

**COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION**

In the Matter of:

ELECTRONIC APPLICATION OF BLUEGRASS)	
WATER UTILITY OPERATING COMPANY, LLC)	
FOR A CERTIFICATE OF PUBLIC CONVENIENCE)	
AND NECESSITY FOR THE INSTALLATION OF)	CASE NO. 2022-00216
MONITORING EQUIPMENT AND FOR A)	
CORRESPONDING LIMITED WAIVER OF DAILY)	
INSPECTION REQUIREMENTS)	

**BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S
RESPONSES TO COMMISSION STAFF'S SIXTH REQUESTS FOR INFORMATION**

Bluegrass Water Utility Operating Company, LLC, (“Bluegrass Water” or the “Company”) by counsel, files its Responses to the Commission Staff’s Sixth Requests for Information, issued in the above-captioned case on September 28, 2023.

FILED: October 26, 2023

ELECTRONIC APPLICATION OF BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY FOR THE INSTALLATION OF MONITORING EQUIPMENT AND FOR A CORRESPONDING LIMITED WAIVER OF DAILY INSPECTION REQUIREMENTS
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REQUEST NO. 6-1: Refer to Bluegrass Water's Motion for Partial Rehearing, page 3, paragraph 4.

- a. Describe the mechanical equipment in use at Carriage Park, Arcadia Pines, and Marshall Ridge.
- b. Explain how these facilities differ from discharging facilities and why these facilities have a less urgent need for remote monitoring.

RESPONSE:

(a) **Carriage Park:** No mechanical equipment is in use. (There are no lift stations in the collection system; there is no aeration at the lagoon; and the drain field is gravity fed from the lagoon.)

Arcadia Pines: No mechanical equipment is in use. (There are no lift stations in the collection system; there is no aeration at the lagoon; and the drain field is gravity fed from the lagoon.)

Marshall Ridge: No mechanical equipment is in use. (There are no lift stations in the collection system; there is no aeration at the lagoon; and the drain field is gravity fed from the lagoon.)

Please note: While the referenced paragraph in the Motion for Partial Rehearing indicates that there is "no substantial mechanical equipment" at these facilities, the Company has since confirmed that no mechanical equipment is presently in use at these facilities.

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(b) These facilities differ from discharging facilities primarily in two ways. First, these facilities do not include mechanical equipment essential to the facilities' function that need to be actively monitored to provide alerts of abnormal operating conditions. In systems with essential mechanical equipment, the immediate alert of any equipment malfunction or failure allows operations staff to make an immediate response to rectify the issue before facility operations, environmental damage, noncompliance, or service interruptions can occur because of the abnormal operating condition. As there is no mechanical equipment at these sites, this reduces the urgency and priority of installing the equipment at these sites.

The second significant difference between these facilities and the discharging facilities pertains to their regulatory status. Discharging facilities are regulated by the DOW/EEC, who functions on behalf of the federal EPA in the state to implement the requirements of the federal Clean Water Act. These discharging facilities are regulated under a facility-level NPDES (National Pollutant Discharge Elimination System) permit which establishes regular periodic testing requirements for the facility, which include reporting the average daily flow for the treatment facility during the reporting period.

Remote monitoring equipment with flow metering installed allows for accurate flow measurement which will indicate the actual flow through the facility across a reporting period rather than an approximation based on instantaneous measurements at the time of an in-person site visit. Reliance on instantaneous measurements is notoriously inaccurate, as flow varies wildly depending on the time of day and other conditions at a treatment facility.

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Beyond accurate reporting, for facilities with mechanical treatment methods that must be manually adjusted by operations staff, having accurate flow information allows for greater operational control of mechanical facility, also leads to better treatment and reduced power consumption with more precisely dialed in operations adjustments. These non-discharging facilities, however, are not regulated by the federal government at all, so the handling of the facilities is left to the discretion of state governments. In the case of Kentucky, this has been further delegated to the county departments of health to regulate. With respect to these three facilities, specifically, the regulating bodies do not require any regular testing or flow measurements to be completed at the facilities. This and the fact that there are not mechanical treatment systems that should be adjusted based on flow, reduces the urgency for accurate flow measurement at the facility and therefore again reduces the priority of installation of remote monitoring equipment at the facilities.

While the need for remote monitoring and flow measurement is less urgent at these facilities, it is worth noting that it would still be a benefit to have this equipment at these sites. As inflow and infiltration are a common problem in gravity collection systems (present at all three of these sites), flow monitoring would be very useful to quantify actual flows, compared to expected flow, to identify if there are apparent issues with inflow and infiltration in the collection system currently; it would also provide data moving forward to identify if collection system damage occurs in the future. Although not a regulatory requirement, this is operationally important to address because excess inflow and infiltration could overwhelm a facility, causing it to provide suboptimal treatment. This could include

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**potentially washing out solids, which could cause damage in the drain field systems,
potentially causing overflows at a treatment facility in unauthorized sanitary sewage
overflows, and/or overwhelming the drain fields with more flow than they are designed to
handle causing ponding, erosion, and sanitary sewage overflows from the drain field.**

Witness: Jake Freeman

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REQUEST NO. 6-2: Provide updated costs for remote monitoring equipment installation at Carriage Park, Arcadia Pines, and Marshall Ridge, along with estimated operations and maintenance costs and subscription costs.

RESPONSE: There is no remote monitoring equipment at Carriage Park, Arcadia Pines, or Marshall Ridge; therefore, there are no actual costs related to such. The following chart reflects the updated cost estimates for installation, operations and maintenance, and subscriptions.

	<u>Carriage Park</u>	<u>Arcadia Pines</u>	<u>Marshall Ridge</u>
<u>Installation</u>	\$15,000.00	\$15,000.00	\$15,000.00
<u>Subscription</u>¹	\$500.00/yr	\$500.00/yr	\$500.00/yr
<u>O&M</u>	Approximately \$140/yr (2 hours of labor) + Approximately \$0.925/year for 8.76 kWh of annual energy demand.	Approximately \$140/yr (2 hours of labor) + Approximately \$0.925/year for 8.76 kWh of annual energy demand.	Approximately \$140/yr (2 hours of labor) + Approximately \$0.925/year for 8.76 kWh of annual energy demand.

In essence, the anticipated O&M charges for the remote monitoring equipment are de minimis in nature. For additional detail, please also see the Company’s Responses to PSC

¹ Please note that, as indicated in the Company’s Response to PSC 3-2(c), if a site needs a satellite connection, then the subscription cost would increase from \$500 annually to \$660 annually.

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3-2 (noting, for example, that the proposed High Tide equipment is four times more efficient than the Mission equipment previously in use at other systems) and PSC 4-3 (calculating approximate energy charges of \$0.925 per year, per system, based upon the far more efficient High Tide equipment's anticipated demand).

Witness: Aaron Silas

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REQUEST NO. 6-3: State the useful life of the remote monitoring equipment Bluegrass
Water intends to install.

RESPONSE: Bluegrass Water calculates the useful life of remote monitoring
equipment to be installed is 15 years.

Witness: Brent Thies

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REQUEST NO. 6-4: State Bluegrass Water's expected cost savings from implementing remote monitoring equipment at Carriage Park, Arcadia Pines, and Marshall Ridge.

RESPONSE: Bluegrass Water's expects \$25,782.61 in annual cost savings from implementing remote monitoring equipment at Carriage Park, Arcadia Pines, and Marshall Ridge and reducing in-person site visits to three days per week, a level consistent with the limited waiver granted for the other sites.

Witness: Brent Thies

