clog the soil, resulting in system failure.



THE DRAINFIELD

The drainfield provides the final treatment of the wastewater and disposes of it through groundwater recharge. The typical drainfield is composed of trenches or beds which are shallow, level excavations installed one to one and a half feet above the groundwater table. Each trench contains a perforated distribution pipe through which wastewater drains into the gravel. The water is stored in the gravel until it can seep into unsaturated soil underlying and adjacent to the trench. As the wastewater moves slowly through the gravel and soil, many of the disease-causing bacteria and viruses are filtered out, or adsorbed and held by the soil particles until they die. Where soils do not permit a drainfield to adequately treat septic tank effluent, an additional or alternative treatment system must be used in conjunction with the drainfield. Alternative systems primarily used in Kentucky are constructed wetlands and sewage lagoons. These alternative systems have their own operation and maintenance guidelines. If you would like information about these guidelines, contact the Groundwater Section.

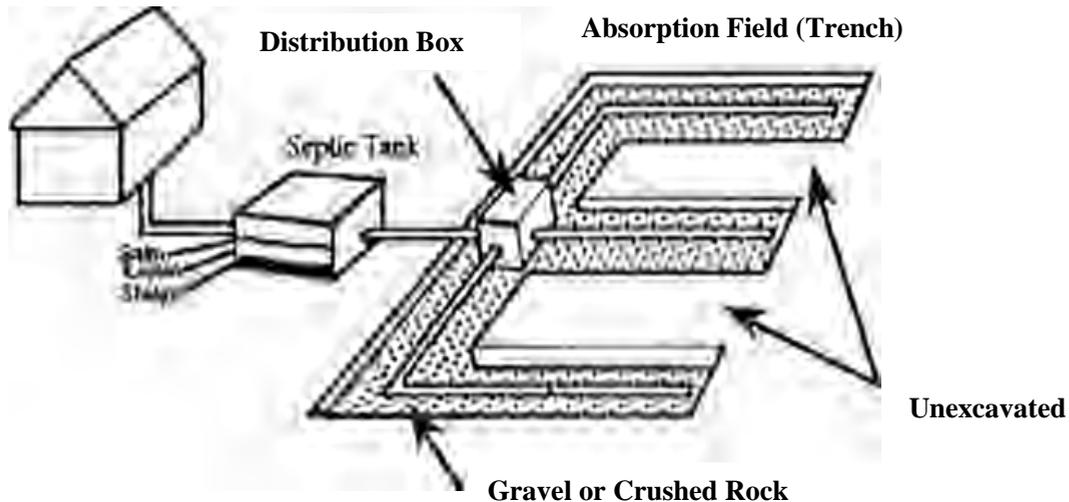


Conventional Rock Drainfield
Trench Cross-Section

TAKING CARE OF YOUR SYSTEM

Your septic system represents a significant investment worth protecting. The old "An ounce of prevention is worth a pound of cure" is so true when it comes to the care of your septic system. If you follow the operation and maintenance guidelines below, your system will function better and last longer, and you will avoid the nightmare and se of a failed system. Most important, your a will not be polluting groundwater.

Conventional Septic System



DO

- Conserve water to reduce the amount of wastewater that must be treated and disposed.
- Repair any leaking faucets and toilets.
- Discharge only biodegradable wastes into system.
- Divert down spouts and other surface water away from your drainfield.
- Keep your septic tank cover accessible for tank inspections and pumping
- Have your septic tank pumped regularly and checked for leaks and cracks.
- Call a professional when you have problems
- Compost your garbage or put in trash.

DON'T

- Use a garbage grinder.
- Flush sanitary napkins, tampons, disposable diapers, condoms and other non-biodegradable products into your system.
- Dump solvents, oils, paints, thinners, disinfectants, pesticides or poisons down the drain. These materials can disrupt the treatment process and contaminate the groundwater.
- Dig in your drainfield or build anything over it.
- Plant anything over the drainfield except grass
- Drive over you drainfield or compact the soil in any way.

If you have any questions or need additional information, contact:

The **Groundwater Protection Program Coordinator**

**Kentucky Energy and Environment Cabinet
Kentucky Division of Water
Watershed Management Branch
Groundwater Section
300 Sower Boulevard, 3rd floor
Frankfort, KY 40601
(502) 564-3410**

Groundwater Protection Plan Regulation 401 KAR 5:037
<http://water.ky.gov/groundwater/Pages/GroundwaterProtection.aspx>

**Kentucky Cabinet for Health and Family Services
Department of Public Health
Environmental Management Branch
275 E. Main St.
Frankfort, Ky. 40621
(502) 564-4856**

**Onsite Regulations 902 KAR 10:085
Septic Tank Servicing Regulation 902 KAR 10:170**
<http://chfs.ky.gov/dph/info/phps/enviromgmt.htm>

Homeowner's Manual Onsite Sewage Disposal Systems
<http://chfs.ky.gov/NR/rdonlyres/CA014E47-2256-444D-8FE4-84C9FF456C8E/0/onsitesewagemanual.pdf>

**Check List
for
Evaluating Your Septic System**

- 1.** Find and mark the location of the septic system, you should map this information in the space provided in your Groundwater Protection Plan: "Homeowner's Septic System Guide and Record Keeping Folder."
- 2.** When was the septic tank last pumped?

- 3.** If the tank was last pumped over three years ago, or if you have recently moved into the house and don't know when the tank was last pumped, contact a septic tank pumper. Have him service the tank and check the baffles.
- 4.** Do toilets flush slowly and does water drain slowly from sinks and tubs, or does either "gurgle"?
Yes No
- 5.** Is there any standing water, soggy ground, or smelly liquid in or near the drainfield?
Yes No
- 6.** Does the ground slope toward the septic system?
Yes No
- 7.** Are your septic tank and drainfield less than 100 feet from a lake, stream, or pond?
Yes No
- 8.** Are water-loving trees such as willows, sycamores, birches, or water maples growing within 10 feet of the septic tank?
Yes No
- 9.** Are there any areas over the septic tank or drainfield where people have frequently driven their cars or trucks?
Yes No
- 10.** Have any additions been made to the house since the present septic system was installed?
Yes No
- 11.** Do you have dripping faucets or a toilet that runs continuously or gradually loses water from its tank?
Yes No
- 12.** Do you put cigarette butts, coffee grounds, cooking fats, disposable diapers, facial tissue, wet-strength towels, or other non-biodegradable materials into your septic tank?
Yes No

If you have answered YES to one or more of questions 4 - 12, the septic system may not be functioning correctly. Call your local health department, or seek other professional help. Should repair of the system be necessary, be sure to engage the services of a professional who has a groundwater protection plan on file.

BLUEGRASS WATER

Utility Operating Company

A CSWR Managed Utility

Wellhead Protection Plan

for

Center Ridge Water District #3

KY0180502, Calloway County

Well House Road
Murray, KY 42071

WPP Phase I & WPP Phase II approved on May 2, 2008 by the Kentucky
Division of Water

Revisions and recertification to be conducted by water system personnel every five (5) years.
Revised by Central States Water Resources EH&S personnel on August 20, 2020

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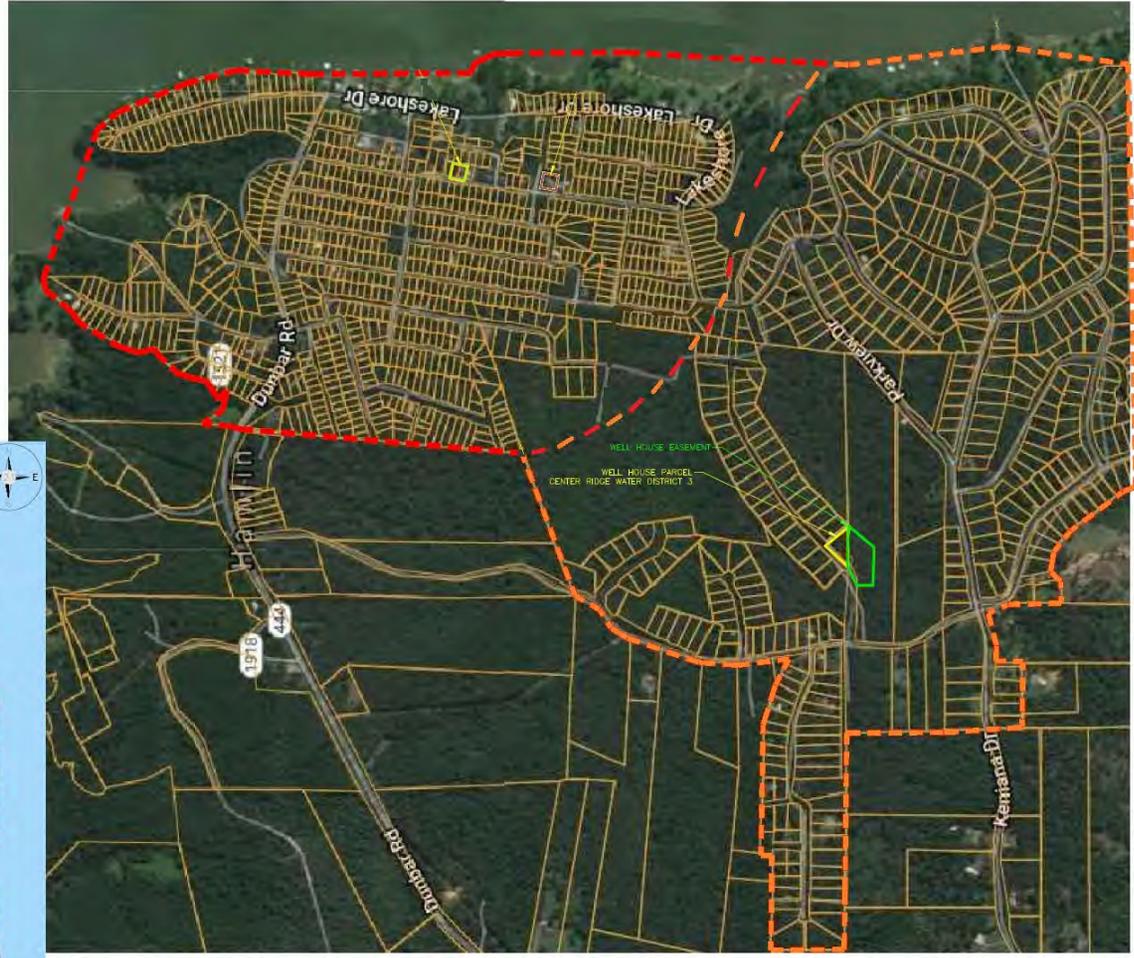
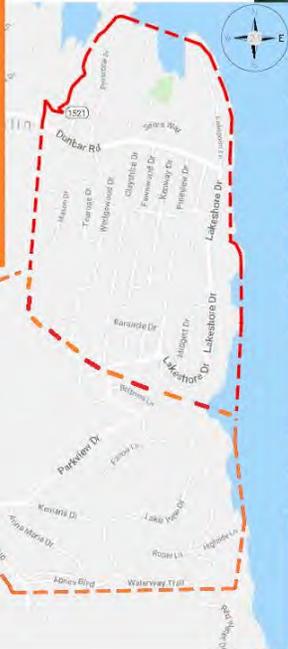
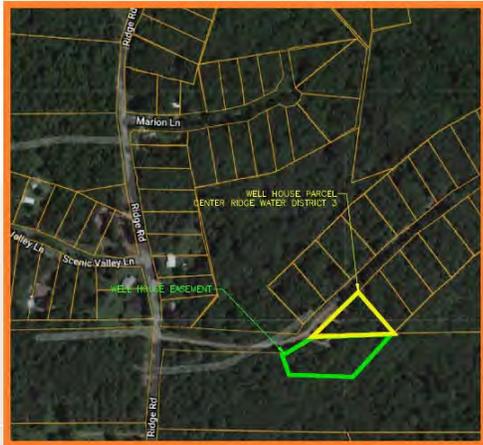
1. Facility Service Area Map
2. June 2020 Monthly Operating Report
3. Historical Well Inspection
4. Bluegrass Water UOC Planning Team
5. Wellhead Protection Area Delineation Information
6. Wellhead Protection Area Delineation Map
7. Contaminant Source Inventory Summary and Map
8. Previous and Proposed Management Strategies
9. Contingency and Wellhead Protection Planning Information
10. Public Education Materials

Attachment 1 Service Area of Center Ridge Water District #3



- Legend**

 - CRWD #2 Service area
 - Well #1
 - Well #2
 - CRWD #3 Service area
 - Well #1 & #2
 - Easement



Utility Note Disclaimer:
The utilities shown herein are depicted based on the original design plans provided by the system manager. 21 Design Group, Inc performed no field verification of the layout and are unable to determine the exact location at this time. The location represents approximate location only and should not be construed as being 100% accurate. It is shown to provide general layout of the system only and should not be used to interpret encroachments.

DATE	ISSUED BY
10/15/2021	10/15/2021
10/15/2021	10/15/2021
10/15/2021	10/15/2021
10/15/2021	10/15/2021

21 DESIGN GROUP INC.
ENGINEERING SURVEYING

1310 Jeffersonville Pike SE
Washington, MO 63091
Phone: 636-321-9279
Fax: 636-321-9278

Attachment 2 June MOR

KENTUCKY DIVISION OF WATER DRINKING WATER BRANCH

Revised 05/26/20



MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR (mm/yyyy) 06/2020 Indicate one with "X" X SURFACE WATER
X GROUNDWATER
X PURCHASE/DISTRIBUTE ONLY

PWS ID :	KY0180502	PLANT ID: A	PLANT NAME:	Center Ridge Water System #3
PWS NAME:	Center Ridge Water System #3	PLANT CLASS: I	DIST. CLASS:	I
AGENCY INTEREST (AI):	33824	DATE MAILED:		
SOURCE NAME:	Well	COUNTY:	Calloway	
OPERATOR(S) RESPONSIBLE / IN-CHARGE		CLASS	CERTIFICATION NUMBER	
WTP SHIFT 1:	Freddie O 'Bryan	IV	595	
WTP SHIFT 2:				
WTP SHIFT 3:				
DISTRIBUTION:	Freddie O'Bryan	III	27595	

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

TREATMENT PLANTS COMPLETE:

1. DESIGN CAPACITY (gpm): 25
2. TYPE OF FILTRATION USED:
3. DESIGN FILTRATION RATE (gpm/sq. ft.):
4. PERCENT BACKWASH WATER USED: #VALUE!
5. DATE FLOCCULATION BASIN(S) LAST CLEANED:
6. DATE SETTLING BASIN(S) LAST CLEANED:

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more that one year, or both).

X
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWS ID : KY0180502
 PLANT ID: A

REPORT MONTH/YEAR: 06/2020
 PAGE 1 OF 11

APPLICABLE TO ALL PLANTS

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
1	No Meter											
2	No Meter											
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
TOTAL												
AVERAGE												
MAX												

NUMBER DAYS IN OPERATION 0

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWS ID : KY0180502
 PLANT ID: A

APPLICABLE TO ALL PLANTS

REPORT MONTH/YEAR: 06/2020

PAGE 3 OF 11

ANALYTICAL RESULTS (mg/L OR PPM UNLESS OTHERWISE SPECIFIED)														
DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		TOTAL	FREE					TOTAL	FREE					
1										0.59				
2										0.57				
3										0.54				
4										0.61				
5										0.62				
6										0.57				
7										0.56				
8										0.69				
9										0.51				
10										0.52	0.45			
11										0.51	0.63			
12										0.53	0.50			
13										0.52	0.81			
14										0.56	0.64			
15										0.61	0.79			
16										0.52	0.64			
17										0.51	0.58			
18										0.57	0.71			
19										0.61	0.70			
20										0.59	0.76			
21										0.62	0.72			
22										0.57	0.69			
23										0.51	0.69			
24										0.53	0.63			
25										0.51	0.54			
26										0.57	0.67			
27										0.57	0.67			
28										0.50	0.60			
29										0.49	0.57			
30										0.53	0.61			
31														
AVERAGE										0.56	0.65			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWSID: KY0180502
 PLANT ID: A

APPLICABLE TO ALL PLANTS

REPORT MONTH/YEAR: 06/2020

*Please answer Y/N question below this chart.

PAGE 5 OF 11

ANALYTICAL RESULTS (mg/L OR PPM UNLESS OTHERWISE SPECIFIED)												
DAY	FLUORIDE		IRON		MANGANESE		PHOSPHATE		Lowest Daily Chlorine Residual Plant Tap On-Line Chlorine Analyzer Total	RAINFALL INCHES	WATER TEMP. DEGREES F°/C°	
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP				
1									0.59			
2									0.57			
3									0.54			
4									0.61			
5									0.62			
6									0.57			
7									0.56			
8									0.69			
9									0.51			
10									0.52			
11									0.51			
12									0.53			
13									0.52			
14									0.56			
15									0.61			
16									0.52			
17									0.51			
18									0.57			
19									0.61			
20									0.59			
21									0.62			
22									0.57			
23									0.51			
24									0.53			
25									0.51			
26									0.57			
27									0.57			
28									0.50			
29									0.49			
30									0.53			
31												
AVERAGE									Monthly Minimum		Total Rainfall	AVG Temp
									0.49			
									Number of readings	30	0.00	
									For Free Chlorine, # less than 0.2 mg/L	0		
									For Chloramines, # less than 0.5 mg/L			

Disinfectant Chloramines? (Y/N) **N**

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH
MONTHLY OPERATING REPORT (MOR) PLANT SUMMARY FORM**

PWS ID KY0180502

MONITORING PERIOD (MMYYYY) 06/2020

Y **NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**
N

**PLANT INFORMATION
APPLICABLE TO ALL PLANTS**

PLANT ID <u>A</u>	TOTAL WATER TREATED (gallons)	_____
PLANT NAME <u>Center Ridge Water System #3</u>	AVE. DAILY PRODUCTION (gallons)	_____
AGENCY INTEREST <u>0</u>	MAXIMUM PUMPAGE (gallons per day)	_____

**INDIVIDUAL FILTER EFFLUENT TURBIDITY
APPLICABLE TO ALL PLANTS WITH FILTRATION**

ANALYTE CODE 0100

Was each filter monitored continuously? (Y/N) _____

Were measurements recorded every 15 minutes? (Y/N) _____

Was there a failure of the continuous monitoring equipment? (Y/N) _____

 If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N) _____

 (2) was the continuously monitoring equipment repaired within 5 working days? (Y/N) _____

Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N) _____

Was individual filter level greater than 0.5 NTU in two consecutive measurements after on line for more than four hours? (Y/N) _____

Was individual filter level greater than 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N) _____

Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N) _____

If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with the MOR

COMBINED FILTER EFFLUENT TURBIDITY APPLICABLE TO ALL PLANTS WITH FILTRATION	ENTRY POINT RESIDUAL DISINFECTANT CONCENTRATION APPLICABLE TO ALL PLANTS
--	---

ANALYTE CODE <u>0100</u>	ANALYTE CODE <u>0999</u>
Number of hours of plant operation _____ <u>0.0</u>	Number of days of plant operation _____ <u>0</u>
Were samples taken every 4 hours of plant operation? (Y/N) _____ <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) _____ <input checked="" type="checkbox"/>
Number of samples taken _____ <u>0</u>	Number of lowest chlorine samples recorded _____ <u>30</u>
Highest single turbidity reading _____ <u>0.00</u>	Lowest single chlorine reading _____ <u>0.49</u>
For all filtration except slow sand filtration:	If less than required:
Number of samples exceeded 0.1 NTU _____	Was residual restored within 4 hours of plant operation? (Y/N) _____ <input type="checkbox"/>
Number of samples exceeded 0.3 NTU _____	<u>Free Chlorine</u> (for all disinfectants except chloramine):
Number of samples exceeded 1 NTU _____	Number of samples under 0.2 mg/L _____ <u>0</u>
When filtration is slow sand filtration:	<u>Total Chlorine</u> (when disinfectant is Chloramine):
Number of samples exceeded 1 NTU _____	Number of samples under 0.5 mg/L _____
Number of samples exceeded 5 NTU _____	

CHLORINE DIOXIDE ENTRY POINT MONITORING APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	CHLORITE ENTRY POINT MONITORING APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE
--	--

ANALYTE CODE <u>1008</u>	ANALYTE CODE <u>1009</u>
Number of days of plant operation _____ <u>0</u>	Number of days of plant operation _____ <u>0</u>
Were samples taken each day of operation? (Y/N) _____ <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) _____ <input type="checkbox"/>
Number of samples taken _____ <u>0</u>	Number of samples taken _____ <u>0</u>
Highest single chlorine dioxide reading _____ <u>0.00</u>	Highest single chlorite reading _____ <u>0.00</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L _____ <u>0</u>	Number of chlorite samples exceeded 1 mg/L _____ <u>0</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

X
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

2

KENTUCKY WELL INSPECTION FORM JUL 12 2001

(1) AKGWA NUMBER 0 0 0 3 - 3 9 7 4

Attach Well Record Label Here (if applicable)

Note: Water well labels begin with "0", monitoring well labels begin with "8".

(2) OWNER/FACILITY INFORMATION
 Well Owner's Name: Keweenaw Water Works, Inc. Last Conrad Powell First MI
 Mailing Address: 205 Angus Blvd.
 City: Hamlin State: KY Zip: 42046
 Well Address (if different) Ridge Rd.
 City: Hamlin State: KY Zip: 42046
 Phone: (270) 436-5116

(3) WELL RECORD LABEL LOCATION:
 well casing pressure tank water pipe
 well cap electric box not labeled
 pump other

(4) USGS Quadrangle Name Hamlin County Calloway
 WELL LOCATION Latitude 36° 35' 08" Longitude 88° 04' 34"

(5) PHYSIOGRAPHIC OR HYDROLOGIC REGION
 Blue Grass Ohio River Alluvium
 E. Coal Field W. Coal Field
 Miss. Plateau Jackson Purchase

(6) DRILLER INFORMATION
 Who Constructed Well? unknown
 Address: _____
 City: _____ State: _____ Zip: _____
 Date Well Completed: _____
Month Day Year unknown

(13) WELL USE (check all that apply)
 domestic livestock not used
 public irrigation abandoned
 industrial monitoring
 other
 PWSID# 0180502
 Water Withdrawal Permit # _____

(18) ELEVATION
490 ft. AMSL
 From ground surface
 top of casing
 By map
 survey
 report
 GPS

(7) GENERAL
 Type of Construction:
 drilled/augered
 excavate & backfill
 hand dug/blasted
 Depth of Well: _____ ft.
 measured
 reported
 unknown
 Static Water Level, ft. below surface:
 measured
 reported
 not measured
 can't be measured
 Well Yield:
 gpm gph gpd
 measured
 estimated
 unknown

(9) WELLHEAD
 Is Well Located in a Pit?
 yes no unknown
 Wellhead (casing top):
 well cap sanitary seal
 flush mount locking cap
 open unknown
 Casing Above Ground Level?
 yes no unknown
2 inches above ground.
 Discharge Pipe Below Surface?
 yes no unknown
 Pitless Adapter Used?
 yes no unknown

(14) WELL SERVICE
 Number of People Served: _____
 Number of Service Connections: 45
 Any Quantity Problems? yes no
 Any Quality Problems? yes no
 If "yes", describe in COMMENTS section, below.

(19) TREATMENT SYSTEM
 none
 water softener
 ultraviolet
 chlorination
 aeration
 charcoal filter
 sand filter
 iron treatment
 fluoridation
 other
 Treatment Bypass Available? yes no

(8) SURFACE ANNULAR MATERIAL:
 clay drill cuttings
 cement unknown
 open sand gravel
 concrete pad

(10) PUMP DETAILS
 Date Installed: _____
Month Day Year unknown
 Pump Type:
 submersible bailer
 turbine jet hand pump
 none other unknown
 Intake Level: _____ ft. below surface
 Electric Connection:
 2 wire 3 wire unknown

(15) COMPLIANCE TO STANDARDS
 Construction in Compliance with KY Standards?
 yes no unknown pre-law
 If "no", describe in COMMENTS section, below.

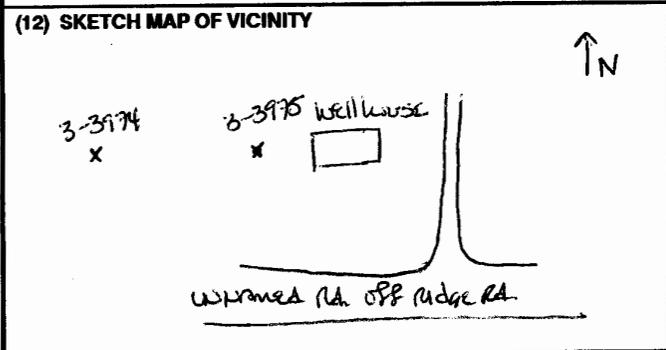
(16) RELATIVE LOCATION
 upgradient sidegradient unknown
 downgradient varying N/A

(17) INSPECTION INFORMATION
 Date of Inspection: 0 / 15 / 01
Month Day Year
 Water Quality Sample Taken: yes no
 Reason for Inspection:
 general survey
 specific complaint investigation
 spill or incident response
 contamination site investigation
 enforcement
 general water quality analysis
 ambient groundwater monitoring
 other WTRP
 Program Name and Facility ID#: _____
 Alternate Well ID#: _____

(20) OPTIONAL USE
 Will Owner Allow State Access?
 yes no unknown
 Extent of Monitoring Allowed:
 collect sample
 measure SWL
 pump well
 complete access
 notification required
 other (describe below)
 Monitoring Feasibility: _____

(11) WELL CONSTRUCTION DETAILS

Feet Below Surface From	To	Casing Inside Dia. (in.)	Casing Type	Casing Wall Thickness (in.)



(21) COMMENTS:
Well formerly operated as Keweenaw Water Works

(22) INSPECTOR IDENTIFICATION
 Name: Hedcoms Stephane A
Last First MI Inspector ID# _____
 Agency: DOW DWM CHR KGS other KWRB
 Signature of Inspector: Stephane Hedcoms Date: 6/15/01

KENTUCKY WELL INSPECTION FORM

(1) AKGWA NUMBER 0 0 0 3 - 3 9 7 5

Attach Well Record Label Here (if applicable)

Note: Water well labels begin with "0", monitoring well labels begin with "8".

(2) OWNER/FACILITY INFORMATION
Well Owner's Name: Center Ridge wD #3 Bill Duncan
Last First MI
Mailing Address: 281 Morris Rd
City: Dexter State: KY Zip: 42036
Well Address (if different):
City: State: Zip:
Phone: (270) 474-8267

(3) WELL RECORD LABEL LOCATION:
 well casing pressure tank water pipe
 well cap electric box not labeled
 pump other

(4) USGS Quadrangle Name Hamlin County Calloway
WELL LOCATION Latitude Longitude

(5) PHYSIOGRAPHIC OR HYDROLOGIC REGION
 Blue Grass Ohio River Alluvium
 E. Coal Field W. Coal Field
 Miss. Plateau Jackson Purchase

(6) DRILLER INFORMATION
Who Constructed Well? unknown
Address:
City: State: Zip:
Date Well Completed: Month Day Year unknown

(13) WELL USE (check all that apply)
 domestic livestock not used
 public irrigation abandoned
 industrial monitoring
 other
PWSID# 0180502
Water Withdrawal Permit #

(18) ELEVATION
ft. AMSL
From ground surface top of casing
By map survey report GPS

(7) GENERAL
Type of Construction:
 drilled/augered
 excavate & backfill
 hand dug/blasted
Depth of Well: 165 ft.
 measured reported unknown
Static Water Level, ft. below surface:
 measured reported not measured can't be measured
Well Yield:
 gpm gph gpd
 measured estimated unknown

(9) WELLHEAD
Is Well Located in a Pit? yes no unknown
Wellhead (casing top):
 well cap sanitary seal
 flush mount locking cap
 open unknown
Casing Above Ground Level?
 yes no unknown
10 inches above ground.
Discharge Pipe Below Surface?
 yes no unknown
Pitless Adapter Used?
 yes no unknown

(14) WELL SERVICE
Number of People Served: 132
Number of Service Connections:
Any Quantity Problems? yes no
Any Quality Problems? yes no
If "yes", describe in COMMENTS section, below.

(19) TREATMENT SYSTEM
 none
 water softener
 ultraviolet
 chlorination
 aeration
 charcoal filter
 sand filter
 iron treatment
 fluoridation
 other
Treatment Bypass Available? yes no

(8) SURFACE ANNULAR MATERIAL:
 clay drill cuttings
 cement unknown
 open sand gravel
 concrete pad

(10) PUMP DETAILS
Date Installed: Month Day Year
Pump Type:
 submersible bailer
 turbine jet hand pump
 none other unknown
Intake Level: ft. below surface
Electric Connection:
 2 wire 3 wire unknown

(15) COMPLIANCE TO STANDARDS
Construction in Compliance with KY Standards?
 yes no unknown pre-law
If "no", describe in COMMENTS section, below.

(16) RELATIVE LOCATION
 upgradient sidegradient unknown
 downgradient varying N/A

(17) INSPECTION INFORMATION
Date of Inspection: 9 15 13
Month Day Year
Water Quality Sample Taken: yes no
Reason for Inspection:
 general survey
 specific complaint investigation
 spill or incident response
 contamination site investigation
 enforcement
 general water quality analysis
 ambient groundwater monitoring
 other GUDI investigation
Program Name and Facility ID#:
Alternate Well ID#:

(20) OPTIONAL USE
Will Owner Allow State Access?
 yes no unknown
Extent of Monitoring Allowed:
 collect sample
 measure SWL
 pump well
 complete access
 notification required
 other (describe below)
Monitoring Feasibility:

(11) WELL CONSTRUCTION DETAILS

Feet Below Surface From	To	Casing Inside Dia. (in.)	Casing Type	Casing Wall Thickness (in.)

(12) SKETCH MAP OF VICINITY

(21) COMMENTS:
17) well construction on surface inspected in support of GUDI

(22) INSPECTOR IDENTIFICATION
Name: ELLISON ERNIE
Last First MI Inspector ID#
Agency: DOW DWM CHR KGS other
Signature of Inspector: [Signature] Date: 10/1/13

Attachment 4

WHPP Drinking Water Planning Team

Leader:

Jay Favor, CSWR – Director Environmental Health & Safety
Oversees all facility operations for Bluegrass Water UOC. Directs team to carry out operation tasks.

Team:

Ali Alexander, CSWR – Environmental Compliance Officer
Oversees facility compliance with State and Federal Regulations/Statutes.

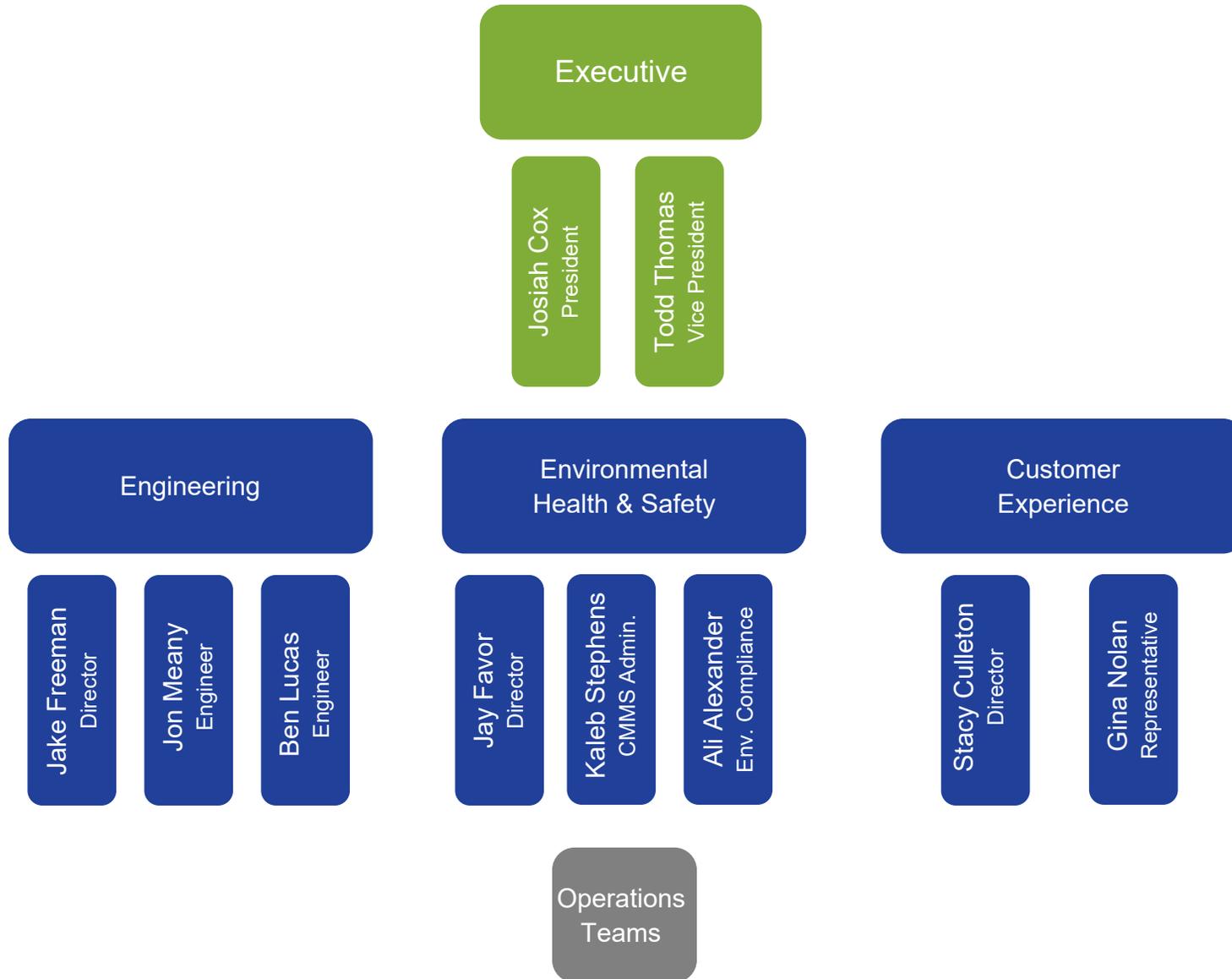
Stacy Culleton, CSWR – Director Customer Experience
Oversees communications between operators and customers.

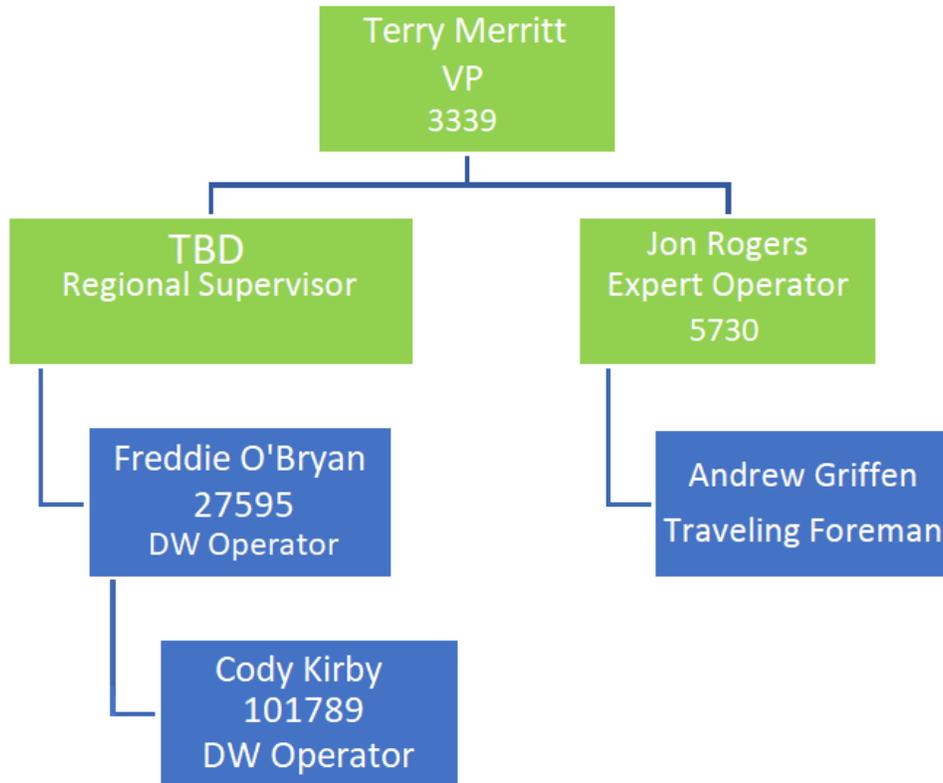
Gina Nolan, CSWR – Customer Experience Representative
Carries out customer communication.

Terry Merritt, Midwest Water Operations – Vice President
Oversees all facility operators and directs staff to carry out daily operation tasks.

Freddie O’Bryan, Midwest – Operator (Primary)
Oversees facility operations.

Cody Kirby, Midwest – Operator (Back-up)
Oversees facility operations.





Attachment 5

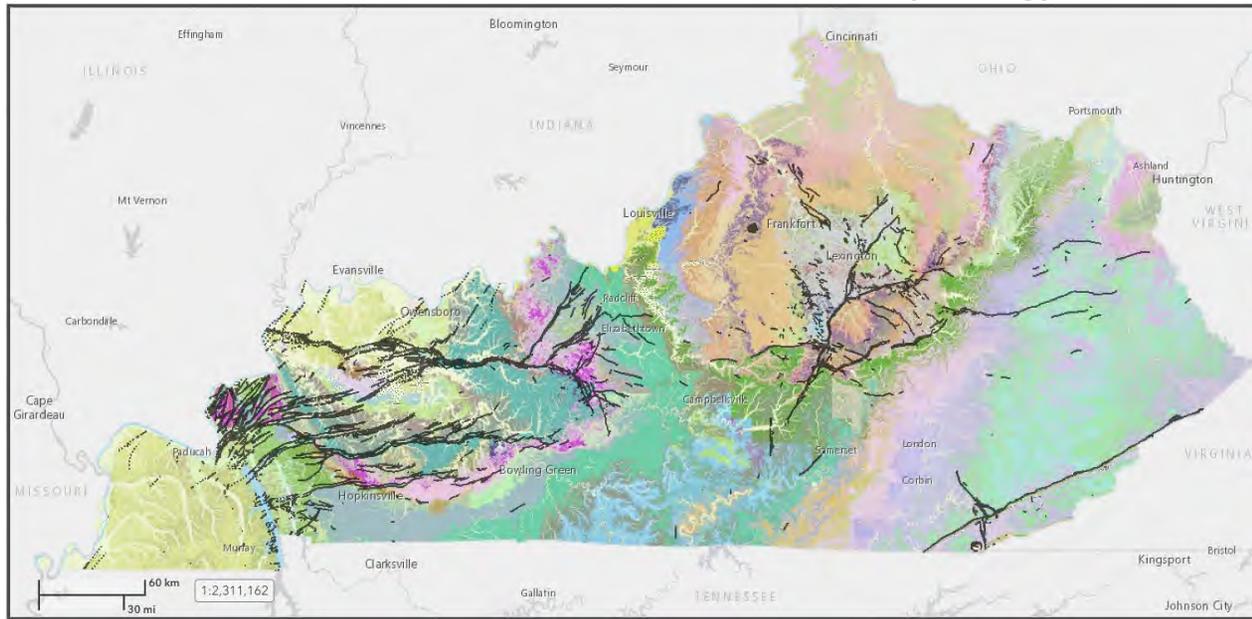
WHPA Delineation Information

The Center Ridge Water District # 3 withdraws water from the Mississippi Embayment (Jackson Purchase) region of Kentucky. According to the Kentucky Division of Water's Guide for Wellhead protection, the hydrologic sensitivity value for the aquifer rates as a two on a scale of one to three (three being the highest).

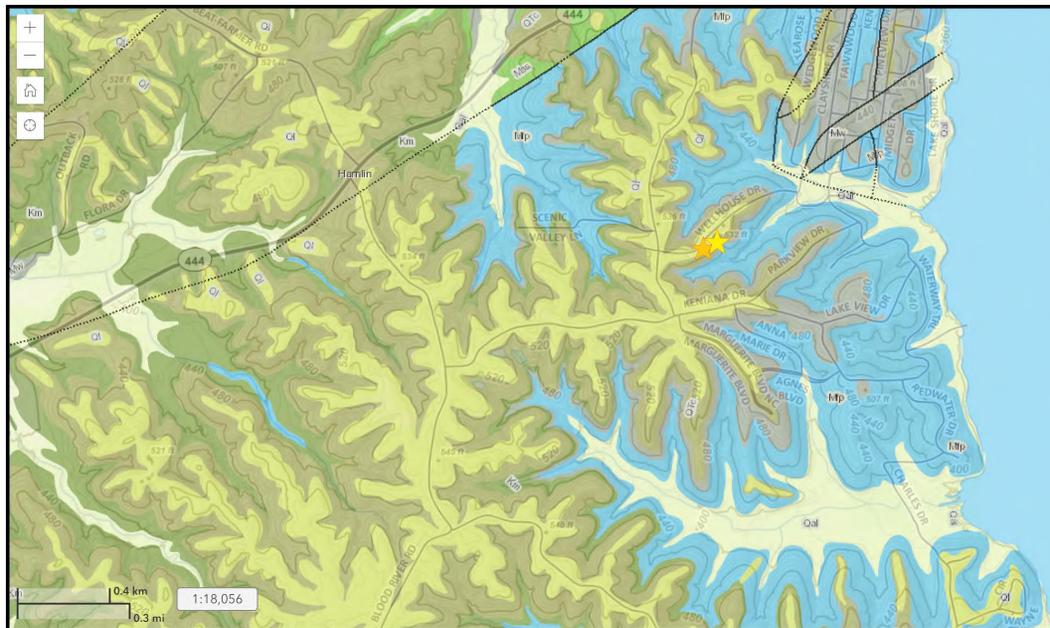
There are a total of ten potential sources of contamination within the Center Ridge Water District's wellhead protection areas. Each of these potential sources is ranked as having a medium risk to contamination of the aquifer. All of the sources identified are septic systems that are found in WHP A's 1, 2, and 3.

Due to the fact that all ten of the potential contaminant sources have a medium ranking the aquifer has been determined to have a medium risk ranking. This ranking is influenced by nature of the aquifer that has a medium sensitivity value, the nature of the potential contaminant sources, and historical water quality results.

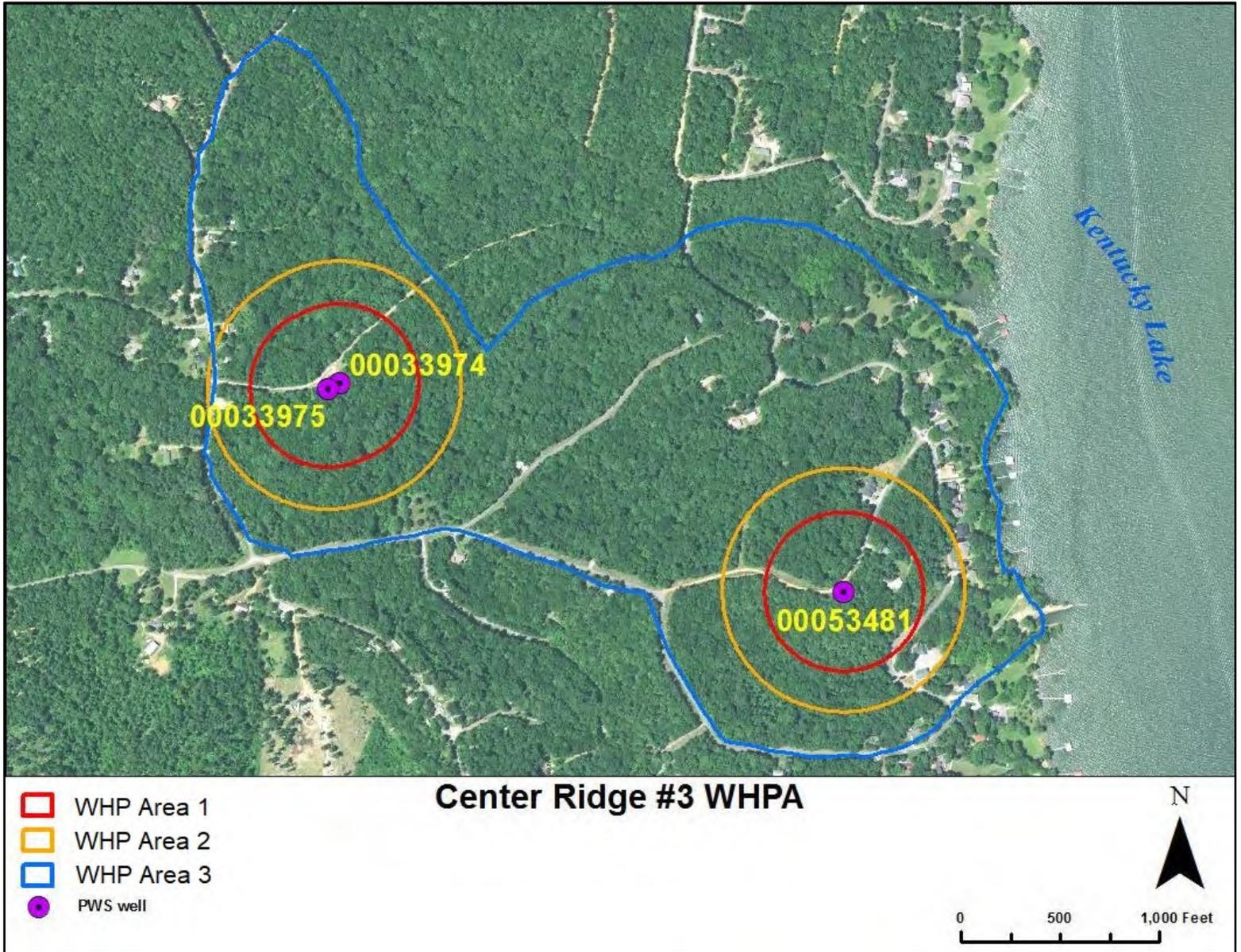
Kentucky Geology



Center Ridge Water District #3 Geology



Attachment 6
Delineation Map

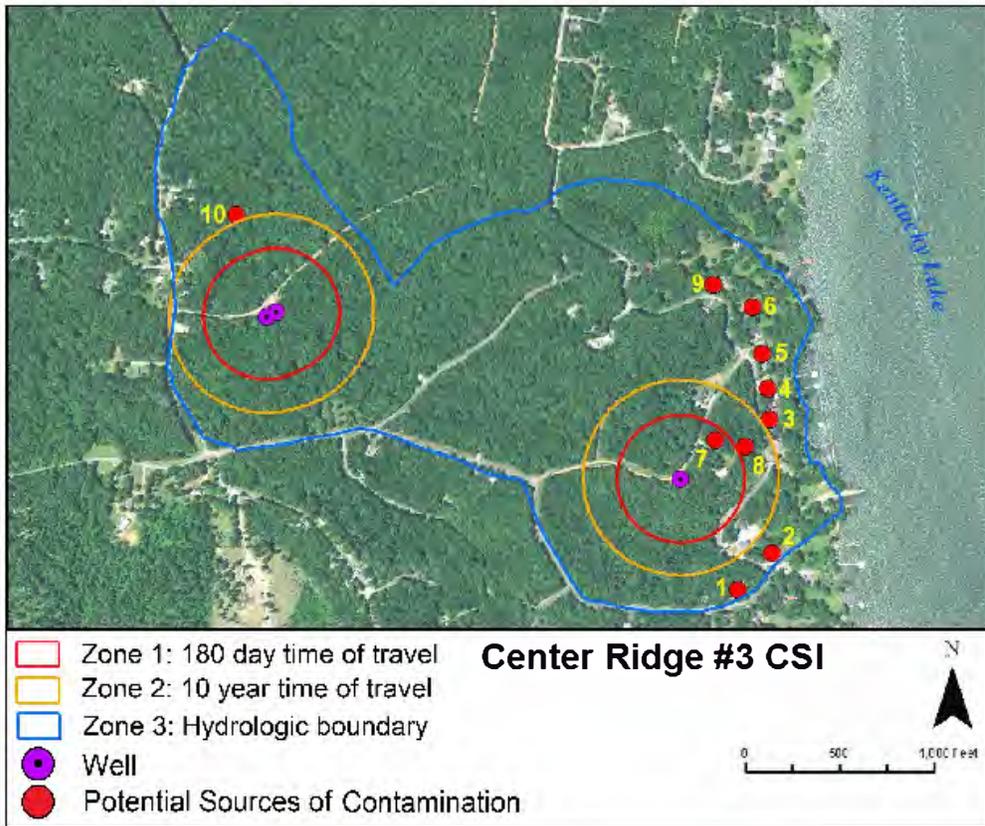


Attachment 7 Contaminant Source Inventor Summary & Map

The Center Ridge Water District # 3 withdraws water from the Mississippi Embayment (Jackson Purchase) region of Kentucky. According to the Kentucky Division of Water's Guide for Wellhead protection, the hydrologic sensitivity value for the aquifer rates as a two on a scale of one to three (three being the highest).

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Contaminant Source Inventory and Susceptibility Analysis for <i>Center Ridge Water District #3</i>										
Contaminant Source ID #	Contaminant Source/Land Use	Address	Quantity	WHPA	Proximity Ranking	Contaminant Value	Hydrologic Sensitivity	Numeric Rating	Susceptibility Ranking	
1	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
2	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
3	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
4	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
5	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
6	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
7	Septic System	Center Ridge Water District #3, New Concord, KY	1	1	3	2	4	16	High	
8	Septic System	Center Ridge Water District #3, New Concord, KY	1	2	2	2	4	14	Medium	
9	Septic System	Center Ridge Water District #3, New Concord, KY	1	3	1	2	4	12	Medium	
10	Septic Systems	Center Ridge Water District #3, New Concord, KY	7	3	1	2	4	12	Medium	
Susceptibility Ranking Totals:							High	Med	Low	
							16	1	15	0

Attachment 8

Previous Management Strategy and Newly Proposed Management Strategies

The purpose behind managing a wellhead protection area is to minimize the impact of land uses that threaten the quality and quantity of the public's drinking water supply. The underlying theme is simply to prevent pollution. Preventing pollution is the key to keeping groundwater supplies safe and to protect public health. Once a drinking water supply becomes contaminated, the community is faced with the difficult and costly task of installing additional treatment facilities or locating an alternate source.

Virtually all man-made land use activities have the potential to degrade groundwater quality. There are numerous factors that control the impact of land uses upon groundwater. The two most prominent factors are the geology of the area and the type of land use. The geology controls the direction and rate that a contaminant can travel, whereas the land use dictates the quantity and toxicity of the contaminant. This means that a particular land use in a less sensitive geologic setting may never significantly impact groundwater quality, but the same land use in a geologically sensitive setting can render groundwater unusable for human consumption. This is why a management plan must be tailored to each public water system.

The overall strategy of the management plan is to minimize the impact of the threats identified in the contaminant source inventory through regulatory and/or non-regulatory means.

Management Strategies

The Water District well field is located in a rural community in which all of the residents depend on septic systems as the area is not sewered. All of the contaminant sources can be managed through existing regulatory strategies. Therefore, the management strategies for protecting the drinking water supply will be a combination of regulatory compliance and public education.

The rationale for this decision is to use as many management strategies as possible to prevent contamination of the aquifer. Regulatory compliance management strategies will be used for those potential contaminant sources already identified through the contaminant source inventory that are subject to Groundwater Protection Planning regulations (401 KAR 5:037) or Kentucky's Agriculture Water Quality Act of 1994. The purpose of a groundwater protection plan is to ensure protection for all current and future uses of groundwater and to prevent groundwater pollution. Public awareness will be used to educate the surrounding community in their part in protecting the groundwater resource.

The Water District proposes the following management strategies for protecting their water supply.

Regulatory Compliance Objectives:

1. Center Ridge Water District # 3 will comply with groundwater protection planning regulations by completing a groundwater protection plan for their water supply well.

Public Education and Awareness Objectives:

2. A public notice will be posted at the wellhouse to inform residents about their wellhead protection plan.

Attachment 9 WHPP Contingency and Planning

Emergency Response Phone List

Local Emergency Response	Phone Number
Operator: Freddie O'Bryan	(270) 331-8482
Ambulance District: Murray-Calloway Co. EMS	(270) 753-9333
Fire Department: Fire-Rescue	(270) 753-4112
Kentucky State Fire Marshall	(502) 573-0382
Sheriff's Department: Calloway	(270) 753-3151
State Highway Patrol: KSP Post 1	(270) 856-3721

Kentucky DOW: Frankfort	(502) 564-3410
Kentucky DOW RO: Paducah	(270) 898-8468
Kentucky Environmental Response Team	(502) 564-2380
24-hr Emergency Response Line	(800) 928-2380
County Health Department: Calloway	(270) 753-3381
Kentucky Public Service Commission	(502) 564-3940

Bluegrass Water UOC Customer Service	(866) 752-8982
Jay Favor	(314) 380-8525
Ali Alexander	(314) 380-8533
Stacy Culleton	(314) 380-8546
Gina Nolan	(314) 380-8544

Procedures for Public Notification:

In the event of a water system emergency that would threaten the health or life of the public, use the following procedure. Provide Jay Favor, Ali Alexander, Stacy Culleton, and Gina Nolan a summary of the issue including time of onset, if the KyDOW was notified, and if the County Health Department was notified. Stacy & Gina will draft public notification and directions for customers which will be provided to customers on the Bluegrass Water UOC website, facebook, by email, and/or by direct handout via the operator. Stacy & Gina will coordinate with Ali to communicate with appropriate regulatory authority as needed. If additional notification is needed use the local newspaper as directed.

Potential Future Problems:

The most common scenario that could threaten the water supply is bacteriological and/or chemical contamination from a leaking septic system.

Alternative Water Supply (Short and Long Term):

Bacteriological contamination is mitigated by disinfecting the water system. If there were indicators of bacteriological contamination in the drinking water the facility would be placed on a boil water advisory until the problem is eliminated. If chemical contamination (such as nitrate/nitrite) is discovered in the water the facility would be placed on a do not drink advisory until the source of contamination was discovered and eliminated. If a long-term solution is needed, the facility would add centralized/localized treatment to eliminate the issue. As needed, water could be hauled in for use during these events.

Schedule for Update and Review:

The Wellhead Protection Plan will be reviewed regularly and updated every five years as required by regulation.

**Attachment 10
Public Education Material**



Energy and Environment Cabinet

**Generic Groundwater Protection Plan:
Residential Septic Systems**

**HOMEOWNER'S SEPTIC SYSTEM GUIDE AND
RECORD KEEPING FOLDER**

The purpose of 401 KAR 5:037 and this groundwater protection plan is to prevent groundwater pollution. Understanding how your septic system works and following good operation and maintenance practices are the keys to preventing groundwater pollution.

This folder provides you with that information. By carefully reading it and following the guidelines, you will not only protect groundwater, but also should receive many years of trouble-free service from your system.

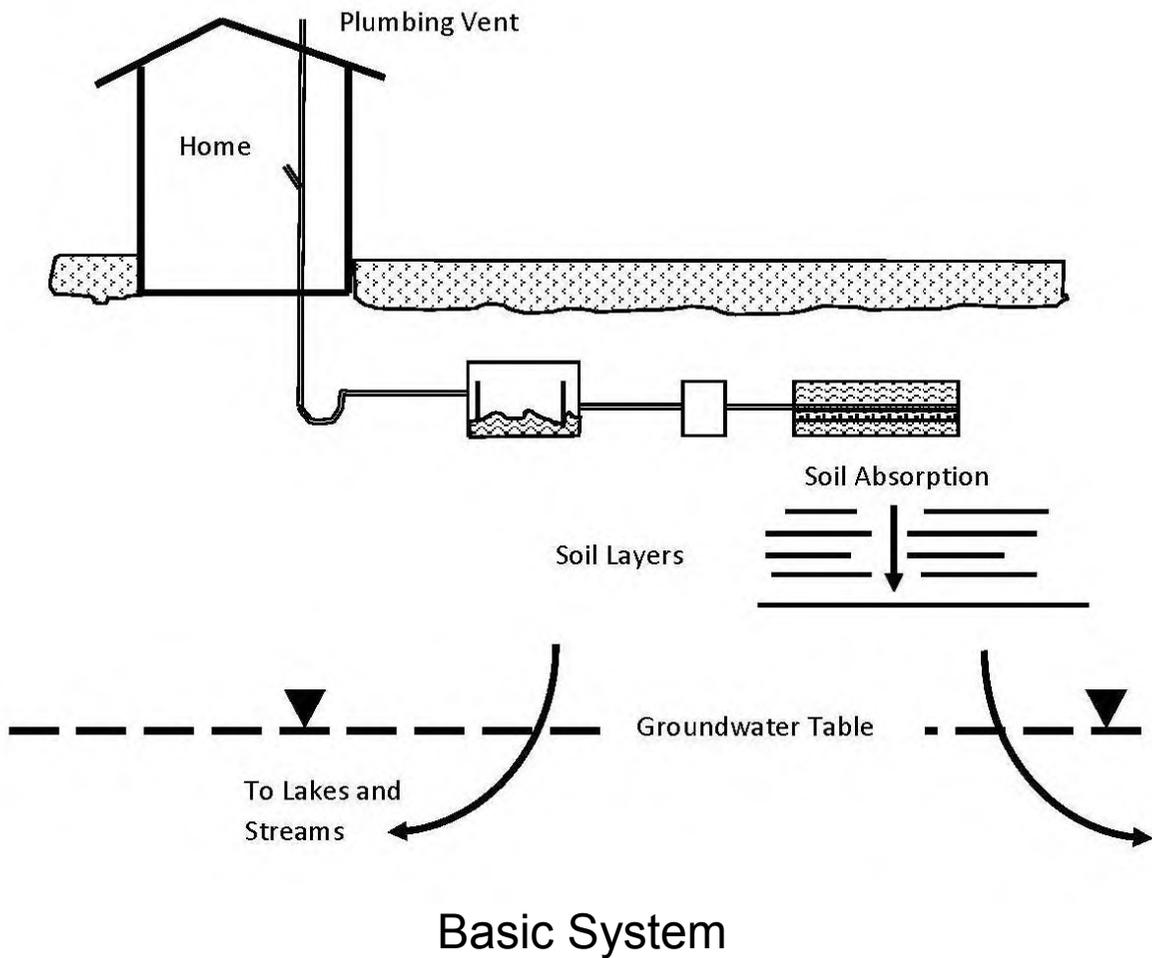
Keeping records will enable you to better protect and maintain your septic system. In case you sell your house, your records will show a prospective buyer that your system has been properly maintained.

FOR YOUR RECORDS

1. Maintenance Log: Date, what was done and reason for the maintenance (Example: measure sludge and scum layers, pump the tank).
2. Inspection Log: Date, what you observed upon walking over the septic system (Example: any unpleasant odors, soggy soil, lush green grass over the lateral lines, surfacing wastewater).
3. Site Drawing: Show accurately the layout of the system on your lot. Include exact distances of each portion of the system from at least two (2) fixed reference points (corner of house, garage, large trees, property line markers).
4. Any permits or receipts.
5. Residential Address _____

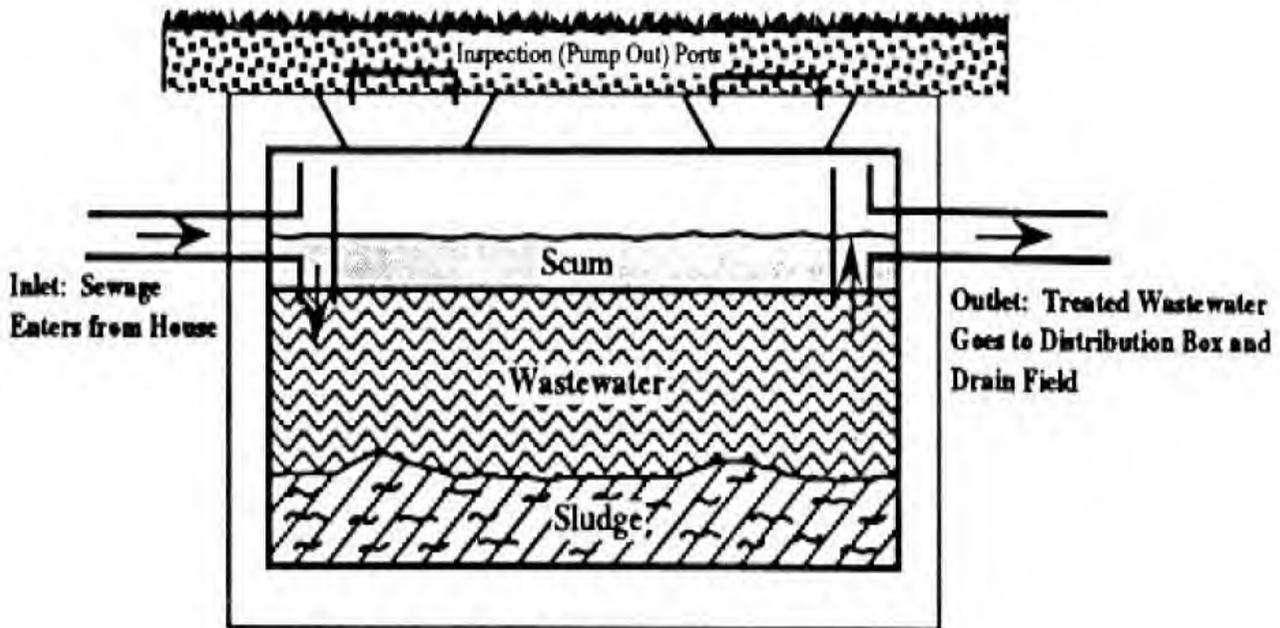
SYSTEM DESCRIPTION

A septic system uses natural processes to treat and dispose of the wastewater in your home. It typically consists of a septic tank and a drainfield (also called a leachfield, lateral field, or subsurface soil absorption beds/trenches). The system accepts both "blackwater" (toilet wastes) and "greywater" (wastes from the kitchen sink, bath tub/showers, and laundry). Water that should not be discharged to the system includes water from foundation or footing drains, roof gutters, and other "clear" water.



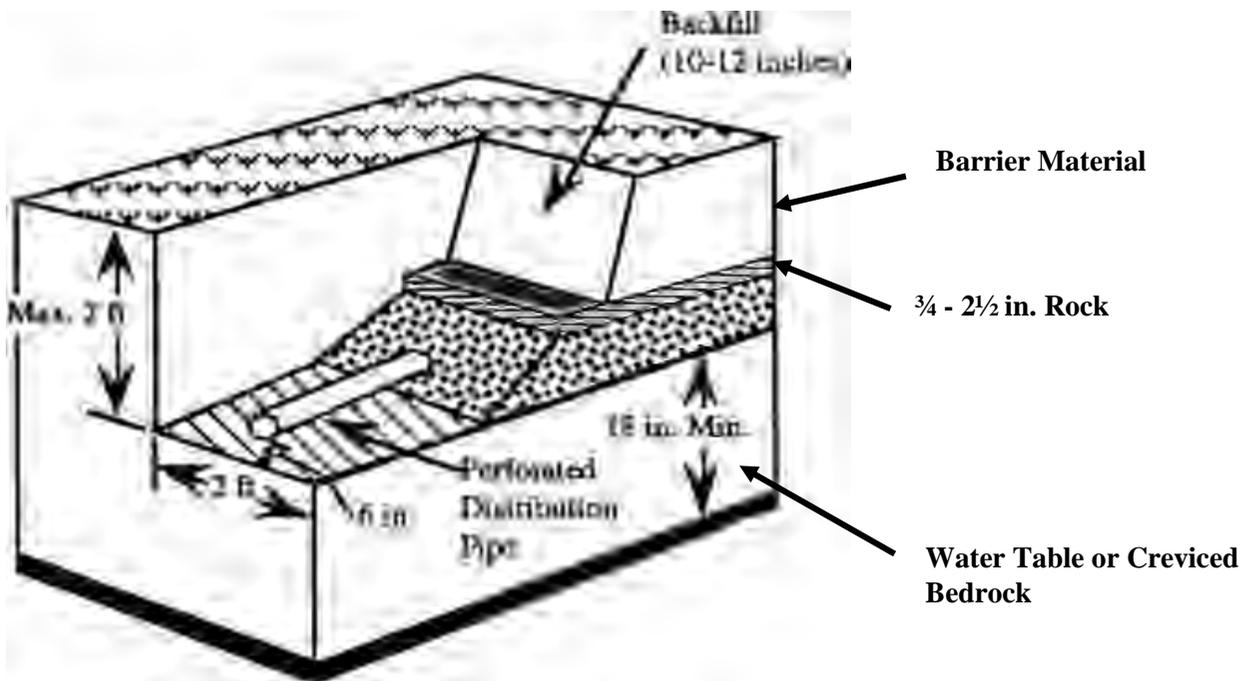
SEPTIC TANK

The septic tank provides the first step in treatment by separating the solids from the liquids. The wastewater is retained in the tank for 24 hours or more. During this time the heavier solids settle the bottom to form a sludge layer while the lighter solids float to the top to form a scum layer. Bacteria break down the solids, producing carbon dioxide, hydrogen sulfide, and other gases in the process. These gases are vented through the plumbing vent on your house roof. Since the bacteria reduce only about 40 percent of the sludge and scum volume, the tank must be pumped regularly (approximately every three to five years) to remove the accumulated solids. If the tank fills with sludge and scum, the solids will overflow into the drainfield and quickly clog the soil, resulting in system failure.



THE DRAINFIELD

The drainfield provides the final treatment of the wastewater and disposes of it through groundwater recharge. The typical drainfield is composed of trenches or beds which are shallow, level excavations installed one to one and a half feet above the groundwater table. Each trench contains a perforated distribution pipe through which wastewater drains into the gravel. The water is stored in the gravel until it can seep into unsaturated soil underlying and adjacent to the trench. As the wastewater moves slowly through the gravel and soil, many of the disease-causing bacteria and viruses are filtered out, or adsorbed and held by the soil particles until they die. Where soils do not permit a drainfield to adequately treat septic tank effluent, an additional or alternative treatment system must be used in conjunction with the drainfield. Alternative systems primarily used in Kentucky are constructed wetlands and sewage lagoons. These alternative systems have their own operation and maintenance guidelines. If you would like information about these guidelines, contact the Groundwater Section.

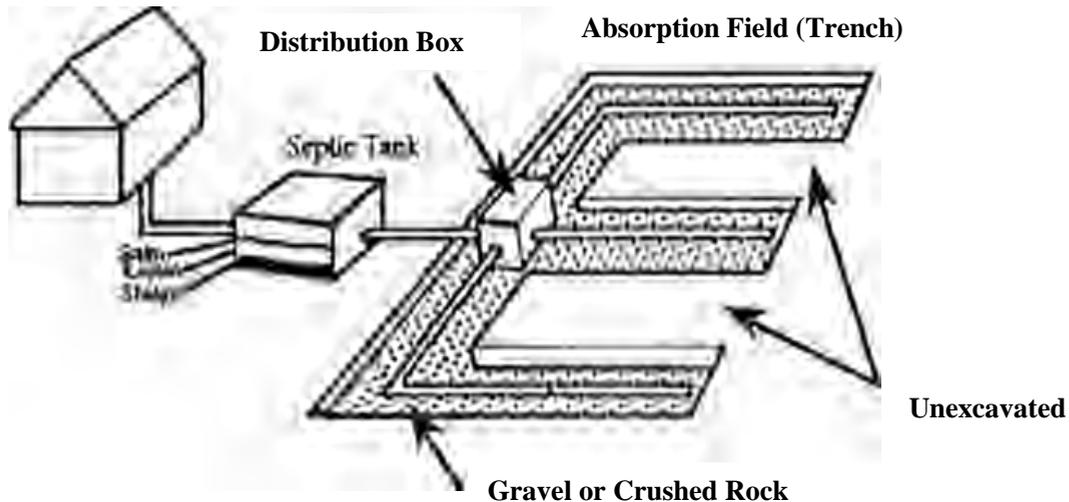


Conventional Rock Drainfield
Trench Cross-Section

TAKING CARE OF YOUR SYSTEM

Your septic system represents a significant investment worth protecting. The old "An ounce of prevention is worth a pound of cure" is so true when it comes to the care of your septic system. If you follow the operation and maintenance guidelines below, your system will function better and last longer, and you will avoid the nightmare and se of a failed system. Most important, your a will not be polluting groundwater.

Conventional Septic System



DO

- Conserve water to reduce the amount of wastewater that must be treated and disposed.
- Repair any leaking faucets and toilets.
- Discharge only biodegradable wastes into system.
- Divert down spouts and other surface water away from your drainfield.
- Keep your septic tank cover accessible for tank inspections and pumping
- Have your septic tank pumped regularly and checked for leaks and cracks.
- Call a professional when you have problems
- Compost your garbage or put in trash.

DON'T

- Use a garbage grinder.
- Flush sanitary napkins, tampons, disposable diapers, condoms and other non-biodegradable products into your system.
- Dump solvents, oils, paints, thinners, disinfectants, pesticides or poisons down the drain. These materials can disrupt the treatment process and contaminate the groundwater.
- Dig in your drainfield or build anything over it.
- Plant anything over the drainfield except grass
- Drive over you drainfield or compact the soil in any way.

If you have any questions or need additional information, contact:

The **Groundwater Protection Program Coordinator**

**Kentucky Energy and Environment Cabinet
Kentucky Division of Water
Watershed Management Branch
Groundwater Section
300 Sower Boulevard, 3rd floor
Frankfort, KY 40601
(502) 564-3410**

Groundwater Protection Plan Regulation 401 KAR 5:037
<http://water.ky.gov/groundwater/Pages/GroundwaterProtection.aspx>

**Kentucky Cabinet for Health and Family Services
Department of Public Health
Environmental Management Branch
275 E. Main St.
Frankfort, Ky. 40621
(502) 564-4856**

**Onsite Regulations 902 KAR 10:085
Septic Tank Servicing Regulation 902 KAR 10:170**
<http://chfs.ky.gov/dph/info/phps/enviromgmt.htm>

Homeowner's Manual Onsite Sewage Disposal Systems
<http://chfs.ky.gov/NR/rdonlyres/CA014E47-2256-444D-8FE4-84C9FF456C8E/0/onsitesewagemanual.pdf>

**Check List
for
Evaluating Your Septic System**

- 1.** Find and mark the location of the septic system, you should map this information in the space provided in your Groundwater Protection Plan: "Homeowner's Septic System Guide and Record Keeping Folder."
- 2.** When was the septic tank last pumped?

- 3.** If the tank was last pumped over three years ago, or if you have recently moved into the house and don't know when the tank was last pumped, contact a septic tank pumper. Have him service the tank and check the baffles.
- 4.** Do toilets flush slowly and does water drain slowly from sinks and tubs, or does either "gurgle"?
Yes No
- 5.** Is there any standing water, soggy ground, or smelly liquid in or near the drainfield?
Yes No
- 6.** Does the ground slope toward the septic system?
Yes No
- 7.** Are your septic tank and drainfield less than 100 feet from a lake, stream, or pond?
Yes No
- 8.** Are water-loving trees such as willows, sycamores, birches, or water maples growing within 10 feet of the septic tank?
Yes No
- 9.** Are there any areas over the septic tank or drainfield where people have frequently driven their cars or trucks?
Yes No
- 10.** Have any additions been made to the house since the present septic system was installed?
Yes No
- 11.** Do you have dripping faucets or a toilet that runs continuously or gradually loses water from its tank?
Yes No
- 12.** Do you put cigarette butts, coffee grounds, cooking fats, disposable diapers, facial tissue, wet-strength towels, or other non-biodegradable materials into your septic tank?
Yes No

If you have answered YES to one or more of questions 4 - 12, the septic system may not be functioning correctly. Call your local health department, or seek other professional help. Should repair of the system be necessary, be sure to engage the services of a professional who has a groundwater protection plan on file.

BLUEGRASS WATER

Utility Operating Company

A CSWR Managed Utility

Wellhead Protection Plan

for

Center Ridge Water District #4

KY0183106, Calloway County

Lake Road

New Concord, KY 42076

WPP Phase I approved April 26, 2004 & WPP Phase II approved June 3, 2004 by
the Kentucky Division of Water

Revisions and recertification to be conducted by water system personnel every five (5) years.
Revised by Central States Water Resources EH&S personnel on August 20, 2020

Table of Contents

1. Facility Service Area Map
2. June 2020 Monthly Operating Report
3. Historical Well Inspection
4. Bluegrass Water UOC Planning Team
5. Wellhead Protection Area Delineation Information
6. Wellhead Protection Area Delineation Map
7. Contaminant Source Inventory Summary and Map
8. Previous and Proposed Management Strategies
9. Contingency and Wellhead Protection Planning Information
10. Public Education Materials

Attachment 1

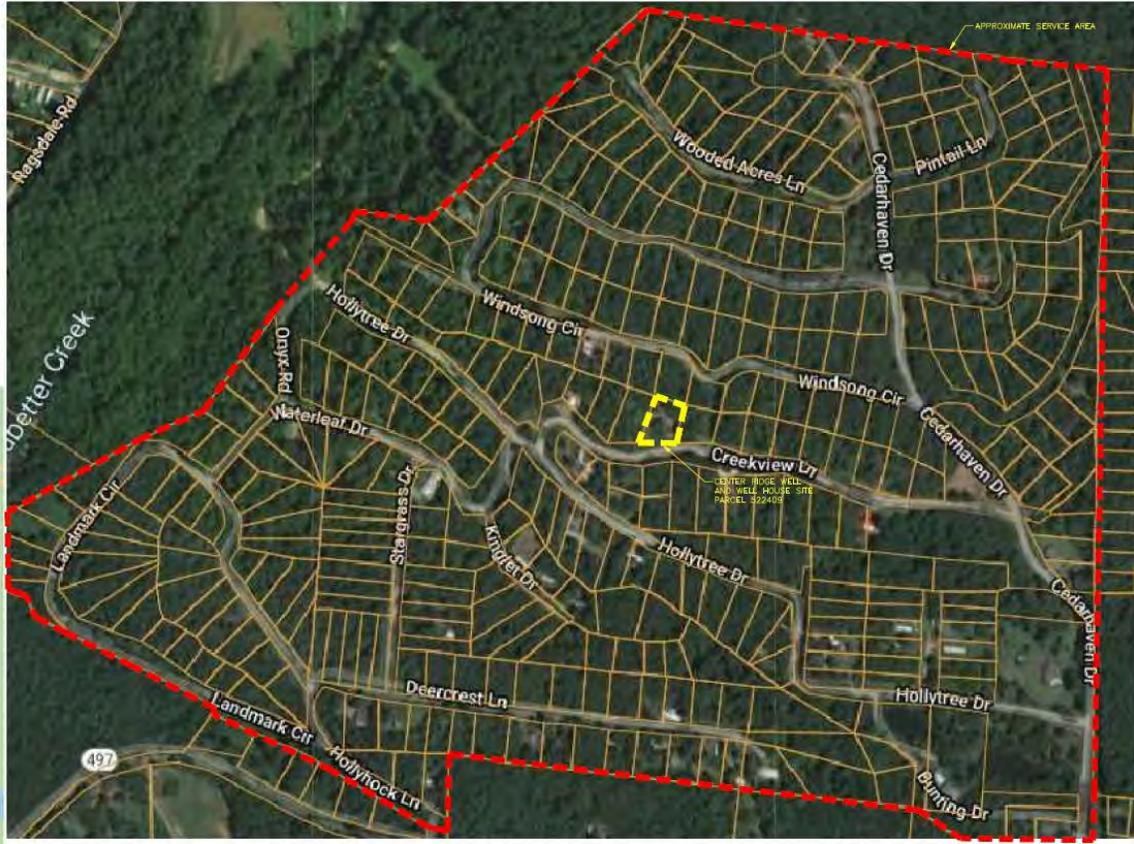
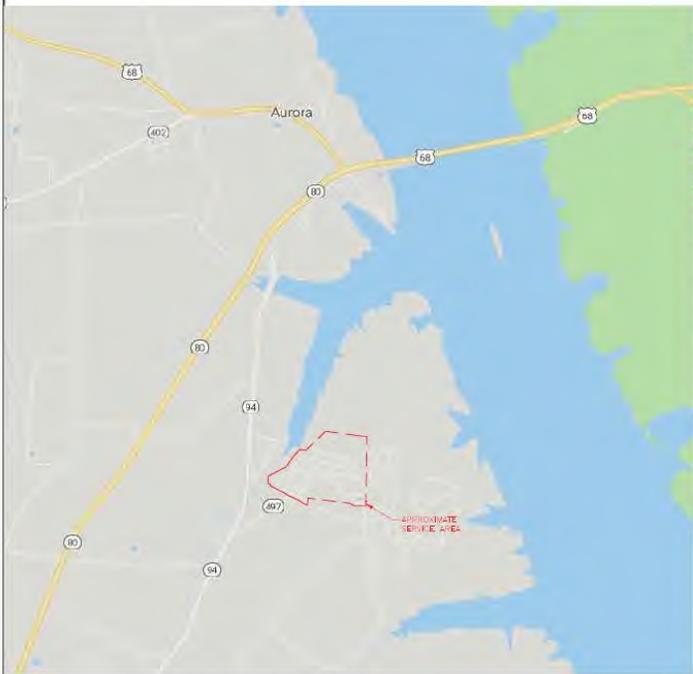
Service Area of Center Ridge Water District #4



Legend

Well house

Service area



Utility Note Disclaimer:
 The utilities shown herein are depicted based on the original design plans provided by the system manager. 21 Design Group, Inc. performed no field verification of the layout and are unable to determine the exact location at this time. The location represents approximate location only and should not be construed as being 100% accurate. It is shown to provide general layout of the system only and should not be used to interpret encroachments.

DATE	10/24/22
BY	ET
SCALE	AS SHOWN
HEET	1 - 1
E:\11 E - 10 - 142	

21
DESIGN
GROUP INC.
 ENGINEERING & SURVEYING

1301 Jefferson Avenue
 Washington, MD 20786
 P: 301-455-0029

Attachment 2 June MOR

KENTUCKY DIVISION OF WATER DRINKING WATER BRANCH

Revised 05/26/20



MONTHLY OPERATION REPORT (MOR)--ALL WATER SYSTEMS

MONTH & YEAR (mm/yyyy) 06/2020

Indicate one with "X"

<input type="checkbox"/>	SURFACE WATER
<input checked="" type="checkbox"/>	GROUNDWATER
<input type="checkbox"/>	PURCHASE/DISTRIBUTE ONLY

PWS ID :	KY0183106	PLANT ID: A	PLANT NAME:	Center Ridge Water System #4
PWS NAME:	Center Ridge Water System #4	PLANT CLASS: I	DIST. CLASS:	I
AGENCY INTEREST (AI):	33835	DATE MAILED:		
SOURCE NAME:	Well	COUNTY:	Calloway	
OPERATOR(S) RESPONSIBLE / IN-CHARGE		CLASS	CERTIFICATION NUMBER	
WTP SHIFT 1:	Freddie O'Bryan	IV	595	
WTP SHIFT 2:				
WTP SHIFT 3:				
DISTRIBUTION:	Freddie O'Bryan	III	27595	

THIS REPORT MUST BE RECEIVED BY THE DIVISION OF WATER AND APPLICABLE FIELD OFFICE
NO LATER THAN 10 DAYS AFTER THE END OF THE MONTH.

TREATMENT PLANTS COMPLETE:

1. DESIGN CAPACITY (gpm): 25
2. TYPE OF FILTRATION USED: _____
3. DESIGN FILTRATION RATE (gpm/sq. ft.): _____
4. PERCENT BACKWASH WATER USED: 0.0
5. DATE FLOCCULATION BASIN(S) LAST CLEANED: _____
6. DATE SETTLING BASIN(S) LAST CLEANED: _____

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. See KRS 224.99-010 and 401 KAR 8:020. (Penalties under this statute and regulation may include fines up to \$25,000 per violation or by imprisonment for not more than one year, or both).

X

 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWS ID : KY0183106
 PLANT ID: A

REPORT MONTH/YEAR: 06/2020
 PAGE 1 OF 11

APPLICABLE TO ALL PLANTS

DAY	RAW WATER TREATED GALLONS	HOURS PLANT OPERATED	COAGULANT		COAGULANT		pH ADJUSTMENT		DISINFECTANT		DISINFECTANT	
			LBS	PPM	LBS	PPM	Pre		Pre		Post	
							LBS	PPM	LBS	PPM	LBS	PPM
1	16,100	10.7									0.10	0.7
2	20,400	13.6									0.10	0.6
3	19,000	12.6									0.10	0.6
4	14,200	9.4									0.10	0.8
5	11,600	7.7									0.10	1.0
6	10,600	7.0									0.10	1.1
7	10,600	7.0									0.09	1.0
8	4,900	3.2									0.04	1.0
9	7,500	5.0									0.06	1.0
10	10,000	7.0									0.07	0.8
11	9,800	6.5									0.07	0.9
12	8,804	5.8									0.07	1.0
13	3,300	2.2									0.02	0.7
14	14,000	9.3									0.10	0.9
15	9,600	6.4									0.08	1.0
16	7,500	5.0									0.05	0.8
17	10,500	7.0									0.06	0.7
18	10,500	7.0									0.06	0.7
19	10,600	7.0									0.06	0.7
20	8,900	5.8									0.05	0.7
21	15,200	10.0									0.10	0.8
22	10,900	7.1									0.08	0.9
23	18,900	12.0									0.10	0.6
24	10,300	7.0									0.07	0.8
25	30,100	20.0									0.24	1.0
26	9,600	6.4									0.07	0.9
27	20,400	13.6									0.14	0.8
28	7,100	4.7									0.05	0.8
29	12,900	8.6									0.07	0.7
30	9,600	6.4									0.06	0.7
31												
TOTAL	363,404	241.0									2.5	
AVERAGE	12,113	8.0									0.1	0.8
MAX	30,100											

NUMBER DAYS IN OPERATION 30

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWS ID : KY0183106
 PLANT ID: A

APPLICABLE TO ALL PLANTS

REPORT MONTH/YEAR: 06/2020

PAGE 3 OF 11

ANALYTICAL RESULTS (mg/L OR PPM UNLESS OTHERWISE SPECIFIED)														
DAY	pH			TOTAL ALKALINITY		TOTAL HARDNESS		CHLORINE RESIDUAL				TURBIDITY (NTU)		
	RAW	TOP OF FILTER	TAP	RAW	TAP	RAW	TAP	TOP OF FILTER		PLANT TAP		RAW	SETTLED WATER	PLANT TAP
		TOTAL	FREE					TOTAL	FREE					
1										0.63				
2										0.62				
3										0.61				
4										0.72				
5										0.67				
6										0.63				
7										0.81				
8										0.52				
9										0.69				
10										0.96				
11										0.68	0.86			
12										0.70	0.76			
13										0.70	0.64			
14										0.72	0.59			
15										0.63	0.71			
16										0.52	0.55			
17										0.62	0.60			
18										0.63	0.56			
19										0.71	0.57			
20										0.62	0.62			
21										0.53	0.63			
22										0.61	0.54			
23										0.71	0.62			
24										0.63	0.58			
25										0.51	0.71			
26										0.62	0.67			
27										0.59	0.67			
28										0.62	0.64			
29										0.72	0.55			
30										0.57	0.37			
31														
AVERAGE										0.65	0.62			

KENTUCKY DIVISION OF WATER - DRINKING WATER BRANCH
 WATER TREATMENT PLANT - MONTHLY OPERATING REPORT

PWSID: KY0183106
 PLANT ID: A

APPLICABLE TO ALL PLANTS

REPORT MONTH/YEAR: 06/2020

*Please answer Y/N question below this chart.

PAGE 5 OF 11

ANALYTICAL RESULTS (mg/L OR PPM UNLESS OTHERWISE SPECIFIED)												
DAY	FLUORIDE		IRON		MANGANESE		PHOSPHATE		Lowest Daily Chlorine Residual Plant Tap On-Line Chlorine Analyzer Total	RAINFALL INCHES	WATER TEMP. DEGREES F°/C°	
	RAW	TAP	RAW	TAP	RAW	TAP	RAW	TAP				
1									0.63			
2									0.62			
3									0.61			
4									0.72			
5									0.67			
6									0.63			
7									0.81			
8									0.52			
9									0.69			
10									0.96			
11									0.68			
12									0.70			
13									0.70			
14									0.72			
15									0.63			
16									0.52			
17									0.62			
18									0.63			
19									0.71			
20									0.62			
21									0.53			
22									0.61			
23									0.71			
24									0.63			
25									0.51			
26									0.62			
27									0.59			
28									0.62			
29									0.76			
30									0.57			
31												
AVERAGE									Monthly Minimum		Total Rainfall	AVG Temp
									0.51			
									Number of readings	30	0.00	
									For Free Chlorine, # less than 0.2 mg/L	0		
									For Chloramines, # less than 0.5 mg/L			

Disinfectant Chloramines? (Y/N) **N**

PWS ID : KY0183106
 PLANT ID: A

REPORT MONTH/YEAR: 06/2020

ALL WATER SYSTEMS

PAGE 7 OF 11

DAY	DISTRIBUTION SYSTEM OPERATION											
	CHEMICALS ADDED			TEST RESULTS								
	CHLORINE BOOSTER LBS	CHLORINE BOOSTER LBS		TOTAL (T) AND FREE (F) CHLORINE RESIDUAL (ppm)								
				NORTH		SOUTH		EAST		WEST		
			T	F	T	F	T	F	T	F		
1												
2												
3												
4												
5												
6												
7												
8												
9												
10					0.57							
11					0.96							
12					0.29							
13					0.76							
14					1.27							
15					0.89							
16					0.34							
17					0.84							
18					0.65							
19					0.45							
20					0.54							
21					0.42							
22					1.34							
23					0.82							
24					0.62							
25					0.57							
26					0.44							
27					0.54							
28					0.57							
29					0.45							
30					0.38							
31												
AVERAGE			Average		0.65							
TOTAL			Total Minimum									
			Free Minimum		0.29							

Total # Chlorine Samples	0	21	0	0	0	0	0	0	0	0
# Less than 0.2 mg/L/0.5 mg/L	0	0	0	0	0	0	0	0	0	0

Number of Free Residuals	21	Minimum Monthly Free Residual	0.29
Number of Total Residuals	0	Minimum Monthly Total Residual	0.00
Total # Less than 0.2 mg/L	0		
Total # Less than 0.5 mg/L			

Disinfectant Chloramines? (Y/N) **N** N
 Number of days of operation? **30**

**KENTUCKY DIVISION OF WATER / DRINKING WATER BRANCH
MONTHLY OPERATING REPORT (MOR) PLANT SUMMARY FORM**

PWS ID KY0183106

MONITORING PERIOD (MMYYYY) 06/2020

Y **NOTE: COMPLETE ALL APPLICABLE FIELDS!!! NOT ALL OF THE FIELDS ARE PRE-POPULATED FOR YOU!!!**
N

**PLANT INFORMATION
APPLICABLE TO ALL PLANTS**

PLANT ID <u>A</u>	TOTAL WATER TREATED (gallons)	<u>363,404</u>
PLANT NAME <u>Center Ridge Water System #4</u>	AVE. DAILY PRODUCTION (gallons)	<u>12,113</u>
AGENCY INTEREST <u>0</u>	MAXIMUM PUMPAGE (gallons per day)	<u>30,100</u>

**INDIVIDUAL FILTER EFFLUENT TURBIDITY
APPLICABLE TO ALL PLANTS WITH FILTRATION**

ANALYTE CODE 0100

Was each filter monitored continuously? (Y/N) _____

Were measurements recorded every 15 minutes? (Y/N) _____

Was there a failure of the continuous monitoring equipment? (Y/N) _____

 If Yes, (1) were individual filter effluent turbidity grab samples collected every four hours of operation? (Y/N) _____

 (2) was the continuously monitoring equipment repaired within 5 working days? (Y/N) _____

Was individual filter level greater than 1.0 NTU in two consecutive measurements? (Y/N) _____

Was individual filter level greater than 0.5 NTU in two consecutive measurements after on line for more than four hours? (Y/N) _____

Was individual filter level greater than 1.0 NTU in two consecutive measurements in three consecutive months? (Y/N) _____

Was individual filter level greater than 2.0 NTU in two consecutive measurements in two consecutive months? (Y/N) _____

If any of the last 4 boxes are YES, fill out the Individual Filter Turbidity Sheet and submit with the MOR

COMBINED FILTER EFFLUENT TURBIDITY APPLICABLE TO ALL PLANTS WITH FILTRATION	ENTRY POINT RESIDUAL DISINFECTANT CONCENTRATION APPLICABLE TO ALL PLANTS
--	---

ANALYTE CODE <u>0100</u>	ANALYTE CODE <u>0999</u>
Number of hours of plant operation <u>241.0</u>	Number of days of plant operation <u>30</u>
Were samples taken every 4 hours of plant operation? (Y/N) <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) <input checked="" type="checkbox"/>
Number of samples taken <u>0</u>	Number of lowest chlorine samples recorded <u>30</u>
Highest single turbidity reading <u>0.00</u>	Lowest single chlorine reading <u>0.51</u>
For all filtration except slow sand filtration:	If less than required:
Number of samples exceeded 0.1 NTU _____	Was residual restored within 4 hours of plant operation? (Y/N) <input type="checkbox"/>
Number of samples exceeded 0.3 NTU _____	<u>Free Chlorine</u> (for all disinfectants except chloramine):
Number of samples exceeded 1 NTU _____	Number of samples under 0.2 mg/L <u>0</u>
When filtration is slow sand filtration:	<u>Total Chlorine</u> (when disinfectant is Chloramine):
Number of samples exceeded 1 NTU _____	Number of samples under 0.5 mg/L _____
Number of samples exceeded 5 NTU _____	

CHLORINE DIOXIDE ENTRY POINT MONITORING APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE	CHLORITE ENTRY POINT MONITORING APPLICABLE TO PLANTS UTILIZING CHLORINE DIOXIDE
--	--

ANALYTE CODE <u>1008</u>	ANALYTE CODE <u>1009</u>
Number of days of plant operation <u>30</u>	Number of days of plant operation <u>30</u>
Were samples taken each day of operation? (Y/N) <input type="checkbox"/>	Were samples taken each day of operation? (Y/N) <input type="checkbox"/>
Number of samples taken <u>0</u>	Number of samples taken <u>0</u>
Highest single chlorine dioxide reading <u>0.00</u>	Highest single chlorite reading <u>0.00</u>
Number of chlorine dioxide samples exceeded 0.8 mg/L <u>0</u>	Number of chlorite samples exceeded 1 mg/L <u>0</u>

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. Violations of 401 KAR Chapter 8 are subject to severe penalties prescribed in KRS 224.99-010, up to \$25,000 fine per day per violation and in some cases a violation may subject the violator to prison.

X
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

KENTUCKY WELL INSPECTION FORM AUG 06 2001

(1) AKGWA NUMBER 0 0 0 4 - 9 0 9 6

Attach Well Record Label Here (if applicable)

Note: Water well labels begin with "0", monitoring well labels begin with "8".

(2) OWNER/FACILITY INFORMATION
 Well Owner's Name: Utah Homeowners Association, Edward Cooper
 Mailing Address: 372 Windsor Cir.
 City: Murray State: Ky Zip: 42271
 Well Address (if different)
 City: _____ State: _____ Zip: _____
 Phone: (270) 382-2878

(3) WELL RECORD LABEL LOCATION:
 well casing pressure tank water pipe
 well cap electric box not labeled
 pump other

(4) USGS Quadrangle Name Hico County Calloway
 WELL LOCATION Latitude 36° 44.209 12.54" Longitude 88° 08.341 20.46"

(5) PHYSIOGRAPHIC OR HYDROLOGIC REGION
 Blue Grass Ohio River Alluvium
 E. Coal Field W. Coal Field
 Miss. Plateau Jackson Purchase

(6) DRILLER INFORMATION
 Who Constructed Well? unknown
 Address: _____
 City: _____ State: _____ Zip: _____
 Date Well Completed: _____ () unknown
 Month _____ Day _____ Year _____

(13) WELL USE (check all that apply)
 domestic livestock not used
 public irrigation abandoned
 industrial monitoring
 other
 PWSID# 0183106
 Water Withdrawal Permit # _____

(18) ELEVATION
480 ft. AMSL
 From ground surface
 top of casing
 By map
 survey
 report
 GPS

(7) GENERAL
 Type of Construction:
 drilled/augered
 excavate & backfill
 hand dug/blasted
 Depth of Well: 200 ft.
 measured
 reported
 unknown
 Static Water Level, ft. below surface:
 measured
 reported
 not measured
 can't be measured
 Well Yield: 20
 gpm gph gpd
 measured
 estimated
 unknown

(9) WELLHEAD
 Is Well Located in a Pit?
 yes no unknown
 Wellhead (casing top):
 well cap sanitary seal
 flush mount locking cap
 open unknown
 Casing Above Ground Level?
 yes no unknown
8" inches above ground.
 Discharge Pipe Below Surface?
 yes no unknown
 Pitless Adapter Used?
 yes no unknown

(14) WELL SERVICE
 Number of People Served: 1129
 Number of Service Connections: 35
 Any Quantity Problems? yes no
 Any Quality Problems? yes no
 If "yes", describe in COMMENTS section, below.

(19) TREATMENT SYSTEM
 none
 water softener
 ultraviolet
 chlorination
 aeration
 charcoal filter
 sand filter
 iron treatment
 fluoridation
 other
 Treatment Bypass Available? yes no

(8) SURFACE ANNULAR MATERIAL:
 clay drill cuttings
 cement unknown
 open sand gravel
 concrete pad

(10) PUMP DETAILS
 Date Installed: _____
 unknown Month _____ Day _____ Year _____
 Pump Type:
 submersible bailer
 turbine jet hand pump
 none other unknown
 Intake Level: _____ ft. below surface
 Electric Connection:
 2 wire 3 wire unknown

(15) COMPLIANCE TO STANDARDS
 Construction in Compliance with KY Standards?
 yes no unknown pre-law
 If "no", describe in COMMENTS section, below.

(16) RELATIVE LOCATION
 upgradient sidegradient unknown
 downgradient varying N/A

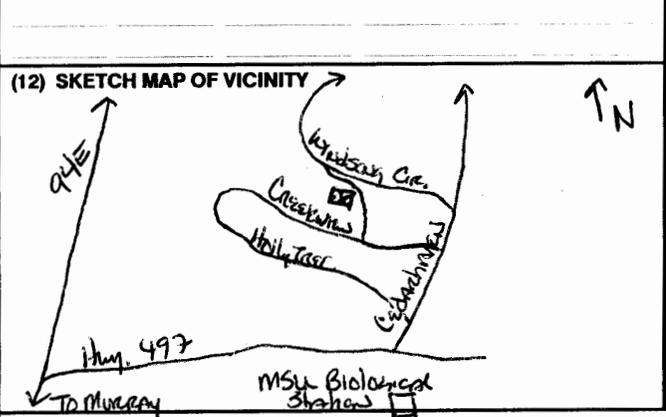
(17) INSPECTION INFORMATION
 Date of Inspection: 6/21/01
 Month _____ Day _____ Year _____
 Water Quality Sample Taken: yes no

(20) OPTIONAL USE
 Will Owner Allow State Access?
 yes no unknown
 Extent of Monitoring Allowed:
 collect sample
 measure SWL
 pump well
 complete access
 notification required
 other (describe below)
 Monitoring Feasibility: _____

(11) WELL CONSTRUCTION DETAILS

Feet Below Surface From	To	Casing Inside Dia. (in.)	Casing Type	Casing Wall Thickness (in.)
0	100'	4"	PVC	

Reason for Inspection:
 general survey
 specific complaint investigation
 spill or incident response
 contamination site investigation
 enforcement
 general water quality analysis
 ambient groundwater monitoring
 other WITPP
 Program Name and Facility ID#: _____
 Alternate Well ID#: _____



(21) COMMENTS:
Well located inside treatment building, along dirt road between paved roads.

(22) INSPECTOR IDENTIFICATION
 Name: Holcomb Stephanie A
 Last First MI Inspector ID#
 Agency: DOW DWM CHR KGS other Utah
 Signature of Inspector: Stephanie Holcomb Date: 6/21/01

Attachment 4

WHPP Drinking Water Planning Team

Leader:

Jay Favor, CSWR – Director Environmental Health & Safety
Oversees all facility operations for Bluegrass Water UOC. Directs team to carry out operation tasks.

Team:

Ali Alexander, CSWR – Environmental Compliance Officer
Oversees facility compliance with State and Federal Regulations/Statutes.

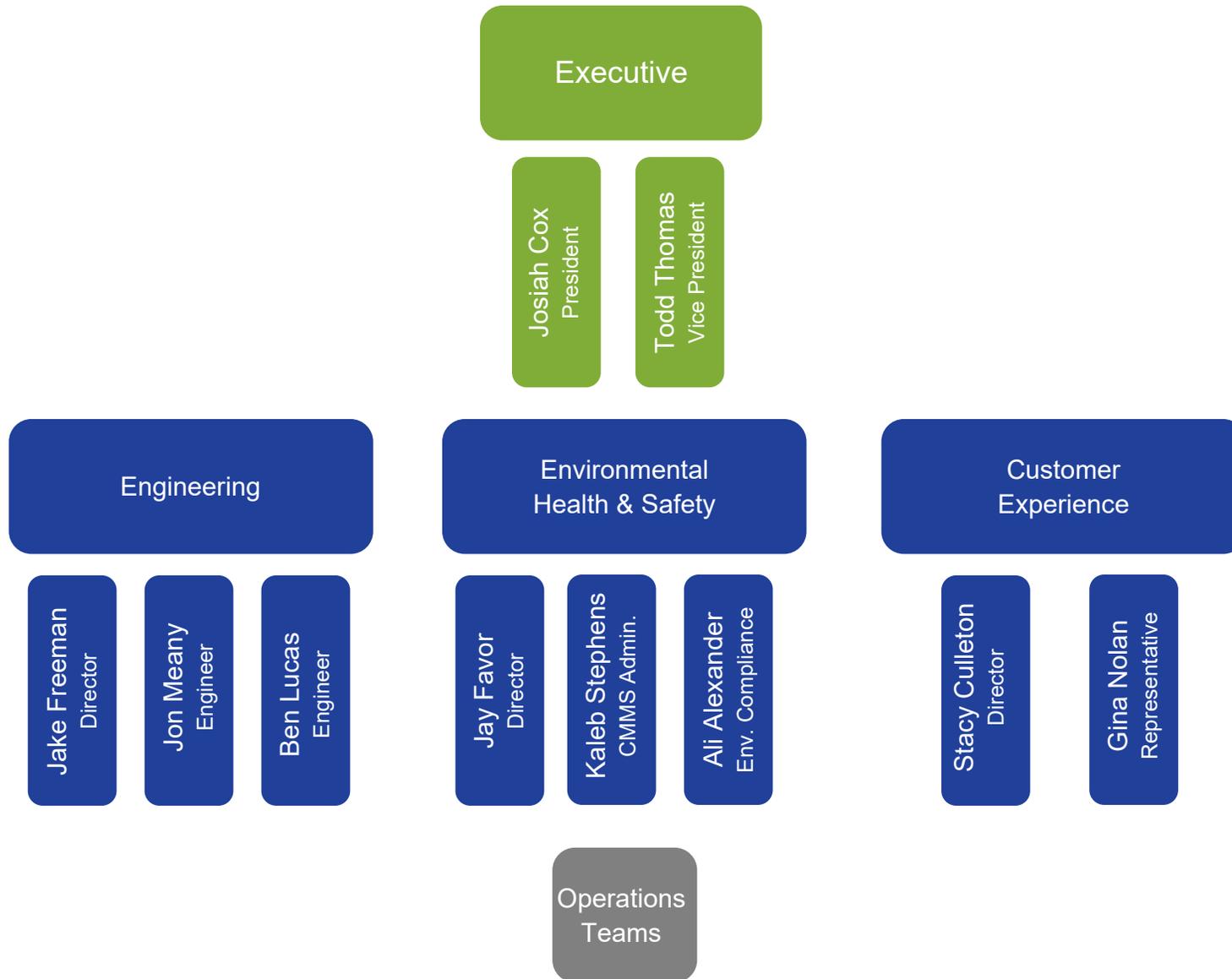
Stacy Culleton, CSWR – Director Customer Experience
Oversees communications between operators and customers.

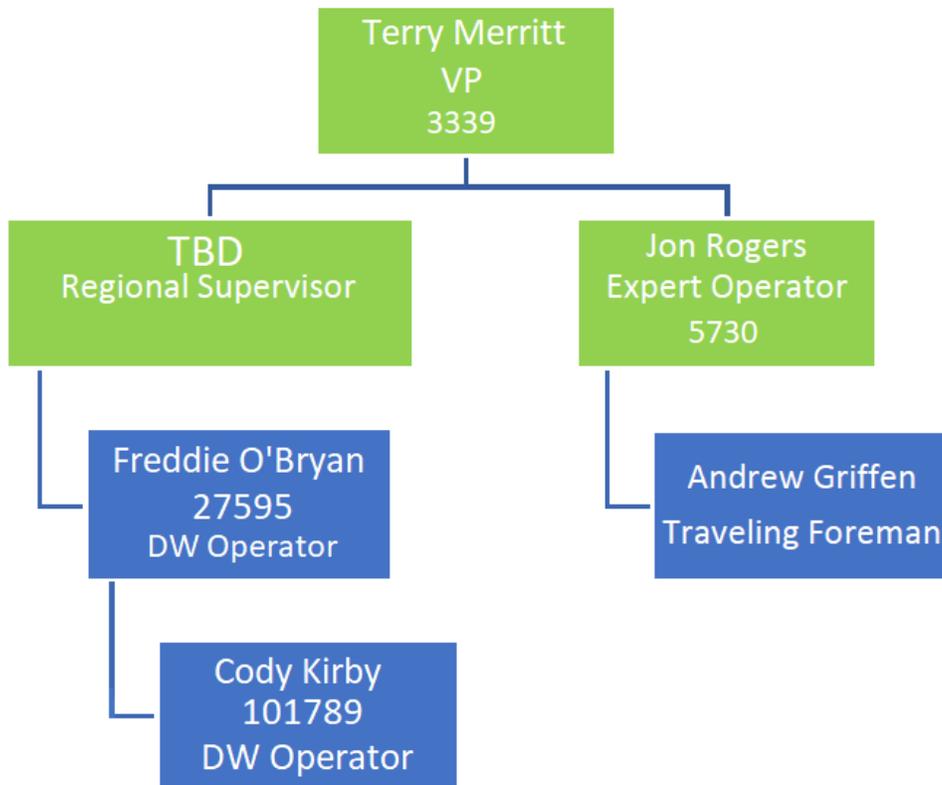
Gina Nolan, CSWR – Customer Experience Representative
Carries out customer communication.

Terry Merritt, Midwest Water Operations – Vice President
Oversees all facility operators and directs staff to carry out daily operation tasks.

Freddie O’Bryan, Midwest – Operator (Primary)
Oversees facility operations.

Cody Kirby, Midwest – Operator (Back-up)
Oversees facility operations.





Attachment 5

WHPA Delineation Information

Specific information describing the local geology from which the groundwater is obtained is essential in determining aquifer characteristics. Adequate information may typically be obtained from the U.S. Geological Survey's Hydrologic Atlases or other resources. If well tests or dye tracing are performed, this information should be reported and summarized in this attachment.

Observations of groundwater flow and movement are reported as well as essential aquifer characteristics. These characteristics include the aquifer formation, formation log, porosity, hydraulic gradient, and aquifer thickness. Additionally, the well discharge rate used in calculating the protection areas is reported.

The Center Ridge Water District #4 (previously known as LH&M Homeowner's Association) operates one production well, AKGWA# 4-9096. Lithology is not available for the wells since they were drilled prior to current regulations. Groundwater is obtained from the Fort Payne formation. Due to the southern flow of groundwater in this area, Kentucky Lake is the primary receiver of groundwater discharge (Morgan, 1965).

Porosity of limestone averages 20%. This value was taken from the EPA Seminar Publication, Wellhead Protection for Small Communities (EPA, 1993). This will be the accepted porosity value for wellhead protection area calculations.

The actual open interval of the well is unknown. However, it is assumed there is at least 10 feet of screen within the well. Therefore, H will be assumed to be 10 feet for the calculations.

For the purpose of wellhead protection area calculations, the maximum daily withdrawal was used for the well's discharge rate. The maximum withdrawal was 21,600 gpd, which calculates to a 2,887.7 ft³/day discharge rate.

Wellhead Protection Area (WHPA) delineation methods will vary depending on the type of the aquifer, degree of confinement, existing data, cost considerations, and management objectives. No one method is applicable to all situations, yet many methods may be acceptable, providing it is appropriate for the given hydrogeologic setting. This attachment details calculations necessary for defining the wellhead protection areas and the methods chosen for delineation.

Methods available for delineating protection areas:

1. **Arbitrary Fixed Radius**

A circle of a specified distance is drawn around the well. This method is useful when very little information is known about the water source, however, there is a high degree of uncertainty with this method since it lacks a scientific basis. This method tends to over or under protect the recharge area depending on the location of the wells and potential contaminant sources. The minimum size for WHPA 1 is 400 feet. This criterion is based upon U.S. EPA research regarding the survivability of viruses in groundwater. The research shows that certain pathogenic viruses can survive up to six months in a groundwater environment.

2. Calculated Fixed Radius

A circle of a specified distance, calculated using time-of-travel criteria, is drawn around the well. The time-of-travel encompasses the zone around a well that water would travel over a specified time. WHPA 1 is based on a 180-day time-of-travel, and WHPA 2 is based on a 10 year time-of-travel. This method requires some data on the hydrogeologic setting and is relatively easy to apply. It offers a significant increase in accuracy over the Arbitrary Fixed Radius but may be inaccurate since it does not take into account factors that influence the transport of contaminants to a well.

3. Hydrogeologic Mapping

The delineated area is mapped using geological or geophysical data or dye tracing² methods. This method utilizes an area's topography, water levels, and sometimes dye tracing results to identify the recharge area of a well or spring. This method is used to define the WHPA 3 of most well sources and with dye tracing to define the protection area for all karst sources.

4. Numerical Flow/Transport Models

A computer model that determines groundwater flow through the input of specific hydrogeologic information. This method provides a high potential degree of accuracy and may be applied to most hydrogeologic settings. A wide variety of models are available, one of which is WHPA Code, written and made available by the U.S. EPA.

Calculations and Method of Delineation

The Calculated Fixed Radius was used to define the wellhead protection areas (WHPA) for LH&M. This method was chosen over computer modeling due to the lack of specific well information required for modeling. Additionally, the Resort serves a small population and is located in an isolated, rural area. There has been little growth since the resort was constructed and none is expected in the future. The current usage is also expected to remain constant. Therefore, the calculated fixed radius will provide sufficient protection around the well.

$r = \sqrt{\frac{Qt}{\pi n H}}$	Where:	r = Radius of protection area (ft)	n = Aquifer porosity
		Q = Pumping rate of well (ft ³ /day)	H = Saturated thickness or length of well screen (ft)
		t = Travel time to well (days)	

Determination of Q:

Q = 21,600 gpd

$$Q = \frac{21,600 \text{ gal}}{\text{day}} * \frac{1 \text{ ft}^3}{7.48 \text{ gal}} = 2,887.7 \text{ ft}^3 / \text{day}$$

Calculation of WHPA 1 - 180-day time-of-travel:

	Where:	r = Radius of protection area (ft)	n = 0.20
$r = \sqrt{\frac{Qt}{\pi n H}}$		Q = 28,877 ft ³ /day	H = 10 ft
		t = 180 days	

$$r = \sqrt{\frac{(2887.7 \text{ ft}^3 / \text{day})(180 \text{ days})}{\pi(0.20)(10 \text{ ft})}} = \sqrt{82726.5 \text{ ft}^2} = 287.6 \text{ ft}$$

WHPA 1 will default to the minimum required 400-ft radius.

Calculation of WHPA 2 – 10-year time-of-travel:

Where: r = Radius of protection area (ft) n = 0.20
 Q = 2,887.7 ft³/day H = 10 ft
 t = 3,650 days

$$r = \sqrt{\frac{Qt}{\pi n H}}$$
$$r = \sqrt{\frac{(2887.7/day)(3650days)}{\pi(0.20)(10ft)}} = \sqrt{1,677,509.8 ft^2} = 1,295.2 ft$$

WHPA 2 will have a radius of 1,295 feet.

WHPA 3 is defined by topographic and hydrologic contours (see Attachment #6).

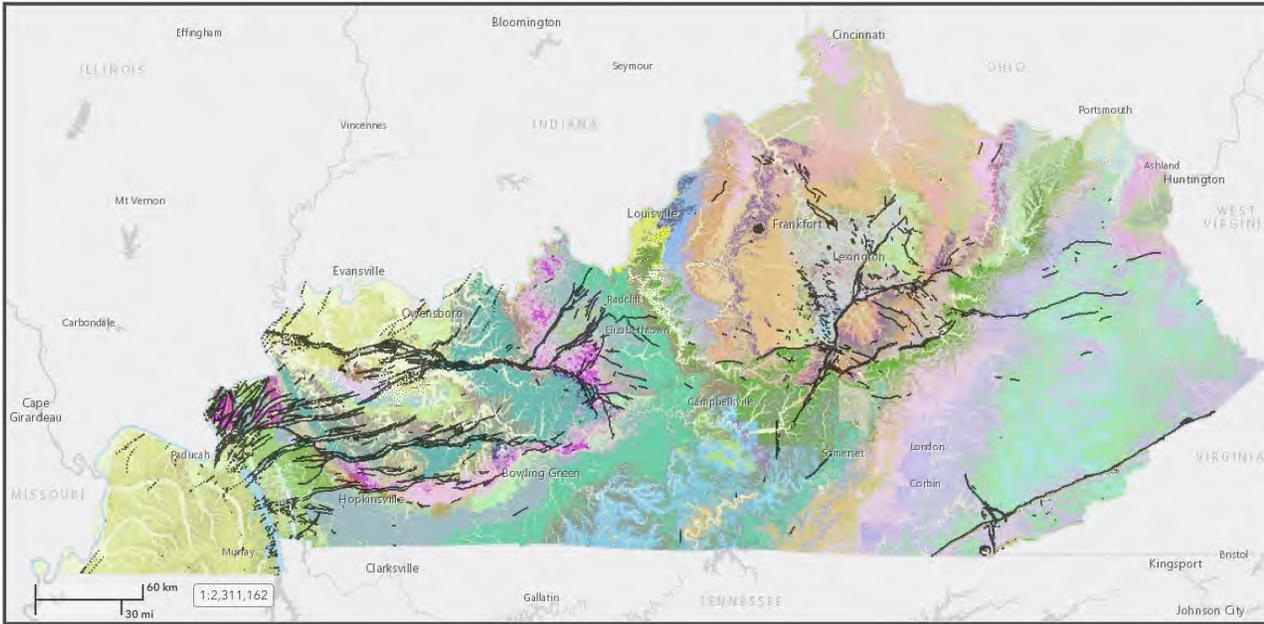
References

²Dye Tracing maps the flow pattern of groundwater by the injection and tracking of dyes. This method should be performed by a geologist or professional trained to complete such studies.

Morgan, J.H. Availability of Groundwater in the Hico Quadrangle, Kentucky: U.S. Geological Survey Hydrologic Investigation Atlas HA-158, 1965.

U.S. Environmental Protection Agency. EPA Seminar Publication, Wellhead Protection: A Guide for Small Communities. Office of Research and Development, Office of Water. Washington, D.C., February 1993.

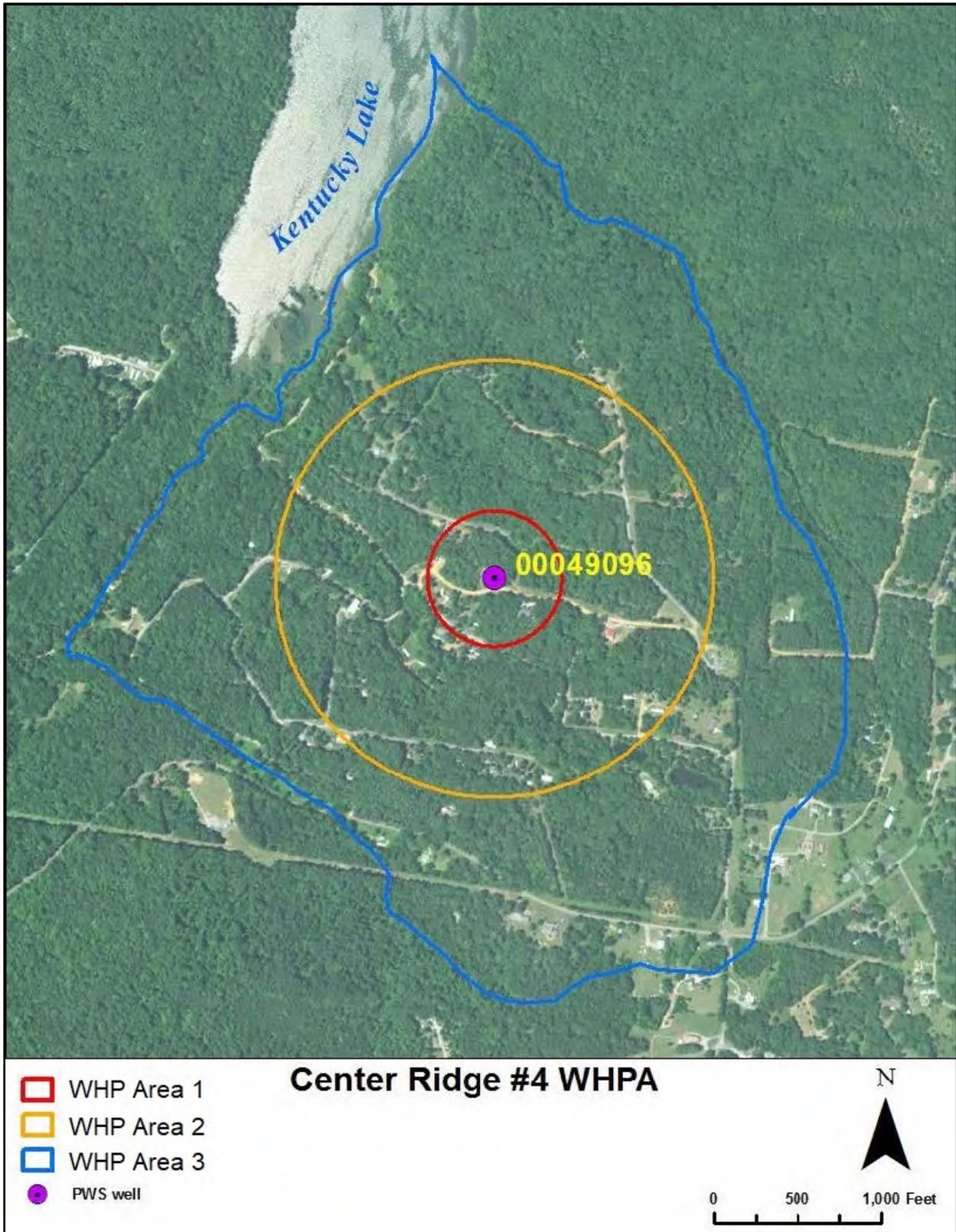
Kentucky Geology



Center Ridge Water District #4 Geology



Attachment 6
Delineation Map



Attachment 7

Contaminant Source Inventory Summary & Map

The Center Ridge Water District #4 (previously LH&M Homeowner's Association) withdraws water from the Fort Payne Formation, which consists primarily of limestone bedrock. The hydrologic sensitivity value for the aquifer rates as a two on a scale of one to three. The wellhead protection area delineation was completed Kentucky Rural Water Association in 2001.

A total of 35 potential sources of contamination are located within the wellhead protection areas. The chart shows the concentration of sources relative to their risk rankings. All of the potential contaminant sources, domestic septic systems, are classified as medium risk. There are no high or low risk sources of contamination within the protection areas.

The surrounding community is a residential area. The susceptibility analysis determined the aquifer's susceptibility to contamination to be a medium risk. This determination is influenced by the nature of the aquifer, which has a medium sensitivity value, as well as the number of septic systems located in the protection area.



Contaminant Source Inventory and Susceptibility Analysis for									
<i>Center Ridge Water District #4</i>									
Contaminant Source ID #	Contaminant Source/Land Use	Address	Quantity	WHPA	Proximity Ranking	Contaminant Value	Hydrologic Sensitivity	Numeric Rating	Susceptibility Ranking
1	Septic Systems	Center Ridge #4, New Concord, KY	22	2	2	2	4	14	Medium
2	Septic Systems	Center Ridge #4, New Concord, KY	13	3	1	2	4	12	Medium
Susceptibility Ranking Totals:							High	Med	Low
35							0	35	0

Attachment 8

Previous Management Strategy and Newly Proposed Management Strategies

The purpose behind managing a wellhead protection area is to minimize the impact of land uses that threaten the quality and quantity of the public's drinking water supply. The underlying theme is simply to prevent pollution. Preventing pollution is the key to keeping groundwater supplies safe and to protect public health. Once a drinking water supply becomes contaminated, the community is faced with the difficult and costly task of installing additional treatment facilities or locating an alternate source.

Virtually all man-made land use activities have the potential to degrade groundwater quality. There are numerous factors that control the impact of land uses upon groundwater. The two most prominent factors are the geology of the area and the type of land use. The geology controls the direction and rate that a contaminant can travel, whereas the land use dictates the quantity and toxicity of the contaminant. This means that a particular land use in a less sensitive geologic setting may never significantly impact groundwater quality, but the same land use in a geologically sensitive setting can render groundwater unusable for human consumption. This is why a management plan must be tailored to each public water system.

The overall strategy of the management plan is to minimize the impact of the threats identified in the contaminant source inventory through regulatory and/or non-regulatory means.

Management Strategies

The Center Ridge Water System #4 possesses no jurisdictional or regulatory authority therefore, it will work within the framework of existing regulations to manage the protection areas. Generic groundwater protection plans for domestic septic systems will be requested from the Division of Water and given to residents.

Attachment 9 WHPP Contingency and Planning

Emergency Response Phone List

Local Emergency Response	Phone Number
Operator: Freddie O'Bryan	(270) 331-8482
Ambulance District: Murray-Calloway Co. EMS	(270) 753-9333
Fire Department: Fire-Rescue	(270) 753-4112
Kentucky State Fire Marshall	(502) 573-0382
Sheriff's Department: Calloway	(270) 753-3151
State Highway Patrol: KSP Post 1	(270) 856-3721

Kentucky DOW: Frankfort	(502) 564-3410
Kentucky DOW RO: Paducah	(270) 898-8468
Kentucky Environmental Response Team	(502) 564-2380
24-hr Emergency Response Line	(800) 928-2380
County Health Department: Calloway	(270) 753-3381
Kentucky Public Service Commission	(502) 564-3940

Bluegrass Water UOC Customer Service	(866) 752-8982
Jay Favor	(314) 380-8525
Ali Alexander	(314) 380-8533
Stacy Culleton	(314) 380-8546
Gina Nolan	(314) 380-8544

Procedures for Public Notification:

In the event of a water system emergency that would threaten the health or life of the public, use the following procedure. Provide Jay Favor, Ali Alexander, Stacy Culleton, and Gina Nolan a summary of the issue including time of onset, if the KyDOW was notified, and if the County Health Department was notified. Stacy & Gina will draft public notification and directions for customers which will be provided to customers on the Bluegrass Water UOC website, facebook, by email, and/or by direct handout via the operator. Stacy & Gina will coordinate with Ali to communicate with appropriate regulatory authority as needed. If additional notification is needed use the local newspaper as directed.

Potential Future Problems:

The most common scenario that could threaten the water supply is bacteriological and/or chemical contamination from a leaking septic system.

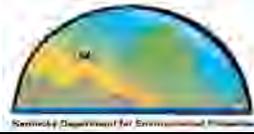
Alternative Water Supply (Short and Long Term):

Bacteriological contamination is mitigated by disinfecting the water system. If there were indicators of bacteriological contamination in the drinking water the facility would be placed on a boil water advisory until the problem is eliminated. If chemical contamination (such as nitrate/nitrite) is discovered in the water the facility would be placed on a do not drink advisory until the source of contamination was discovered and eliminated. If a long-term solution is needed, the facility would add centralized/localized treatment to eliminate the issue. As needed, water could be hauled in for use during these events.

Schedule for Update and Review:

The Wellhead Protection Plan will be reviewed regularly and updated every five years as required by regulation.

**Attachment 10
Public Education Material**



Energy and Environment Cabinet

**Generic Groundwater Protection Plan:
Residential Septic Systems**

**HOMEOWNER'S SEPTIC SYSTEM GUIDE AND
RECORD KEEPING FOLDER**

The purpose of 401 KAR 5:037 and this groundwater protection plan is to prevent groundwater pollution. Understanding how your septic system works and following good operation and maintenance practices are the keys to preventing groundwater pollution.

This folder provides you with that information. By carefully reading it and following the guidelines, you will not only protect groundwater, but also should receive many years of trouble-free service from your system.

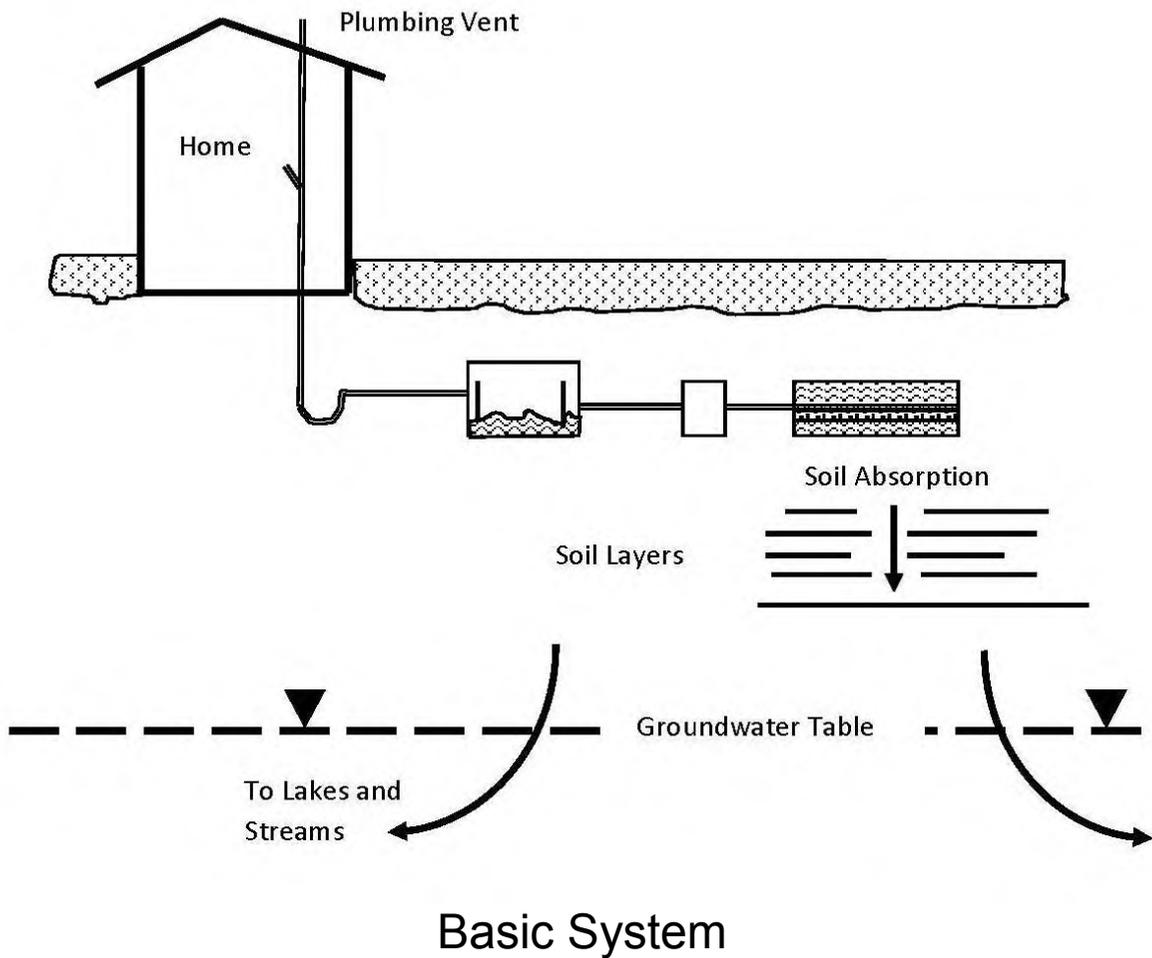
Keeping records will enable you to better protect and maintain your septic system. In case you sell your house, your records will show a prospective buyer that your system has been properly maintained.

FOR YOUR RECORDS

1. Maintenance Log: Date, what was done and reason for the maintenance (Example: measure sludge and scum layers, pump the tank).
2. Inspection Log: Date, what you observed upon walking over the septic system (Example: any unpleasant odors, soggy soil, lush green grass over the lateral lines, surfacing wastewater).
3. Site Drawing: Show accurately the layout of the system on your lot. Include exact distances of each portion of the system from at least two (2) fixed reference points (corner of house, garage, large trees, property line markers).
4. Any permits or receipts.
5. Residential Address _____

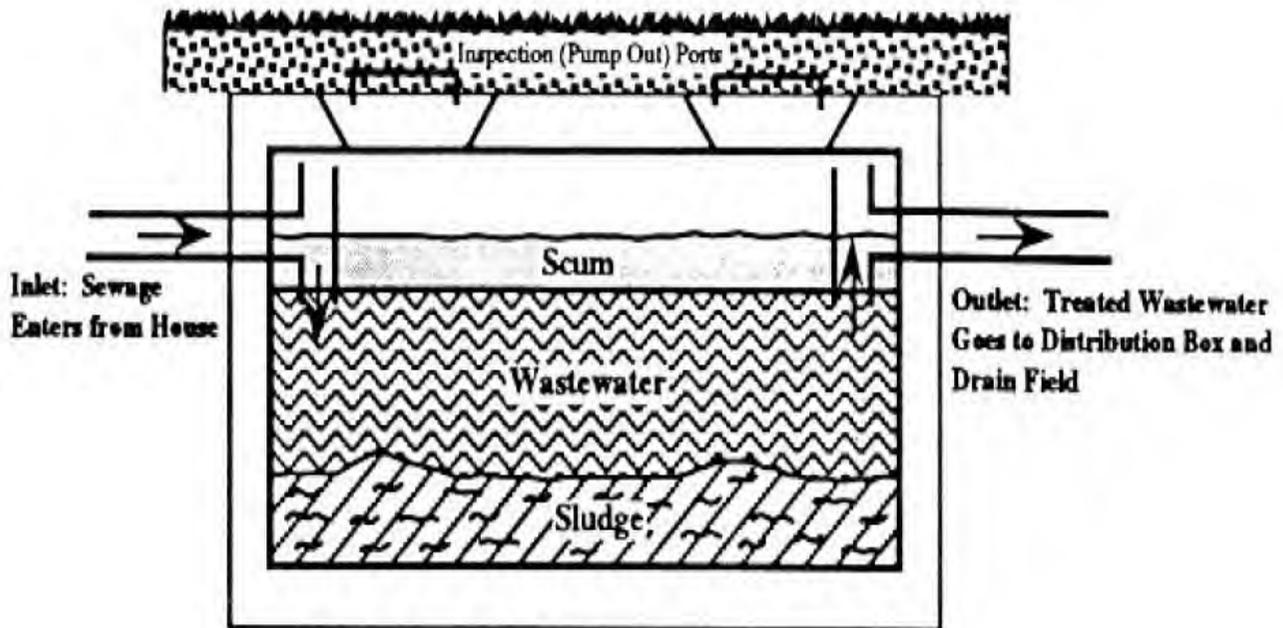
SYSTEM DESCRIPTION

A septic system uses natural processes to treat and dispose of the wastewater in your home. It typically consists of a septic tank and a drainfield (also called a leachfield, lateral field, or subsurface soil absorption beds/trenches). The system accepts both "blackwater" (toilet wastes) and "greywater" (wastes from the kitchen sink, bath tub/showers, and laundry). Water that should not be discharged to the system includes water from foundation or footing drains, roof gutters, and other "clear" water.



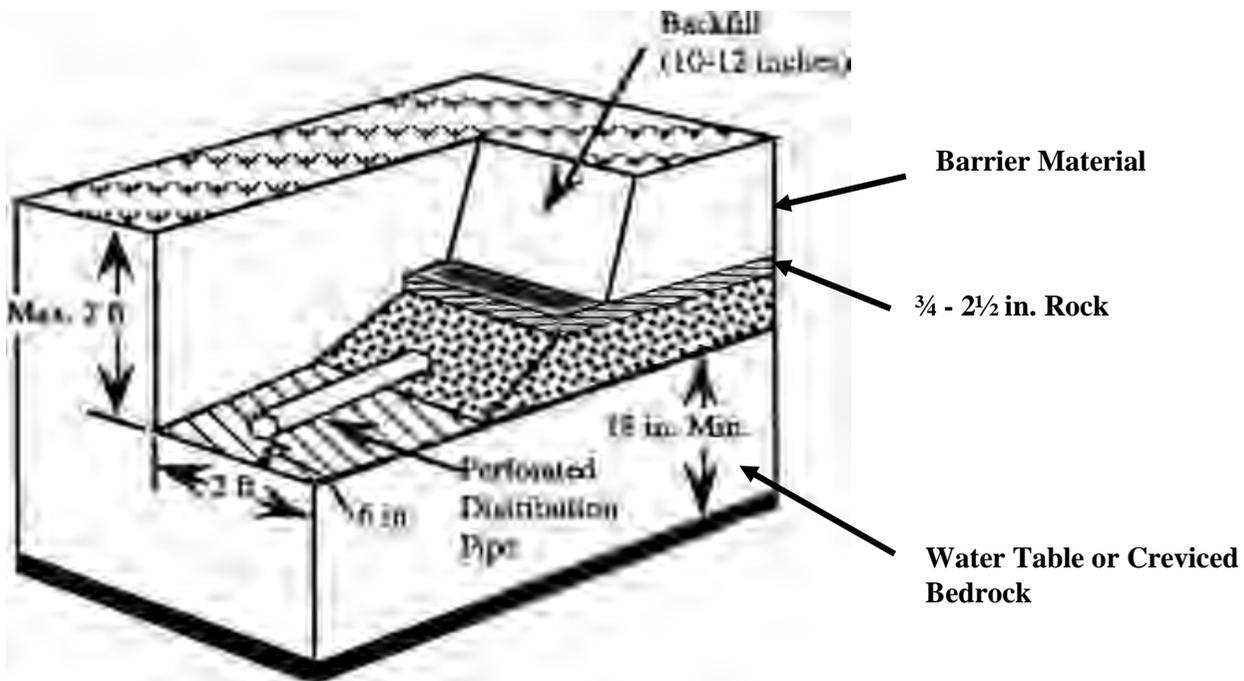
SEPTIC TANK

The septic tank provides the first step in treatment by separating the solids from the liquids. The wastewater is retained in the tank for 24 hours or more. During this time the heavier solids settle the bottom to form a sludge layer while the lighter solids float to the top to form a scum layer. Bacteria break down the solids, producing carbon dioxide, hydrogen sulfide, and other gases in the process. These gases are vented through the plumbing vent on your house roof. Since the bacteria reduce only about 40 percent of the sludge and scum volume, the tank must be pumped regularly (approximately every three to five years) to remove the accumulated solids. If the tank fills with sludge and scum, the solids will overflow into the drainfield and quickly clog the soil, resulting in system failure.



THE DRAINFIELD

The drainfield provides the final treatment of the wastewater and disposes of it through groundwater recharge. The typical drainfield is composed of trenches or beds which are shallow, level excavations installed one to one and a half feet above the groundwater table. Each trench contains a perforated distribution pipe through which wastewater drains into the gravel. The water is stored in the gravel until it can seep into unsaturated soil underlying and adjacent to the trench. As the wastewater moves slowly through the gravel and soil, many of the disease-causing bacteria and viruses are filtered out, or adsorbed and held by the soil particles until they die. Where soils do not permit a drainfield to adequately treat septic tank effluent, an additional or alternative treatment system must be used in conjunction with the drainfield. Alternative systems primarily used in Kentucky are constructed wetlands and sewage lagoons. These alternative systems have their own operation and maintenance guidelines. If you would like information about these guidelines, contact the Groundwater Section.

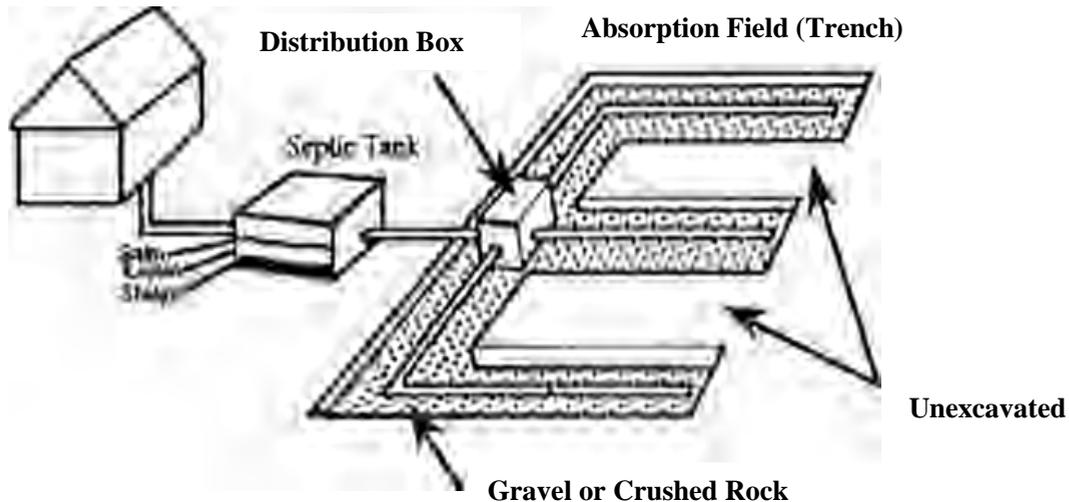


Conventional Rock Drainfield
Trench Cross-Section

TAKING CARE OF YOUR SYSTEM

Your septic system represents a significant investment worth protecting. The old "An ounce of prevention is worth a pound of cure" is so true when it comes to the care of your septic system. If you follow the operation and maintenance guidelines below, your system will function better and last longer, and you will avoid the nightmare and se of a failed system. Most important, your a will not be polluting groundwater.

Conventional Septic System



DO

- Conserve water to reduce the amount of wastewater that must be treated and disposed.
- Repair any leaking faucets and toilets.
- Discharge only biodegradable wastes into system.
- Divert down spouts and other surface water away from your drainfield.
- Keep your septic tank cover accessible for tank inspections and pumping
- Have your septic tank pumped regularly and checked for leaks and cracks.
- Call a professional when you have problems
- Compost your garbage or put in trash.

DON'T

- Use a garbage grinder.
- Flush sanitary napkins, tampons, disposable diapers, condoms and other non-biodegradable products into your system.
- Dump solvents, oils, paints, thinners, disinfectants, pesticides or poisons down the drain. These materials can disrupt the treatment process and contaminate the groundwater.
- Dig in your drainfield or build anything over it.
- Plant anything over the drainfield except grass
- Drive over you drainfield or compact the soil in any way.

If you have any questions or need additional information, contact:

The **Groundwater Protection Program Coordinator**

**Kentucky Energy and Environment Cabinet
Kentucky Division of Water
Watershed Management Branch
Groundwater Section
300 Sower Boulevard, 3rd floor
Frankfort, KY 40601
(502) 564-3410**

Groundwater Protection Plan Regulation 401 KAR 5:037
<http://water.ky.gov/groundwater/Pages/GroundwaterProtection.aspx>

**Kentucky Cabinet for Health and Family Services
Department of Public Health
Environmental Management Branch
275 E. Main St.
Frankfort, Ky. 40621
(502) 564-4856**

**Onsite Regulations 902 KAR 10:085
Septic Tank Servicing Regulation 902 KAR 10:170**
<http://chfs.ky.gov/dph/info/phps/enviromgmt.htm>

Homeowner's Manual Onsite Sewage Disposal Systems
<http://chfs.ky.gov/NR/rdonlyres/CA014E47-2256-444D-8FE4-84C9FF456C8E/0/onsitesewagemanual.pdf>

**Check List
for
Evaluating Your Septic System**

- 1.** Find and mark the location of the septic system, you should map this information in the space provided in your Groundwater Protection Plan: "Homeowner's Septic System Guide and Record Keeping Folder."
- 2.** When was the septic tank last pumped?

- 3.** If the tank was last pumped over three years ago, or if you have recently moved into the house and don't know when the tank was last pumped, contact a septic tank pumper. Have him service the tank and check the baffles.
- 4.** Do toilets flush slowly and does water drain slowly from sinks and tubs, or does either "gurgle"?
Yes No
- 5.** Is there any standing water, soggy ground, or smelly liquid in or near the drainfield?
Yes No
- 6.** Does the ground slope toward the septic system?
Yes No
- 7.** Are your septic tank and drainfield less than 100 feet from a lake, stream, or pond?
Yes No
- 8.** Are water-loving trees such as willows, sycamores, birches, or water maples growing within 10 feet of the septic tank?
Yes No
- 9.** Are there any areas over the septic tank or drainfield where people have frequently driven their cars or trucks?
Yes No
- 10.** Have any additions been made to the house since the present septic system was installed?
Yes No
- 11.** Do you have dripping faucets or a toilet that runs continuously or gradually loses water from its tank?
Yes No
- 12.** Do you put cigarette butts, coffee grounds, cooking fats, disposable diapers, facial tissue, wet-strength towels, or other non-biodegradable materials into your septic tank?
Yes No

If you have answered YES to one or more of questions 4 - 12, the septic system may not be functioning correctly. Call your local health department, or seek other professional help. Should repair of the system be necessary, be sure to engage the services of a professional who has a groundwater protection plan on file.



Bluegrass Water, a Division of Central States Water Resources, Acquires New Water and Wastewater Systems in Kentucky

LEXINGTON, KY (June 1, 2020) — Bluegrass Water Utility Operating Company, a division of Central States Water Resources (CSWR), has completed the acquisitions of three Kentucky water and wastewater systems previously approved by the Kentucky Public Service Commission.

"We appreciate the Commission's continued support of our proven abilities to deliver access to clean and safe drinking water and reliable wastewater systems to Kentucky residents," said **Josiah Cox, President of Bluegrass Water and CSWR.**

The acquired systems include 69 sewer customers in the Timberland section of the Joann Estates community in Paducah (McCracken County), 182 sewer customers in the River Bluffs community in Westport (Oldham County) and 339 water customers in the Center Ridge community in New Concord (Calloway County).

Bluegrass Water serves customers in Bullitt, Calloway, Franklin, Hardin, Madison, Marshall, McCracken, Oldham, Scott and Shelby counties; and under the newly approved acquisition agreement will continue to charge the same rates to customers as previous systems owners.



Central States Water Resources Acquires Several Kentucky Wastewater Systems

ST. LOUIS (Nov. 20, 2019) — Bluegrass Water Utility Operating Company, a division of Central States Water Resources (CSWR), has acquired the operating assets of several wastewater systems across Kentucky after the Kentucky Public Service Commission approved and finalized the sale of the wastewater systems.

"We are thrilled to have the opportunity to bring access to clean and safe drinking water and reliable wastewater systems to Kentuckians across the state," said **Josiah Cox, President of Bluegrass Water and CSWR.** *"We believe our innovative approach will transform these Kentucky communities in need of reliable water resources."*

Under the agreement, Bluegrass Water will continue to charge the same rates to customers as previous system owners. The sewer companies acquired by Bluegrass Water are: Airview Utilities, Brocklyn Utilities, Fox Run Utilities, Kingswood Development Inc., Lake Columbia Utilities, LH Treatment Company, Marshall County Environmental Services, and Persimmon Ridge.

Bluegrass Water has more than 1,300 customers in Bullitt, Franklin, Hardin, Madison, Marshall, McCracken, Scott, and Shelby counties.



Central States Water Resources Acquires Arkansas-Based Water System

ST. LOUIS (April 20, 2020) — Flushing Meadows Utility Operating Company, a division of Central States Water Resources (CSWR), has acquired the operating assets of Conway, Ark.-based water system Flushing Meadows Water System in a sale finalized and approved by the Arkansas Department of Environment Quality (ADEQ).

"We are pleased to bring our team to serve the Flushing Meadows community and ensure that they have a clean, safe water supply and reliable wastewater systems," said **Josiah Cox, President of Central States Water Resources.**

Under the agreement, Flushing Meadows will continue to charge the same rates to customers as the previous system owners.

Flushing Meadows joins several other Arkansas communities in the CSWR network, including: Eagle Ridge Utility Operating Company, Hayden's Place Utility Operating Company, Oak Hill Utility Operating Company, Sebastian Lake Utility Operating Company, and St. Joseph's Glen Utility Operating Company.

Flushing Meadows has approximately 275 customers in Faulkner County.



Magnolia Water Acquires Wastewater Utility Systems Across Louisiana

BATON ROUGE (July 20, 2020) — Magnolia Water Utility Operating Company (www.magnoliawateruoc.com), a division of Central States Water Resources (CSWR), today announced it has acquired the utility assets of multiple water and wastewater utilities across Louisiana in acquisitions previously approved by the Louisiana Public Service Commission (LPSC).

The systems acquired by Magnolia Water include assets previously owned and managed by Cherry Ridge Utilities (Bastrop, La.), Coast Waterworks (Slidell, La.), Colonial Oaks Sewer (Gonzales, La.), Curtis Environmental Utilities (Slidell, La.), Evangeline Oaks Water System (Bossier, La.), H2O Systems (Mandeville, La.), Jones Rolling Ridge Utility System (Shreveport, La.), Major Sewerage Services (Ventress, La.), Mo-Dad Utilities, LLC (Denham Springs, La.), Olde Oaks Sewer (Houghton, La.), S&S Sewage (Ruston, La.), Suburban Water Company (Shreveport, La.), Superior Sewerage (Thibodaux, La.) and Wildwood South Public Service Company (Shreveport, La.).

Under the agreement with the LPSC, Magnolia Water will continue to charge the same rates to customers as previous system owners. Magnolia Water is committed to providing clean, safe and reliable water resources to the communities it serves and investing in infrastructure that meets or exceeds stringent state and federal safety standards while protecting the aquifers, lakes, rivers and streams that are essential to our world.



CentralStatesWaterResources.com



An Introduction



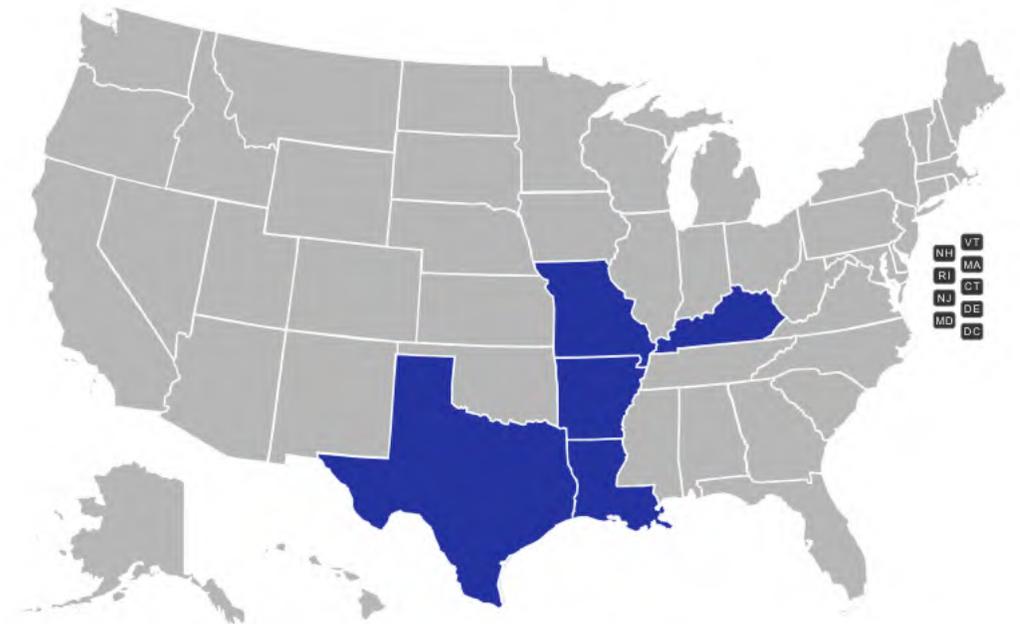
America's Water Crisis

- One in every four Americans is exposed to potentially unsafe drinking water or wastewater systems.
- Water systems across the U.S. often lack staff, expertise and funding to address critical water safety, reliability and quality standards.
- Most water systems having been in operation between 50 - 100 years, often leading to unsafe and environmentally damaging conditions including hazardous lead levels and E.coli contamination.



CSWR's Mission

Bring safe, reliable and environmentally responsible water resources to every community in the U.S.



Executive Leadership



Josiah Cox, President

Experienced and deeply passionate water utility industry executive committed to transforming how water utilities use technology and innovation to ensure every community in the U.S. has access to clean, safe and reliable water resources.



Marty Moore, Chief Financial Officer

Operationally focused, longtime corporate finance executive with deep experience in mergers and acquisitions and leading multi-unit, rapid growth, private equity and venture-backed enterprises.



Russ Mitten, General Counsel

General Counsel with deep experience representing utilities and telecommunications in diverse regulatory environments.



Todd Thomas, Senior Vice President

Experienced water resource management executive and engineer committed to the development and distribution of safe, clean and reliable water resources.



Stacy Culleton, Director of Customer Experience

Experienced project management and customer engagement leader.



Mike Duncan, Vice President

Business operations and technology innovation and implementation leader.





Customers First



Customers First

- Our connection of service isn't just to an account — but to a human being, a family, a home or a business.
- Our promise begins and ends with reliability — Safe and reliable water — 365 days a year.



Improving Communities



Our investments in water resources are investments in communities overall, ultimately enhancing value, driving outside investment and growth.



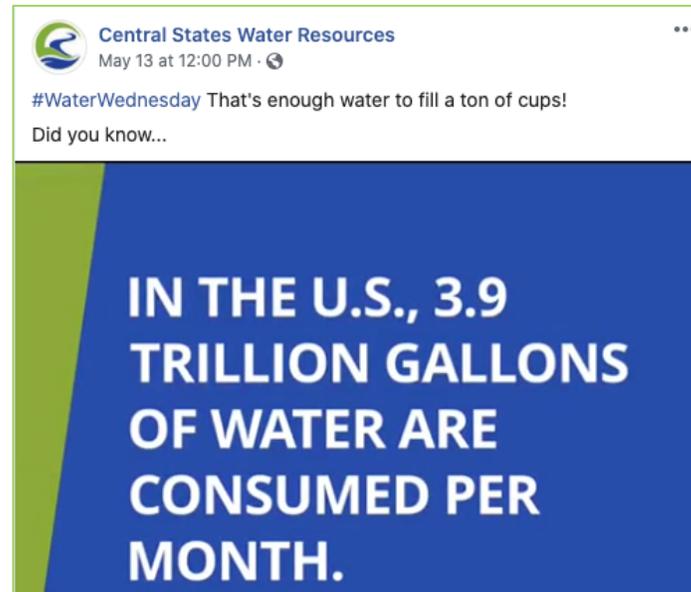
Building Community Infrastructure

- Repairing outdated water and wastewater systems increases the value of each community CSWR serves.
- Water quality has a direct impact on home values, according to the EPA, as the average American uses 176 gallons of water daily.



Customer Communication

- Effective, consistent and honest conversations are essential.
- Going beyond what is required by regulation, focused on educating and supporting customer interests and needs.
- Direct mail, email, Facebook, Twitter, LinkedIn, 24-hour phone availability, blog.





CUSTOMER EXPERIENCE

Services that are available to our customers.



WATER SERVICE



24/7 CUSTOMER SERVICE



SEWER SERVICE



WATER CONSERVATION TIPS



ONLINE BILL PAY



ENVIRONMENTAL STEWARDSHIP





Process-Driven Growth





The CSWR Way

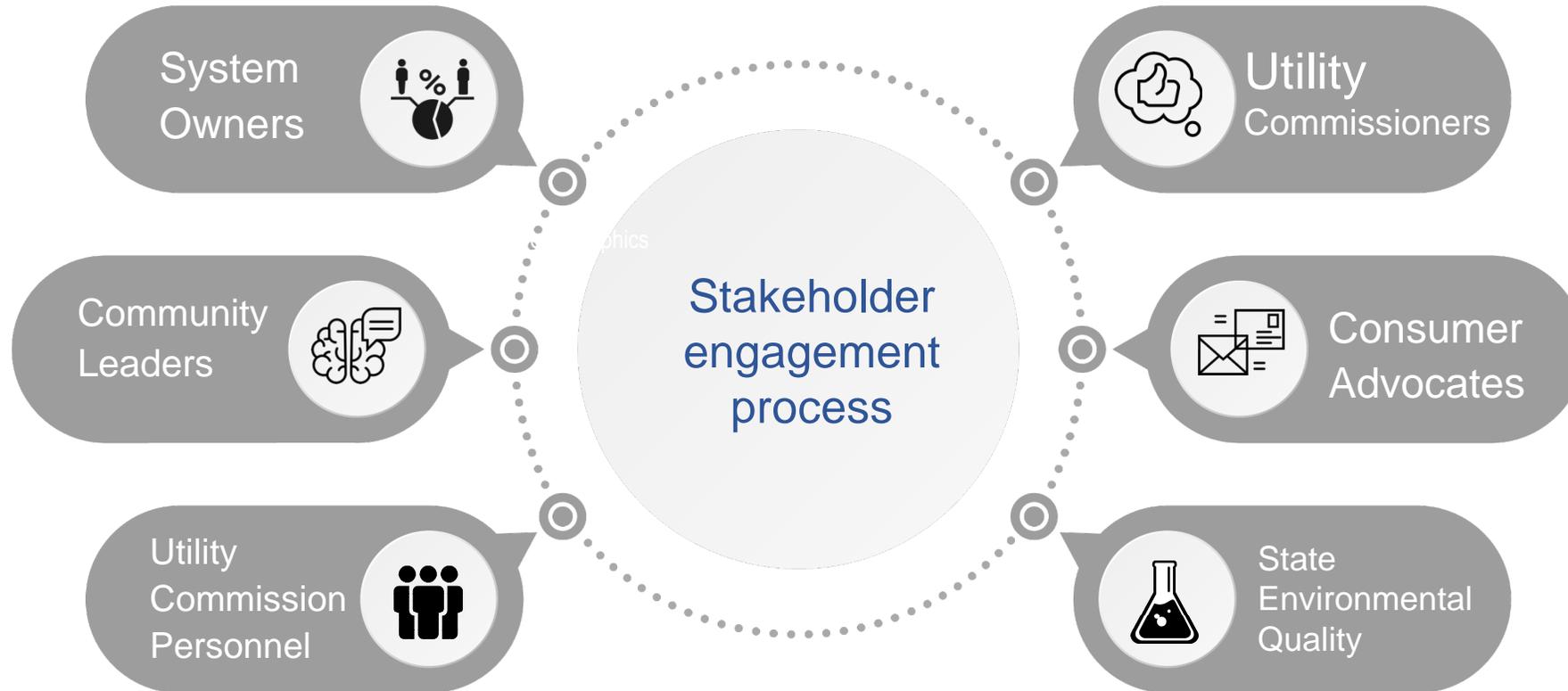


The CSWR Way

- Target underserved, often-neglected communities in need of reinvestment.
- Acquire water systems that are woefully outdated and dangerous — often unbeknownst to their customers.
- Invest strategically, and then use innovation to create 180-degree transformations in communities' water and wastewater systems — many of which have been in operation for more than a half-century.
- Transition owners out of the business who do not have the technical, managerial and financial capabilities to provide safe, reliable water.
- Use technology such as remote monitoring management keeps CSWR water resources safe and reliable for community members.



Acquisition Process



Methodology

1

Create a unique utility operating company branded with specific ties to that state.

2

Negotiate and sign purchase agreements.

3

Begin title process and assessments on collection systems and engineering needs.



Welcome to
Magnolia Water



Methodology

4

Once critical mass of utilities and connections is collected, file for acquisition by operating company as a group.

5

Seek the best rate structure for consumers.

6

Enter consent agreements with environmental regulators to upgrade and bring systems into compliance focused on ensuring systems are operating compliantly.



Methodology

7

Close acquisitions and commence operational and plant improvement efforts – bringing systems back into compliance quickly.

8

Partner with local engineering firms, suppliers, maintenance contractors, and regulatory legal support.

9

Connect local firms into our proprietary maintenance management system to track and manage routine preventative maintenance work and geotagging all equipment





CentralStatesWaterResources.com



EASY WAYS TO PAY YOUR UTILITY BILL

We are committed to providing safe, reliable and environmentally responsible water service to you and your community today and every day, 365 days a year.

Please note that our Customer Information System has changed. As a result, if you were registered for autopay OR electronic billing you will need to re-enroll. In the upper right-hand corner of your bill, you will see an **Account Number and a Customer Identification Number (CID)**. You will need both of these numbers to log into your new online Customer Portal. The portal will allow you to manage your billing and payments through autopay, monitor your water use and so much more.

If you are a new customer, we encourage you to log in to your portal to register your email, even if you don't want to sign up for autopay or electronic billing at this time.

If you do not sign up for autopay, there are many other ways to pay. You can pay by phone or mail, both of which can be found on the remittance portion of your bill.

If you have any questions or need help logging in, please contact our customer service department at the phone number listed on your bill, or visit us online at www.centralstateswaterresources.com and search "Find Your Provider."

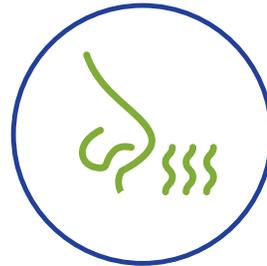


Why Do We Chlorinate Your Drinking Water?

Chlorination is a common treatment method that is used to disinfect water so that it's safe and clean. Microorganisms and pathogens can be found in water bodies, which can pass through water distribution systems. Each day it's important that we work together to take care of our water resources.



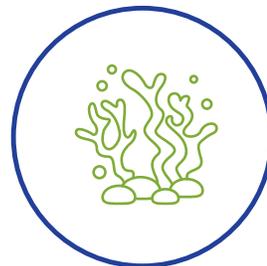
Kills harmful waterborne pathogens, bacteria and viruses.



Removes unpleasant tastes and odors.



Disinfects water system pipes.



Helps prevent biological growth and algae.







COMPLIANCE UPDATE

August 2020

CSWR prides itself on its diligence toward environmental compliance

Below is the company's compliance standing for 228 water and wastewater systems as of August 2020

- AOC = Administrative Order on Consent
- NOV = Notice of Violation
- Consistency of acquired systems (prior to CSWR acquisition) (demonstrating CSWR commitment to bring acquired systems into and/or on a regulatory path toward compliance)

	AOC/AG	NOV	# of systems compliant (for two consecutive qtrs) when CSWR Acquired
Missouri	✓	None	None
Arkansas	✓	None	None
Kentucky	✓	None	None
Louisiana	✓	None	None



CSWR ENVIRONMENTAL PERFORMANCE

227

WATER AND WASTEWATER SYSTEMS
PURCHASED FOR IMPROVEMENT

191,613,600

GALLONS OF WASTEWATER
TREATED MONTHLY

130,216,320

GALLONS OF POTABLE WATER
PRODUCED MONTHLY

CSWR WASTEWATER PERFORMANCE IMPROVEMENT

100%

OF DMR SAMPLES COMPLETED
CORRECTLY ON TIME

94.8%

AVERAGE BOD REMOVAL
FOLLOWING INITIAL TRIAGE

32,000

ADDITIONAL LBS OF BOD REMOVED PER
MONTH COMPARED TO PREVIOUS OWNERS

ON AVERAGE, COMMUNITIES REALIZE MORE THAN A 50 PERCENT INCREASE IN TREATMENT QUALITY FOLLOWING CSWR IMPROVEMENTS

BEFORE



AFTER



BEFORE



AFTER



STATE PARK VILLAGE EFFLUENT QUALITY PROGRESSION

Parameter	Limit	Unit	Pre Ownership	Post Ownership	Percentage Improvement
Test Date	N/A	N/A	8/24/15	9/30/20	N/A
BOD, carbonaceous [5 day, 20 C]	45	mg/L	23	4	575%
Nitrogen, ammonia total [as N]	10	mg/L	15.7	0.3	5233%
E. coli	240	MPN/100mL	60	1	6000%

LAKE COLUMBIA EFFLUENT QUALITY PROGRESSION

Parameter	Limit	Unit	Pre Ownership	Post Ownership	Percentage Improvement
Test Date	N/A	N/A	3/31/19	8/31/20	N/A
BOD, carbonaceous [5 day, 20 C]	45	mg/L	45	4	1125%
Nitrogen, ammonia total [as N]	10	mg/L	40.1	0.2	20050%
E. coli	130	MPN/100mL	39	2	1950%



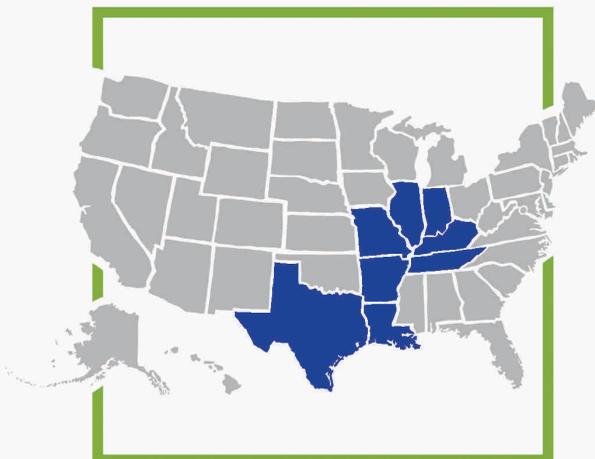


ABOUT CSWR

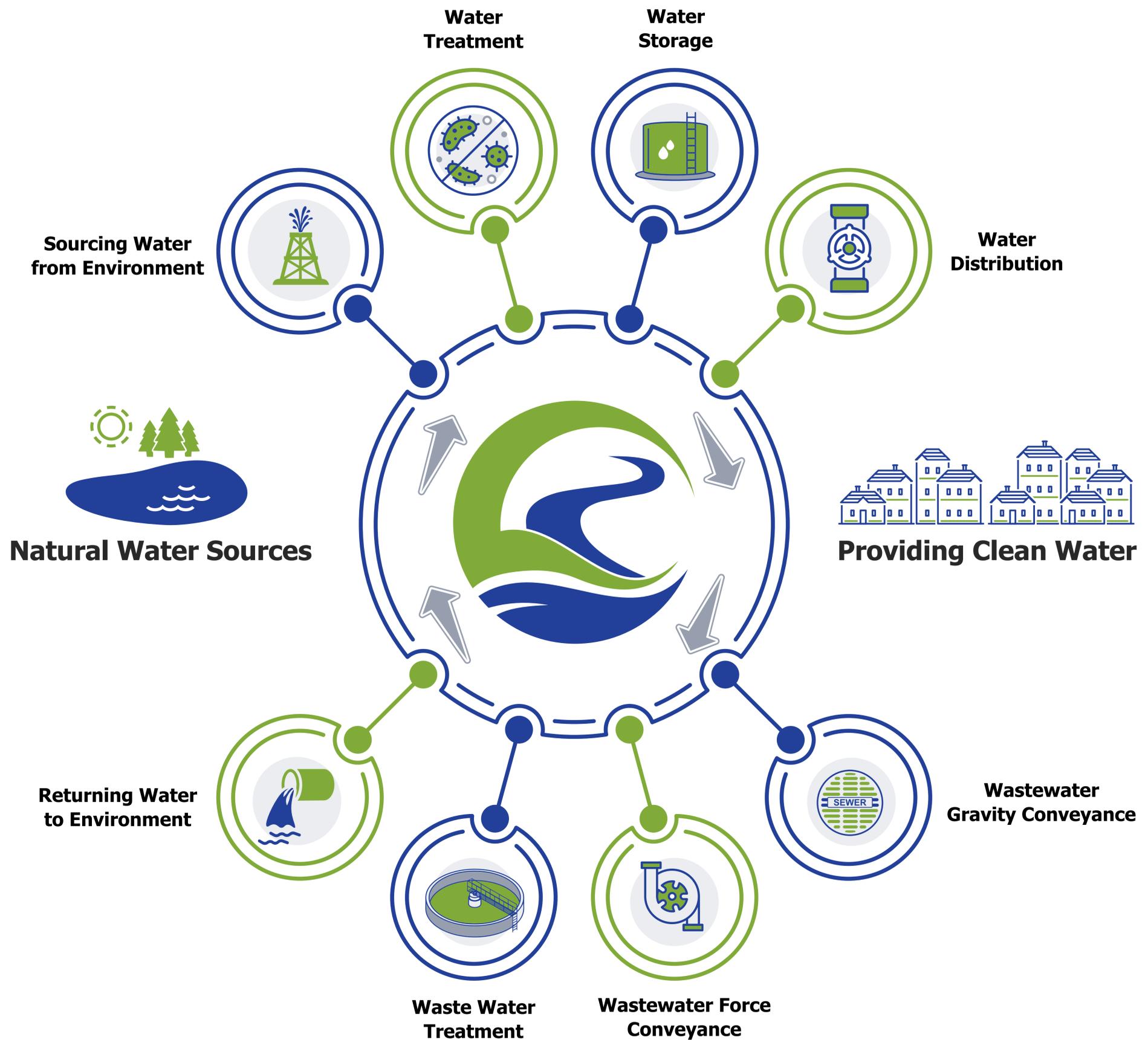
One-fourth of Americans drink water from systems that fail to meet safety standards, but **Central States Water Resources (CSWR)** wants to change that. Believing access to clean and reliable water creates healthy communities, CSWR is on a mission to bring safe and reliable water resources to every community in the United States – a mission that will transform neighborhoods, towns and cities by ensuring that water resources are safe, reliable and environmentally responsible.

Headquartered in St. Louis with operations or acquisition efforts in Missouri, Arkansas, Texas, Louisiana, Kentucky and Tennessee, CSWR uses private investment to acquire and revitalize water and wastewater systems that are often woefully outdated and dangerous, typically unbeknownst to end users. This enhances the value of individual properties and communities — all through the transformation of essential water resources, many of which have been in operation for more than a half-century.

CSWR is led by a uniquely experienced team that leverages innovation to quickly assess and invest in reliable infrastructure that meets or exceeds stringent state and federal safety standards. This ultimately ensures consumers have clean, safe and reliable water and wastewater systems with long-term stability, while protecting the aquifers, lakes, rivers and streams that are essential to our world.



Water-Wastewater Cycle





SAFE WATER, HEALTHY COMMUNITIES

- CSWR OWNED SYSTEMS**

- FILED ACQUISITION CASES**
 CURRENTLY NOT OWNED

- PURCHASE AGREEMENTS SIGNED**
 NO ACQUISITION CASES FILED YET

CUSTOMER BILL OF RIGHTS

As a residential customer of a regulated public utility in Kentucky, you are guaranteed the following rights subject to Kentucky Revised Statutes and the provisions of the Kentucky Public Service Commission Administrative Regulations:

- You have the right to service, provided you (or a member of your household whose debt was accumulated at your address) are not indebted to the utility.
- You have the right to inspect and review the utility's rates and tariffed operating procedures during the utility's normal office hours.
- You have the right to be present at any routine utility inspection of your service conditions.
- You must be provided a separate, distinct disconnect notice alerting you to a possible disconnection of your service if payment is not received.
- You have the right to dispute the reasons for any announced termination of your service.
- You have the right to negotiate a partial payment plan when your service is threatened by disconnection for non-payment.
- You have the right to participate in equal, budget payment plans for your natural gas and electric service.
- You have the right to maintain your utility service for up to thirty (30) days upon presentation of a medical certificate issued by a health official.
- You have the right to prompt (within 24 hours) restoration of your service when the cause for discontinuance of the service has been corrected.
- If you have not been disconnected, you have the right to maintain your natural gas and electric service for up to thirty (30) days if you present a Certificate of Need issued by the Kentucky Cabinet for Human Resources between November and the end of March.
- If you have been disconnected due to nonpayment, you have the right to have your natural gas or electric service reconnected between the months of November through March provided you:
 1. Present a Certificate of Need issued by the Kentucky Cabinet for Human Resources, and
 2. Pay one third (1/3) of your outstanding bill (\$200 maximum), and
 3. Accept referral to the Human Resources' Weatherization Program, and
 4. Agree to a repayment schedule that will cause your bill to become current by October 15.
- You have the right to contact the Public Service commission regarding any dispute that you have been unable to resolve with your utility (Call Toll Free 1-800-772-4636).

The Customer Bill of Rights is referenced in 807 KAR 5:006 Section 14 (1) (c) 1 .

CSWR Stories of Investment Impact

Kentucky: Community Impact

Airview (Elizabethtown, KY)

The 209 customers served by the Airview wastewater system in Elizabethtown, KY were persuaded by the plant's former owner to divert their raw sewage into stormwater drains during rain events. The former plant owner had filed with the Kentucky Public Service Commission to abandon the system.

CSWR (Bluegrass Water UOC) has completely renovated the lift stations and addressed other system failures, allowing for proper wastewater treatment and conveyance.

BEFORE



AFTER



Center Ridge Water Districts 1 – 4 (Murray & New Concord, KY)

When CSWR (Bluegrass Water UOC) acquired the four districts of Center Ridge Water, the systems served population of approximately 346 customers experienced service outages on a frequent basis leading to a complete loss of water service. These outages could last up to a week, causing severe disruption to the community and a threat to public health.

Site inspection uncovered the extent of the system's disrepair, including severely corroded water storage tanks, well houses lacking insulation, chlorination equipment lacking any containment, consistent leaking of potable water throughout the distribution system, and one well entirely out of service.

Since acquiring the system, rehabilitation has brought all systems and their physical components into compliance. All wells are now functional and equipped with remote-monitoring systems, allowing operators to provide reliable service to customers. These improvements have ensured that customers at Center Ridge now have uninterrupted service.

River Bluffs (Prospect, KY)

Before acquiring the River Bluffs system in Prospect, Kentucky, failing lift stations at the wastewater plant led to sewer backups returning raw sewage into connected homes. In addition, the treatment plant was undertreating wastewater causing

CSWR (Bluegrass Water UOC) has dealt with this issue by rehabilitating the lift stations and installing remote-monitoring equipment. These improvements have ensured that the 179 customers at River Bluffs have had service uninterrupted by backups for the past 8 months.



CUSTOMER EXPERIENCE

Services that are available to our customers.



WATER SERVICE



24/7 CUSTOMER SERVICE



SEWER SERVICE



WATER CONSERVATION TIPS



ONLINE BILL PAY



ENVIRONMENTAL STEWARDSHIP



WWW.CENTRALSTATESWATERRESOURCES.COM



2022 Annual Water Quality Report

Bluegrass Water Utility Operating Company
Center Ridge Water District
PWS ID KY0180549

ATTENTION: Landlords and Apartment Owners

Please share a copy of this notice with your tenants.
It includes important information about their
drinking water quality.



BLUEGRASS WATER
Utility Operating Company
A CSWR Managed Utility

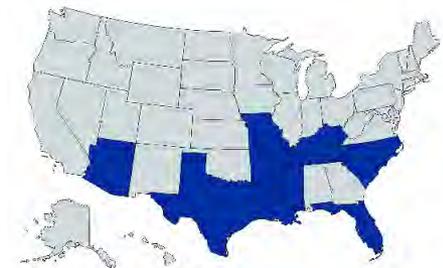


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What is a Consumer Confidence Report (CCR)?

We proudly present our Annual Water Quality Report, also referred to as a CCR. CCRs provide customers with important information regarding the quality of their drinking water. They let customers know what contaminants, if any, were detected in their drinking water, as well as associated potential health effects. We are pleased to report the results of the laboratory testing of your drinking water during the calendar year of 2022. For your information, we have compiled a list of tables showing the testing of your drinking water during 2022.

About Us

Central States Water Resources is transforming how water utilities work by using technology and innovation to quickly assess and invest in reliable infrastructure that meets or exceeds stringent state and federal safety standards, ensuring all communities across the U.S. have access to safe, clean and reliable water resources while protecting the aquifers, lakes, rivers and streams that are essential to our world.

Our Mission:

Central States Water Resources is working to bring safe, reliable, and environmentally responsible water resources to every community in the U.S.

This report contains important information about the source and quality of your drinking water. If you would like a paper copy of the 2022 Report mailed to your home, please call 1-866-752-8982

Este informe contiene información importante sobre la fuente y la calidad de su agua potable. Si desea recibir una copia escrita del informe anual de la calidad del agua del 2022 en su casa, llame al número de teléfono 1-866-752-8982

About Your Drinking Water Supply

Water Source: Groundwater **Source Water Assessment:**

There are a total of twenty-seven potential sources of contamination within the Center Ridge Water System's wellhead protection area. All the potential sources have been identified as septic systems and are ranked as having a medium risk to contamination of the aquifer. The aquifer has been determined to have a medium risk ranking.

Disinfection Treatment:

The water supplied to you is treated with Chlorine to maintain water quality in the distribution system.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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

Definition of Terms

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, that a water system must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk of health. ALGs allow for a margin of safety.

Average (Avg): Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if Possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

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.

Definition of Terms

Million fibers per Liter (MFL): A measure of asbestos

Millirems per Year (MREM): A measure of radiation absorbed by the body

Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method.

Not Applicable (NA): Sampling was not completed by regulation or was not required.

Not Detected (ND): Not detectable at reporting limit.

Nephelometric Turbidity Units (NTU): Measure of clarity or turbidity of the water.

Picocuries per liter (pCi/L): Measure of the natural rate of disintegration of radioactive contaminants in water.

Parts per billion (ppb): One part substance per billion parts water or microgram per liter ($\mu\text{g/L}$).

Parts per million (ppm): One part substance per million parts water or milligram per liter (mg/L).

Parts per quadrillion (ppq): Parts per quadrillion, or picograms per liter (pg/L)

Parts per trillion (ppt): One part substance per trillion parts water or nanograms per liter (ng/L).

$\text{ppm} \times 1000 = \text{ppb}$
 $\text{ppb} \times 1000 = \text{ppt}$
 $\text{ppt} \times 1000 = \text{ppq}$

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

Sources of Contaminants

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 can pick up substances resulting from the presence of animals or from human activity.

Contaminants That May be Present in Source Water:

Microbes	such as viruses and bacteria may come which may occur through sewage treatment plants, domesticated animals, or wildlife.
Inorganic Chemicals	such as toxic heavy metals and salts, which come from urban stormwater runoff, industrial waste discharges, oil and gas production, mining, or farming.
Pesticides & Herbicides	which may come from a variety of sources such as agricultural or stormwater runoff, and residential uses.
Organic Chemicals	including synthetic or volatile organic human-made compounds, such as dry-cleaning solvents, may occur due to disposal of untreated waste into septic systems or stormwater runoff.
Radioactive Contaminants	which can be naturally occurring or man-made may occur through weathering rock, mining, and runoff.

Special Health Information:

Some people may be more vulnerable to contaminants in drinking water than the general population. Those who are undergoing chemotherapy or living with HIV/AIDs, transplants, children and infants, elderly, and pregnant women can be at particular risk for infections. If you have special health care needs, please consider taking additional precautions with your drinking water and seek advice from a health care provider. For more information visit www.epa.gov/safewater/healthcare/special.html.

Water Quality Report

The following page will display the results of your water quality

- Central States and our Utility Operating Companies conduct extensive monitoring to determine if your water meets all water quality standards. The detections of our monitoring are reported in the following tables.
- Regulated contaminants not listed in this table, were not found in the treated water supply.



Water Quality Results

2022 Water Quality Test Results							
Disinfectants and Disinfection By-Products	Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Collection Date	Likely Source of Contamination
Chlorine (ppm)	N	0.8	0.7-0.8	4	4	2022	Water additive used to control microbes
Lead and Copper	Violation Y or N	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Collection Date	Likely Source of Contamination
Lead (ppb)	N	4.8	0	15	0	2022	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Copper (ppm)	N	1.4	1	1.3	1.3	2022	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Inorganic Chemicals (IOC)	Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Collection Date	Likely Source of Contamination
Cadmium (ppb)	N	1	N/A	5	5	12/28/2020	Corrosion of galvanized pipes; Erosion of natural deposits; Discharge from metal refineries; runoff from waste batteries and paints.
Nitrate *measured as Nitrogen (ppm)	N	0.4	N/A	10	10	2022	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite *measured as nitrogen (ppm)	N	0.04	N/A	1	1	4/26/2021	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
Health Language:							
Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause "blue baby syndrome". Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.							

Center Ridge Water District
reported no violations in 2022.



Lead

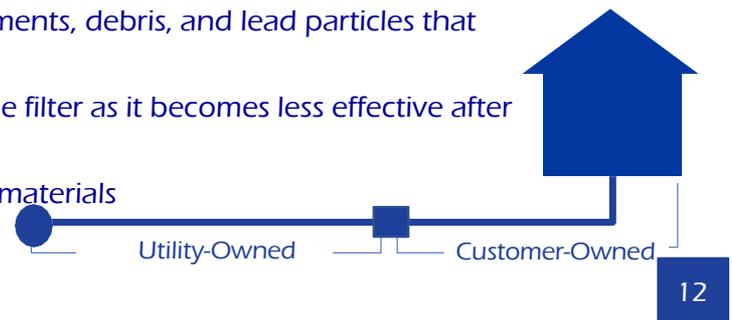
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Confluence Rivers is responsible for providing high quality drinking water but cannot control the variety of plumbing materials. 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.

In compliance with Federal Regulation (40 CFR Part 141 Subpart 1) CSWR finds it necessary for the health and safety of our customers to adopt lead control standards which ban the use of lead materials in the public drinking water system and private plumbing connected to the public drinking water system. **No connection shall be installed or maintained where lead base materials were used in construction or modification of the drinking water plumbing after January 1, 1989. Contact CSWR immediately if you suspect you have lead plumbing.**

If you live in an older home or 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>.

Reduce Your Exposure

1. **Flush your home's pipes** by running the tap before drinking the water. Residents should contact their water utility for recommendations about flushing times in their community.
2. **Use Cold water** only for drinking, cooking, and making baby formula. Boiling water does not remove lead.
3. **Clean your aerator** (screen of faucet) regularly to remove sediments, debris, and lead particles that naturally collect over time.
4. **Use a filter** that is certified to remove lead. Regularly replace the filter as it becomes less effective after expiration. Do not run hot water through the filter.
5. **Have a licensed plumber check your plumbing for lead-based materials**

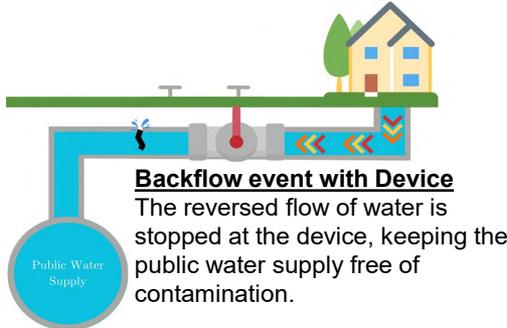
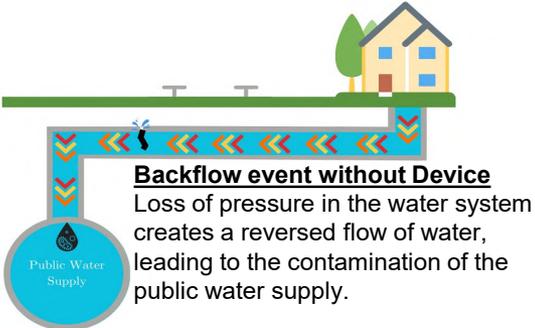
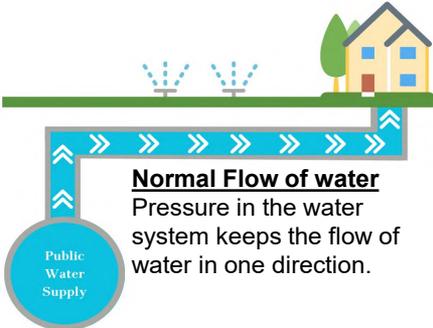


Backflow Prevention

Backflow is the unwanted reversal of flow from a customer to the water supply. This is caused by a loss of pressure in the water supply line or an increase in pressure on the customer side. Common situations where backflow occurs are water main breaks or firefighting events. These events create low pressure in the distribution system. Backpressure can cause backflow when the pressure in a building exceeds the pressure in the water supply line, causing liquid from the customer's line to move into the water supply. Backflow Prevention Devices are designed to restrict the flow of water to one direction.

Cross Connection

Cross-connections are links between a customer and the drinking water supply lines. Cross-Connections may contaminate the drinking water supply if there is a backflow event. Backflow through cross-connections are very serious and have the potential to cause serious health hazards.



Common household items requiring installation of a Backflow Prevention Device

Lawn Irrigation/Sprinkler System, Pool, Hot Tub, Fire Protection Sprinklers and Boilers

If you have any questions about Backflow Prevention or would like to notify CSWR of your Backflow Devices, please call or email: Bluegrass Water Utility Operating Company at 1-866-752-8982 or support@bluegrasswateruoc.com

How to Participate

Protecting drinking water at its source is an important part of the process to treat and deliver high quality water. It takes a community effort to protect shared resources. This includes utilities, businesses, residents, government and non-profit organizations.

If you have any questions about this report or concerning your water utility, please contact Bluegrass Water at 1-866-752-8982.

WATER INFORMATION SOURCES:

Central States Water Resources (CSWR)

<https://www.centralstateswaterresources.com/contact-us/>

Kentucky Energy and Environment Cabinet

<https://eec.ky.gov/>

United States Environmental Protection Agency (USEPA)

www.epa.gov/safewater

Safe Drinking Water Hotline (800) 426-4791

Centers for Disease Control and Prevention www.cdc.gov

American Water Works Association www.drinktap.org

Water Quality Association www.wqa.org

National Library of Medicine/National Institute of Health

www.nlm.nih.gov/medlineplus/drinkingwater.html

WHAT CAN YOU DO?



Properly dispose of pharmaceuticals, household chemicals, oils and paints.



Clean up heating or fuel tank leaks with cat litter. Sweep material and seal in bag. Check with local facility for disposal.



Clean up after your pets and limit the use of fertilizers and pesticides.



Take part in watershed activities or volunteer outreach programs.

ATTENTION



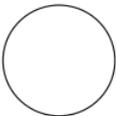
BLUEGRASS WATER

Utility Operating Company

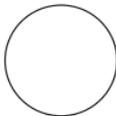
A CSWR Managed Utility

Bluegrass Water is providing notice that your service is subject to disconnection for the following reason(s):

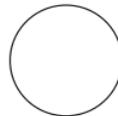
DATE OF NOTICE



Health/Safety Issue



Access/Tampering



Discontinuance of Service

Reason for visit: _____

Returning on: _____

Additional Notes: _____

To avoid service disconnection on _____
please contact Bluegrass Water Customer Support.

Monday – Friday, 8:00a.m. – 5:00p.m.

1-866-752-8982 - support@bluegrasswateruoc.com

Healthy at Home Utility Relief Fund

Healthy at Home Utility Relief Fund provides relief to Kentuckians affected by COVID-19 that need assistance with their water, wastewater, electric, or natural gas service. Kentucky’s Community Action Network is partnering with Team Kentucky to distribute these funds statewide.

Two components for this program are available: Subsidy provides assistance to all eligible households. Crisis provides assistance to eligible households experiencing a crisis situation with their utilities.

How to Apply: Interested households should contact their local Community Action Outreach Office on how to apply. To locate your local office, please call 800-456-3452 or visit www.capky.org. Applications will be taken as long as funding is available, or until December 30, 2020.

Am I Eligible?: Households who have an income up to 200% of the Federal Poverty Level and have been economically impacted due to COVID-19 can apply.

<u>Household Size:</u>	<u>Gross Monthly Income:</u>	<u>Household Size:</u>	<u>Gross Monthly Income:</u>
1	\$ 2,126	5	\$ 5,113
2	\$ 2,873	6	\$ 5,860
3	\$ 3,620	7	\$ 6,606
4	\$ 4,366	8	\$ 7,353

COVID-19 Impact: Has your household experienced one of the following changes due to the COVID-19 Pandemic?

- Job Loss;
- Reduced Hours/Wages
- Additional Expenses or
- Other negative impact

Required Documents: All applicants will be required to supply the following documentation at time of application:

- Most current utility bills (water, wastewater electric, natural gas)
- Proof of Social Security Number or Permanent Residence card (Green Card) for each member of the household.
- Proof of all household’s (all members) income from the preceding month
- In addition, Crisis applicants must supply proof of arrearage, payment plan, or disconnect notice for utilities

Benefits Provided: The benefits a household can receive will depend on the program component. Benefits are supplied in the form of a voucher to the vendor or supplier. A household can apply for one or all components and is eligible for up to the maximum allowable benefit for each component.

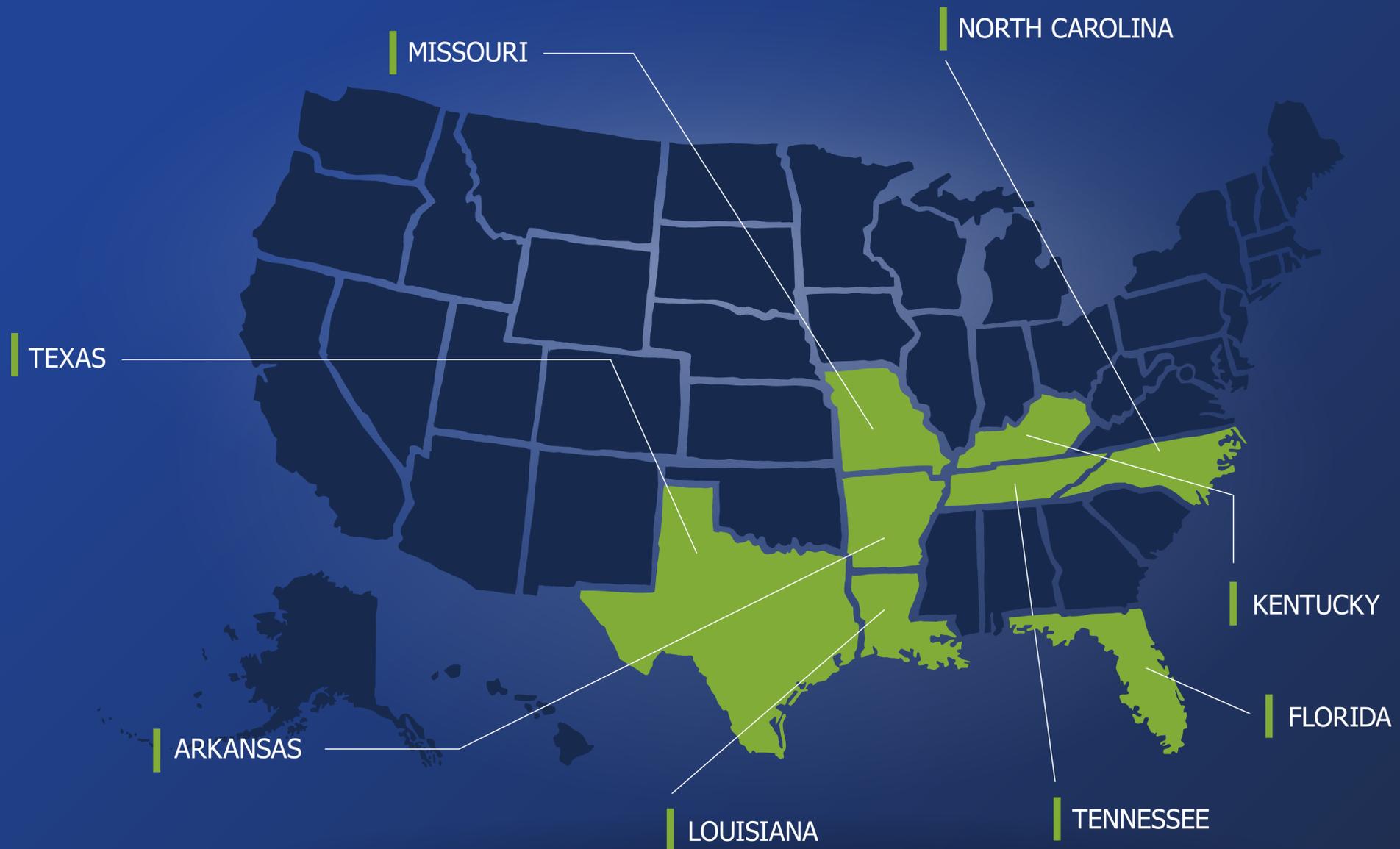
Subsidy: Provides eligible households with an account credit to prevent future crisis and disconnections.

Eligible households can receive a one-time \$500 benefit towards their water and/or wastewater and \$400 towards their natural gas and/or electric bills.

Crisis: Assistance is available for households with past-due natural gas, electric, water, and or wastewater bills.

Water and/or Wastewater: Households can receive assistance for the minimum needed to alleviate the water and/or wastewater crisis up to \$500. Households can reapply until they reached their maximum benefit.

Electric and/or Natural Gas: Households can receive assistance for the minimum needed to alleviate the electric and/or natural gas crisis up to \$400. Households can reapply until they reached their maximum benefit.



AT A GLANCE

Headquartered in St. Louis with operations or pending acquisitions in Missouri, Arkansas, Louisiana, Kentucky, Tennessee, Texas and North Carolina, CSWR uses private investment to acquire and revitalize water systems that are often woefully outdated and dangerous, typically unbeknownst to end users. This enhances the value of individual properties and communities — all through the transformation of essential water resources, many of which have been in operation for more than a half-century.



FOUNDED IN 2014



CEO: JOSIAH COX



DEDICATED
PERSONNEL: 56



CUSTOMERS: 36,515



Dear Customer:

We're writing to update you on the water or wastewater services that serve your community.

Since purchasing the infrastructure that serves your home, Bluegrass Water Utility Operating Company (Bluegrass Water) has invested nearly \$2.5 million in urgently needed improvements in Kentucky communities to ensure you, your families and neighbors have access to clean, safe and reliable drinking water and wastewater systems. Additionally, Bluegrass Water intends to invest an additional \$3.5 million to ensure safe and reliable service. These improvements include remote monitoring equipment at each location to assure facilities are closely tracked and work properly at all times; sewer plant improvements to ensure proper treatment, including flow equalization, replacement of blowers, pipes, and diffusers in aeration tankage, and many more improvements. As a result of these efforts and additional improvements planned for the next 18 months, Bluegrass Water expects to submit a request on September 30, 2020, to the Kentucky Public Service Commission (PSC) for a general adjustment of rates charged for service in order to increase annual water operating revenues by \$336,747 and sewer operating revenues by \$2,177,052.

Please take notice of the following information about the proposed rate adjustment that is presented below and on the enclosed sheet:

The PSC, the state agency that regulates all utility services in Kentucky, will rule on this request and may order rates to be charged that differ from the proposed rates found in this notice. *On the enclosed sheet* is a table that compares present and proposed rates and the amount of the change requested (in dollar and percentage change) for each customer classification to which the proposed rates will apply. The date the proposed rates are expected to be filed with the PSC is September 30, 2020; the proposed effective date of the rates is for service rendered on and after October 31, 2020. As there are only flat rates included in the existing tariff or which affect existing customers, the average customer usage is unknown and the average bill in each service area relates directly to the current rates per month shown in the enclosed sheet.

By prior arrangement, you may examine Bluegrass Water's application at the offices of McBrayer PLLC, 201 East Main Street, Suite 900, Lexington, Kentucky; please contact Holly Lewis at 859-551-3648 or hlewis@mcbayerfirm.com to visit the McBrayer offices to examine the application. Bluegrass Water's application may also be examined at the PSC's offices located at 211 Sower Boulevard, Frankfort Kentucky, Monday through Friday, 8:00 a.m. to 4:30 p.m., or through the commission's Web site at <http://psc.ky.gov>. Comments regarding the application or timely requests for intervention (establishing the grounds for the request, including the status and interest of the requester) may be submitted to the PSC through its website or by mail to:

Public Service Commission, Post Office Box 615, Frankfort, Kentucky 40602

If the PSC does not receive a written request for intervention establishing the grounds for the request (including the status and interest of the party) within thirty (30) days of initial publication or mailing of this notice, the PSC may take final action on the application.

Josiah Cox

President

Bluegrass Water Utility Operating Company, Inc.



Rate Comparison Table

Type of Charge	Service Area	Present Rates (per month)	Proposed Rates (per month)	Change Requested	
				\$	%
Total Monthly Sewer – Single Residential per unit					
	Airview Estates	\$41.36	\$96.14	\$54.78	132.4%
	Brocklyn Subdivision- Single Unit	\$40.00	\$96.14	\$56.14	140.4%
	Fox Run Estates	\$55.85	\$96.14	\$40.29	72.1%
	Great Oaks Subdivision	\$28.84	\$96.14	\$67.30	233.4%
	Golden Acres Subdivision	\$39.57	\$96.14	\$56.57	143.0%
	Kingswood Development	\$38.84	\$96.14	\$57.30	147.5%
	Lake Columbia Estates	\$50.32	\$96.14	\$45.82	91.1%
	Longview and Homestead Subdivisions	\$30.00	\$96.14	\$66.14	220.5%
	Persimmon Ridge Subdivision	\$35.00	\$96.14	\$61.14	174.7%
	City of River Bluff and environs	\$58.16	\$96.14	\$37.98	65.3%
	Timberland Subdivision	\$34.71	\$96.14	\$61.43	177.0%
Total Monthly Sewer – Multi Residential per unit					
	Brocklyn Subdivision – Multi Unit	\$30.40	\$72.11	\$41.71	137.2%
Total Monthly Sewer Bill – Commercial (Flat)					
	Persimmon Ridge Subdivision	\$35.00 per residential equivalent of 12,000 gallons	\$240.36	\$205.36	234.7%
Total Monthly Sewer – Industrial/Commercial (Metered)					
	I-75 & Delaplain Road interchange area (Scott County)	\$8.89 per 1000 gal	\$25.65 per 1000 gal	\$16.76	188.52%
Total Monthly Water Bill - Residential					
	Center Ridge	\$22.79	\$105.84	\$83.05	364.4%

807 KAR 5:006. General rules.

RELATES TO: KRS 65.810, 74, 96.934, 220.510, 278, 49 C.F.R. Part 192, 49 U.S.C. 60105
STATUTORY AUTHORITY: KRS 278.230, 278.280(2), 49 C.F.R. 192

NECESSITY, FUNCTION, AND CONFORMITY: KRS 278.230(3) requires every utility to file with the commission reports, schedules, and other information that the commission requires. KRS 278.280(2) requires the commission to promulgate an administrative regulation for the performance of a service or the furnishing of a commodity by a utility. This administrative regulation establishes requirements that apply to electric, gas, water, sewage, and telephone utilities.

Section 1. Definitions. (1) "Built-up community" means urban areas and those areas immediately adjacent.

(2) "Commission" is defined by KRS 278.010(15).

(3) "Corporation" is defined by KRS 278.010(1).

(4) "Customer" means a person, firm, corporation, or body politic applying for or receiving service from a utility.

(5) "Gross Annual Operating Revenue Reports" means reports that KRS 278.140 requires each utility to file with the commission.

(6) "Nonrecurring charge" means a charge or fee assessed to a customer to recover the specific cost of an activity, which:

(a) Is due to a specific request for a certain type of service activity for which, once the activity is completed, additional charges are not incurred; and

(b) Is limited to only recover the specific cost of the specific service.

(7) "Person" is defined by KRS 278.010(2).

(8) "Tariff" means a utility's schedule of all its rates, charges, tolls, maps, terms, and conditions of service over which the commission has jurisdiction.

(9) "Utility" is defined by KRS 278.010(3).

(10) "Water association" means a non-profit corporation, association, or cooperative corporation having as its purpose the furnishing of a public water supply.

(11) "Water District" means a special district formed pursuant to KRS 65.810 and KRS Chapter 74.

Section 2. General Provisions. Reference to standards or codes in 807 KAR Chapter 5 shall not prohibit a utility from continuing or initiating experimental work and installations to improve, decrease the cost of, or increase the safety of its service.

Section 3. Utility Contact Information. (1) A utility shall notify the commission in writing of:

(a) The address of its main corporate and Kentucky offices, including street address and post office box, city, state, and zip code;

(b) The name, telephone number, facsimile number, and mailing address of the person who serves as its primary liaison with the commission regarding its operations; and

(c) Its electronic mail address.

(2) The electronic mail address required in subsection (1) of this section shall be to an electronic mail account that the utility accesses at least once weekly and that is capable of receiving electronic mail from external sources and with attachments up to five (5) megabytes in size. Unless a utility otherwise advises the commission in writing, all electronic mail transmissions from the commission to the utility shall be sent to this address.

(3) A utility shall notify the commission in writing of a change in the information required in

subsection (1) of this section within ten (10) days of the date of the change.

Section 4. Reports. (1) Gross annual operating revenue reports.

(a) Each utility shall file with the commission its gross operating revenue report on or before March 31 of each year.

(b) An extension request shall not be permitted for a gross annual operating revenue report.

(c) A utility may file an amendment to its report. An amendment shall be filed with the commission on or before May 24 of the same year.

(d) The commission shall:

1. Not certify to the Department of Revenue the amounts of intrastate business established in an amendment filed with the commission after May 24 of that year; and

2. Report those amounts to the Department of Revenue for informational purposes.

(2) Financial and statistical reports.

(a) Every utility shall file annually using the commission's electronic filing system a financial and statistical report on or before March 31 of each year.

(b) This report shall be based upon utility type and the accounts established in conformity with the uniform system of accounts prescribed for that utility type.

(c) If documents are required to supplement or complete the report and cannot be submitted through the commission's electronic filing system, the utility shall file these documents in paper form with the commission no later than March 31.

(d) The commission shall make the reporting forms available on the commission's Web site at <http://psc.ky.gov/>.

(e) For good cause shown, the executive director of the commission shall, upon application in writing, allow an appropriate extension of time for the filing.

(3) Financial statement audit reports. A utility required to file a report in accordance with subsection (2) of this section shall file with the commission on or before September 30 each year, a copy of the audit report of the Kentucky regulated entity, from the audit performed the previous year, or a statement that no audit was performed of the Kentucky regulated entity the previous year. For good cause shown, the executive director of the commission shall, upon application in writing, allow an appropriate extension of time for the filing.

(4) Report of meters, customers, and refunds. Each gas, electric, or water utility shall file quarterly either a Quarterly Meter Report-Electric, Quarterly Meter Report, or a Quarterly Meter Report-Electric-Gas-Water, of meter tests, number of customers, and amount of refunds.

(5) Report of terminations for nonpayment of bills. Each water, electric, or gas utility shall file either the Water Utility Non-Payment Disconnection/Reconnection Report, Electric Utility Non-Payment Disconnection/Reconnection Report, or Gas Utility Non-Payment Disconnection/Reconnection Report, annually to report the number of residential accounts terminated for nonpayment. These reports shall be filed no later than August 15 and shall cover the period ending June 30.

(6) Record and report retention. All records and reports shall be retained in accordance with the uniform system of accounts unless otherwise specified.

(7) Transmittal letter. Each report shall be accompanied by a transmittal letter describing the report being furnished.

(8) Amending reports. Upon discovering a material error in a report filed with the commission, a utility shall file an amended report to correct the error.

Section 5. Service Information. (1)(a) A utility shall, on request, give its customers or prospective customers information that enables the customers to secure safe, efficient, and continuous service.

(b) A utility shall inform its customers of a change made or proposed in the character of its service that might affect the efficiency, safety, or continuity of operation.

(2) Prior to making a substantial change in the character of the service furnished that would affect the efficiency, adjustment, speed, or operation of the equipment or appliances of a customer, a utility shall apply for the commission's approval. The application shall show the nature of the change to be made, the number of customers affected, and the manner in which they will be affected.

(3) The utility shall inform each applicant for service of each type, class, and character of service available at each location.

Section 6. Special Rules or Requirements. (1) A utility shall not establish a special rule or requirement without first obtaining the approval of the commission.

(2) Unless specifically authorized by this administrative regulation, a utility shall not deny or refuse service to a customer who has complied with all conditions of service established in the utility's tariff on file with the commission

(3)(a) Obtaining easements and rights-of-way necessary to extend service shall be the responsibility of the utility.

(b) A utility shall not:

1. Require a prospective customer to obtain easements or rights-of-way on property not owned by the prospective customer as a condition for providing service; or

2. Refuse to provide service to a prospective or existing customer on the basis of that customer's refusal to grant an easement for facilities that do not serve the customer.

(c) The cost of obtaining easements or rights-of-way shall be included in the total per foot cost of an extension, and shall be apportioned among the utility and customer in accordance with 807 KAR 5:041, 5:061, or 5:066.

Section 7. Billings, Meter Readings, and Information. (1) Information on bills.

(a) Each bill for utility service issued periodically by a utility shall clearly show:

1. The date the bill was issued;

2. Class of service;

3. Present and last preceding meter readings;

4. Date of the present reading;

5. Number of units consumed;

6. Meter constant, if applicable;

7. Net amount for service rendered;

8. All taxes;

9. Adjustments, if applicable;

10. The gross amount of the bill;

11. The date after which a penalty may apply to the gross amount; and

12. If the bill is estimated or calculated.

(b) The rate schedule under which the bill is computed shall be posted on the utility's Web site, if it maintains a Web site, and shall also be furnished under one (1) of the following methods, by:

1. Printing it on the bill;

2. Publishing it in a newspaper of general circulation once each year;

3. Mailing it to each customer once each year; or

4. Providing a place on each bill for a customer to indicate the customer's desire for a copy of the applicable rates. The utility shall mail the customer a copy by return first class mail.

(2) Flat rates. Flat rates for unmetered service shall approximate as closely as possible the

utility's rates for metered service. The rate schedule shall clearly establish the basis upon which consumption is estimated.

(3) Bill format. Each utility shall include the billing form; including an e-bill form, if applicable; to be used by it, or its contents, in its tariffed rules.

(4) Meter readings. Registration of each meter shall read in the same units as used for billing unless a conversion factor is shown on the billing form.

(5) Frequency of meter reading.

(a) Except as provided in paragraph (b) of this subsection, each utility, except if prevented by reasons beyond its control, shall read customer meters at least quarterly;

(b) Each customer-read meter shall be read manually, at least once during each calendar year.

(c) Records shall be kept by the utility to insure that the information required by this subsection is available to the commission and any customer requesting this information.

(d) If, due to reasons beyond its control, a utility is unable to read a meter in accordance with this subsection, the utility shall record the date and time the attempt was made, if applicable, and the reason the utility was unable to read the meter.

Section 8. Deposits. (1) Determination of deposits.

(a) A utility may require from a customer a minimum cash deposit or other guaranty to secure payment of bills, except from those customers qualifying for service reconnection pursuant to Section 16 of this administrative regulation.

(b) A utility shall not require a deposit based solely on the customer being a tenant or renter.

(c) The method of determining the amount of a cash deposit may differ between classes of customers, but shall be uniform for all customers within the same class.

(d) The amount of a cash deposit shall be determined by one (1) of the methods established in this paragraph.

1. Calculated deposits.

a. If actual usage data is available for the customer at the same or similar premises, the deposit amount shall be calculated using the customer's average bill for the most recent twelve (12) month period.

b. If actual usage data is not available, the deposit amount shall be based on the average bills of similar customers and premises in the system.

c. Deposit amounts shall not exceed two-twelfths ($2/12$) of the customer's actual or estimated annual bill if bills are rendered monthly, three-twelfths ($3/12$) if bills are rendered bimonthly, or four-twelfths ($4/12$) if bills are rendered quarterly.

2. Equal deposits.

a. A utility may establish an equal deposit amount for each class based on the average bill of customers in that class.

b. Deposit amounts shall not exceed two-twelfths ($2/12$) of the average bill of customers in the class if bills are rendered monthly, three-twelfths ($3/12$) if bills are rendered bimonthly, or four-twelfths ($4/12$) if bills are rendered quarterly.

3. Recalculation of deposits.

a. If a utility retains either an equal or calculated deposit for more than eighteen (18) months, it shall notify customers in writing that, at the customer's request, the deposit shall be recalculated every eighteen (18) months based on actual usage of the customer.

b. The notice of deposit recalculation shall be included:

(i) On the customer's application for service;

(ii) On the receipt of deposit; or

(iii) Annually with or on customer bills.

c. The notice of deposit recalculation shall state that if the deposit on account differs by more than ten (10) dollars for residential customers, or by more than ten (10) percent for non-residential customers, from the deposit calculated on actual usage, the utility shall refund any over-collection and may collect any underpayment.

d. A refund shall be made either by check, electronic funds transfer, or by credit to the customer's account, except that a utility shall not be required to refund an excess deposit if the customer's account is delinquent upon recalculation of the deposit.

(2) Waiver of deposits. Deposits may be waived in accordance with criteria established in its tariff.

(3) Additional deposit requirement.

(a) If a deposit has been waived as established in subsection (2) of this section or has been returned and the customer fails to maintain a satisfactory payment record as defined in the utility's tariff, a utility may require a deposit.

(b) If substantial change in the customer's usage has occurred, the utility may require an additional deposit.

(c) An additional or subsequent deposit shall not be required of a residential customer whose payment record is satisfactory, unless the customer's classification of service changes, except as established in subsection (1)(d)3 of this section.

(4) Receipt of deposit.

(a) A utility shall issue to every customer from whom a deposit is collected a receipt of deposit.

(b) The receipt shall show the name of the customer, location of the service or customer account number, date, and amount of deposit.

(c) If the notice of recalculation established in subsection (1)(d)3 of this section is not included in the utility's application for service or mailed with customer bills, the receipt of deposit shall contain the notification.

(d) If deposit amounts change, the utility shall issue a new receipt of deposit to the customer.

(5) Deposits as a condition of service. Except as established in Section 16 of this administrative regulation, a utility may refuse or discontinue service to a customer pursuant to Section 15 of this administrative regulation if payment of requested deposits is not made.

(6) Interest on deposits.

(a) Interest shall accrue on all deposits at the rate prescribed by KRS 278.460, beginning on the date of deposit.

(b) Interest accrued shall be refunded to the customer or credited to the customer's bill on an annual basis.

(c) If interest is paid or credited to the customer's bill prior to twelve (12) months from the date of deposit, or the last interest payment date, the payment or credit shall be on a prorated basis.

(d) Upon termination of service, the deposit; any principal amounts, and interest earned and owing shall be credited to the final bill with any remainder refunded to the customer.

(7) Interest on deposits for water districts and associations.

(a) A water district or association that maintains a separate interest-bearing bank account designated as the customer deposit account shall pay interest to its customers on the deposits held at the rate in effect at each customer's anniversary date or at December 31 of the previous year for the customer deposit account.

(b) A water district or association that does not maintain a separate interest-bearing bank account designated as the customer deposit account shall pay interest to its customers on the deposits held at a rate that is the weighted average rate of all of its interest bearing accounts

as of December 31 of the previous year.

(c) If the water district or association does not have funds in an interest-bearing account, the water district or association shall pay interest to its customers on the deposits held at the rate in effect at each customer's anniversary date or at December 31 of the previous year for a basic savings account at the financial institution at which the water district or association maintains its operation and maintenance account.

(8) Tariff requirements. A utility that chooses to require deposits shall establish and include in its filed tariff the deposit policy to be utilized. This policy shall include:

(a) The method by which deposit amounts will be determined for each customer class;

(b) Standard criteria for determining if a deposit will be required or waived;

(c) The deposit amount for each customer class if the method in subsection (1)(d)(2) of this section is used;

(d) The period of time the utility will retain the deposit, or the conditions under which the utility will refund the deposit, or both if applicable; and

(e) The manner in which interest on deposits will be calculated and accrued and refunded or credited to customers' bills.

Section 9. Nonrecurring Charges. (1) A utility may make special nonrecurring charges to recover customer-specific costs incurred that would otherwise result in monetary loss to the utility or increased rates to other customers to whom no benefits accrue from the service provided or action taken. A utility desiring to establish or change a special nonrecurring charge shall apply for commission approval of the charge in accordance with the provisions of 807 KAR 5:011, Section 10.

(2) A nonrecurring charge shall be included in a utility's tariff and applied uniformly throughout the area served by the utility. A charge shall relate directly to the service performed or action taken and shall yield only enough revenue to pay the expenses incurred in rendering the service.

(3) A nonrecurring charge shall include the charges listed in this subsection and may include other customer specific costs in accordance with this section and 807 KAR 5:011, Section 10.

(a) Turn-on charge.

1. A turn-on charge may be assessed for a new service turn on, seasonal turn on, or temporary service.

2. A turn-on charge shall not be made for initial installation of service if a tap fee is applicable.

(b) Reconnect charge.

1. A reconnect charge may be assessed to reconnect a service that has been terminated for nonpayment of bills or violation of the utility's tariffed rules or 807 KAR Chapter 5.

2. A customer who qualifies for service reconnection pursuant to Section 16 of this administrative regulation shall be exempt from reconnect charges.

(c) Termination or field collection charge.

1. A charge may be assessed if a utility representative makes a trip to the premises of a customer for the purpose of terminating service.

2. The charge may be assessed if the utility representative actually terminates service or if, in the course of the trip, the utility representative agrees to delay termination based on the customer's payment or agreement to pay the delinquent bill by a specific date.

3. The utility shall not make a field collection charge more than once in a billing period.

(d) Special meter reading charge. This charge may be assessed if:

1. A customer requests that a meter be reread, and the second reading shows the original

reading was correct. A charge shall not be assessed if the original reading was incorrect; or

2. A customer who reads his or her own meter fails to read the meter for three (3) consecutive months and it is necessary for a utility representative to make a trip to read the meter.

(e) Meter resetting charge. A charge may be assessed for resetting a meter if the meter has been removed at the customer's request.

(f) Meter test charge. This charge may be assessed if a customer requests the meter be tested pursuant to Section 19 of this administrative regulation and the tests show the as-found meter accuracy is within the limits established by 807 KAR 5:022, Section 8(3)(a)1. and 8(3)(b)1.; 5:041, Section 17(1); or 5:066, Section 15(2)(a).

(g) Returned payment charge. A returned payment charge may be assessed if payment of a utility bill is not honored by the customer's financial institution.

(h) Late payment charge. A late payment charge may be assessed if a customer fails to pay a bill for services by the due date shown on the customer's bill.

1. The late payment charge may be assessed only once on a bill for rendered services.

2. A payment received shall first be applied to the bill for service rendered.

3. Additional late payment charges shall not be assessed on unpaid late payment charges.

Section 10. Customer Complaints to the Utility. (1) Upon complaint to a utility by a customer at the utility's office, by telephone or in writing, the utility shall make a prompt and complete investigation and advise the customer of the utility's findings.

(2) The utility shall keep a record of all written complaints concerning the utility's service. This record shall include:

(a) The customer's name and address;

(b) The date and nature of the complaint; and

(c) The disposition of the complaint.

(3) Records shall be maintained for two (2) years from the date of resolution of the complaint.

(4) If a written complaint or a complaint made in person at the utility's office is not resolved, the utility shall provide written notice to the customer of his or her right to file a complaint with the commission and shall provide the customer with the mailing address, Web site address, and telephone number of the commission.

(5) If a telephonic complaint is not resolved, the utility shall provide at least oral notice to the customer of his or her right to file a complaint with the commission and the mailing address, Web site address, and telephone number of the commission.

Section 11. Bill Adjustment for Gas, Electric, or Water Utilities. (1) If, upon periodic test, request test, or complaint test, a meter in service is found to be in error in excess of the limits established by 807 KAR 5:022, Section 8(3)(a)2.; 5:041, Section 17(1); or 5:066, Section 15(4), additional tests shall be made in accordance with those same administrative regulations applicable for the meter type involved to determine the average meter error.

(2)(a) If test results on a customer's meter show an average meter error greater than two (2) percent fast or slow, or if a customer has been incorrectly billed for another reason, except if a utility has filed a verified complaint with the appropriate law enforcement agency alleging fraud or theft by a customer, the utility shall:

1. Immediately determine the period during which the error has existed;

2. Recompute and adjust the customer's bill to either provide a refund to the customer or collect an additional amount of revenue from the underbilled customer; and

3. Readjust the account based upon the period during which the error is known to have existed.

(b)1. If the period during which the error existed cannot be determined with reasonable precision, the time period shall be estimated using the data as elapsed time since the last meter test, if applicable, and historical usage data for the customer.

2. If that data is not available, the average usage of a similar class of customers shall be used for comparison purposes in calculating the time period.

(c) If the customer and the utility are unable to agree on an estimate of the time period during which the error existed, the commission shall determine the issue based on this section.

(d) In an instance of customer overbilling, the customer's account shall be credited or the overbilled amount refunded at the discretion of the customer within thirty (30) days after the investigation is complete.

(e) A utility shall not require customer repayment of an underbilling to be made over a period shorter than a period coextensive with the underbilling.

(3) Monitoring usage.

(a) A utility shall monitor a customer's usage at least quarterly according to procedures that shall be included in its tariff.

(b) The procedures shall be designed to draw the utility's attention to unusual deviations in a customer's usage and shall provide for reasonable means by which the utility can determine the reasons for the unusual deviation.

(c) If a customer's usage is unduly high and the deviation is not otherwise explained, the utility shall test the customer's meter to determine if the meter shows an average meter error greater than two (2) percent fast or slow.

(4) Usage investigation.

(a) If a utility's procedure for monitoring usage indicates that an investigation of a customer's usage is necessary, the utility shall notify the customer in writing:

1. Within ten (10) days of removing the meter from service, that a usage investigation is being conducted and the reasons for the investigation; and

2. Within ten (10) days upon completion of the investigation of the findings of the investigation.

(b) If knowledge of a serious situation requires more expeditious notice, the utility shall notify the customer by the most expedient means available.

(c) If the meter shows an average meter error greater than two (2) percent fast or slow, the utility shall maintain the meter in question at a secure location under the utility's control, for a period of six (6) months from the date the customer is notified of the finding of the investigation and the time frame the meter will be secured by the utility or if the customer has filed a formal complaint pursuant to KRS 278.260, the meter shall be maintained until the proceeding is resolved.

(5) Customer notification. If a meter is tested and it is found necessary to make a refund or back bill a customer, the customer shall be notified in substantially the following form:

On _____, (date)____, the meter bearing identification No. ____ installed in your building located at _____ (Street and Number) in _____ (city) was tested at _____ (on premises or elsewhere) and found to register _____ (percent fast or slow). The meter was tested on _____ (Periodic, Request, Complaint) test. Based upon these test results the utility will _____ (charge or credit) your account in the sum of \$_____, which has been noted on your regular bill. If you desire a cash refund, rather than a credit to your account, of any amount overbilled, you shall notify this office in writing within seven (7) days of the date of this notice.

(6) A customer account shall be considered to be current while a dispute is pending pursuant to this section, if the customer:

(a) Continues to make payments for the disputed period in accordance with historic usage,

or if that data is not available, the average usage of similar customer loads; and
(b) Stays current on subsequent bills.

Section 12. Status of Customer Accounts During Billing Dispute. With respect to a billing dispute to which Section 11 of this administrative regulation does not apply, a customer account shall be considered to be current while the dispute is pending if the customer continues to make undisputed payments and stays current on subsequent bills.

Section 13. Customer's Request for Termination of Service. (1)(a) A customer who requests that service be terminated or changed from one (1) address to another shall give the utility three (3) working days' notice in person, in writing, or by telephone, if the notice does not violate contractual obligations or tariff provisions.

(b) The customer shall not be responsible for charges for service beyond the three (3) day notice period if the customer provides access to the meter during the notice period in accordance with section 20 of this administrative regulation.

(c) If the customer notifies the utility of his request for termination by telephone, the burden of proof shall be on the customer to prove that service termination was requested if a dispute arises.

(2) Upon request that service be reconnected at a premises subsequent to the initial installation or connection to its service lines, the utility may, subject to subsection (3) of this section, charge the applicant a reconnect fee established in its filed tariff.

(3) A utility desiring to establish a termination or reconnection charge pursuant to subsection (2) of this section shall apply for commission approval of the charge in accordance with the provisions of 807 KAR 5:011, Section 10.

Section 14. Utility Customer Relations. (1) A utility shall post and maintain regular business hours and provide representatives available to assist its customers and to respond to inquiries from the commission regarding customer complaints.

(a) Available telephone numbers. Each utility shall:

1. Maintain a telephone;
2. Publish the telephone number in all service areas; and
3. Permit all customers to contact the utility's designated representative without charge.

(b) Designated representatives. Each utility shall designate at least one (1) representative to be available to answer customer questions, resolve disputes, and negotiate partial payment plans at the utility's office. The designated representative shall be knowledgeable of this administrative regulation; 807 KAR 5:001, Section 20; KRS 278.160(2); and KRS 278.225 regarding customer bills and service and shall be authorized to negotiate and accept partial payment plans.

1. Each water, sewer, electric, or gas utility having annual operating revenues of \$250,000 or more shall make the designated representative available during the utility's established working hours not fewer than seven (7) hours per day, five (5) days per week, excluding legal holidays.

2. Each water, sewer, electric, or gas utility having annual operating revenues of less than \$250,000 shall make the designated representative available during the utility's established working hours not fewer than seven (7) hours per day, one (1) day per week. Additionally, during the months of November through March, each utility providing gas or electric service shall make available the designated representative during the utility's established working hours not fewer than five (5) days per week, excluding legal holidays.

(c) Display of customer rights.

1. Each utility shall prominently display in each office open to the public for customer service, and shall post on its Web site, if it maintains a Web site, a summary, prepared and provided by the commission, of the customer's rights pursuant to this section and Section 16 of this administrative regulation.

2. If a customer indicates to any utility personnel that he or she is experiencing difficulty in paying a current utility bill, that employee shall refer the customer to the designated representative for an explanation of his or her rights.

(d) Utility personnel training.

1. The chief operating officer of a utility that provides electric or gas service to residential customers shall certify under oath annually the training of utility personnel assigned to counsel persons presenting themselves for utility service pursuant to this section.

2. If the electric or gas utility is not incorporated in Kentucky and if the utility's corporate headquarters is not located in Kentucky, then the utility's highest ranking officer located in Kentucky shall make the required certification.

3. Training shall include an annual review of this administrative regulation and policies regarding winter hardship and disconnect, Cabinet for Health and Family Services (or its designee) policy and programs for issuing certificates of need, and the utility's policies regarding collection, arrears repayment plans, budget billing procedures, and weather or health disconnect policies.

4. Certification shall include written notice to the commission by no later than October 31 of each year identifying the personnel trained, the date training occurred, and that the training met the requirements of this section.

(2) Partial payment plans. Each utility shall negotiate and accept reasonable partial payment plans at the request of residential customers who have received a termination notice for failure to pay as provided in Section 15 of this administrative regulation, except that a utility is not required to negotiate a partial payment plan with a customer who is delinquent under a previous partial payment plan. Partial payment plans shall be mutually agreed upon and subject to the conditions in this section and Section 15 of this administrative regulation. Partial payment plans that extend for a period longer than thirty (30) days shall be in writing or electronically recorded, state the date and the amount of payment due. Written partial payment plans shall be dated and signed by both parties, and shall advise customers that service may be terminated without additional notice if the customer fails to meet the obligations of the plan.

(a) Budget payment plans for water, gas, and electric utilities. A water, gas, and electric utility shall develop and offer to the utility's residential customers a budget payment plan based on historical or estimated usage whereby a customer may elect to pay a fixed amount each month in lieu of monthly billings based on actual usage.

1. Pursuant to this plan, a utility shall issue bills that adjust accounts so as to bring each participating customer current once each twelve (12) month period. The customer's account may be adjusted at the end of the twelve (12) month period or through a series of levelized adjustments on a monthly basis if usage indicates that the account will not be current upon payment of the last budget amount.

2. Budget payment plans shall be offered to residential customers and may be offered to other classes of customers.

3. The provisions of the budget plan shall be included in the utility's tariffed rules.

4. The utility shall provide information to its customers regarding the availability of budget payment plans.

(b) Partial payment plans for customers with medical certificates or certificates of need. For customers presenting certificates pursuant to the provisions of Sections 15(3) and 16 of this administrative regulation, gas and electric utilities shall negotiate partial payment plans based

upon the customer's ability to pay, requiring accounts to become current not later than the following October 15. The plans include, for example, budget payment plans and plans that defer payment of a portion of the arrearage until after the end of the heating season through a schedule of unequal payments.

(3) Utility inspections of service conditions prior to providing service. Each electric, gas, water, and sewer utility shall inspect the condition of its meter and service connections before making service connections to a new customer so that prior or fraudulent use of the facilities shall not be attributed to the new customer.

(a) The new customer shall be afforded the opportunity to be present at the inspections.

(b) The utility shall not be required to render service to a customer until all defects in the customer-owned portion of the service facilities have been corrected.

(4) Prompt connection of service. Except as provided in Section 16 of this administrative regulation, the utility shall reconnect existing service within twenty-four (24) hours or close of the next business day, whichever is later, and shall install and connect new service within seventy-two (72) hours or close of the next business day, whichever is later, if the cause for refusal or discontinuance of service has been corrected and the utility's tariffed rules and 807 KAR Chapter 5 have been met.

(5) Advance termination notice. If advance termination notice is required, the termination notice shall be mailed or otherwise delivered to the customer's last known address. The termination notice shall be in writing, distinguishable and separate from a bill.

(a) The termination notice shall plainly state the reason for termination, that the termination date shall not be affected by receipt of a subsequent bill, and that the customer has the right to dispute the reasons for termination.

(b) The termination notice shall also comply with the applicable requirements of Section 15 of this administrative regulation.

Section 15. Refusal or Termination of Service. (1) A utility may refuse or terminate service to a customer only pursuant to the following conditions, except as provided in subsections (2) and (3) of this section:

(a) For noncompliance with the utility's tariffed rules or the commission's administrative regulations.

1. A utility may terminate service for a customer's failure to comply with applicable tariffed rules or 807 KAR Chapter 5 pertaining to that service.

2. A utility shall not terminate or refuse service to a customer for noncompliance with the utility's tariffed rules or 807 KAR Chapter 5 without first having made a reasonable effort to obtain customer compliance.

3. After the effort by the utility, service may be terminated or refused only after the customer has been given at least ten (10) days written termination notice pursuant to Section 14(5) of this administrative regulation.

(b) For dangerous conditions. If a dangerous condition relating to a utility's service that could subject a person to imminent harm or result in substantial damage to the property of the utility or others is found to exist on the customer's premises, the service shall be refused or terminated without advance notice.

1. The utility shall notify the customer immediately in writing and, if possible, orally of the reasons for the termination or refusal.

2. The notice shall be recorded by the utility and shall include the corrective action to be taken by the customer or utility before service can be restored or provided.

3. If the dangerous condition, such as gas piping or a gas-fired appliance, can be effectively isolated or secured from the rest of the system, the utility need discontinue service only to the

affected piping or appliance.

(c) For refusal of access. If a customer refuses or neglects to provide reasonable access to the premises for installation, operation, meter reading, maintenance, or removal of utility property, the utility may terminate or refuse service. The action shall be taken only if corrective action negotiated between the utility and customer has failed to resolve the situation and after the customer has been given at least ten (10) days' written notice of termination pursuant to Section 14(5) of this administrative regulation.

(d) For outstanding indebtedness. Except as provided in Section 16 of this administrative regulation, a utility shall not be required to furnish new service to a person contracting for service who is indebted to the utility for service furnished or other tariffed charges until that person contracting for service has paid his indebtedness.

(e) For noncompliance with state, local, or other codes. A utility may refuse or terminate service to a customer if the customer does not comply with state, municipal, or other codes. A utility may terminate service pursuant to this subsection only after ten (10) days' written notice is provided pursuant to Section 14(5) of this administrative regulation, unless ordered to terminate immediately by a governmental official.

(f) For nonpayment of bills. A utility may terminate service at a point of delivery for nonpayment of charges incurred for utility service at that point of delivery. A utility shall not terminate service to any person contracting for service for nonpayment of bills for any tariffed charge without first having mailed or otherwise delivered an advance termination notice which complies with the requirements of Section 14(5) of this administrative regulation.

1. Termination notice requirements for electric or gas service.

a. Each electric or gas utility proposing to terminate customer service for nonpayment shall mail or otherwise deliver to that customer ten (10) days' written notice of intent to terminate.

b. Service shall not, for any reason, be terminated before twenty-seven (27) days after the mailing date of the original unpaid bill.

c. The termination notice to residential customers shall include written notification to the customer of the existence of local, state, and federal programs providing for the payment of utility bills under certain conditions, and of the address and telephone number of the Cabinet for Health and Family Services (or its designee) to contact for possible assistance.

2. Termination notice requirements for water, sewer, or telephone service.

a. Each water, sewer, or telephone utility proposing to terminate customer service for nonpayment shall mail or otherwise deliver to that customer five (5) days' written notice of intent to terminate.

b. Service shall not, for any reason, be terminated before twenty (20) days after the mailing date of the original unpaid bill.

3. The termination notice requirements of this subsection shall not apply if termination notice requirements to a particular customer or customers are otherwise dictated by the terms of a special contract between the utility and customer, which has been approved by the commission.

4. This subsection shall not prevent or restrict a utility from discontinuing service if a sewer service provider requests discontinuance of a customer's water service pursuant to KRS 74.408, 96.934, or 220.510, nor shall it restrict a water district from discontinuing water service to a customer who has failed to pay his bill for sewer service that the water district has provided.

(g) For illegal use or theft of service. A utility may terminate service to a customer without advance notice if it has evidence that a customer has obtained unauthorized service by illegal use or theft.

1.a. Within twenty-four (24) hours after termination, the utility shall send written notification

to the customer of the reasons for termination or refusal of service upon which the utility relies, and of the customer's right to challenge the termination by filing a formal complaint with the commission.

b. This right of termination is separate from and in addition to any other legal remedies that the utility may pursue for illegal use or theft of service.

2. The utility shall not be required to restore service until the customer has complied with all tariffed rules of the utility, KRS Chapter 278, and 807 KAR Chapter 5.

(2) A utility shall not terminate service to a customer if:

(a) Payment for services is made. If, following receipt of a termination notice for nonpayment but prior to the actual termination of service payment of the amount in arrears is received by the utility, service shall not be terminated;

(b) A payment agreement is in effect. Service shall not be terminated for nonpayment if the customer and the utility have entered into a partial payment plan in accordance with Section 14 of this administrative regulation and the customer is meeting the requirements of the plan; or

(c) A medical certificate is presented. Service shall not be terminated for thirty (30) days beyond the termination date if a physician, registered nurse, or public health officer certifies in writing that termination of service will aggravate a debilitating illness or infirmity currently suffered by a resident living at the affected premises.

1. A utility may refuse to grant consecutive extensions for medical certificates past the original thirty (30) days unless the certificate is accompanied by an agreed partial payment plan in accordance with Section 14 of this administrative regulation.

2. A utility shall not require a new deposit from a customer to avoid termination of service for a thirty (30) day period who presents to the utility a medical certificate certified in writing by a physician, registered nurse, or public health officer.

(3) A gas or electric utility shall not terminate service for thirty (30) days beyond the termination date if the Kentucky Cabinet for Health and Family Services (or its designee) certifies in writing that the customer is eligible for the cabinet's energy assistance program or household income is at or below 130 percent of the poverty level, and the customer presents the certificate to the utility.

(a) A customer eligible for certification from the Cabinet for Health and Family Services shall have been issued a termination notice between November 1 and March 31.

(b) Each certificate shall be presented to the utility during the initial ten (10) day termination notice period.

(c)1. As a condition of the thirty (30) day extension, the customer shall exhibit good faith in paying his indebtedness by making a present payment in accordance with his ability to do so.

2. In addition, the customer shall agree to a repayment plan in accordance with Section 14 of this administrative regulation, which shall permit the customer to become current in the payment of his bill as soon as possible but not later than October 15.

(d) A utility shall not require a new deposit from a customer to avoid termination of service for a thirty (30) day period who presents a certificate to the utility certified by the Cabinet for Health and Family Services (or its designee) that the customer is eligible for the cabinet's Energy Assistance Program or whose household income is at or below 130 percent of the poverty level.

Section 16. Winter Hardship Reconnection. (1) Notwithstanding the provisions of Section 14(4) of this administrative regulation to the contrary, an electric or gas utility shall reconnect service to a residential customer who has been disconnected for nonpayment of bills pursuant to Section 15(1)(f) of this administrative regulation prior to application for reconnection, and who applies for reconnection during the months from November 1 through March 31 if the cus-

tomor or his agent:

(a) Presents a certificate of need from the Cabinet for Health and Family Services (or its designee), including a certification that a referral for weatherization services has been made in accordance with subsection (3) of this section;

(b) Pays one-third (1/3) of his outstanding bill or \$200, whichever is less; and

(c) Agrees to a repayment schedule that would permit the customer to become current in the payment of his electric or gas bill as soon as possible but no later than October 15.

1. If the customer applies for reconnection and the customer has an outstanding bill in excess of \$600 and agrees to a repayment plan that would pay current charges and makes a good faith reduction in the outstanding bill consistent with his ability to pay, then the plan shall be accepted.

2. In addition to payment of current charges, repayment schedules shall provide an option to the customer to select either one (1) payment of arrearages per month or more than one (1) payment of arrearages per month.

(d) A utility shall not require a new deposit from a customer whose service is reconnected due to paragraphs (a), (b), or (c) of this subsection.

(2) Certificate of need for reconnection. A customer who is eligible for energy assistance under the Cabinet for Health and Family Services' guidelines or is certified as being in genuine financial need, which is defined as a household with gross income at or below 130 percent of the poverty level, may obtain a certificate of need from the cabinet (or its designee) to be used in obtaining a service reconnection from the utility.

(3) Weatherization program. Customers obtaining a certificate of need pursuant to this administrative regulation shall agree to accept referral to and utilize weatherization services administered by the Cabinet for Health and Family Services. The provision and acceptance of weatherization services shall be contingent on the availability of funds and other program guidelines. Weatherization services include, for example, weather stripping, insulation, and caulking. A customer current with his or her payment plan pursuant to subsection 1(c) of this section shall not be disconnected.

Section 17. Meter Testing. (1) All electric, gas, and water utilities furnishing metered service shall provide meter standards and test facilities, as more specifically established in 807 KAR 5:022, 5:041, and 5:066. Before being installed for use by a customer, an electric, gas, and water meter shall be tested and in good working order and shall be adjusted as close to the optimum operating tolerance as possible, as more specifically established in 807 KAR 5:022, Section 8(3)(a), 5:041, Section 17(1)(a)-(c), and 5:066, Section 15(2)(a)-(b).

(2) A utility may have all or part of its testing of meters performed by another utility or agency approved by the commission for that purpose. Each utility having tests made by another agency or utility shall notify the commission of those arrangements in detail to include make, type, and serial number of standards used to make the tests.

(3) A utility shall not place in service a basic measurement standard required by 807 KAR Chapter 5 unless the calibration has been approved by the commission. All utilities or agencies making tests or checks for utility purposes shall notify the commission promptly of the adoption or deletion of a basic standard requiring commission approval of the calibration.

(4) An electric, gas, and water utility or agency doing meter testing for a utility shall have in its employ meter testers certified by the commission. These certified meter testers shall perform tests as necessary to determine the accuracy of the utility's meters and to adjust the utility's meters to the degree of accuracy required by 807 KAR Chapter 5.

(5) A utility or agency desiring to have an employee certified as meter tester shall submit the name of each applicant on an "Application for Appointment of Meter Tester." The applicant

shall pass a written test administered by commission staff and have his competency in the testing of meters verified by commission staff, at which time the applicant shall be certified as a meter tester and furnished with a card authorizing him to perform meter tests.

(6) A utility or agency may employ apprentices in training for certification as meter testers.

(a) The apprentice period shall be a minimum of six (6) months, after which the meter tester apprentice shall comply with subsection (5) of this section.

(b) All tests performed during this period by an apprentice shall be witnessed by a certified meter tester.

Section 18. Meter Test Records. (1)(a) A complete record of all meter tests and adjustments and data sufficient to allow checking of test calculations shall be recorded by the meter tester. The record shall include:

1. Information to identify the unit and its location;
2. Date of tests;
3. Reason for the tests;
4. Readings before and after test;
5. Statement of "as found" and "as left" accuracies sufficiently complete to permit checking of calculations employed;
6. Notations showing that all required checks have been made;
7. Statement of repairs made, if any;
8. Identifying number of the meter;
9. Type and capacity of the meter; and
10. The meter constant.

(b) The complete record of tests of each meter shall be continuous for at least two (2) periodic test periods and shall in no case be less than two (2) years.

(2) Historical records. (a) A utility shall keep numerically arranged and properly classified records for each meter that it owns, uses, and inventories.

(b) These records shall include:

1. Identification number;
2. Date of purchase;
3. Name of manufacturer;
4. Serial number;
5. Type;
6. Rating; and
7. Name and address of each customer on whose premises the meter has been in service with date of installation and removal.

(c) These records shall also contain condensed information concerning all tests and adjustments including dates and general results of the adjustments. The records shall reflect the date of the last test and indicate the proper date for the next periodic test required by the applicable commission administrative regulation in 807 KAR Chapter 5.

(3) Sealing of meters. Upon completion of adjustment and test of a meter pursuant to 807 KAR Chapter 5, a utility shall affix to the meter a suitable seal in a manner that adjustments or registration of the meter cannot be altered without breaking the seal.

(4) A utility may store the meter test and historical data described or required in subsections (1) and (2) of this section in a computer storage and retrieval system upon notification to the commission. If a utility elects to use a computer storage and retrieval system, a back-up copy of the identical information shall be retained.

Section 19. Request Tests. (1) A utility shall make a test of a meter upon written request of