

**JULY**



## Shot List CSWR/Bluegrass Water

**Date of Shoot:** 7/14

**Time/Location Start:** 7 a.m., Timberland

**UOC:** Bluegrass Water

**Systems:** Timberland, Center Ridge, River Bluffs

**Videographer:** Mike Wilkinson

**Videographer Contact Information:**

**CSWR Engineers Onsite:** Jon Meany and Jake Freeman

**Engineers' Contact Information:** Jon Meany 314-482-0342; Jake Freeman 314-550-1167

**System Name:** Timberland

**System Improvement State:** Initial Condition

**Address:** ~8360 Silver Ridge Road, West Paducah, KY 42086

**Lat/Long (if no address):** 37.0792, -88.7753

Shots:

- Establishing shots of Mechanical Plant, Lift Station, and Lagoon
- General condition of steel
- Condition of lift station foundation
- PVC piping and piping from lift station to mechanical plant
- Deterioration of mechanical plant
- Deteriorating control panels
- Condition of lagoon and lagoon berms
- Damage to contact chamber



**System Name: Center Ridge**

**System Improvement State:** Initial

**Address:** See each site

**Lat/Long (if no address):** See each site

**Center Ridge WD 1:**

**Addresses:**

**Active Well Site:** 356 Pineview Dr, New Concord, KY 42076 (36.5926, -88.0686)

**Inactive Well Site:** 218 Pineview Dr, New Concord, KY 42076 (36.5942, -88.0685)

- Establishing shots of Well and tank house showing condition of the building
- Exposed wiring in well house and lack of ceiling in well house
- Exposed wiring at well head
- Tank condition
- Shots at Dilapidated well site

**Center Ridge WD 2:**

**Well Site:** Wedgewood Dr, New Concord, KY 42076 (36.5867, -88.0778)

- Establishing shots of Well 1 and tank 1 house showing condition of the building
- Interior shots showing poor condition of tank (leaks and rust)
- Shots of poor condition of well
- Shots of poor condition of well house interior
- Establishing shots of Well 2 house
- Shots of failed piping in dilapidated well house



### **Center Ridge WD 3:**

**Active Well Site:** 11 Whisper Dr W, Murray, KY 42071 (36.6470, -88.0834)

- Establishing shots of Well and tank house showing condition of the building (show road condition as well)
- Shots of both well housings feeding into house
- Shots of well heads showing exposed wiring and condition of well head
- Show poor condition of well house (tarp roof)
- Shot of conduits crossing driveway
- Interior well house shots
- Exposed wiring
- Rotting chipboard flooring
- General damage

### **Center Ridge WD 4:**

**Active Well Site:** Well House Rd, Murray, KY 42071 (36.7367, -88.1388)

- Establishing shots of Well and tank house showing condition of the building (show road condition as well)
- Show condition of well house, including deterioration of structure where it is in contact with the ground
- Show well house interior
- Exposed wiring and clutter
- Poor insulation
- Condition of hydro tank
- Well head shots



**System Name: River Bluffs**

**System Improvement State:**

**Addresses:**

**Plant:** 13201 Creekview Rd, Prospect, KY 40059 (38.3771, -85.6044)

**Lift Station 1:** 13417 Creekview Rd, Prospect, KY 40059 (38.3701, -85.6069)

**Lift Station 2:** Locust Circle E, Prospect, KY 40059 (38.3686, -85.5961)

**Shots:**

- Establishing shots of Mechanical Plant, Lift Station
- Detailed shots of corrosion on plant
- Shots of terrible pvc piping
- Shots of deteriorating control panels
- Shots of influent lift station
- Shots of deterioration of plant interior
- Establishing shot of Lift Station 1
- Shot of control panel damage at LS1
- Establishing shot of Lift Station2
- Shot of control panel damage at LS2



Bluegrass Water UOC · Follow

July 1, 2020 · 🌐

🔴 **BOIL WATER ADVISORY** 🔴 **UPDATE** (Effective 07/01/20): The boil water advisory has been lifted for Center Ridge District 4 (near Aurora, KY) community members. For additional information please visit us at: <https://www.centralstateswaterresources.com/bluegrass-water/> Thank you for your patience. See Less





Bluegrass Water UOC

July 2, 2020 · 🌐



When you're busy or on-the-go, it may be hard to get your recommended daily water intake. Consuming fruits and veggies with your water content is a great trick to drink more. Here are other ways:



EVERYDAYHEALTH.COM

### 6 Smart Tips for Staying Hydrated Throughout the Day | Everyday Health



Bluegrass Water UOC

July 7, 2020 · 🌐



No one should consume saline water. Once it goes through a transformational process called desalination, it's totally drinkable. Here's how it works:



USGS.GOV

### Desalination

Humans cannot drink saline water, but, saline water can be made into freshwater, for which there are many uses. The process is called "desalination", and it is being used more and



Bluegrass Water UOC · Follow

July 8, 2020 · 🌐

#WaterWednesday Did you know...creatures in the ocean are suffering

**“By 2025, ocean  
plastic will  
outweigh all of  
the ocean’s fish.”**



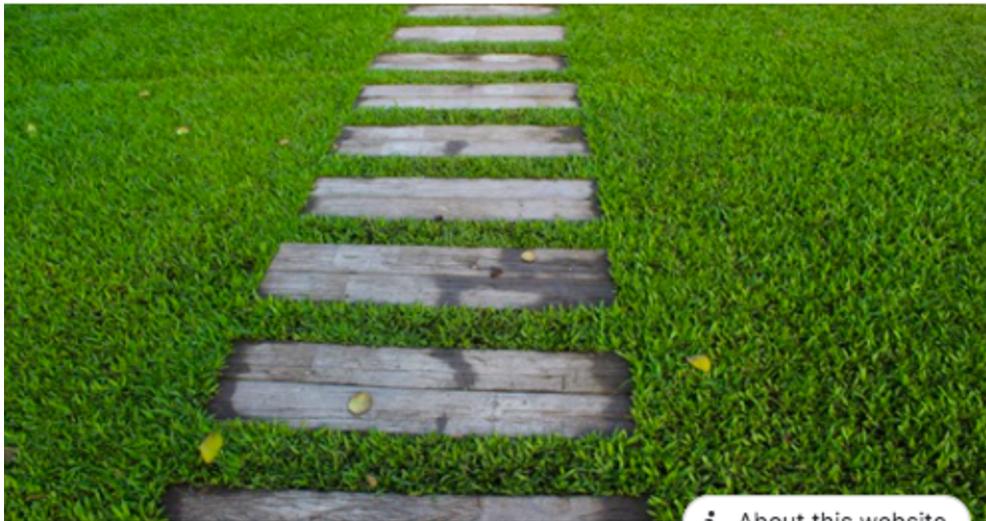


**Bluegrass Water UOC**

July 15, 2020 · 🌐



It's estimated that nearly half of the water used outdoors is lost because of overwatering. Don't worry. Here are a few ways you can use less H2O:



[i About this website](#)

CENTRALSTATESWATERRESOURCES.COM

**CSWR | Keep the Green in Your Pocket By Being Efficient With Outdoor Water Use**



Bluegrass Water UOC · [Follow](#)  
July 20, 2020 · 🌐



Our innovative technology allows us to bring safe and reliable water resources to our communities across the nation.





Bluegrass Water UOC · Follow

July 22, 2020 · 🌐

#WaterWednesday What does a human brain and a living tree have in common?

**"75% of the human  
brain is water  
and  
75% of a living tree is  
water."**

Source: EPA.gov





Bluegrass Water UOC

July 24, 2020 · 🌐



H<sub>2</sub>O is necessary for all living organisms. Along with boosting hydration, it supports your overall health. Here are more great benefits:



[About this website](#)

HEALTHLINE.COM

### Why Is Water Important? 16 Reasons to Drink Up

Not only does water make up most of your weight, it's involved in many...

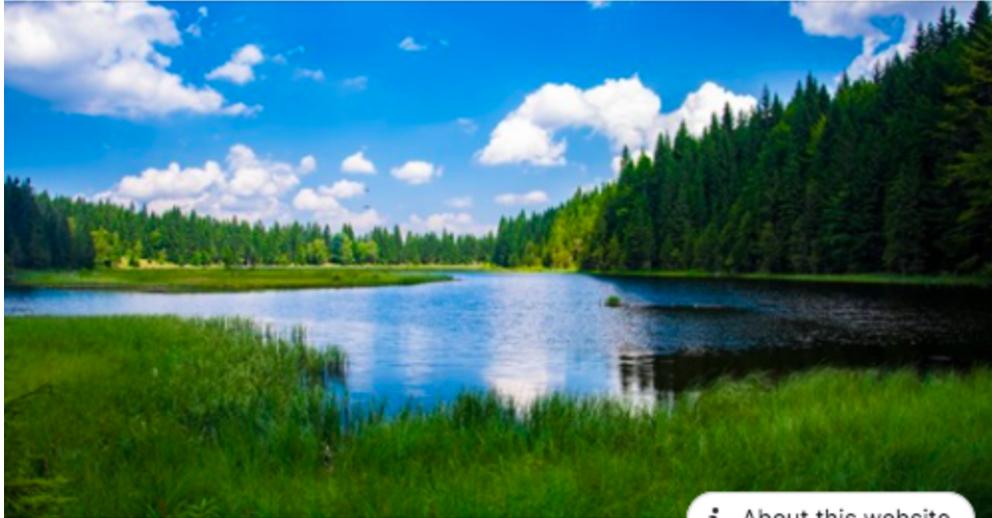


**Bluegrass Water UOC**

July 28, 2020 · 🌐



Ricky L. Peters, a plant worker retiree, wrote a thoughtful poem to honor wastewater treatment workers and to offer encouragement during COVID-19. Read it here:



 About this website

CENTRALSTATESWATERRESOURCES.COM

**CSWR | The Wastewater Treatment Plant Workers' Higher Calling**



Bluegrass Water UOC

July 30, 2020 · 🌐



The quality of H<sub>2</sub>O and water resources is essential for the ecosystem. This is why we are transforming water utilities throughout the nation to bring safe, clean, and reliable resources. Learn more about our work and efforts: <https://bit.ly/2XeMnI7>



About this website

YOUTUBE.COM

**Meet CSWR and Learn About What We're Doing in Your Community**



Bluegrass Water UOC

July 31, 2020 · 🌐



A wastewater study discovered 50% of the wipes labeled "flushable" contained plastic. A quick tip: anything made with plant-based molecules breaks down better during wastewater treatment. Learn what else scientists have revealed:



About this website

TREEHUGGER.COM

### 'Flushable' Wipes Flush Plastic to Sea and Shore

Researchers find that non-woven products are an underestimated sourc...

[View this email in your browser](#)



## BLUEGRASS WATER

Utility Operating Company

A CSWR Managed Utility

**Dear Customer:**

It's summer and the heat is on (outside).

One way to beat the heat is by spending more time indoors. When we spend more time inside, we often use our bathrooms more, too! To avoid any sewer backups in your home, there are essentials as to what you can and cannot flush safely down your toilet, and instead what needs to be disposed of in the recycling or garbage.

Wastewater treatment has its limits — knowing what to do with products like Clorox wipes after using them is just as important. Indeed, never forget the brave words of M.C. Hammer: Can't flush this! Check out our [list of things NOT to flush down the toilet](#) this summer (or ever).

We're here for any questions you have. Call us at 1-866-752-8982 or follow us on our [website](#), [Facebook](#) and [Twitter](#).



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You are receiving this email because you opted in via our website.

**Our mailing address is:**

Central States Water Resources

1650 Des Peres Rd Ste 303

Des Peres, MO 63131-1853



**Bluegrass Water** @BluegrassUOC · Jul 1, 2020

...

● **BOIL WATER ADVISORY** ●

**UPDATE (Effective 07/01/20):** The boil water advisory has been lifted for Center Ridge District 4 (near Aurora, KY) community members.

For additional information please visit us at:

[centralstateswaterresources.com/bluegrass-wate...](https://centralstateswaterresources.com/bluegrass-water/)

Thank you for your patience.



**BOIL WATER ADVISORY**



**Bluegrass Water** @BluegrassUOC · Jul 2, 2020

...

Thanks to technology, there are hydration smartphone apps to keep track of your daily water intake. Here are more ideas to keep you hydrated all day long:



**6 Smart Tips for Staying Hydrated Throughout th...**

Chances are that you aren't drinking enough water. Use this advice to increase your hydration and ...

[everydayhealth.com](https://www.everydayhealth.com)



**Bluegrass Water** @BluegrassUOC · Jul 7, 2020

...

Saline water isn't drinkable until it goes through a transformation process called desalination. Here's how it works: [on.doi.gov/38BQCvB](https://on.doi.gov/38BQCvB)





**Bluegrass Water** @BluegrassUOC · Jul 8, 2020



[#WaterWednesday](#)

Did you know...creatures in the ocean are suffering

**“By 2025, ocean  
plastic will  
outweigh all of  
the ocean’s fish.”**

Source: [Conservation.org](#)

0:05



**Bluegrass Water** @BluegrassUOC · Jul 13, 2020



The National Resources Defense Council, @NRDC has some best practices to support families during the pandemic. Find out more here: [on.nrdc.org/2DzmRQI](https://on.nrdc.org/2DzmRQI)





**Bluegrass Water** @BluegrassUOC · Jul 15, 2020



Yard watering can sometimes increase your water bill. Here are a couple of ways to use less H2O:



**CSWR | Keep the Green in Your Pocket By Being Efficient With Outd...**

Sometimes, as the saying goes, the grass is greener on the other side. Like in the summer time when your neighbor's lawn looks gree...

[centralstateswaterresources.com](https://centralstateswaterresources.com)





**Bluegrass Water** @BluegrassUOC · Jul 20, 2020

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By repairing H2O and wastewater systems, the communities we serve have access to safe, clean, and reliable water resources. 💧



0:02 | 1 view





**Bluegrass Water** @BluegrassUOC · Jul 22, 2020

...

**#WaterWednesday** What does a human brain and a living tree have in common?

**"75% of the human  
brain is water  
and  
75% of a living tree is  
water."**

Source: EPA.gov

0:00



**Bluegrass Water** @BluegrassUOC · Jul 24, 2020

...

Drinking clean and safe water improves your well-being, and much more. Learn about water's other benefits here:



### 16 Reasons Why Water Is Important to Human Health

We know water is important — but why? Not only does water make up a majority of your body weight, it's involved in many important ...

[healthline.com](https://www.healthline.com)





**Bluegrass Water** @BluegrassUOC · Jul 28, 2020

...

Ricky L. Peters, a wastewater plant worker retiree, wrote a kind poem to honor wastewater treatment workers, and to give encouragement during COVID-19. Read it here:



**CSWR | The Wastewater Treatment Plant Workers' Higher Calling**

So it became a higher calling: the wastewater treatment plant workers' marching orders are to reclaim the waters by recycling, ...

[centralstateswaterresources.com](https://centralstateswaterresources.com)





**Bluegrass Water** @BluegrassUOC · Jul 30, 2020

...

H2O and wastewater management helps to protect our world. This is why we work to provide clean and safe infrastructures with innovative technology. Get to know more about us and our efforts:



**Meet CSWR and Learn About What We're Doing i...**

At Central States Water Resources, our mission is to work to bring safe, reliable and environmental...

[youtube.com](#)



**Bluegrass Water** @BluegrassUOC · Jul 31, 2020

...

Are your "flushable" wipes safe for the earth's environment? Not always. See what scientists have discovered here:



**'Flushable' Wipes Flush Plastic to Sea and Shore**

Researchers find that non-woven products are an underestimated source of microplastic in the marine environment.

[treehugger.com](#)



**AUGUST**



## BLUEGRASS WATER

Utility Operating Company

A CSWR Managed Utility

**Dear Customer:**

As August as Water Quality Month comes to a close, we want to remind you that at Bluegrass Water, every month is water quality month.

For most of us here in the United States, it feels like a given when you turn on the taps, crystal clear H<sub>2</sub>O is going to come flowing out. But the quality of water can be very different depending on where you live not only in the world, but right here at home.

Each of us uses approximately 80 gallons of water every day for bathing, preparing food, cleaning dishes and clothes and what we drink, of course. So, while companies like us at Bluegrass Water do most of the work to deliver clean, safe and reliable water, we all have an obligation to do our part.

The most important thing we can do to ensure our water is safe is by protecting our local watershed: the land that eventually drains into a body of water. Bluegrass Water does this by making your water system meet or exceed safety standards by, for example, renovating lagoons to prevent harmful overflows and sealing wellheads. But there are things each person can do, too. [Learn how you can keep the water resources around you healthy and chemical-free.](#)

We're here for any questions you have. Call us at 1-866-752-8982 or follow us on our [website](#), [Facebook](#) and [Twitter](#).



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Bluegrass Water UOC · Follow

August 5, 2020 · 🌐



#WaterWednesday Do you know why more water is used during the summertime?

**Americans use about 1/3  
more water in the summer  
than the rest of the year  
because of lawn watering.**

Source: usbr.gov





Bluegrass Water UOC



August 7, 2020 · 🌐

August is [#NationalWaterQualityMonth](#) to appreciate our water resources and their importance to the environment, agriculture, and more. Learn all about this month-long celebration here:



About this website

CENTRALSTATESWATERRESOURCES.COM

### CSWR | The History of National Water Quality Month

National Water Quality Month is a time where you can learn about how t...



Bluegrass Water UOC

August 12, 2020 · 🌐



Going back to school will look a little different this year. So, consider science activities to learn about H<sub>2</sub>O with your family. Enjoy a few of these kid-friendly experiments below:

[#NationalWaterQualityMonth](#)



About this website

GREENMATTERS.COM

### Science Experiments to Do at Home With Kids

Stuck home with kids? Try these 7 at-home science experiments!



**Bluegrass Water UOC**

August 18, 2020 · 🌐



August is [#NationalWaterQualityMonth](#) to appreciate clean and safe water, and how it impacts our daily life. So, our celebration continues with water-related tunes. Is your favorite song on the list? Let's find out and listen here:



[About this website](#)

CENTRALSTATESWATERRESOURCES.COM

### **CSWR | Celebrating Water Through Music**

So in honor of National Water Quality Month (yes, that's a thing), here ar...

**95% of the human eye is composed of water.**

Source: usbr.gov

0:05 / 0:05

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• **Notifications** · 12 Pages posted new videos See All



**BOIL WATER ADVISORY**

**Bluegrass Water UOC**  
Published by HeyOrca · August 28, 2020

**BOIL WATER ADVISORY**

Effective (08/28/20): Due to a power outage, Center Ridge District 2 and 3 near New Concord, KY (KY0180509) will be on a boil water advisory.

Streets affected are: Barnicle, Bluepine, Clayshire, Cranfield, Dunbar, Fawnwood, Kenway, Lakeshore, Lakepoint, Marlboro, Mason, Midgett, Mussel, Parkhill, Pine Rock, Pineview, Primrose, Sears Way, Stars Dr, Tearose, Wedgewood, York, Keniana, Lakeview, Marion, Scenic Valley, Marguerite, Waterway, Hightide, Farrow, Anne Marie, Agnes, Ridge and Parkview.

More details can be found here: <https://www.centralstateswaterresources.com/bluegrass-water/>

Thank you for your patience. [See Less](#)

**Edit**

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Comment as Bluegr...  
Press Enter to post.



Bluegrass Water UOC

August 28, 2020 · 🌐



As an investor-owned water utility company, our [#companyculture](#) is the foundation of our success and continuous growth. Find out which three values help to promote our progress:



[About this website](#)

CENTRALSTATESWATERRESOURCES.COM

**CSWR | Our Company Culture: Defining OKRs To Measure Success**



Bluegrass Water UOC · Follow

August 31, 2020 · 🌐

🔴 **BOIL WATER ADVISORY** 🔴 Effective (08/31/20): Due to the well being down, Center Ridge District 4 (near Aurora, KY) will be on a boil water advisory. Streets affected are: Cedarhaven, Creekview, Deercrest, Greywolf, Hollyhock, Hollytree, Kinglett, Landmark, Onyx, Stargrass, Water Lilly, Waterleaf, Windsong and Wooded Acre. More details can be found here: <https://www.centralstateswaterresources.com/bluegrass-water/> Thank you for your patience. See Less





**Bluegrass Water UOC**

August 31, 2020 · 🌐



Today marks the last day of [#NationalWaterQualityMonth](#), but it recognizes the need for H2O and wastewater education. Discover 5 methods to help keep your environment healthy and chemical-free:



[i About this website](#)

CENTRALSTATESWATERRESOURCES.COM

### **CSWR | Doing Our Part for National Water Quality Month**

Here are a few tips of things you can do to keep the water resources...



**Bluegrass Water** @BluegrassUOC · Aug 5, 2020



**#WaterWednesday** Do you know why more water is used during the summertime? ☀️

**Americans use about 1/3 more water in the summer than the rest of the year because of lawn watering.**

Source: usbr.gov

0:00 | 1 view



**Bluegrass Water** @BluegrassUOC · Aug 7, 2020



August is [#NationalWaterQualityMonth](#)  to show how our every day actions affect water quality, both for people and for wildlife. Learn why it's important and more facts here:



**CSWR | The History of National Water Quality Mo...**

National Water Quality Month is a time where you can learn about how to preserve water resources ...

[centralstateswaterresources.com](http://centralstateswaterresources.com)



**Bluegrass Water** @BluegrassUOC · Aug 8, 2020



The human brain contains more water than other organs, but all body parts need safe water to function properly. Learn ways to maintain your hydration and more here: [bit.ly/3a3XAKd](http://bit.ly/3a3XAKd)





**Bluegrass Water** @BluegrassUOC · Aug 12, 2020



Did you know there are at-home activities to learn about H<sub>2</sub>O? 💧 For #NationalWaterQualityMonth, families can enjoy kid-friendly experiments here:



**Science Experiments to Do at Home With Kids**

Stuck home with kids? Try these 7 at-home science experiments!

[greenmatters.com](https://greenmatters.com)





**Bluegrass Water** @BluegrassUOC · Aug 18, 2020



Have you ever thought about water-related songs? 🎵 To help celebrate [#NationalWaterQualityMonth](#) in August, we've created a music playlist to enjoy. See more and listen here:



**CSWR | Celebrating Water Through Music**

So in honor of National Water Quality Month (yes, that's a thing), here are some of my favorite songs about -- you guessed it -- water!

[centralstateswaterresources.com](https://centralstateswaterresources.com)



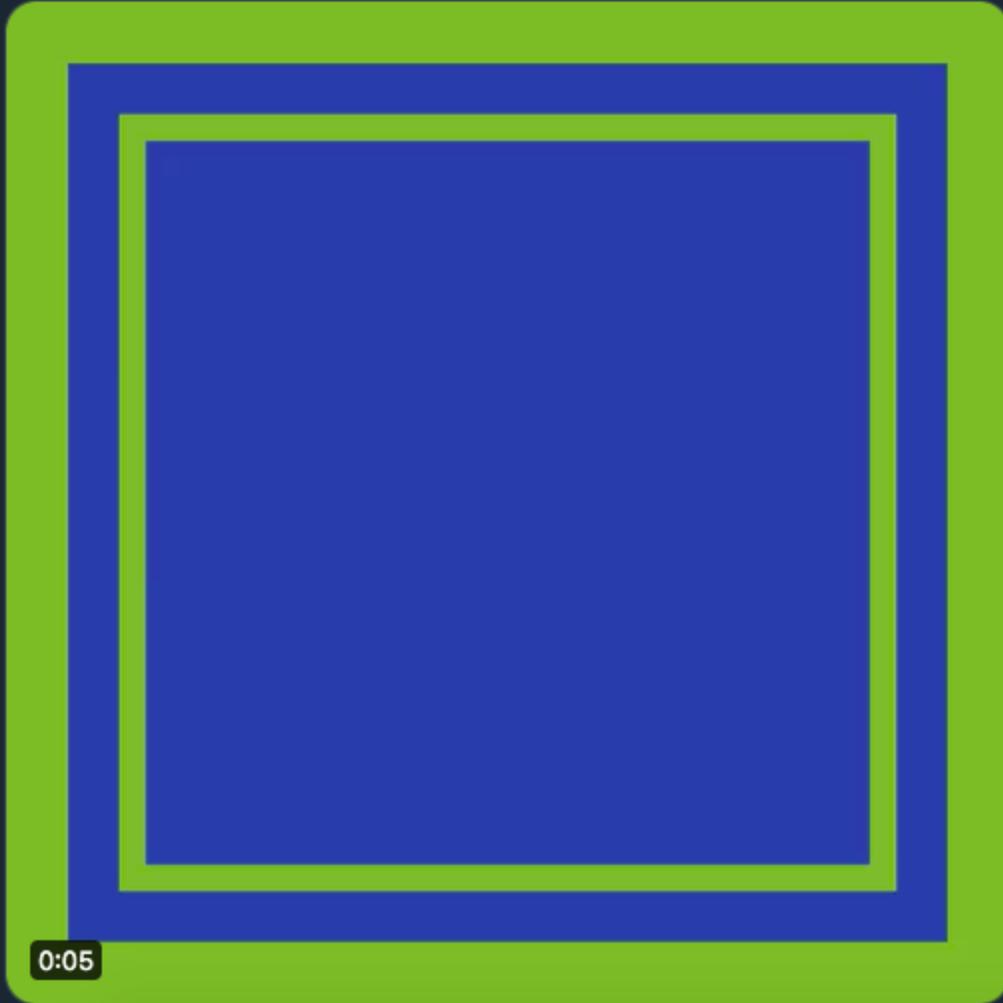


**Bluegrass Water** @BluegrassUOC · Aug 26, 2020



🔊 Did you know...

[#WaterWednesday](#)



0:05



**Bluegrass Water** @BluegrassUOC · Aug 28, 2020



● **BOIL WATER ADVISORY** ●

Effective (08/28/20): Due to a power outage, Center Ridge District 2 and 3 near New Concord, KY (KY0180509) will be on a boil water advisory until further notice.





**Bluegrass Water** @BluegrassUOC · Aug 28, 2020

Streets affected: Barnicle, Bluepine, Clayshire, Cranfield, Dunbar, Fawnwood, Kenway, Lakeshore, Lakepoint, Marlboro, Mason, Midgett, Mussel, Parkhill, Pine Rock, Pineview, Primrose, Sears Way, Stars Dr, Tearose, and Wedgewood.



**Bluegrass Water** @BluegrassUOC · Aug 28, 2020

Additional streets affected: York, Keniana, Lakeview, Marion, Scenic Valley, Marguerite, Waterway, Hightide, Farrow, Anne Marie, Agnes, Ridge and Parkview.

More details can be found here:  
[centralstateswaterresources.com/bluegrass-wate...](https://centralstateswaterresources.com/bluegrass-water...)

Thank you for your patience.



**Bluegrass Water** @BluegrassUOC · Aug 28, 2020

Continuous growth means continuous innovation, which is good for both our employees and our customers. 💡 Read more about our [#companyculture](#) below:

	<p><b>CSWR   Our Company Culture: Defining OKRs To ...</b> How does your team define your company goals? At Central States Water Resources, we believe in ... <a href="https://centralstateswaterresources.com">centralstateswaterresources.com</a></p>
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**Bluegrass Water** @BluegrassUOC · Aug 31, 2020

...

Effective (08/31/20): Center Ridge District 4 (near Aurora, KY) will be on a boil water advisory.

Streets affected: Cedarhaven, Creekview, Deercrest, Greywolf, Hollyhock, Hollytree, Kinglett, Landmark, Onyx, Stargrass, Water Lilly, Waterleaf, Windsong and Wooded Acre.



**BOIL WATER ADVISORY**



**Bluegrass Water** @BluegrassUOC · Aug 31, 2020

...

During [#NationalWaterQualityMonth](#), we can work together to protect our H2O resources such as:

 : Using a trash can to dispose of non-flushable items.

 : Avoiding pesticides and fertilizers to protect the nearby waterways.

Learn more methods here:



**CSWR | Doing Our Part for National Water Quality...**

Here are a few tips of things you can do to keep the water resources around you healthy and ...

[centralstateswaterresources.com](http://centralstateswaterresources.com)



**SEPTEMBER**

### Airview WWTF (KY0045390)

- Spot welding and patching of steel tankage
- Painting of steel tankage
- Overhaul of collection system including electrical service replacement
- Rehabilitation of aeration system (blower, diffuser, piping replacement)
- Installation of flow equalization and associated influent pumps
- Installation remote monitoring at treatment facility and lift station
- Installation of flow metering
- Removal of deteriorated contact chamber from creek and installation of new contact chamber
- Construction of new effluent structure
- Repair of facility fencing



The Airview wastewater treatment facility is an extended aeration package plant, with a now inactive single polishing cell lagoon. In reviewing the compliance history of the plant under previous ownership the facility was not adequately treating wastewater. The facility was in a consistent state of significant non-compliance for the 12 quarters leading up to acquisition for significant violations of effluent limits including exceedances of BOD, Total Residual Chlorine, E. Coli, Ammonia, Dissolved Oxygen, Total Suspended Solids, and pH limits. The pattern of violations often included failure to meet all these limits each quarter and indicates a failure to properly operate and maintain the facility. Further evidence of operational shortcoming include trash and debris present throughout the site including piles of old tires, broken piping, rags pulled from the plant and left on the walkways, and empty chemical containers that were simply thrown around and left rather than properly disposed of. This sort of carelessness in operations practice speak to the general failure in maintenance as well and indicate that little attention was focused on properly operating and monitoring the performance of the facility.

Various improvements are required for the Airview facility to function properly and be restored to a maintainable condition. First, due to severe corrosion and deterioration of the steel tank structure, welding and patching was required to prevent untreated waste from flowing out of the plant and to maintain the structural integrity. To prevent/delay further corrosion, the tank has been repainted. The lift station in the collection system had been abandoned by the previous ownership, even though several customers were still discharging into the lift station. Therefore, the lift station has been restored to working order, including a complete overhaul and new electrical service

installation. In order to maintain proper function, the aeration system was overhauled, consisting of replacing blowers, pumps, diffusers, and piping. At purchase, many pipes were corroded, the blowers were underperforming, and proper aeration, which is needed for complete treatment of waste, was not occurring. The overhaul of the aeration systems has improved the performance of the facility. Another evident issue at the facility is excessive I&I causing overloading of the facility during rain events. To address this, several improvements are needed. First, a flow equalization basin will be added to the plant to allow steady flow of wastewater rather than washing out during rain events. Additionally, remote monitoring with flow monitoring equipment has been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. At acquisition, the facilities contact chamber located at the outfall in the creek was severely damaged with the outfall pipe rerouted over the nonfunctioning contact chamber. The effluent splashed over the damaged chamber allowing gradual accumulation of sludge where splashed effluent would stagnate. The damaged contact chamber needs to be removed from the creek and replaced, either at the plant or at its current location, and the outfall structure properly rebuilt to prevent pooling of effluent on treatment equipment. Fencing around the facility is damaged in several locations and needs to be repaired and proper signage needs to be installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment.



## **Arcadia Pines WWTF**

- Fencing repair and signage installation
- Repair leaking berm and drainage field
- Repair varmint damage on berms
- Install new access road
- Make repairs to collection system

Arcadia Pines WWTF is a non-discharging lagoon wastewater treatment facility. Various improvements are required for the Arcadia Pines facility to function properly and be restored to a maintainable condition. The fencing around the facility is damaged in some locations and lacks signage indicating the wastewater facility. Repairs and signage installation are to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. The berm around the lagoon is damaged in several locations showing signs of leaking in at least one location. Following investigation of the cause of the leak, regrading and/or the addition of bentonite will be required to stop the leaking and prevent further leaking from the lagoon. Additionally, there are several locations around the lagoon berm that show signs of damage caused by muskrats (borrowing in berm on edge of lagoon). This damage will be repaired, and pest control implemented to prevent further varmint damage which can lead to berm failure. An all-weather access road (gravel) will be installed leading to the facility. This is necessary so it is possible for emergency maintenance to be performed at the facility in any condition. It is evident that there is an I&I issue in the collection system at Arcadia. Therefore, the collection system will be evaluated in order to identify problem areas and repairs will be made to prevent excessive flows of stormwater to the facility.

## Brocklyn WWTF (KY0081299)

- Replace RAS lines from clarifier
- Attempt welding repairs on steel tankage
- Replace blower
- Regrade around lagoon
- Install Mission remote monitoring and flow meter
- Evaluate Sludge depth in lagoon
- Pump out, clean, and close existing lagoon cell
- Clean up sludge in creek
- Improve stormwater culvert (extend through site to prevent further erosion)
- Yard piping and misc. rerouting
- Catwalk replacement
- Smoke testing
- I&I repairs to collection system
- Install MBBR Activated Sludge Plant on concrete lagoon pad
- Install Clarifier
- Construct Influent Lift Station
- Install Peroxyacetic acid disinfection with post aeration (contact chamber and related equipment)



Brocklyn wastewater treatment facility is an extended aeration package plant with a now inactive single polishing lagoon cell. In reviewing the facility's compliance history under previous ownership, there is a pattern of exceedances of Ammonia and BOD limits. While the exceedances were not excessive, and there were periods of compliance with effluent limits, the facilities aeration systems had not been consistently reliable for compliance with limits. Additionally, the site itself was not very well kept or maintained. Yard piping consisted of PVC and flexible lines placed above ground in what appeared to be temporary fixes rather than proper installation. Baffling in the contact chamber was constructed of wood and was not in good condition. Additionally, the stormwater from the neighborhood uphill was routed from a culvert into an open dirt channel running between the lagoon and package plant. It was clear that this had led to severe erosion that could potentially cause structural integrity issues for the lagoon. There was no evidence that any effort to combat this erosion or to rebuild the soil behind the lagoon wall had occurred. The steel structure of the plant was in a state of severe deterioration and there did not appear to be any attempt to paint or patch damaged sections by previous operations and ownership.

The initial approach to the Brocklyn facility like the other Bluegrass systems was to attempt to rehab the facility that had been neglected by previous ownership. This began with replacing various components and attempting repairs. The RAS lines from the clarifier were replaced to restore proper sludge return, a blower was replaced to improve aeration, chlorine dosing and some yard piping were replaced to improve disinfection and restore proper flow through the facility. A necessary step in this repair process was to evaluate the steel tankage of the plant and attempt to weld and patch any damaged sections of the tank. When the tankage was pumped down for these repairs it was discovered that the tank was in much worse shape than originally anticipated. There were many areas where wastewater was in contact with the soil around the tank and it was determined that either pumping down the tank or digging around it to perform repairs would cause the deteriorated structure to collapse, meaning that welding and patching repairs were not possible and would not be adequate to extend the life of the plant. This meant that the tankage would need to be replaced, and economically it was better to replace the whole facility with a more efficient treatment method than the conventional activated sludge plant that had broken down. As a result, plans have been submitted to replace the existing plant with a new MBBR activated sludge facility. The existing lagoon cell was nearly filled with sludge and required pumping and cleaning. It was discovered that the lagoon had a concrete liner/bottom which will be used as the footing for the installation of the MBBR plant. The MBBR plant will require installation of an influent lift station, various piping modification on the site, a new clarifier, as well as a disinfection system. It has been determined that in total replacement, the most cost effective and environmentally friendly disinfection method will be peroxyacetic acid disinfection. This is lower impact to the environment due to leaving no residual chlorine and should reduce operating cost over time without increasing the installation cost when compared to chlorination/dechlorination or UV disinfection. Remote monitoring with flow monitoring equipment will be installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. The new facility will be adequate to meet limits and simpler to maintain and operate moving forward. Fencing around the facility is damaged in several locations and needs to be repaired and proper signage needs to be installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment.

## Carriage Park WWTF

- Chain-link Fence Repair/signage installation
- Repair leaking berm/drain field
- Vegetation Control on lagoon berms
- Repair varmint damage
- New Access Road
- Make repairs to collection system

Carriage Park WWTF is a non-discharging lagoon wastewater treatment facility. To reliably treat wastewater the Carriage Park WWTF will require several improvements. In order to assure that operators can safely and quickly reach the site to perform day to day maintenance and respond to any maintenance emergencies, and adequate all-weather access road needs to be added to the facility. This is especially important as failures requiring emergency maintenance at wastewater facilities often coincide with large rain events where access becomes more difficult. The fencing surrounding the facility has several areas that need repair and signage indicating the presence of a wastewater facility need to be installed. Repairs and signage installation are needed to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. Various improvements to the berm and drainage field will be required to ensure proper operation of the lagoon system at Carriage Park. There are several locations where there is visible damage to the berm structure in some cases there is evidence that leaking partially treated wastes may have occurred. Therefore, the berms need to be properly evaluated and inspected and repairs made with the possible addition of bentonite to prevent further leaking. Nuisance vegetation and varmint damage appear to be an issue for berm integrity as well. This will require clearing and maintenance of vegetation around the lagoon, as well as repair of varmint damage and proper implementation of pest control. The drainage field and related piping requires inspection as there is some evidence of ponding in the drainage area. Ponding could indicate damage to the drainage system or need to expand the drainage area.

## Fox Run WWTF (KY0086967)

- Overhaul collection system lift station
- Overhaul influent pump station
- Replace diffusers in aeration tankage
- Replace RAS lines from clarifier
- Replace blower
- Sand blast and paint tankage
- Repair/replace fencing and install signage
- Install flow equalization
- Install sludge holding tank
- Install remote monitoring system and flow meter (plant and lift stations)
- Smoke test collection system
- Collection system repair for I&I
- Granular rock road install per easement deal



The Fox Run wastewater treatment facility is an extended aeration package plant. In reviewing the compliance history of the facility, Fox Run was in a state of significant noncompliance with its npdes permit parameters for 11 of the 12 quarters immediately preceding acquisition by Bluegrass Water. During the period of noncompliance, the facility exceeded limits for BOD, Total Residual Chlorine, E. coli, Ammonia, and Total Suspended solids. In addition to exceeding limit, in 6 of the 12 preceding quarters the facility failed to submit DMRs indicating a total failure of normal operational procedure for a wastewater facility. At acquisition, the facility had piles of trash consisting of broken sections of pipe, empty chemical containers, broken concrete, rags, and random trash laying all around the facility rather than being properly disposed of. This demonstrates neglect by the previous operators in even the most basic upkeep of the plant. Vegetation had been allowed to grow up along the facility fence to the point of pushing the fence over in some locations. Rather than properly clearing the vegetation and repairing the facility fencing, previous operations had cut lengths of electrical wire and tied the sagging fence to the vegetation to hold it up. Additionally, the influent lift station had no proper pumps installed and instead had a submersible pump with a length of flexible hose draped over the edge of the plant to route influent to the facility. This sort of improvised, improper repair typifies the neglect in maintenance, reinvestment, and operations of the plant under previous ownership.

Various improvements are needed to properly treat waste and maintain the Fox Run WWTF. Previous ownership allowed the lift station in the collection system to fall into disrepair and no longer reliably function despite a number of homes still actively discharging waste to the lift station.

This required immediate overhaul including new electrical service to prevent sewage backups into the customers' homes and potential release of untreated wastewater at the lift station. In order to ensure proper treatment of waste, various components of the aeration and sludge handling system required repair and replacement. This included replacement of the blowers and diffusers, repairs to various lines routing air and waste, and replacement of the return sludge lines from the clarifier. Additionally, the condition of the tankage and structure of the plant was deteriorating due to poor maintenance practices of the previous owner. As a result, it was necessary to sand, inspect, implement welding and patching repairs, and repaint the steel tankage at the plant in order to extend the life of the facility. In addition to these repairs to the treatment process and facility, other general plant items need some repair and improvements. Specifically, as part of a negotiation for a required easement for accessing the plant a new gravel access road must be installed and fencing and signage improvements are needed. Fencing repairs and signage installation are needed to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. In addition to these facility repairs some new equipment is needed in order to ensure compliance with treatment limits. Flow equalization is needed to ensure steady flow to the facility and to prevent "wash out" events due to inflow and infiltration issues. A new sludge holding tank also needs to be installed to allow the facility to better handle sludge and reduce operating expense related to poor sludge handling in the current facility configuration. As mentioned above, I&I is an issue for this facility and as a result smoke testing will occur to identify problem areas for I&I and repairs will be implemented to reduce stormwater flow into the system. Finally, remote monitoring with flow monitoring equipment will be installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers.

## Golden Acres WWTF

- Replace diffusers in aeration tankage
- Replace blower
- Repair/Replace fencing
- Regrade around perimeter of facility
- Replace effluent pipe
- Rebuild road per easement agreement
- Install flow equalization and pump
- Install dechlorination
- Install sludge digester
- Install Mission alarm and flow meter
- Smoke testing of collection system
- Video inspection and analysis of collection system
- Sanitary sewer lining



The Golden Acres wastewater treatment facility is an extended aeration package plant. In reviewing the compliance history of the plant, under previous ownership there was a pattern of exceeding limits for BOD, Total Residual Chlorine, E. coli, and Ammonia. This plant has a history of regular flooding, indicating massive I&I as well as an inability to pass water through the plant at a rate that would prevent flooding. This is extremely evident in the discoloration of the rip rap around the gully the plant sits in. While this is a difficult issue to address as detailed in the planned improvements below, previous ownership and operations did not appear to have attempted to resolve the issues related to the excessive I&I. Due to flooding, there was not the typical accumulation of trash around the site that seems to be the norm for negligent operators and owners, however it has since been discovered that the effluent pipe is partially clogged by materials including trash that should have been cleaned up by operators rather than left on site leaving it to be washed into the plant at the next flooding event. This points to poor operational discipline and control.

This facility faces some unique challenges in being brought into compliance due to having very little space to expand the plant into or install additional equipment, and having an extremely excessive amount of Inflow and Infiltration (I&I) causing flows to significantly exceed the plant's capacity

during rain events. It is not uncommon for the water level in the plant to go above the plant walls and even above the handrails during high flows, washing out the plant. Since the area around the plant is a steep grade with a rip rap finish this does not cause waste to escape the facility, but it does compromise the treatment process. Since there is very little room to expand into where the plant sits, it is not possible to install enough flow equalization to completely address the additional flow. This means in addition to more typical repair and replacement work; significant steps must be taken to address I&I at the Golden Acres WWTF. Preliminary repair work was necessary due to a failure to reinvest in and maintain the plant by the previous ownership. This included major repair/replacement work on the aeration system including replacement of the diffusers in the aeration tankage, replacement of blowers, and work on the associated piping and air lines. Additionally, basic repair work will include rebuilding the access road as part of the access easement negotiation and repairing fencing and signage around the facility. Fencing repairs and signage installation are needed to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. In the limited space that is available at the plant site, some new equipment will be installed to improve the facilities ability to treat wastes. Specifically, flow equalization will be installed to help keep flow steady during rain events (although there is not room to totally address I&I with flow EQ on site), and a sludge digester will be installed to improve the facilities ability to handle sludge and reduce operating expense related to poor sludge handling in the current facility configuration. Additionally, remote monitoring with flow monitoring equipment have been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will assist in evaluating the effectiveness of collection system improvements as I&I is addressed. Live data from the remote monitoring system also drastically improves operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. As mentioned above, the most significant issues for this facility are related to a combination of severe I&I and limited space at the plant. The history of water backing up and filling up the natural basin the plant sits in indicates that the current effluent pipe is not capable of discharging the peak flows through the facility leading to the backup. As a result, it is necessary to replace the effluent pipe with one designed for higher flows. As the plant sits currently, the facility essentially has rainwater from a large area draining into the plant, further exaggerating the I&I issue. To address this, the area around the plant will be regraded to direct rainwater away from the plant. Even with these improvements, the I&I is significant enough that it needs to be addressed in the collection system directly. This requires smoke testing and video inspection of various parts of the collection system to identify areas where stormwater is entering the system and repairing those sections of pipe with liners to prevent further inflow. This will reduce the flow to the facility and help prevent washout and backup events from recurring.

## Great Oaks WWTF

- Overhaul influent lift station
- Replace diffusers in aeration tankage
- Replace RAS lines from clarifier
- Replace blower and aeration piping
- Sandblast and repaint tankage, catwalk, and railing
- Repair fencing
- Pump down and clear out clarifier and aeration basin
- Collection system repairs to reduce I&I
- Install Mission remote monitoring system and flow meter
- Install new sludge digester with blower and aeration equipment



The Great Oaks wastewater treatment facility is an extended aeration package plant. Reviewing the compliance history of the facility, the facility was in a state of significant noncompliance in the 9 quarters leading up to acquisition by BUOC. Under previous ownership, the facility regularly violated limits for BOD, Total Residual Chlorine, E. coli, Ammonia, and Total Suspended Solids. A cursory examination of the plant at purchase showed signs of operational neglect. In several locations along the plant, vegetation was growing on deteriorating portions of the structure where rust and sludge had accumulated. Vegetation growth can cause further damage to the structure and should be removed by attentive operators. Steel surfaces and structures throughout the plant were severely corroded and should have been sanded and painted long ago. This included catwalk sections that were so corroded they were not safe to walk on, making portions of the plant inaccessible to operators. Allowing the plant to exist in that condition for an extended period indicates neglect by the previous ownership and operators. As the initial improvement period progressed more damning indications of poor/negligent operational practices were discovered in that the previous operators had clearly made a practice of dumping trash and debris into the plant clarifier. There was a large amount of old cell phones, pipes, rakes and other materials found in the bottom of the clarifier which had caused the clarifier to not flow properly and likely caused the TSS violations the facility was experiencing.



Under previous ownership, there was very little reinvestment in the plant, leaving various components in need of repair and replacement. At acquisition, the influent lift station was in poor condition and showing signs of deterioration. This required overhaul in order to continue proper function. Due to lack of reinvestment, the aeration system required significant overhaul, including replacement of diffusers in the aeration tankage, replacement of the return lines from the clarifier, and replacement of the blowers. These improvements significantly improved the quality of the treatment at the facility. After the aeration repairs were complete it was clear that there were still issues related to flow through the clarifier and disinfection. The tanks were pumped down and a large amount of debris and trash (sections of pipe, numerous cell phones, and miscellaneous trash) were discovered in the bottom of the clarifier dumped by the previous owner or operator. The debris were removed restoring the proper flow pattern to the clarifier. The continued issues with disinfection were identified as being caused by leaking between the digester/sludge holding into the contact chamber. To address this, two separate sludge holding/digester tanks will be installed with associated aeration equipment. This should eliminate the ongoing issues with disinfection. The steel tankage, walkways, and railings were showing signs of corrosion. In order to ensure safe operations and to extend the useful life of the plant, steel was repaired with spot welding, damaged walkway sections were replaced, and the steel infrastructure was sanded and painted to offset further corrosion. Fencing around the facility is damaged in several locations and needs to be repaired and proper signage needs to be installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. The facility has some issues with excessive inflow and infiltration, with notably increased flow during and after rain events. To address I&I, remote monitoring with flow monitoring equipment has been installed at the facility and at the lift station to quantitatively measure the increased flow. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. To reduce the I&I at the source, targeted repairs will be made to the collection system. This will help reduce excessive flows of stormwater to the plant and thereby improve the performance of the facility.

## Timberland (Joann Estates) WWTF (KY0083755)

- Lift station overhaul
- Replace/repair air headers, returns, and path welding
- Replace diffusers and blowers
- Welding and patching repairs of steel tankage
- Install new upgraded electrical service and panel
- Berm maintenance with Riprap installed on interior side of berm
- Install new contact chamber
- Yard piping improvements
- Install mission remote monitoring and flow meter
- Collection system repair for I&I

### Future Improvements:

- Install new digester
- Install Mini MBBR for sludge reduction in lagoon
- Install aerator in lagoon



The Timberland wastewater treatment facility is an extended aeration package plant with a single polishing lagoon cell. In reviewing the compliance history of the facility, Timberland WWTF was in a state of significant non-compliance for all 12 quarters visible in the EPA history leading up to acquisition. This noncompliance included failure to meet limits for BOD, Total Residual Chlorine, E. coli, Ammonia, Dissolved Oxygen, and Total Suspended Solids as well as specific citation for Improper Operations and Maintenance of the facility. At acquisition, several obvious signs pointed to operations and maintenance failures. Several portions of the package plant had grass growing out of the top of the plant. Proper maintenance practice would include removing this sort of vegetation as it can cause damage to the plant. The tankage of the facility showed severe rust in several locations including some locations where the tank had rusted all the way through. Rather than attempting to patch the holes, the operators appeared to have poked sticks through the hole and broke them off, allowing partially treated wastes to continue to trickle out and making the hole larger over time. Another obvious sign of improper operations was use of a stack of broken cinder blocks to climb to access the top of the lift station rather than a proper ladder. This is an unsafe condition and indicates carelessness in operations. At acquisition,

Under previous ownership, there was very little reinvestment in the plant, leaving various components in need of repair and replacement. The plant has a poor condition lift station at the front end of the plant with an unusual piping arrangement where waste falls from a height into the treatment facility. The control panels, and electric service for the lift station and plant are also in poor condition and reaching the end of their useful life. This will require the influent lift station to

\\been poorly maintained and as a result much of the aeration system needs to be repaired or replaced. This will include evaluation and repair or replacement of the diffusers, blowers, as well as piping, air piping and headers, and RAS lines from the clarifier. Improvements to the aeration system will improve the performance of the facility. The berm of the lagoon has many areas that are damaged with the potential of leaking or otherwise failing. As a result, the berms need to be repaired, and in order to prevent future deterioration resulting from normal wear, weather, or varmint damage the inside edge of the lagoon will be lined with Riprap. Several portions of the steel package plant tankage are showing signs of severe rust, including some spots where untreated waste has leaked out of the plant at some point. The tank will need to be pumped down and welding and patching must occur to extend the useful life of the plant. Following patching, the tank will be sanded and painted to prevent further corrosion. The existing contact chamber is severely deteriorated and had not been maintained by previous ownership. Additionally, a small air line was run across the surface of the lagoon to provide post aeration in the contact chamber, but no proper diffusion device was installed in the chamber leading to ineffective post aeration. To ensure proper contact time, the contact chamber will be replaced, and a proper post aeration implemented. Additionally, remote monitoring with flow monitoring equipment will be installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. In the initial buildout of the system, budgetary constraints prevent some additional projects that will be planned for the next several years to further improve the performance of the facility. The existing lagoon is almost completely full of sludge, making it ineffective as a treatment component. As a result, initially, the lagoon will be removed from the process flow. However, the lagoon is a useful treatment component and there are plans to eventually install aeration in the lagoon, as well as a miniature MBBR that will be used to break down lagoon sludge and restore useful treatment to the lagoon. Additionally, to improve the facilities ability to manage sludge and reduce operational costs, a new digester will eventually be added to the plant, though likely not in the initial buildout. Fencing around the facility is damaged in several locations and needs to be repaired and proper signage needs to be installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment.

## Kingswood WWTF (KY0101419)

- Cleanup blower house and blower equipment
- Repair and replace diffusers in aeration tankage
- Replace blower
- Replace air header due to underperforming aeration
- Rework clarifier (valve replacement, sludge return replacement, skimmer replacement)
- Replace failed check valves in lift station
- Install Mission remote monitoring and flow meter
- Collection system analysis and repair

### Future Improvements

- Replace UV disinfection system due to parts unavailability



The Kingswood wastewater treatment facility is an extended aeration package plant. Reviewing the compliance history of the facility, the Kingswood WWTF was in a state of noncompliance for 6 of the 12 quarters leading up to acquisition. This noncompliance included violations of permitted limits for BOD, E. coli, Ammonia, Total Suspended Solids, and pH, as well as one specific violation for improper operation and maintenance of the facility. The state of the facility at acquisition had several obvious issues that pointed to operational and maintenance shortcomings of the previous ownership. Sections of the wood fencing near the access road to the facility had fallen and were being overgrown with vegetation from behind the fence. By neglecting to refasten the sections that had fallen, the operators had allowed the fence to become more significantly damaged increasing the cost to repair. At the building housing the facility's blowers, vegetation had been allowed to grow up around and damage some equipment, both directly and by preventing access for proper maintenance. Similarly, vegetation was climbing the chain link fence around the facility and causing damage to the fence. Controlling vegetation on-site is a basic part of operations and is important to prevent damage to facilities, and failure to do so points to negligence in operations. Some other basic operational issues were evident at takeover, for example, the clarifier skimmer/squeegee was adjusted in a way that made it not reach the edge of the center section of the clarifier. The clarifier does not function optimally with the skimmer leaving a gap and is extremely simple to adjust (two bolts need to be loosened, the skimmer slid outward and then bolts retightened) and failure to do so demonstrates a lack of awareness or negligence by the operators.

Under previous ownership, there was very little reinvestment in the plant, leaving various components in need of repair and replacement. The aeration system at the package plant was underperforming largely due to lack of maintenance and required significant overhaul. The blower house was cleaned out and equipment was evaluated. Various initial repairs were made. Analysis of the aeration system showed that the diffusers and air pipes at the plant were underperforming and that the air header is undersized reducing the efficacy of the aeration system. Therefore, the

diffusers and drop pipes were replaced. The air header will also be replaced with a properly sized header. Additionally, it appears the blowers have reached the end of their useful life and will require replacement for optimal aeration function. At acquisition, the clarifier was not properly functioning, allowing solids to pass through the facility leading to elevated TSS levels in effluent. To restore the clarifier to proper function, the sludge returns and skimmer were replaced, and the valves on the returns and skimmer were replaced. Analysis of the system lift station has shown that the check valves have failed and will need to be replaced in order to prevent potential backups of waste through the lift station. Additionally, remote monitoring with flow monitoring equipment has been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. Finally, in order to evaluate potential, I&I the collection system was analyzed, and targeted repairs were made to reduce stormwater infiltration into the treatment system. The UV disinfection system at Kingswood is currently still functional and therefore will not be replaced in the initial improvements, however, it is an older unit and many replacement parts are no longer available. For example, the intensity sensor which normally alerts operators when bulbs need to be replaced is no longer available and has been bypassed, requiring bulbs to instead be replaced on an aggressive replacement schedule (which will lead to increased cost over time). Soon, the ballasts and bulbs may also become unavailable. Therefore, the disinfection system will be replaced sometime in the upcoming years with either a UV system with available parts or a chemical disinfection system (either Chlorine/dechlorination or peroxyacetic acid with post aeration). Fencing around the facility is damaged in several locations and needs to be repaired and proper signage needs to be installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment.

## Lake Columbia WWTF

- Repair Bar Screen System
- Repair contact chamber
- Install Mission remote monitoring system with flow meter
- Install sludge return lines from clarifier
- Replace motor on blower unit
- Sand blast, spot weld and patch, and paint steel tankage
- Install Flow Equalization and pumping system
- Install Sludge Holding (tank and blower)
- Install Aeration system for Flow Equalization and Sludge Holding
- Install new fencing/repair existing fencing and signage
- Clean up sludge from creek
- Collection system testing and analysis
- I&I repairs in collection system



The Lake Columbia wastewater treatment facility is an extended aeration package plant. Reviewing the compliance history of the facility shows significant noncompliance in the 12 quarters leading up to BWUOC acquisition. This noncompliance included violation of limits for BOD, Total Residual Chlorine, E. coli, Ammonia, and Total Suspended Solids as specific violations for improper maintenance and operations, and failure to complete required reporting. There were many shortcomings in the previous operations and maintenance of the facility. At acquisition there were several places inside the fencing of the facility where rags and toilet paper were accumulated against the chain link fencing, indicating that solids were either shoveled and dumped on the ground and allowed to be pushed by stormwater, or the plant had overflowed or leaked solids out with no attempted cleanup by the operators of the facility. The bar screen at the front of the plant was severely deteriorated with the steel structure rusted out in many places, as a result rags and debris were building up in the screen. An attentive operator would remove the rags and debris to ensure proper flow and to help prevent further deterioration.

Under previous ownership, there was very little reinvestment in the plant, leaving various components in need of repair and replacement. The Lake Columbia facility process flow first enters through a bar screen with its own steel tank, then flow enters the package plant, with aeration, and a clarifier, then it flows to a separate steel tank with a contact chamber and chlorine disinfection. The bar screen and contact chamber tankage were severely corroded at acquisition, to the point that neither treatment component was functioning effectively. The tanks were so badly corroded that it was evident that untreated waste regularly flowed out of the plant through holes in the steel. As a result, the damaged tanks were removed and replaced with concrete tanks and the bar screen and contact chamber were rebuilt and restored to proper function. The steel tankage of the

package plant itself also had many areas with moderate to severe corrosion. Holes and damaged portions were patched, spot welded and sanded, and the tank was recoated to prevent further corrosion. The aeration system at the package plant was underperforming largely due to lack of maintenance and required significant overhaul. The blower motor was replaced as the unit in place had reached the end of its useful life. The sludge returns from the existing clarifier were not properly functioning. In order to prevent solids from passing through the clarifier and ultimately flowing out with effluent, the sludge returns were replaced. The facility currently does not have adequate sludge storage, therefore, to improve the plants ability to process sludge a sludge holding tank will be installed with aeration to aid in sludge breakdown. I&I and higher flows at peak use hours are currently a significant issue for the facility. To keep flow at a steady pace that the plant can handle, a flow EQ tank with aeration will be installed. To address I&I, several steps have been and will be taken. First, remote monitoring with flow monitoring equipment has been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. To further address I&I, the collection system will be analyzed via smoke testing and operational monitoring to determine where the most significant sources of I&I are. Targeted repairs to the collection system will be performed to eliminate these excessive flows. Many areas of fencing around the facility are damaged and in need of repair, and the current signage warning the public of the presence of the facility is inadequate. The fence will be repaired and proper signage installed in order to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment.

## LH Treatment WWTF

- Clean up blower house and equipment
- Install Mission remote monitoring and flow meter
- Replace Diffusers in aeration tank
- Replace blower
- Smoke Test System
- Video inspection of gravity portion of collection system
- Liner repair of damaged portion of gravity collection system



The LH Treatment wastewater treatment facility is an extended aeration package plant. Reviewing the compliance history of the facility shows noncompliance in 6 of the 12 quarters leading up to BWUOC acquisition including 3 quarters in significant noncompliance. This noncompliance included violation of limits for BOD, Total Residual Chlorine, E. coli, Ammonia, Dissolved Oxygen, and Total Suspended Solids. Various maintenance and operational shortcomings were notable under previous ownership; however, this facility was in better shape than the average system we purchase.

Notable issues demonstrating negligence in operations included improper storage of chemicals, notably chlorine gas cylinders which were not properly stored in the chlorine shed, and failure to clean out the areas around the blower and blower motor inside the housings. Allowing residue and debris to build inside the housing for the blower and blower motor causes additional strain on the running blower and is likely part of why the blower needed to be replaced. Good operational practice is to keep these areas cleaned out to prevent additional strain on the blower. Also notable at takeover, a large portion of the weir trough in the clarifier was improperly adjusted so the entire rim was submerged. This would freely allow low density solids (pin floc) to flow out of the clarifier and ultimately out of the plant with the effluent. This likely contributed to violation of the Total suspended solids and E. coli limits. At purchase the chlorine room showed signs of serious damage with the whole shed sitting at an angle and Tyvek and shingles stapled on one side apparently to stop leaking. This was not a proper repair and indicates a lack of reinvestment and a degree of operational neglect.

Various improvements are needed to bring LH Treatment WWTF into compliance and to reverse the damage brought on by operational and maintenance neglect. The blower housings and equipment were in poor and cluttered condition at acquisition and in need of a general cleanup of equipment and evaluation for replacement. In doing so it has been determined that one of the blowers is underperforming and was replaced to restore proper function. Further evaluation of the aeration system showed that the existing diffusers were deteriorated and no longer performing optimally.

To restore proper aeration the diffusers were replaced. Evaluation of the performance of the facility shows that there is significant I&I coming from the gravity portion of the collection system. Smoke testing has shown that there are several locations accounting for significant flow of storm and groundwater. Further evaluation will be needed to target repairs, including video inspection of this portion of the collection system and repairs will be implemented to eliminate these extra flows through the facility.

## Marshall Ridge WWTF

- Chain-link Fence Repair/signage installation
- Repair leaking berm/drain field
- Vegetation Control on lagoon berms
- Repair varmint damage
- New Access Road
- Make repairs to collection system



Marshall Park WWTF is a non-discharging lagoon wastewater treatment facility. To reliably treat wastewater the Marshall Ridge WWTF will require several improvements. In order to assure that operators can safely and quickly reach the site to perform day to day maintenance and respond to any maintenance emergencies, and adequate all-weather access road needs to be added to the facility. This is especially important as failures requiring emergency maintenance at wastewater facilities often coincide with large rain events where access becomes more difficult. The fencing surrounding the facility has several areas that need repair and signage indicating the presence of a wastewater facility need to be installed. Repairs and signage installation are needed to prevent members of the public entering the treatment facility and potentially being exposed to partially treated wastewater and treatment equipment. Various improvements to the berm and drainage field will be required to ensure proper operation of the lagoon system at Marshall Ridge. There are several locations where there is visible damage to the berm structure in some cases there is evidence that leaking partially treated wastes may have occurred. Therefore, the berms need to be properly evaluated and inspected and repairs made with the possible addition of bentonite to prevent further leaking. Nuisance vegetation and varmint damage appear to be an issue for berm integrity as well. This will require clearing and maintenance of vegetation around the lagoon, as well as repair of varmint damage and proper implementation of pest control. The drainage field and related piping requires inspection as there is some evidence of ponding in the drainage area. Ponding could indicate damage to the drainage system or need to expand the drainage area.

## Randview WWTF

- Repair berms and varmint damage on both lagoons
- Clear vegetation from lagoon berms
- Debris cleanup around site
- Install access road to site
- Cleanup and repair both lift stations
- Repair effluent pipe and drainage field (cease farming operations over drainage field that have caused over compaction)



Randview Park WWTF is a non-discharging lagoon wastewater treatment facility consisting of an odd lagoon system with two cells separated by roughly 2000 ft. The first cell has a lift station that pumps to the second cell, and all equipment and facilities appear to be very poorly maintained and overgrown. The second cell feeds a drainage field that has since had a farmer plant crops over the field. The soil over the field appears to be severely over compacted blocking proper flow into the drainage field. At the time of the preliminary site visit the second lagoon cell was overflowing over a berm into the crop field where the drainage field is located. This further implies that the field has been over compacted. The overgrowth around the lagoon and the lift stations is so severe it is unlikely that any maintenance or operations activities have taken place for some time, meaning the system has been essentially abandoned from an operations and maintenance standpoint. It appears that either operations staff or the surrounding community has also frequently dumped trash on the site leaving piles of debris in several locations which any attentive operator should have cleaned up and removed. There is currently no clear access to the site, further emphasizing the complete lack of operations activities.

To restore the system to a functional and maintainable condition, first the entire site needs to be cleared of vegetation and debris, including the drainage field. The berms of the two lagoon cells need to be repaired of varmint damage and the erosion that has taken place over time to prevent further overflows and maintain the structure of the two cells. Both lift stations appear to be in poor condition and need to be cleared of vegetation, evaluated, and likely overhauled. The drainage field will need major repair, likely including tilling the field to loosen the earth around the pipes enough to handle the flow again following the compaction that has occurred due to the farming activities. All this work is necessary to restore the facility to a condition where it can effectively treat waste and be maintained moving forward.

## Persimmon Ridge WWTF (KY0090956)

- Miscellaneous berm repairs
- Repair existing aerators
- Repair effluent channel
- Repair chlorine dosage system
- Install Mission remote monitoring system with flow meter at plant and lift station
- New electrical service for pilot aeration system
- Airmaster pilot aeration system for improved ammonia removal
- Repair baffle in lagoon cell 2



The Persimmon Ridge wastewater treatment facility is a two-cell aerated lagoon wastewater plant. In reviewing the compliance history of the plant, the facility was in a state of significant noncompliance for 5 out of the 12 quarters leading up to acquisition. The noncompliance consisted of violations of limits for BOD, Total Residual Chlorine, E. coli, Dissolved Oxygen, Total Suspended Solids, and pH as well as several violations for failure to comply with permit schedules. At acquisition, there were several issues that pointed to issues with the previous operations and ownership. At purchase, four aerators were out of service and had been out of service for a long period of time. Leaving portions of the treatment process in a state of disrepair represents negligence in operations and maintenance of the system and reduces the effectiveness of treatment. Similarly, the plant is composed of two lagoon cells with the second cell divided by a baffle to allow the plant to function as though it were a 3-cell lagoon. However, the baffle was damaged allowing water to flow freely between the two sections of the lagoon. Again, failure to maintain this portion of the system indicates negligence in operations and maintenance of the system and reduces the treatment efficacy of the system.

In order to bring the system into a condition where it is compliant with environmental requirements and maintainable, various repairs and improvements are needed. First, at purchase there were many locations around the lagoon where the berms were in poor condition. This can potentially lead to untreated wastewater leaking out of the facility. The berms were therefore repaired to prevent a more serious failure. The four nonfunctional aerators were repaired and restored to service to restore proper treatment to the facility. The system had a history of TRC and E. coli violations largely because of the operator manually adjusting chlorine dosage rather than varied flow through the plant. Manual adjustment cannot keep up with the changes of flow and led to the violations. The dosage system has been set to automatically adjust to the flow rate to prevent violations and to save excessive chemical costs. As mentioned above, the baffle in the second cell of

the lagoon is damaged and reducing the efficacy of treatment. The baffle will be repaired to restore proper treatment. In addition to repairs to the system, a few additional improvements will be needed to bring the system into compliance. Remote monitoring with flow monitoring equipment has been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. Additionally, to help break down sludge deposits in the lagoon and help the facility comply with ammonia limits, a pilot program is being implemented for a new lagoon aeration system. The aerator is called an Airmaster and required an improved electrical service. Currently one unit has been installed, but the system has been designed to have up to two additional units installed. This system should significantly improve treatment effectiveness.

## River Bluffs WWTF (KY0090956)

- Lifts station cleanup
- Control panel replacement
- Replace exposed influent pipe
- Cleanup and repair of steel structures
- Replace damaged components of aeration system
- Repair sludge returns
- Install Mission remote monitoring
- I&I repairs to collection system



The River Bluffs wastewater treatment facility is an extended aeration/activated sludge treatment plant. Reviewing the compliance history of the plant shows violations in 5 of the 12 quarters leading to acquisition. The violations consisted of exceedances of the ammonia and total suspended solids. Both categories of exceedance seem to be the result of poor maintenance of the aeration system. It appears that previous ownership and operations were doing little to maintain the plant, and much of the steel treatment equipment and the structure of the plant itself is severely corroded and therefore not functioning optimally. The corrosion issues also have compromised the safety of plant operations. Many of the catwalk sections are very corroded, and are unsafe to walk on, but the previous operations and ownership did not attempt to replace the damaged sections. This represents significant operational neglect.

The plant has a unique layout. Originally the facility was a small package plant. Eventually, the facility was expanded by adding two additional larger package plants, converting the old package plant into the contact chamber. The old influent lift station was converted into a weir box with a flow meter and dechlorination. A new influent lift station was installed flowing to a splitter box that feeds the influent to the two package plants. While the current layout should be adequate to meet limits, the plant has not been maintained. All steel components are very rusted, and the blowers and aeration system are underperforming. Additionally, the influent system was in very poor condition, at some point the main influent line was replaced and rather than being properly installed, a PVC line was hung over the fence resting on the barbed wire. This line needs to be replaced and the lift station needs to be repaired. As mentioned, the steel structure of the plant is in poor condition and needs welding and patching repairs to ensure the longevity of the plant. The aeration system has been similarly allowed to fall into disrepair and will require major overhaul to restore proper function. Various components are damaged enough to require replacement, including the blowers, diffusers, air header, drop pipes and sludge returns. It is also evident that I&I is a significant issue for this facility. To help reduce additional flow due to I&I targeted repairs will be made to the collection system. Additionally, remote monitoring with flow monitoring equipment

has been installed at the facility and at the lift station to quantitatively evaluate I&I in the system. This will allow a determination if further collection system analysis and repair are needed to reduce the I&I. Live data from the remote monitoring system will also drastically improve operational awareness, allowing operators to respond to some abnormal conditions at the plant or lift station before they become an issue for customers. These improvements should bring the system into consistent compliance and restore it to a condition where it can be properly maintained moving forward.

## Center Ridge Water District 1 (KY0180549)

- Replace hydro tank with 8,000-gallon tank
- Well Inspection
- Replace well pump and wiring
- New chlorine pump, containment unit, scale
- New chlorine room constructed on slab outside of building
- Remove and install new heater in building
- Building repairs (inside and outside)
- New Fencing around Well House
- Electrical upgrades in well house
- Gravel for all weather road
- New magnetic flow meter for well
- Mission monitoring



The Center Ridge Water District 1 is a public drinking water system with a single well with chlorination, and a tank house with hydropneumatic tanks and backup generator. The system serves 51 homes. The system currently has a 1060-gallon hydropneumatic storage tank installed at the well house, which falls short of design standards for a system serving this number of connections. Following typical design standards, the system should be able to store 35 gallons per day per person. With 51 connections, area demographics estimate a population served of 153 which would require 5,355 gallons of storage. The existing hydropneumatic tank will be replaced with an 8,000-gallon tank to provide adequate storage and allow for population growth in the system. While the system has been functional, it is evident that the maintenance and operations standards were not adequate for the long-term health of the system. The well head had exposed wiring not properly installed in conduit. To ensure safe operation and prevent equipment from wearing out faster than necessary, the well will be inspected, and the pump and wiring will be replaced. The system is currently using sodium hypo chlorate, with an outdated chemical pump dosing the chlorine solution. To ensure proper dosing and reduce chemical cost, a new pump will be purchased, as well as a scale for tracking chemical usage. Also, the chlorine is currently dosed in the same room as the storage tanks. This is poor practice and can lead to corrosion of storage equipment, therefore a separate room will be built out on the existing concrete pad to prevent damage to storage equipment. The well house lacks proper finish carpentry with exposed wiring throughout and there is no fencing installed on site currently to prevent the public from accessing the well head. To bring the well house to a properly maintainable state, the poor electrical system will be upgraded, and finish carpentry completed to eliminate exposed wiring. Fencing will be installed to prevent public access or tampering to the well. There is currently no proper access road to the facility with operators parking on grass next to the well house. A proper gravel driveway will be installed. In order to improve operations at the facility a mission remote monitoring unit will be

installed with a flow meter on the well. Live data from the remote monitoring system will improve operational awareness, allowing operators to respond to some abnormal conditions (leaks, power outages, pump failures, etc.) at the plant before they become an issue for customers. Part of the overhaul will include replacing exposed PVC piping with steel piping as PVC is subject to damage from sunlight as well as cracking due to cold temperatures.

## Center Ridge Water Districts 2 and 3 (KY0180509 & KY0180502)

### District 2

- PRV
- Return existing out of use well to service
- Close existing well head and decommission existing equipment
- Building repairs on southern building (inside and outside)
- Gravel for all weather road
- New Fencing around Well House
- Remove and install new heater in building
- Replace hydro tank with new 1,000-gallon tank
- Well Inspection
- Replace well pump and wiring
- New magnetic flow meter for well
- Mission monitoring



### District 3

- New chlorine pump, containment unit, scale
- New chlorine room constructed on slab outside of building
- New Fencing around Well House
- Gravel for all weather road
- New well house and appurtenances
- Miscellaneous yard piping
- New 100,000-gallon ground storage tank
- Water main extension to connect District 2 and 3
- Well Inspection
- Replace well pump and wiring
- New booster station
- Mission monitoring
- New generator



The Center Ridge Water District 2 and 3 are public drinking water systems in the Center Ridge collection of systems. These will be addressed together as to provide adequate water supply and storage the two systems will be connected to each other.

District 2 consists of a distribution system with two wells; however, one well is not in service. The out of service well appears to have been originally removed from service due to exposed PVC piping freezing and cracking inside the well house. The active well services 127 customers with an estimated population of 377 and disinfects with chlorine solution. The active well has a PVC well head that is designed to gravity drain into the well, which poses sanitary concerns. The well currently pumps to a single hydropneumatic storage tank that appears to provide less than 1,000 gallons of storage and shows signs of leaking due to rust damage. Proper design standards for serving a population of 377 people would require 13,195 gallons of storage. There is no fencing at the well site and no proper all-weather access road or driveway.

District 3 consists of a distribution system, with two wells connected to a single well house and services 70 connections with an estimated population of 207. The well house is in extremely poor condition and appears to have been made from a prefabricated shed that was lined with spray foam and foam board and set on a cinderblock foundation. The roof had clearly failed at some point and rather than properly replacing the shack or roof, a tarp was nailed over the failing roof. The electrical conduit running to the wells from the electrical service near the well house is in a conduit that has become exposed in the driveway around the well site and is clearly run over on a regular basis. The two wells are surrounded by cinderblock structures with tin roof lids, and the cinderblock structure is not in good condition. To service a population of 207 the system should offer storage of at least 7,280 gallons, which is far more than the current tank offers.

Due to the proximity of Districts 2 and 3 and the significant inadequacy of both systems. The two systems will be combined with shared storage and supply for the two systems. To provide adequate storage and pressure to supply both districts, a 100,000-gallon standpipe water tower will be installed. To fill the tower, a booster station will be installed allowing use of the full storage volume. The two systems will be connected via water main with pressure reducing valves installed to address the poor construction methods and materials used in the distribution system while still providing adequate pressure and supply. The functional wells at both systems will be overhauled due to age to ensure adequate supply and longevity with plans to eventually maintain the well at District 2 as an emergency supply with primary supply at District 3. The exposed wiring at the well heads will be replaced and properly installed in conduit. Additionally, the exposed conduit in the driveway will be replaced and reinstalled at a safe depth. Fencing will be installed around the well houses to prevent public access to the water supply systems and proper gravel access roads will be installed. The damaged well house at District 3 will be replaced with a proper structure with a separated room for chlorine equipment. The older damaged hydropneumatic tank will be removed, and the new standpipe will be installed at the District 3 site. At District 2 the out of service well will be restored to service with a new well head installed, and new pumps and piping will be installed at both wells. The District 2 well houses will be rehabilitated and brought back into proper working condition with chlorination equipment in a separated room to protect other equipment. Additionally, the damaged 1000-gallon hydropneumatic tank at the District 2 site will be replaced for local backup storage. All wells and storage tanks will be outfitted with appropriate meters to report live data through a mission remote monitoring system. Live data from the remote monitoring system will improve

operational awareness, allowing operators to respond to some abnormal conditions (leaks, power outages, pump failures, etc.) before they become an issue for customers. Distribution system repairs will be necessary throughout this process as the improvements will increase the pressure to adequate levels in the system. As the pressure increases, existing damage to the distribution system and areas where improper construction methods or materials were used may develop leaks which will be repaired.

### Center Ridge Water District 4 (KY0183106)

- Replace hydro tank with 8,000-gallon tank
- New chlorine pump, containment unit, scale
- New chlorine room constructed on slab outside of building
- Electrical upgrades in well house
- Remove and install new heater in building
- Building repairs (inside and outside)
- Well Inspection
- Replace well pump and wiring
- New magnetic flow meter for well
- Mission monitoring
- New Fencing around Well House
- Gravel for all weather road



The Center Ridge Water District 4 is a public drinking water system with a single well with chlorination, and a tank house with a hydropneumatic tank. The system serves 28 homes with an estimated population of 84. Design standards would indicate that the system would need 2,940 gallons of storage to adequately serve this population. It is notable that the state reports a higher population and connection count which appears to account for likely growth around the system. The system currently has a small hydropneumatic storage tank which does not provide adequate storage capacity to meet this design standard. To adequately serve this population an 8,000-gallon tank will be installed to replace the current tank. The existing well house is in poor condition, with some rotting on panels near the ground and improperly installed foam board insulation with gaps that invalidate the insulation value. There are areas with exposed wiring in the well house and at the well head and the chlorine disinfection is in the same room as the rest of the equipment. In order to bring the system into a maintainable condition, the well house will be repaired including electrical repairs, replacing the heater in the building, improving the insulation, and constructing a separate room for chlorination. The chlorine pump will also be replaced, and a scale installed to ensure proper chemical usage. The well will be reworked due to age and the pump and wiring will be replaced with wiring properly installed in conduit. The well and storage tank will be outfitted with appropriate meters to report live data through a mission remote monitoring system. Live data from the remote monitoring system will improve operational awareness, allowing operators to respond to some abnormal conditions (leaks, power outages, pump failures, etc.) before they become an issue for customers. The current access road to the facility is a dirt road that has many areas with severe erosion. The access will be regraded, and a gravel road installed to provide true all-weather access.

In order to bring the system into a maintainable condition, the well house will be repaired including electrical repairs, replacing the heater in the building, improving the insulation, and constructing a separate room for chlorination. The chlorine pump will also be replaced, and a scale installed to ensure proper chemical usage. The well will be reworked due to age and the pump and wiring will be replaced with wiring properly installed in conduit. The well and storage tank will be outfitted with appropriate meters to report live data through a mission remote monitoring system. Live data from the remote monitoring system will improve operational awareness, allowing operators to respond to some abnormal conditions (leaks, power outages, pump failures, etc.) before they become an issue for customers. The current access road to the facility is a dirt road that has many areas with severe erosion. The access will be regraded, and a gravel road installed to provide true all-weather access.

Time	Facility	Comment
IMG_3391	Airview	Status: Lagoon overflowing Title: Lagoon Status: Overgrown lagoon
	Airview	Title: Overgrown lagoon Status: Contact Chamber, Abandoned equipment, accumulating sludge
Service Area Photo - Airview - 19_05_20 - 28		
0:13-0:33	Brocklyn	Do we not have any other shots from Brocklyn showing the trench worn by the stormwater or a better shot of the contact chamber?  Same for the package plant as a whole, there are much worse examples of the rust that can be used if the guy took mor shots
	0:18 Brocklyn	Status: Rusted Steel, Improper piping
	0:24 Brocklyn	Title: Contact Chamber and Lagoon Status: Deteriorating structure, overgrown lagoon, erosion
0:35-0:54	LH	Second shot really doesn't show too much going wrong, maybe there is something better we can use there.
	0:38 LH	Status: Degraded Structure, improper repairs
	0:46 LH	fine
0:54-1:28	Fox Run	
	1:00 Fox Run	Shot and description ok
	1:07 Fox Run	Title: Chemical and material storage Status: Improperly stored chemicals and materials, poor housekeeping, rusted tankage
	1:14 Fox Run	The same title and description can just stay on screen for this second shot
	1:22 Fox Run	Title: Influent Lift Station Status: Improper electrical service, improper equipment installation, (surely there is a better shot that shows the actual station instead of just a closeup of the chord?)
1:28-1:57	Kingswood	
	1:33 Kingswood	Title: Treatment Plant Status: Rusted Structures, overgrowth throughout the site
	1:43 Kingswood	Title: Treatment Plant Status: Improperly stored chemicals, vegetation growth in plant
	1:51 Kingswood	Title and comment OK
1:59-2:14	Persimmon Ridge	This is not still Kingswood, but no title card for persimmon showed
	1:59 Persimmon Ridge	We should use a shot that shows both the duckweed and inactive aerators, as only mentioning duckweed growth is not capturing the actual significant issues
	2:07 Persimmon Ridge	Title is nonsense here, should say "Contact Chamber",
2:16-3:09	Lake Columbia	
	2:18 Lake Columbia	Title: Bar Screen/Splitter box Severe corrosion, clogged piping
	2:29 Lake Columbia	Title: Treatment Plant Status: Severe corrosion, poor chemical storage, damaged piping
	2:37 Lake Columbia	Title: Blower Housing and treatment plant Status: damaged housing, maintenance failure
	2:50 Lake Columbia	Title: Sludge Return line Status: Improper installation and materials
	3:00 Lake Columbia	Title: Sludge Return, tank Status: Rusting steel, abandoned lines

TJ: DELETE

TJ: DELETE

TJ: DELETE

TJ: Add Title Card: Persimmon Ridge

TJ: DELETE

TJ: DELETE

System	File name	Title	Status
Airview	DSCF0653	Aeration Tank and Bar Screen	Clogged and deteriorated bar screen
Airview	DSCF0655	Aeration Tank	Trees growing from treatment facility
Airview	IMG_3391	Lagoon	Overgrown lagoon
Airview	Service Area Photo - Airview -	Contact Chamber	Abandoned equipment, accumulating sludge
Brocklyn	DSCF0607	Weir Box	Deteriorating steel , nonfunctional flow meter
Brocklyn	DSCF0611	Lagoon	Deteriorating berm and erosion
Brocklyn	DSCF0615	Contact Chamber	deteriorated structure and improper piping
Brocklyn	IMG_0574	Lagoon Berm	Structure deteriorating and leaking
Fox Run	IMG_0588	Influent Lift Station	Improper pumps, improper influent line
Fox Run	IMG_0597	Aeratoin Tank	Rusting steel tanks
<b>Add Title Card</b>			
Golden Acres	Flood staining of riprap	Plant	Stained riprap showing regular flooding
Golden Acres	Golden Acres Effluent	Outfall	Pollution, effluent pipe clogged with debris
Golden Acres	DSCF0698	Aeration Basin	Rusting structure, vegetation growth in plant
Golden Acres	DSCF0703	Control Panel	Improper wiring
<b>Add Title Card</b>			
Great Oaks	DSCF0679	Influent Lines	Improper influent lines, rusted structure
Great Oaks	DSCF0681	Aeration Tank	Rusting structure, vegetation growth
Great Oaks	DSCF0682	Aeration Tank	vegetation growth in plant
Great Oaks	DSCF0683	Aeration Tank	Rusting structure with vegetation overgrowth
Great Oaks	great oaks effluent	Outfall	Pollution
Lake Columbia	IMG_0610	Fencing	Evidence of Sewage overflow
LH	DSCF0622	Bar Screen	Severe corrosion, damaged screen
LH	DSCF0638	Blower	Excessive buildup on blowers
LH	IMG_3256	Clarifier	Weir Trough off level and submerged (nonfunctional)
Persimmon Ridge	Picture5	Lagoon	Damaged Aerators, duckweed overgrowth
Persimmon Ridge	Picture6	Lagoon	Damaged Aerators, duckweed overgrowth
<b>Add Title Card</b>			
Center Ridge Water District 1	IMG_9824	Well House Interior	No seperation of chlorine and storage, exposed wiring and rafters
Center Ridge Water District 1	IMG_9830	Chlorine Equipment	Obsolete and improperly installed dosing pump
<b>Add Title Card</b>			
Center Ridge Water District 2	IMG_9814	Out of service Well House	Ice damaged Well, piping, and storage out of service
Center Ridge Water District 2	IMG_3177	Out of service Well House	exposed wiring on well head
Center Ridge Water District 2	IMG_3192	Hyropneumatic Tank	Tank has pinhole leaks at actvive well site
Center Ridge Water District 2	IMG_3197	Active Well	exposed wiring on well head
Center Ridge Water District 2	IMG_9804	Active Well House	Exposed wiring, damaged insulation
Center Ridge Water District 2	Picture13	Active Well House	Insulation Damaged, chlorine in same room as storage
Center Ridge Water District 2	IMG_9808	Active Well House	Obsolete and improperly installed dosing pump, exposed wiring
<b>Add Title Card</b>			
Center Ridge Water District 3	Picture14	Well House	Damaged structure, improper repairs
Center Ridge Water District 3	IMG_9798	Well 1	Damaged structure, exposed wiring
Center Ridge Water District 3	IMG_9796	Well 2	Damaged structure, exposed wiring
Center Ridge Water District 3	IMG_9794	Well 1	Power supply conduit exposed and damaged
Center Ridge Water District 3	IMG_9786	Well House Interior	Exposed wiring, improper insulatoin, chlorine and storage in same room
Center Ridge Water District 3	IMG_9789	Well House	Obsolete and improperly installed dosing pump
Center Ridge Water District 3	IMG_9789	Well House	Poor tank installation
<b>Add Title Card</b>			
Center Ridge Water District 4	Picture16	Well House	Damaged exterior
Center Ridge Water District 4	Picture15	Well House	exposed wiring
Center Ridge Water District 4	200715_Center Ridge 4_C008	Well Hhead	exposed wiring on well head
<b>Add Title Card</b>			
Timberland	IMG_3113	Influent Lift Station	Exposed wiring, improper piping, debris piles
Timberland	IMG_3117	Influent lift Station Panels	Exposed wiring
Timberland	IMG_3148	Aeration Plant	Rusted steel, vegetation in plant, exposed wiring
Timberland	IMG_3138	Aeration Tankage	Holes rusted through, leaking wastewater (Keep up for both photos can be shorter)
Timberland	IMG_3139	Aeration Tankage	Holes rusted through, leaking wastewater (Keep up for both photos can be shorter)
Timberland	IMG_3142	Contact Chamber	deteriarng strucure, improper post-aeration, improper chemical storage
Timberland	IMG_3145	Lagoon	sludge filled, berm in poor condition
<b>Add Title Card</b>			
River Bluffs	IMG_3463	Influent Line	Improper instalation and materials
River Bluffs	IMG_3478	Influent Lift Station	improper influent lines, rusting steel
River Bluffs	IMG_3487	Aeration Plant	rusted steel throughout, damaged equipment
River Bluffs	IMG_3499	Aeration Plant	Steel lines repaired wit duct tape
River Bluffs	IMG_9691	Contact Chamber	Excessive Corrosion, improper chlorine dosing

Time	Facility	Comment
0:13-0:33	Brocklyn	Do we not have any other shots from Brocklyn showing the trench worn by the stormwater or a better shot of the contact chamber? Same for the package plant as a whole, there are much worse examples of the rust that can be used if the guy took mor shots
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1:33	Kingswood	Title: Treatment Plant  Status: Rusted Structures, overgrowth throughout the site
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1:59-2:14	Persimmon Ridge	This is not still Kingswood, but no title card for persimmon showed

1:59	Persimmon Ridge	We should use a shot that shows both the duckweed and inactive aerators, as only mentioning duckweed growth is not capturing the actual significant issues
2:07	Persimmon Ridge	Title is nonsense here, should say "Contact Chamber",
2:16-3:09	Lake Columbia	Any shots of the contact chamber? Shots of the sludge against the fence?
2:18	Lake Columbia	Title: Bar Screen/Splitter box Severe corrosion, clogged piping
2:29	Lake Columbia	Title: Treatment Plant Status: Severe corrosion, poor chemical storage, damaged piping
2:37	Lake Columbia	Title: Blower Housing and treatment plant Status: damaged housing, maintenance failure
2:50	Lake Columbia	Title: Sludge Return line Status: Improper installation and materials
3:00	Lake Columbia	Title: Sludge Return, tank Status: Rusting steel, abandoned lines
3:07	Airview	We need a shot of the overgrown lagoon and the destroyed contact chamber included
3:15	Airview	Title: Clarifier Status: Trash left about, rusted structures
3:22	Airview	Title: Aeration Chamber Status: Vegetation growth, rusting structures, debris on equipment



**BLUEGRASS WATER**

Utility Operating Company

A CSWR Managed Utility

### **We Need You**

CSWR, LLC, (CSWR), and its affiliate, Bluegrass Water, are looking to work with qualified and experienced water operations and management (O&M) firms to bring safe, reliable and environmentally responsible water resources throughout Kentucky.

CSWR, Inc. owns and operates several private, regulated water utility companies across the nation. We provide professional and managerial services to make sure the communities we serve have access to clean, safe and reliable water resources, 24/7. We work with outside firms like yours to make sure our utility operating companies have professional operation, maintenance and construction services. Our goal at CSWR, Inc. is to transform local water treatment facilities across the United States, improving both the quality of water and the quality of life for our customers.

### **Benefits of Working with Us**

Bluegrass Water 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, while protecting the aquifers, lakes, rivers and streams that are essential to our world.

Our O&M partners get the benefits of access to working with industry-leading technology, a growing network of water professionals and the opportunity to grow your business.

Bluegrass Water also provides:

- Training vouchers pending state approval
- Opportunity to learn how to use a computer-based training monitoring system (CMMS)
- Professional, 24/7 customer service

### **We Need You**

We're building our database for all current and future projects for construction and water O&M in Kentucky. This Qualification Application is solely a request for information. It does not represent an offer, nor does it confer any rights on any respondent. CSWR, Inc. or Bluegrass Water is not responsible under any circumstances for any costs incurred by responding to this Qualification Application.

Questions? Please contact us at [operations@cswrgroup.com](mailto:operations@cswrgroup.com).



**QUALIFICATION APPLICATION**

Please fill out the information below to be notified of any current or future Bluegrass Water projects.

Firm Name:

1. Address:
2. Company Headquarters (if different from above):

Number of years in business under current business name:

List all other business names firm has operated under and the time frames for each:


List any Disadvantaged Business Enterprise (DBE) certifications:

--

Please mark which types of projects you are interested in:

Water	
Operation & Maintenance	<input type="checkbox"/>
Construction	<input type="checkbox"/>

If firm is a corporation, LLC or partnership, provide the following information:

Type of organization:	<input type="text"/>
State of incorporation:	<input type="text"/>
Date of Incorporation:	<input type="text"/>
Name of President:	<input type="text"/>
Name of Vice President:	<input type="text"/>
Name of Secretary:	<input type="text"/>
Name of Treasurer:	<input type="text"/>



## SERVICES PROVIDED

### Wastewater Field Operations

Tasks listed below are routine tasks expected for the operation of a wastewater facility and shall be included in the monthly fee. The monthly fee shall include all labor, materials, and costs to complete the following tasks.

- Make minimum of 3 (for mechanical plants) or 1 (for lagoons) weekly visits to the treatment facility to monitor the operation of the Facilities in order to assure the Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto.
- Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Create and perform all routine scheduled work orders generated through CMMS.
- Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner.
- Utilize owner provided regulatory results database. Maintain/upload certified test results into the database by the last business day of each month.
- Obtain the sampling requirements for testing by the government regulators and/or the Owner and perform the necessary sampling.
- Maintain all facility records included in CMMS.
- Contact appropriate laboratories to provide adequate testing and reporting services for Owner.
- Provide all test results to the Owner as early as possible.
- Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public. Any fee or fines resulting from a delay in notifying the Owner will be the responsibility of the successful Bidder.
- Contact and direct appropriate contractors to make repairs to the system as needed for operation.
- Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm.
- Maintain a 24-Hour 7 day per week maintenance and emergency service phone line for customer utility service disruption events.



- Must respond to all customer calls and notifications within a 2-hr period of receiving call or notification.
- Provide a 24-Hour on-call emergency utility service response for operations.
- Perform Utility Locates.

### **Wastewater Field Operations – Additional Work**

Tasks listed below are non-routine tasks expected for the operation of a wastewater facility and shall be billed in addition to the monthly fee. The Bidder shall provide a list of labor rates and cost markup that will be charged.

- Sewer main, or manhole repair and maintenance
- Service and utility construction inspections
- Sewer main flushing, rodding, or jetting
- Lift station maintenance and repair
- Cleaning and vacuuming of manholes
- Lagoon repair/maintenance requiring excavating equipment (e.g. backhoe, loader, etc.)
- Mowing and trimming of plant, lagoon and right of way areas
- Chemical application to lagoon cells
- Fence repair & upkeep
- Sewer main video inspection and recording
- Sewer main repair and/or replacement
- Customer service issues requiring action on behalf of the utility
- Pavement repairs
- Items identified during start-up by Operator as inoperable or concerning conditions of the facility that would affect treatment performance. Owner to review items and grant approval prior to repair work beginning.
- Electrical Repair Services
- Tree trimming/brush removal services
- Mechanical repair services
- Structural repair services

### **Water Field Operations – Included in Monthly Fee**

Tasks listed below are routine tasks expected for the operation of a water facility and shall be included in the monthly fee. The monthly fee shall include all labor, materials and costs to complete the following tasks.

- Make weekly or more frequent visits, as required by regulatory requirements, to the treatment facility to monitor the operation of the Facilities in order to assure the Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto;



- Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Maintain all facility records included in CMMS.
- Create and perform all routine scheduled work orders generated through CMMS.
- Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner.
- Utilize owner provided regulatory results database. Maintain/upload certified test results into the database by the last business day of each month.
- Obtain the sampling requirements for testing by the government regulators and/or the Owner and perform the necessary sampling.
- Contact appropriate laboratories to provide adequate testing and reporting services for Owner.
- Provide all test results to the Owner as early as possible.
- Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public. Any fee or fines resulting from a delay in notifying the Owner will be the responsibility of the successful Bidder.
- Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
- Contact and direct appropriate contractors to make repairs to the system as needed for operation.
- Provide monthly water bac-T results.
- Provide all test results to the Owner as early as possible.
- Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public.
- Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
- Meter readings.



- Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm.
- Maintain a 24-Hour 7 day per week maintenance and emergency service phone line for customer utility service disruption events.
- Must respond to all customer calls and notifications within a 2-hr period of receiving call or notification.
- Provide a 24-Hour on-call emergency utility service response for operations including 2-Hour emergency service per month.
- Perform Utility Locates.

### **Water Field Operations – Additional Work**

Tasks listed below are non-routine tasks expected for the operation of a wastewater facility and shall be billed in addition to the monthly fee. The Bidder shall provide a list of labor rates and cost markup that will be charged.

- Water main repair and maintenance
- Service and utility construction inspections
- Water main flushing
- Booster station maintenance and repair
- Mowing and trimming of plant and right of way areas
- Fence repair & upkeep
- Customer service issues requiring action on behalf of the utility
- Pavement repairs



Please mark each box for services that your firm provides. Do not include services which are subcontracted to other firms.

Operations & Maintenance (O&M)

Service	Water
System O&M	<input type="checkbox"/>
Engineering	<input type="checkbox"/>
Laboratory Testing	<input type="checkbox"/>
Grounds Maintenance/Landscaping	<input type="checkbox"/>
Discharge Reporting	<input type="checkbox"/>
Permitting	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>

Construction

Service	Water
General Contracting	<input type="checkbox"/>
Engineering/Design	<input type="checkbox"/>
Structural	<input type="checkbox"/>
Plumbing/Piping	<input type="checkbox"/>
Electrical	<input type="checkbox"/>
Cement/Foundations	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>
Other (specify):	<input type="checkbox"/>

Insured party where specified herein.









## REQUIREMENTS

### Customer Service Requirement

The successful bidder shall be responsible for the accurate and timely reading of customer meters, including rereads at Bluegrass Water's request. Each bidder must identify a single point of contact who will be responsible for communications between Bluegrass Water's Customer Service Staff and the bidder's field staff.

### Insurance Requirement

For all of our O&M projects, we require the insurance coverage listed below. The following Certificates of Insurance ("COI"), as outlined here, must be furnished to Bluegrass Water **upon receipt of approval of the award of the contract**. COI shall provide a minimum of a thirty (30) day notice of cancellation to CCPS and shall name CSWR as an additional insured as follows:

#### Comprehensive General Liability Insurance

Comprehensive General liability insurance on an "occurrence basis," in the amount of at least \$1,000,000.00 per occurrence, with at least a \$2,000,000.00 annual aggregate limit, including broad form property damage, blanket contractual and personal injuries (including death resulting therefrom) coverage.

#### Automobile Liability Insurance

Automobile Liability insurance in the amount of \$500,000.00 per person and \$1,000,000.00 per occurrence for bodily injury and \$500,000.00 per occurrence for property damage or \$1,000,000.00 combined single limit. Coverage should extend to any auto or owned, hired or non-owned autos.

#### Worker's Compensation and Employers Liability Insurance

Worker's Compensation and Employers Liability in the amount required by law.

#### Commercial Umbrella Coverage

Commercial Umbrella Coverage on all of the foregoing coverage in the amount of \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate.

#### Pollution Legal Liability

Operator shall maintain in force Pollution Legal Liability policy with limits of \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Pollution Liability Coverage is discontinued for any reason by Operator after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years from the date of the termination of this Agreement.

#### Professional Liability Error and Omissions

Professional Liability Error and Omissions coverage of not less than \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Professional Liability Errors and



Omissions coverage is discontinued for any reason after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years from the date of the termination of this Agreement.

**Duration of Insurance Policies**

Except as otherwise expressly required, all insurance policies herein specified shall be in force for the term of the contract and contain a Rider that the insurance policies cannot be cancelled without a thirty (30) day prior written notice to the parties insured.

**SAFETY RECORD**

Please provide your firm’s Workers’ Compensation Experience Modifier and OSHA Recordable Rate for the past three years.

Please provide your Days Away, Restricted, or Transferred (DART) Incident Rate calculated from OSHA’s Form 300 and Experience Modifier Rate (EMR) for the last three years in the table below.

Year	DART	EMR

Please provide a copy of any Drug and Alcohol policies including testing programs. Also, provide a brief narrative summarizing any health and safety programs and/or processes



**References**

Provide three trade references below include name of reference, current contact person, telephone number and address:

- 1.
- 2.
- 3.

Provide two bank references below, include name of reference, current contact person, telephone number and address:

- 1.
- 2.

The person undersigned affirms that all information contained within this Qualifications Application is true and accurate. Providing false or misleading or omitting relevant information may result in the Respondent's firm being disqualified for any current or future work for Central States Water Resources.

Affirmed by (signature): \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



**BLUEGRASS WATER**

**Utility Operating Company**

A CSWR Managed Utility

## INTRODUCTION

CSWR, LLC (CSWR) owns and operates several private, regulated water and wastewater utility companies including our affiliate, Bluegrass Water. We provide professional and managerial services to make sure the communities we serve have access to clean, safe and reliable water resources, 24/7. We work with outside firms like yours to make sure our utility operating companies have professional operation, maintenance and construction services. Our goal at CSWR, Inc. is to transform local water and wastewater treatment facilities across the United States, improving both the quality of water and the quality of life for our customers.

## BLUEGRASS WATER

Bluegrass Water is looking for a qualified partner to operate and maintain our facilities. The winning bidder will perform routine service and maintenance to the region's water and wastewater treatment facilities for fee. This fee will include payment toward both administrative and field operations. Respondents must provide a plan that includes certification, staffing and insurance information, all of which are more fully detailed on the following pages.

We invite you to submit your proposal based on the information outlined below. We look forward to working with you!

Sincerely,

Jay Favor  
CSWR, Director of Environmental Health and Safety



## BACKGROUND

Bluegrass Water owns and operates several private water and wastewater utility systems across Kentucky. We use firms like yours, which deal in operation, maintenance or construction, to make sure we provide safe, clean and reliable water resources to our customers 24 hours a day, 365 days a year. We use this Request for Proposal (RFP) process to help us find firms willing and qualified to supply these services for our customers.

Our goal at Bluegrass Water is to transform local water and wastewater treatment facilities across Kentucky, by using technology and innovation to quickly assess and invest in reliable infrastructure that meets or exceeds stringent state and federal safety standards. By restoring communities water infrastructure to applicable regulatory standards, we ensure all Bluegrass Water communities have access to safe, clean and reliable water resources while protecting the aquifers, lakes, rivers and streams that are essential to our world.

The objective of this RFP is to identify whether your firm can provide the best overall value to Bluegrass Water. While price is a significant factor, we'll base our decision on a number of other criteria as well, which will be more fully described in the Evaluation Factors section of this RFP below.

## SUBMISSION GUIDELINES & REQUIREMENTS

Here are some helpful guidelines to be aware of when submitting:

- Only qualified individuals or firms with prior experience on projects such as this should submit proposals in response to this RFP.
- Bidders may complete a "Company Narrative," providing up to a 4-page narrative listing their company's experience with similar projects, expertise and why they should be selected by CSWR. Please include references for each example provided. This narrative is optional.
- Bidders must complete the "RFP Response Page" at the end of this RFP that outlines the required submittal documents and pricing.
- Proposals must be signed by a representative that is authorized to commit a bidder's company.
- Proposals must remain valid for a period of 60 days.
- Bluegrass Water anticipates selecting at least two individuals or firms to have more in-depth discussions with and will make an award to one of these "down-selected" individuals or firms.
- Each bidder must read the "Agreement Regarding Operation of Utility Treatment Facilities Water/Wastewater" presented in Attachment A.



- Each bidder must provide proof of insurance coverage, including all inclusions and exclusions to the policy. For information regarding insurance requirements, please refer to Insurance Requirements below.
- Each bidder must provide a staffing plan for each of the facilities and include the key personnel's biography, resume and certifications.

## PROJECT DESCRIPTION

Our goal at Bluegrass Water is to transform local water and wastewater treatment facilities across Kentucky, improving the quality of water and therefore the quality of life in the region.

Bluegrass Water is looking for qualified groups to operate and maintain water and wastewater treatment facilities across Kentucky. This includes all maintenance and construction projects needed to guarantee the highest quality product to Bluegrass Water's serviced communities while maintaining safe policies and best practices to comply with regulatory standards.

## SITE VISIT (OPTIONAL)

Bluegrass Water will conduct an optional site visit for prospective bidder, **upon request**, to examine the system.

## PROJECT SCOPE

Provided below is Bluegrass Water's Project Scope, focused on administrative duties and field operations which are comprised of operator services for both the water treatment facilities and wastewater treatment facilities at Bluegrass Water, a part of CSWR.

### Scope and Requirements:

Bidder shall provide a monthly fee in its response to this RFP to maintain the system(s), as described below. No additional charges will be allowed for the routine testing, reporting, operations and maintenance of the Facilities. All costs including, but not limited to, routine labor, materials, profit, meter reading and travel shall be included in the monthly fee. Costs for items such as equipment replacement, emergencies or other non-routine repairs are not included in this scope item.

### Administrative

The successful Bidder shall maintain all required certificates, licenses and approvals required by the governing authorities to operate the Facilities and provide copies of

such to the Owner. Each Bidder must provide a staffing plan for each of the facilities and include the key personnel's biography, resume and certifications.

The successful Bidder shall maintain insurance meeting or exceeding the requirements listed below. Certificates of insurance showing that the Bidder meets the minimum requirements must be provided with the Bidder's response to this Request for Proposal (RFP). Failure to include the necessary certificates will result in the Bidder's proposal being disqualified from consideration.

### Customer Service Requirement

The successful Bidder shall be responsible for the accurate and timely reading of customer meters, including rereads at Bluegrass Water's request. Each Bidder must identify a single point of contact who will be responsible for communications between Bluegrass Water Customer Service Staff and the Bidder's field staff.

### Insurance Requirement

Certificates of Insurance ("COI"), as outlined herein, shall be furnished to Bluegrass Water upon receipt of approval of the award of the contract. COI shall provide a minimum of a thirty (30) day notice of cancellation to CCPS and shall name Bluegrass Water as an additional insured as follows:

#### Comprehensive General Liability Insurance

Comprehensive General liability insurance on an "occurrence basis," in the amount of at least \$1,000,000.00 per occurrence, with at least a \$2,000,000.00 annual aggregate limit, including broad form property damage, blanket contractual and personal injuries (including death resulting therefrom) coverage.

#### Automobile Liability Insurance

Automobile Liability insurance in the amount of \$500,000.00 per person and \$1,000,000.00 per occurrence for bodily injury and \$500,000.00 per occurrence for property damage or \$1,000,000.00 combined single limit. Coverage should extend to any auto or owned, hired or non-owned autos.

#### Worker's Compensation and Employers Liability Insurance

Worker's Compensation and Employers Liability in the amount required by law.

#### Commercial Umbrella Coverage

Commercial Umbrella Coverage on all of the foregoing coverage in the amount of \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate.



### Pollution Legal Liability

Operator shall maintain in force Pollution Legal Liability policy with limits of \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Pollution Liability Coverage is discontinued for any reason by Operator after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years from the date of the termination of this Agreement.

### Professional Liability Error and Omissions

Professional Liability Error and Omissions coverage of not less than \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Professional Liability Errors and Omissions coverage is discontinued for any reason after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years from the date of the termination of this Agreement.

### Duration of Insurance Policies

All insurance policies herein specified shall be in force for the term of the contract and contain a Rider that the insurance policies cannot be cancelled without a thirty (30) day prior written notice to the parties insured.

### Insurance Policy Review

Insurance policies may be submitted for review to Bluegrass Water. Said policies shall be in form and content satisfactory to Bluegrass Water's said representatives. Said policies shall also name Bluegrass Water as an additional insured party where specified herein.

### Wastewater Field Operations – Included in Monthly Fee

Tasks listed below are routine tasks expected for the operation of a wastewater facility and shall be included in the monthly fee. The monthly fee shall include all labor, materials and costs to complete the following tasks.

- Make minimum of 3 (for mechanical plants) or 1 (for lagoons) weekly visits to the treatment facility to monitor the operation of the Facilities in order to assure the

Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto.

- Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS or as needed to meet manufacturers' specifications and recommendations.



- Create and perform all routine scheduled work orders generated through CMMS.
- Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner.
- Utilize owner provided regulatory results database. Maintain/upload certified test results into the database by the last business day of each month.
- Obtain the sampling requirements for testing by the government regulators and/or the Owner and perform the necessary sampling.
- Maintain all facility records included in CMMS.
- Contact appropriate laboratories to provide adequate testing and reporting services for Owner.
- Provide all test results to the Owner as early as possible.
- Notify the Owner immediately via email and phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency or could cause a negative impact on the public. Any fee or fines resulting from a delay in notifying the Owner will be the responsibility of the successful Bidder.
- Contact and direct appropriate contractors to make repairs to the system as needed for operation.
- Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm.
- Maintain a 24-hour, 7-day-per-week maintenance and emergency service phone line for customer utility service disruption events.
- Must respond to all customer calls and notifications within a two (2) hour period of receiving call or notification.
- Provide a 24-hour on-call emergency utility service response for operations.
- Perform Utility Locates.

## Wastewater Field Operations – Additional Work

Tasks listed below are non-routine tasks expected for the operation of a wastewater facility and shall be billed in addition to the monthly fee. The Bidder shall provide a list of labor rates and cost markup that will be charged.

- Sewer main, or manhole repair and maintenance
- Service and utility construction inspections
- Sewer main flushing, rodding or jetting
- Lift station maintenance and repair
- Cleaning and vacuuming of manholes
- Lagoon repair/maintenance requiring excavating equipment (e.g. backhoe, loader, etc.)
- Mowing and trimming of plant, lagoon and right of way areas
- Chemical application to lagoon cells
- Fence repair & upkeep
- Sewer main video inspection and recording



- Sewer main repair and/or replacement
- Customer service issues requiring action on behalf of the utility
- Pavement repairs
- Items identified during start-up by Operator as inoperable or concerning conditions of the facility that would affect treatment performance. Owner to review items and grant approval prior to repair work beginning.
- Electrical Repair Services
- Tree trimming/brush removal services
- Mechanical repair services
- Structural repair services

## Water Field Operations – Included in Monthly Fee

Tasks listed below are routine tasks expected for the operation of a water facility and shall be included in the monthly fee. The monthly fee shall include all labor, materials and costs to complete the following tasks.

- Make weekly or more frequent visits, as required by regulatory requirements, to the treatment facility to monitor the operation of the Facilities in order to assure the Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto.
- Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
- Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS or as needed to meet manufacturers' specifications and recommendations.
- Maintain all facility records included in CMMS.
- Create and perform all routine scheduled work orders generated through CMMS.
- Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner.
- Utilize owner provided regulatory results database. Maintain/upload certified test results into the database by the last business day of each month.
- Obtain the sampling requirements for testing by the government regulators and/or the Owner and perform the necessary sampling.
- Contact appropriate laboratories to provide adequate testing and reporting services for Owner.
- Provide all test results to the Owner as early as possible.
- Notify the Owner immediately via email and phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency or could cause a negative impact on the public. Any fee or fines resulting from a delay in notifying the Owner will be the responsibility of the successful Bidder.



- Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
- Contact and direct appropriate contractors to make repairs to the system as needed for operation.
- Provide monthly water bac-T results.
- Provide all test results to the Owner as early as possible.
- Meter readings.
- Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm.
- Maintain a 24-hour, 7-day-per-week maintenance and emergency service phone line for customer utility service disruption events.
- Must respond to all customer calls and notifications within a two (2) hour period of receiving call or notification.
- Provide a 24-hour on-call emergency utility service response for operations including two (2) hour emergency service per month.
- Perform Utility Locates.

## Water Field Operations – Additional Work

Tasks listed below are non-routine tasks expected for the operation of a wastewater facility and shall be billed in addition to the monthly fee. The Bidder shall provide a list of labor rates and cost markup that will be charged.

- Water main repair and maintenance
- Service and utility construction inspections
- Water main flushing
- Booster station maintenance and repair
- Mowing and trimming of plant and right of way areas
- Fence repair & upkeep
- Customer service issues requiring action on behalf of the utility
- Pavement repairs



## ATTACHMENT A – SAMPLE AGREEMENT

# AGREEMENT REGARDING OPERATION OF UTILITY TREATMENT FACILITIES WASTEWATER

This Agreement Regarding Operation of Utility Treatment Facilities (“Agreement”) is entered into and shall be effective as of the 15<sup>th</sup> day of May 2019 (“Effective Date”), by and between **UTILITY OPERATING COMPANY, LLC.**, a Arkansas limited liability company (“Owner”) and **Contracting Firm**, a Missouri limited liability company (“Operator”), collectively the “Parties”.

### RECITALS

**WHEREAS, UTILITY OPERATING COMPANY, LLC.**, or its affiliate, is the Owner for the operation, maintenance, and modernization of the water and wastewater treatment facilities, located in Missouri known as, and as more particularly identified under wastewater, and water facilities identified under (Facilities).

**WHEREAS, Contracting Firm**, provides the services of an Operator, certified by the appropriate regulatory authority, as required, for utility treatment facilities; and

**WHEREAS**, the Owner, wishes to retain Operator, and Operator desires to provide services to the Owner related to the operation of the Facilities.

**NOW, THEREFORE**, in consideration of the mutual promises and covenants set forth herein and other good and valuable consideration, the Parties agree as follows:

### ENGAGEMENT; TERM; TERMINATION

1. Engagement. The Owner hereby engages Operator to provide services to the Owner related to the operation of the Facilities, as more particularly described herein, subject to the terms and conditions of this Agreement. Operator hereby accepts such engagement and agrees (i) to perform all services, including, without being limited to, those services specifically set forth in this Agreement and any attachment hereto; and (ii) to use reasonable and diligent efforts and to exercise the highest degree of professional competence in the performance of such services, in all cases, subject to the terms of this



Agreement and any requirements of the Owner with regard to the operation of the Facilities.

2. Term. The term of this Agreement shall be effective as of the Effective Date and shall continue in full force and effect, unless sooner terminated as provided for herein, for a period of two (2) years.

3. Termination of Agreement Without Cause. The Owner or Operator may terminate this Agreement for any reason upon thirty (30) day prior written notice to the other Party of their desire to terminate the relationship and this Agreement.

4. Termination of Agreement With Cause. The Owner or Operator may terminate this Agreement upon written notice in the event of the failure by the other Party to perform in accordance with the terms of this Agreement. The nonperforming Party shall have ten (10) days from the date of the termination notice to cure or submit a plan for cure acceptable to the other Party.

5. Delay in Performance. Neither Owner nor Operator shall be considered in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the nonperforming Party. For purposes of this Agreement, such circumstances include, but are not limited to, abnormal weather conditions, floods, earthquakes, fire, epidemics, war, riot, and other civil disturbances, strikes, lockouts, work slowdowns, and other labor disturbances, sabotage, judicial restraint, and inability to procure permits, licenses, or authorizations from any local, state or federal agency for any of the permissions, supplies, materials, accesses, or services required to be provided by either Owner or Operator under this Agreement. Should such circumstances occur, the nonperforming Party shall, within a reasonable time of being prevented from performing, give written notice to the other Party describing the circumstances preventing continued performance of this Agreement.

6. Termination Duties. Upon the termination of this Agreement, Operator shall render to the Owner a final accounting which shall cover the period from the date of the last statement rendered to the Owner. The Operator shall also forthwith (i) deliver copies of all records and reporting documents not already provided to the Owner, as well as, all materials, supplies, contracts, documents, accountings, papers and any and all other reports pertaining to the operation of the Facilities or this Agreement in the possession or under the control of Operator, and (ii) assign to the Owner, or its designee, existing contracts (previously approved by the Owner) in Operator's name, if any, relating to the operation of the Facilities. Within ten (10) days of the effective date of termination of this Agreement, the Owner shall forthwith pay to Operator all compensation then due Operator.



**COMPENSATION TO OPERATOR**

7. Operator Fee for Basic Services. In connection with Operator providing those services to the Owner related to the operation of the Facilities, and as more particularly described hereinbelow, and incorporated herein by this reference, the Owner shall pay to Operator a monthly fee of **\$\$\$\$\$**.

8. Additional Fee Charged for Services Outside of Basic Scope of Services. In the event the Owner requests Operator to provide additional services not included under the Scope of Services as described herein below, Operator shall be compensated for such additional services in accordance with Operator’s Prevailing Fee Schedule as follows:

Engineer Fee	\$110.00/Hour
Technician Fee	\$60.00/Hour

9. Reimbursement of Out-of-Pocket Expenses. Operator shall be eligible for reimbursement for any and all documented costs paid by Operator associated with the testing services, electrical, mechanical and/or other parts purchased to repair and/or maintain the Facilities, chemicals required to operate the Facilities, and other out-of-pocket expenses required for the operation of the Facilities that are outside of the scope of the services for which the Operator is being paid the Fee for Basic Services. Prior approval by the Owner is required for all reimbursable expenses. Operator agrees there will be no mark-up, handling charge or other such service fee(s), related to out-of-pocket expenditures and that a copy of the original receipt(s) or other proof of purchase acceptable to Owner will be furnished with the reimbursement invoice. Reimbursement requests that were not approved in advance or are not accompanied by suitable proof of purchase may not be honored by Owner.

10. Payment of Fee and Reimbursable Costs. Operator shall submit to the Owner invoices for all Operator fees and claimed reimbursable costs on a monthly basis. All such invoices shall be due and payable to Operator by the Owner within thirty (30) days of the date of the invoice. Operator agrees that payment for claims for reimbursable expenses not received by Owner within sixty (60) days of the date incurred are at the discretion of the Owner. Invoices will be delivered to: [ap@cswrgroup.com](mailto:ap@cswrgroup.com), or as provided in Section 20.

11. Collection Costs. If the Owner fails to make payments when due, Operator shall provide written notice to the Owner allowing the Owner fifteen (15) days to cure the default in payment. However, if after the fifteen (15) day cure period the Owner continues to fail to make payment to Operator, and Operator incurs any costs in order to collect the overdue sums from the Owner, the Owner agrees that all such documented collection costs incurred by Operator shall immediately become due and payable to Operator.



**BLUEGRASS WATER**

Utility Operating Company

A CSWR Managed Utility

## RESPONSIBILITIES - OWNER

12. Maintaining Permits. Owner shall keep all required permits up to date for the Facilities.

13. Payment of Fees Required by Government Authorities. Owner shall pay the annual operating fees, permit renewal fees, construction fees, testing fees, and any and all other fees as required by the governmental authorities for the operation of the Facilities.

14. Damages Caused by Bypass. Owner shall be responsible for and shall hold Operator harmless from liability for damages caused by a bypass of the Facilities or failure of the Facilities to meet the required effluent limits.

15. Maintenance of Records. Owner shall maintain all records on the operation and maintenance of the Facilities for a period of five (5) years or such additional period of time required by Missouri State law.

## RESPONSIBILITIES - OPERATOR

16. Basic Services. Operator shall provide to Owner the services set forth on the attached **EXHIBIT A**, which by this reference is incorporated herein.

17. Additional or Emergency Services. Any services not listed above shall be considered additional or emergency services. Additional Services are not included as part of the Basic Services and shall be paid for by Owner in accordance with the Operator's fee schedule set forth hereinabove.

18. Standard of Care. The standard of care of all services performed or furnished by Operator under this Agreement will be the care and skill ordinarily used by operators practicing under similar conditions at the same time and in the same locality.

19. Insurance. Operator shall procure and maintain in effect throughout the duration of the term of this Agreement insurance coverage not less than the types and amounts specified below. The Operator also agrees to furnish the Owner, from time to time and on demand, with suitable evidence that such insurance is in force. In the event that additional insurance, not specified herein, is required by Owner during the course of the services covered by this Agreement, Operator shall supply such insurance and all additional costs shall be borne by Owner. Policies containing a self-insured retention will not be acceptable to Owner. A company with an A- or better rating must issue all insurance policies. All coverage required herein shall list Owner as an additional insured

including ongoing operations and completed operations on a primary and non-contributory basis using form CG 20 10 11 85 or its equivalent, and Operator shall maintain all coverage in force continuously without interruption for a period of three (3) years after the term of this Agreement. In addition, each coverage required herein shall include a waiver of subrogation (where allowable by law).

- (a) Comprehensive General liability insurance on an "occurrence basis," in the amount of at least \$1,000,000.00 per occurrence, with at least a \$2,000,000.00 annual aggregate limit, including broad form property damage, blanket contractual and personal injuries (including death resulting therefrom) coverage.
- (b) Automobile Liability insurance in the amount of \$500,000.00 per person and \$1,000,000.00 per occurrence for bodily injury and \$500,000.00 per occurrence for property damage or \$1,000,000.00 combined single limit. Coverage should extend to any auto or owned, hired or non-owned autos.
- (c) Worker's Compensation and Employers Liability in the amount required by law.
- (d) Commercial Umbrella Coverage on all of the foregoing coverage in the amount of \$5,000,000.00 per occurrence and \$5,000,000.00 aggregate.
- (e) Operator shall maintain in force Pollution Legal Liability policy with limits of \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Pollution Liability Coverage is discontinued for any reason by Operator after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years.
- (f) Professional Liability Error and Omissions coverage of not less than \$1,000,000.00 per occurrence and \$2,000,000.00 aggregate. In the event that Professional Liability Errors and Omissions coverage is discontinued for any reason after the termination of this Agreement, Operator agrees to procure tail coverage in force continuously without interruption for a period of three (3) years.

In addition, Operator is required and shall require any contractors, subcontractors, vendors or any other party performing work or providing services at or for the operation of the facilities to carry the above insurance.

The policies listed above shall include within their certificate an endorsement that the policy may not be canceled until sixty (60) days prior written notice of cancellation has been served upon Owner by registered or certified mail.

Indemnification: Operator shall to the fullest extent of the law defend, indemnify and hold harmless Owner and all of its parent companies, subsidiaries, affiliates and subcontractors, including their respective officers, directors, employees, principals, partners, agents, successors and assigns, (collectively "Indemnitees") from and against



**BLUEGRASS WATER**

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any and all actions, suits, arbitrations, administrative proceedings, demands and claims for any and all damages, injunctive or any other relief based on any cause of action whatsoever (sometimes individually "Claim" and sometimes collectively "Claims"), that may be brought or made against, or incurred by, Indemnitees on account of liabilities, damages, losses, cost, expenses, settlements, judgments, awards, and governmental penalties and sanctions, including reasonable attorneys' fees and experts' fees, including those attributable to bodily injury (including death), personal injury and property damage (sometimes individually "Liability" and sometimes collectively "Liabilities"), caused by, arising out of, or contributed to by any negligence, acts, errors, omissions or conduct of Operator, its employees, subcontractors, or agents, related in any way to the performance of any and all services described herein, except to the extent the Claims or Liabilities are determined to have been caused by the negligent or the willful misconduct of the Owner. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Agreement.

Operator shall provide to Owner at execution of this Agreement a certificate of insurance showing all required endorsements and additional insureds.

It is further mutually agreed between the parties hereto, that no payment made under this Agreement shall be deemed as conclusive evidence of the performance of this Agreement, either in whole or in part, and that no payment shall be construed to be an acceptance of defective work or improper performance or materials. The Operator is to insure its own risk in and about the property, unless special agreement is made to the contrary, said risk to be considered as the unpaid balance due at any time.

### **NOTICES**

20. Notices. Any notice, demand, consent, approval, request or other communication, required or permitted to be given hereunder, shall be in writing and shall be deemed to have been delivered (i) on the day personally delivered, (ii) upon receipt if sent by overnight courier, (iii) on the third business day following its mailing by registered or certified mail (return receipt requested), postage prepaid, by deposit in the United States mail, or (iv) on the day received (if received by 5:00 p.m. local time on a business day at the location of the recipient [i.e., any day other than a Saturday or Sunday or Missouri state (depending on the recipient's location) or federal holiday] and if not so received then on the next business day) if sent by facsimile or electronic transmission with proof of successful transmission.

Owner: CONFLUENCE RIVER UTILITY  
OPERATING COMPANY, LLC.  
500 Northwest Plaza Dr., Suite 500  
St. Ann, MO 63074  
Attn: Josiah Cox, President  
Phone: (314) 736-4672  
Facsimile: (314) 736-4743



**BLUEGRASS WATER**

**Utility Operating Company**

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Email: [jcox@cswrgroup.com](mailto:jcox@cswrgroup.com)

Operator: Contractor  
1351 Jefferson St,  
Washington, MO 63090  
Phone:  
Email:

Either party may, by notice given as aforesaid, designate a different address or addresses for notices to be given to it.

### GENERAL PROVISIONS

21. Information Provided by Others. Owner shall furnish, at Owner's expense, all information, requirements, reports, data, surveys and instructions required by this Agreement. Operator may use such information, requirements, reports, data, surveys and instructions in performing its services and is entitled to rely upon the accuracy and completeness thereof.

22. Relationship of Parties. The Operator is and will remain for the term of this Agreement an independent contractor completely responsible for its own acts and for the manner in which, and the form by which, it performs this Agreement, and as such shall set its own hours and means and methods and shall not be subject to the supervision and control of the Owner except as to the results obtained. In no event shall the relationship created by this Agreement constitute a joint venture or partnership between the Owner and the Operator. Neither Party is authorized to assume or create any obligation or responsibility on behalf of, or in the name of, the other or bind the other in any manner whatsoever whether as agent, legal representative or otherwise.

23. Third Party Rights. Nothing contained in this Agreement shall be construed to give any rights or benefits to anyone other than Owner and Operator.

24. Waiver. A waiver by either Owner or Operator of any breach of this Agreement shall be in writing. Such a waiver shall not affect the waiving party's rights with respect to any other or further breach.

25. Severability. The invalidity, illegality, or unenforceability of any provision of this Agreement or the occurrence of any event rendering any portion or provision of this Agreement void shall in no way affect the validity or enforceability of any other portion or provision of this Agreement. Any void provision shall be deemed severed from this Agreement, and the balance of this agreement shall be construed and enforced as if this

Agreement did not contain the particular portion or provision held to be void. The parties further agree to amend this Agreement to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision. The provisions of this Section shall not prevent this entire Agreement from being void should a provision, which is of the essence of this Agreement, be determined void.

26. Survival. Notwithstanding completion or termination of this Agreement for any reason, all rights, duties and obligations of the parties to this Agreement shall survive such completion or termination and remain in full force and effect until fulfilled.

27. Successors and Assigns. Owner and Operator each binds itself and its successors, assigns, and legal representatives to the other party to this Agreement and to the successors, assigns, and legal representatives of such other party in respect to all provisions of this Agreement.

28. Assignment. The Operator shall assign any rights or duties under this Agreement without the prior written consent of the Owner, which shall not be unreasonably withheld. However, the Owner shall be free to assign the rights and/or duties under this Agreement to any successor in interest by providing written notice to the Operator setting forth the name and contact information for the assignee and the date that the assignment will become effective. Nothing contained in this Section shall prevent Operator from employing independent Operators, associates, and subcontractors to assist in the performance of the Services.

29. Controlling Law. The laws of the State of Missouri shall govern this Agreement.

30. Anti-bribery, Anti-corruption and OFAC Compliance. The Owner takes a zero-tolerance approach to bribery and corruption. By executing this Agreement the Operator expressly acknowledges that all employees, agents, contractors and sub-contractors of the Company must at all times comply with all applicable anti-bribery and anti-corruption laws and Company policies and related procedures in relation to anti bribery and anti-corruption as set out herein or as may be implemented or amended from time to time and which will be made available for review upon request. Operator agrees to comply with the following policies:

- Operator may not provide or receive anything of value to obtain or retain business or favored treatment from public officials; candidates for office; employees of state-owned enterprises; employees or officers of counterparties, clients/customers, or suppliers; any agent of the aforementioned parties; or any other person with whom the Company or Operator does or anticipates doing business.



- The prohibition against providing “anything of value” to obtain or retain business or favored treatment includes improper payments, such as cash bribes or kickbacks, but also may include other direct or indirect benefits and advantages, such as inappropriate gifts, meals, entertainment, charitable contributions, and offers of employment or internships.

In addition, the Company is committed to combating money laundering, terrorist financing, securities fraud and other financial crimes (collectively “money laundering”) and complying fully with all applicable laws and regulations relating to combating money laundering. The Company is also committed to complying with economic and trade sanctions administered and enforced by governments and supranational bodies, including, among others, the sanctions programs and designated sanctions lists administered by the U.S. Department of the Treasury’s Office of Foreign Assets Control (“OFAC”), the United Nations Security Council, the European Union and Her Majesty’s Treasury. Compliance by employees, agents, contractors and sub-contractors of the Company with all applicable anti-money laundering laws and regulations and sanctions programs and lists (collectively, “AML”) is strictly required as a condition of this Agreement. Operator’s participation with any employee, agent, contractor and/or sub-contractor of the Company to engage in money laundering, or to fail to comply with all applicable AML laws, regulations, and Company’s AML policies, will be a breach of this Agreement, and will be cause for immediate termination of this Agreement by the Company.

31. Executed Counterparts/Facsimile Signatures. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which counterparts taken together shall constitute but one and the same instrument. Signature pages may be detached from the counterparts and attached to a single copy of this Agreement to physically form one document. This Agreement may be executed by a Party’s signature transmitted by facsimile or electronic transmission, and copies of this Agreement executed and delivered with facsimile signatures shall have the same force and effect as copies hereof executed and delivered with original signatures. The Parties hereto may rely upon facsimile signatures as if such signatures were originals. The Parties hereto agree that a facsimile signature page may be introduced into evidence in any proceeding arising out of or related to this Agreement as if it were an original signature page.

32. Further Assurances. From time to time, each Party shall execute and deliver such further documents and shall take such other action as the other Party reasonably may request in order to discharge and perform their obligations and agreements hereunder.

33. Time. Time is of the essence of each provision of this Agreement in which time is an element. Time in which any act provided by this Agreement is to be done shall be computed by excluding the first day and including the last, unless the last day is a Saturday, Sunday or legal holiday under the laws of the States of Missouri or the United



# BLUEGRASS WATER

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States of America, and then it is also excluded. Unless the context otherwise requires, all periods terminating on a given day, period of days, or date shall terminate at 5:00 p.m. Central Time on that day or date and references to "days" shall refer to calendar days.

34. Attorneys' Fees. In the event of any legal proceeding between the Parties arising out of the subject matter of this Agreement, in addition to any other award to which it shall be entitled, the prevailing party shall be entitled to an award for the reasonable attorneys' fees and costs incurred by its in connection with such proceedings.

35. Entire Agreement. This Agreement, and all attachments hereto, is the entire Agreement between Owner and Operator. It supersedes all prior communications, understandings and agreements, whether oral or written. The paragraph titles used in this Agreement are for general reference only and are not part of the Agreement. Amendments to this Agreement must be in writing and signed by both the Owner and the Operator.

**IN WITNESS WHEREOF,** Owner and Operator have executed this Agreement, effective on the date first above written.

**OWNER:**

**OPERATOR:**

UTILITY  
OPERATING COMPANY, LLC

OPERATIONS, LLC

By \_\_\_\_\_

By \_\_\_\_\_

Title: \_\_\_\_\_  
Member \_\_\_\_\_

Title: Managing



**EXHIBIT A**  
**Operator Services – Wastewater**

1. Maintain all required certificates, licenses and approvals required by the governing authorities to operate the Facilities;
2. Make weekly or more frequent visits to the treatment facility to monitor the operation of the Facilities in order to assure the Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto;
3. Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
4. Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
5. Maintain all facility records included in CMMS;
6. Perform all routine scheduled work orders generated through CMMS;
7. Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner;
8. Obtain the sampling requirements for testing by the government regulators and/or the Owner;
9. Contact appropriate laboratories to provide adequate testing and reporting services for Owner;
  - a. Provide all test results to the Owner as early as possible.
  - b. Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public.
  - c. Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
10. Contact and direct appropriate contractors to make repairs to the system as needed for operation;
11. Meter readings;
12. Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm;
13. Maintain a 24-Hour 7 day per week maintenance and emergency service phone line for customer utility service disruption events;
14. Must respond to all customer calls and notifications within a 2-hr period of receiving call or notification;
15. Provide a 24-Hour on-call emergency utility service response for operations including 2-Hour emergency service per month;
16. Perform Utility Locates.



17. Perform Operation and Maintenance Tasks (tracked via work orders in the CMMS system), for time and material, which may include but are not limited to:
  - a. Sewer main, or manhole repair and maintenance
  - b. Service and utility construction inspections
  - c. Sewer main flushing, rodding, or jetting
  - d. Lift station maintenance and repair
  - e. Cleaning and vaccing of manholes
  - f. Lagoon repair/maintenance requiring excavating equipment (e.g. backhoe, loader, etc.)
  - g. Mowing and trimming of plant, lagoon and right of way areas
  - h. Chemical application to lagoon cells
  - i. Fence repair & upkeep
  - j. Sewer main video inspection and recording
  - k. Sewer main repair and/or replacement
  - l. Customer service issues requiring action on behalf of the utility
  - m. Pavement repairs

### **Operator Services – Water**

1. Maintain all required certificates, licenses and approvals required by the governing authorities to operate the Facilities;
2. Make weekly or more frequent visits to the treatment facility to monitor the operation of the Facilities in order to assure the Facilities are in compliance with all required standards of the governing authorities and those set forth in this Agreement or any attachments hereto;
3. Perform weekly inspections of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
4. Perform monthly, quarterly, semiannual, annual duties of the Facilities' components as described in the CMMS (computerized maintenance management system) or as needed to meet manufacturers' specifications and recommendations.
5. Maintain all facility records included in CMMS;
6. Perform all routine scheduled work orders generated through CMMS;
7. Prepare and file the necessary reports to government regulators to maintain regulatory compliance and provide copy of same to Owner;
8. Obtain the sampling requirements for testing by the government regulators and/or the Owner;
9. Contact appropriate laboratories to provide adequate testing and reporting services for Owner;
  - a. Provide all test results to the Owner as early as possible.
  - b. Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice





- of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public.
- c. Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
10. Contact and direct appropriate contractors to make repairs to the system as needed for operation;
  11. Provide monthly water bac-T results;
    - a. Provide all test results to the Owner as early as possible.
    - b. Notify the Owner immediately via Email and Phone of any test results that are outside of regulatory or permit limits, represent a potential for a Notice of Violation, could result in a fine from a Regulatory agency, or could cause a negative impact on the public.
    - c. Additionally, provide the Owner immediate notification of any situation or activity that would require a precautionary boil order or other interruption to normal service to customers.
  12. Meter readings;
  13. Monitor all of the Facilities' system alarms and remote controls and contact Owner in the event of an alarm;
  14. Maintain a 24-Hour 7 day per week maintenance and emergency service phone line for customer utility service disruption events;
  15. Must respond to all customer calls and notifications within a 2-hr period of receiving call or notification;
  16. Provide a 24-Hour on-call emergency utility service response for operations including 2-Hour emergency service per month;
  17. Perform Utility Locates.
  18. Perform Operation and Maintenance Tasks (tracked via work orders in the CMMS system), for time and material which may include but are not limited to:
    - a. Water main repair and maintenance
    - b. Service and utility construction inspections
    - c. Water main flushing
    - d. Booster station maintenance and repair
    - e. Mowing and trimming of plant and right of way areas
    - f. Fence repair & upkeep
    - g. Customer service issues requiring action on behalf of the utility
    - h. Pavement repairs



**BOIL WATER ADVISORY**

**Bluegrass Water UOC**  
Published by HeyOrca · September 2, 2020 ·

**BOIL WATER ADVISORY**

UPDATE (Effective 09/02/20): The boil water advisory has been lifted for Center Ridge District 4.

Streets: Cedarhaven, Creekview, Deercree, Greywolf, Hollyhock, Hollytree, Kinglett, Landmark, Onyx, Stargrass, Water Lilly, Waterleaf, Windsong and Wooded Acre.

For additional information please visit us at: <https://www.centralstateswaterresources.com/bluegrass-water/>

Thank you for your patience. See Less

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**Bluegrass Water UOC**  
September 2, 2020 ·

Drinkable water, hot or cold, improves your body's health and hydration. So, how does hot water help us? Here are 10 benefits for consuming warm H2O:



[About this website](#)

HEALTHLINE.COM

**10 Benefits of Drinking Hot Water: How Can It Help Your Health?**



Bluegrass Water UOC

September 4, 2020 · 🌐



Just like humans, animals need clean water, too. This [#NationalWildlifeDay](#) you can get involved to help protect our water resources and our endangered species. Find out how below:



[About this website](#)

CENTRALSTATESWATERRESOURCES.COM

**CSWR | National Wildlife Day: CSWR and the Environment**

History of National Wildlife Day Not many nationally recognized...



Bluegrass Water UOC · Follow

September 9, 2020 · 🌐

Did you know... #WaterWednesday 🌊 See Less

**Employment  
for wastewater treatment  
operators is growing  
at a rate of 8% faster  
than the average growth  
for all occupations.**

Source: [environmentalscience.org](http://environmentalscience.org)





**Bluegrass Water UOC**  
Published by HeyOrca · September 18, 2020 ·

#WorldWaterMonitoringDay is here to support water resources and inspire us to monitor the quality of local water bodies. We all can work together to teach future generations the importance of having clean and safe H2O.

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**Bluegrass Water UOC** · Follow  
September 23, 2020 ·  
Did you know... #WaterWednesday See Less

**In 1972, the Clean Water Act made significant investments to modernize sewage treatment infrastructures across the country.**

Source: [americanrivers.org](http://americanrivers.org)



Bluegrass Water UOC

September 30, 2020 · 🌐



Today is #InternationalPodcastDay! 🎧

One of our favorites is The Water Main's In Deep podcast. They explore how water connects us all by sharing diverse stories from across the United States. Listen to their latest episode, "Make Me Care," here:



[i About this website](#)

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**In Deep: Small Town, Big Struggles on Apple Podcasts**

Show In Deep, Ep Small Town, Big Struggles - Sep 1, 2020

## Bluegrass Water Rate Case Talking Points

### OVERVIEW

Bluegrass Water, an affiliate of Central States Water Resources, has filed a request to increase base rates with the Kentucky Public Service Commission.

Bluegrass Water rate case requests raising water rates to \$105.84 per month (374.16 percent) increase and sewer rates to \$96.14 (188.49 percent) increase.

Since Bluegrass Water acquired its first systems in Kentucky, the company has invested more than \$2.5 million to improve and upgrade facilities used to provide service. Bluegrass Water plans to invest approximately \$7.56 million more on additional improvements, provided the Kentucky Public Service Commission and state environmental regulators approve the plan laid out in the rate case.

### RATE CASE DETAILS

#### Water

Single Residential: \$105.84 per month

#### Sewer

Single Residential \$96.14 per month

Multi-Residential: \$72.11 per month

Commercial: \$240.36 per month

### COVERAGE

In Hardin County, where Airview Utilities LLC is located, the sewer systems are constantly receiving environmental violations. There has been significant news coverage over Airview Utilities since their filed for abandonment in 2016. The rest of the water systems have had no significant coverage.

No news coverage over Persimmon Ridge Sewer and Water in Louisville.

In 2016 there was news coverage over Airview Utilities LLC after WDRB News covered a [story](#) about how a nearby utility company was leaking sewage water into Hardin County. The story

was followed up in 2019 by WDRB with [clips](#) from the hearing about the proposed acquisition and improvements. Airview commented on the situation and was then put under the microscope and questioned why they recently raised customer rates and no repairs had been done on their system. After the company filed for abandonment, their case has been moderately covered by the press, in [the News Enterprise](#) covered the case.

The [Lane Report](#) covered the approval of the public service commission's permission for CSWR to buy Center Ridge, Joann Estates and River Bluffs.

There has been no news coverage over Kingswood development LLC. There hasn't been any significant news coverage over Lake Columbia Utilities, however other utility companies surrounding Shepardville have raised rates over the past few years with backlash from the communities. This reaction is something CSWR should get in front of if they decide to raise Lake Columbia Utilities rates.

## **RESPONSE RECOMMENDATION**

At this time, we recommend taking a defensive position and only responding to direct media inquiries.

A proactive response, we believe, would only draw further interest in the request for a rate increase. Instead, we should focus our efforts on making the public hearings smooth and engaging, focusing on the major improvements CSWR has made in the community, such as our work at Airview and Brocklyn.

## **PRIMARY MESSAGES**

- Bluegrass Water acquired nine water and wastewater systems in Kentucky in 2019 and has agreed to acquire five more in 2020 -- most of which have not been updated nor improved in nearly a half-century, leaving residents served by those systems in significant danger.
- Since acquiring water and wastewater systems in Kentucky, Bluegrass Water has invested more than \$2.5 million in much-needed improvements and upgrades with plans to invest nearly \$8 million more on additional improvements.
- All Kentuckians deserve access to safe, clean and reliable water resources as well as the protection of the aquifers, lakes, rivers and streams that are essential to the Commonwealth -- and Bluegrass Water is committed to ensuring this.
- These systems reflect a nationwide infrastructure challenge and one in every four Americans are exposed to potentially unsafe drinking water or wastewater systems. Bluegrass Water and its parent company Central States Water Resources are at the forefront of 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.

- Improvements in water and wastewater systems dramatically improve the value of the communities, homes and businesses they serve as clean water provides a 23-to-1 return.

## **Q&A**

### **Q: Why are you raising rates in Kentucky?**

As you know, Bluegrass Water has worked hard to ensure clean, safe and reliable drinking water continuously flows to your taps and wastewater systems are working properly. Our job is to ensure clean, safe and reliable water resources are available 365 days a year.

Costs are rising because we have contracted with professional operators to operate and maintain the systems properly, and made the repairs needed for proper operation.

For example, customers who lived in the Airview system had a sewer system that the EPA said was in a state of “significant non-compliance” for at least three years prior.

Because of the \$2.5 million investments systems, like Airview, Kentuckians now have access to clean, safe and reliable water resources.

Also, conservation has been shown to benefit water customers by reducing our utility’s costs. When we are able to reduce our costs, that helps slow the rise of water rates over the long-term.

### **Q: Why are you doubling and tripling rates? That seems like an excessive increase.**

**A:** Many of the systems Bluegrass Water acquired were woefully outdated and dangerous. Bluegrass Water quickly assesses and invests in reliable infrastructure that meets and exceeds the stringent state and federal safety standards. Many of these systems have not seen updates to their water system in decades. The increase in rates reflects significant improvements needed to bring water resources into compliance.

### **Q: These are very poor people and you are asking to raise their rates by more than 300 percent at a time when jobs are sparse during a pandemic. Why would you do this now?**

**A:** We care about the communities we serve. It’s why we’ve made these improvements -- so they are not left with significant health challenges caused by dirty water or having their streams and playgrounds filled with sewage. It’s why we’ve invested \$2.5 million and are about to invest another \$7.5 million.

### **Q: Why do rates need to be increased? How often will we see increases?**

**A:** The rate increase is an investment in our water future, to ensure we continue to provide the community with clean, safe and reliable water resources for generations to come.

Any new rate must be approved by the Kentucky Public Service Commission, who will ensure we provide clean and reliable water service at the lowest costs.

The rate increase is based on our current operating costs after investing more than \$2.5 million in the Bluegrass Water systems.

**Q: Are you going to raise rates again?**

**A:** Our mandate from the Kentucky Public Service Commission is to ensure we provide clean and reliable water service at reasonable rates and those rates are set by the KPSC. In managing the system, if we have to make significant improvements, rates could potentially rise in order to recover those investments.

**Q: Didn't the Attorney General's office protest your initial request to operate in Kentucky? Is this because the office knew you'd unreasonably raise rates?**

**A:** There's a very real public health crisis in this country and in Kentucky. Bluegrass Water is bringing a private solution to this very public issue. The Kentuckians we serve now have access to clean, reliable water because we were able to provide a solution to the problems facing these communities.

And, just as important, our investments into water resources are also investments into communities at large, ultimately enhancing value and driving outside investment into communities.

**Q: Why does water cost so much?**

**A:** While water itself is free, clean, safe and reliable water costs money to make it that way.

Your monthly water bill payments ensure our ability to deliver clean, safe and reliable water 24 hours a day, 7 days a week, while protecting the aquifers, lakes, rivers and streams that are essential to our world.

CSWR quickly assesses and invests in reliable infrastructure that meets and exceeds the stringent state and federal safety standards.

And when water service is compared to the cost of staple consumer goods and other services, such as electricity, telephone, and cable, water is an outstanding value.

**Q: Aren't you just passing the buck when you blame rate increases on new water quality regulations?**

**A:** No. When water quality regulations are more stringent to protect public health, it costs us more to comply with those regulations and ensure drinking water meets all standards. We might have to add new technological processes, use more materials in the drinking water treatment process or take some other action to meet new standards. These types of actions cost more and we are required to recover all of our costs. Our job is to ensure clean, safe and reliable water resources to our customers, 365 days a year.

We have invested in professional operators to operate and maintain the systems properly, and made the repairs needed for proper operation to bring clean, safe and reliable water to the community. We are rising to the challenge, working to forecast future needs and making our system more resilient to evolving regulatory requirements, volatile weather, changing demand and other trends for now and to make sure future generations have clean water.

**Q: Are there assistance programs for people who can't afford to pay higher water rates?**

**A:** Conservation is the best way to manage your own water costs. The less water you use, the less you will pay. While water rates will continue to rise over time, those who conserve will always pay less than those who waste water or do not conserve.

Bluegrass Water's rate structure means you will always receive the water you need for daily use at an affordable cost.



**BLUEGRASS WATER**  
Utility Operating Company  
A CSWR Managed Utility

**Dear Customer:**

Have you ever thought about how we get access to information involving the condition of our nation's water?

In hopes to build awareness, World Water Monitoring Day was founded in 2003 by America's Clean Water Foundation to support water resources and inspire people to monitor the quality of local water bodies. Although the day is celebrated in September, many educational and outreach events run throughout the year.

Water quality data is vital to address emergencies, assess if pollution control programs are successful, and determine where efforts are needed most. Additionally, it serves as an international database to record trends or patterns, identify potential issues and much more.

We all can participate and work together to monitor the quality and safety of water resources.

Here are three ways that you can get involved and empower your community:

#### **Monitor Water In Your Community**

Basic test kits are kid-friendly and typically include one set of supplies and reagents for testing rounds of pH, dissolved oxygen, temperature, and turbidity. It's a great at-home activity to encourage your loved ones to learn about safe water.

#### **Watch An Educational Film**

Insightful documentaries, like [Brave Blue World](#), explores the depths of humanity and how we are using new technologies and innovations to manage water conditions. It can possibly further impactful discussions and ideas on problem-solving within the water and wastewater industry.

#### **Join Digital Conversations**

Consider joining social conversations to discuss people and industries across the globe. We can use this opportunity to spread awareness to our peers or followers.

By monitoring our water resources, we are teaching future generations the importance of clean and safe water. Check out [our blog](#) to learn more.

We're here for any questions you have. Call us at 1-866-752-8982 or follow us on our [website](#), [Facebook](#) and [Twitter](#).



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Our mailing address is:



**Bluegrass Water** @BluegrassUOC · Sep 2, 2020



UPDATE (Effective 09/02/20): The boil water advisory has been lifted for Center Ridge District 4.

Streets: Cedarhaven, Creekview, Deercrest, Greywolf, Hollyhock, Hollytree, Kinglett, Landmark, Onyx, Stargrass, Water Lilly, Waterleaf, Windsong and Wooded Acre.





**Bluegrass Water** @BluegrassUOC · Sep 2, 2020

Drinking water, hot or cold, keeps your body hydrated throughout the day. Here are 10 benefits for consuming warm H<sub>2</sub>O 💧:



### 10 Benefits of Drinking Hot Water: How Can It Help Your Health?

Drinking hot water is a great way to stay hydrated, and it might have extra health benefits. Learn about 10 possible benefits of drinking h...

[healthline.com](https://www.healthline.com)



**Bluegrass Water** @BluegrassUOC · Sep 4, 2020

Fresh and clean water is needed for wildlife survival. 💧 So, we're highlighting [#NationalWildlifeDay](#) to bring awareness and help protect our ecosystems. Check out ways to celebrate below:



### CSWR | National Wildlife Day: CSWR and the Envi...

History of National Wildlife Day Not many nationally recognized observances get two days ...

[centralstateswaterresources.com](https://www.centralstateswaterresources.com)





**Bluegrass Water** @BluegrassUOC · Sep 9, 2020

Did you know...

#WaterWednesday 

**Employment  
for wastewater treatment  
operators is growing  
at a rate of 8% faster  
than the average growth  
for all occupations.**

Source: [environmentalscience.org](http://environmentalscience.org)

0:03



**Bluegrass Water** @BluegrassUOC · Sep 18, 2020

...

[#WorldWaterMonitoringDay](#) has arrived to bring awareness to our water resources. Let's all work together to monitor and protect our rivers, lakes, streams, and waterways. 💧





**Bluegrass Water** @BluegrassUOC · Sep 21, 2020

...

The secret to healthy aging? 🧐 Water and staying hydrated. An expert dietician explains here:



### Why Drinking Enough Water Is the Key to Healthy Aging

As you age, you lose your ability to experience thirst.

[wellandgood.com](https://wellandgood.com)





**Bluegrass Water** @BluegrassUOC · Sep 23, 2020



Did you know...

#WaterWednesday 

**In 1972, the Clean Water Act  
made significant investments  
to modernize sewage treatment  
infrastructures across  
the country.**

Source: [americanrivers.org](http://americanrivers.org)

0:00



**Bluegrass Water** @BluegrassUOC · Sep 30, 2020



It's [#InternationalPodcastDay!](#) 🎧

A favorite of ours is [@thewatermain](#)'s In Deep podcast. You'll hear stories about how water connects us all. Listen to their season finale episode, "Make Me Care," here:



**In Deep: Small Town, Big Struggles on Apple Pod...**

Show In Deep, Ep Small Town, Big Struggles - Sep 1, 2020

[podcasts.apple.com](https://podcasts.apple.com)

