

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

**In the Matter of:**

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

**BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC’S  
RESPONSES TO COMMISSION STAFF’S SECOND  
REQUEST FOR INFORMATION**

Bluegrass Water Utility Operating Company, LLC, (“Bluegrass Water” or the “Company”) by counsel, files its responses to the Commission Staff’s Second Request for Information, issued in the above-captioned case on October 18, 2022.

**FILED: November 4, 2022**

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**REQUEST NO. 1:** Provide any savings Bluegrass Water has realized from the installation of remote monitoring equipment at Bluegrass Water's other locations. Explain in detail how the savings were calculated, listing all factors considered.

**RESPONSE:** Due to the lack of data available at closing from prior owners of the systems that the Company has acquired, the Company is not able to specifically quantify this at present. That is, although the systems may not have had remote monitoring capabilities at the time the Company acquired them, the Company has no "pre-remote monitoring" dataset to compare to the Mission system that was initially installed at some sites (or the benefits anticipated from the stronger High Tide system that the Company proposes to install). Please see the response to PSC 2-3 for a more detailed description of those anticipated benefits.

Quantifying historic cost savings is difficult in any event, as the savings realized from remote monitoring primarily result from prevention of major issues through the early detection and curing of minor problems before they escalate. Quantifying these savings will likely be easier and more accurate in the future once the Company possesses data on one system, High Tide, across the nationwide footprint served by its affiliate entities in the CSWR family. Notwithstanding this, please see the Company's responses to PSC 1-15, 1-16, and

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**1-23, which pertain to projected annual cost savings associated with the CPCN and limited  
waiver sought in this matter.**

**Witness:      Brent Thies**

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**REQUEST NO. 2:** Explain why Bluegrass Water purchased the earlier remote monitoring equipment from Mission Communications rather than High Tide Technologies (High Tide).

**RESPONSE:** The Company initially purchased Mission units because it had already been using them in other jurisdictions and had found Mission to be a cost-effective solution at that time. While Mission's service initially met expectations, the Company began experiencing service interruptions and had difficulty extracting data for analysis. The Company began looking for an alternative to Mission in approximately September of 2021, ultimately selecting High Tide in January 2022. The Company found that High Tide: (1) offered similar monitoring capabilities, but with systems that met all of our needs; (2) at a lower cost than Mission (for both hardware and service); and (3) with greater input and output monitoring capacity, which allows the Company to monitor more pieces of equipment and install additional sensors to assist with operating the facilities in a more efficient manner. For example, the input and output data that the High Tide system provides enables Bluegrass Water to monitor plant power, lift station power, lift station high level alarm, pump failure, etc., as explained more fully in response to PSC 2-3. Mission did not allow these same capabilities.

Witness:      Todd Thomas

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**REQUEST NO. 3:** Refer to Bluegrass Water's response to Commission Staff's First Request for Information (Staff's First Request), Item 12. Provide the ways in which High Tide provides better and more responsive customer support.

**RESPONSE:** In comparison to Mission, High Tide provides better service and more responsive technical support through a combination of both better quality and more reliable data. At a high level, Bluegrass Water can extract data from High Tide's remote monitoring system across the entire Commonwealth and monitor it by computer in real-time. Mission does not provide this same functionality. Perhaps due to these additional capabilities associated with the High Tide units, the High Tide support staff has been better able to help the Company configure and operate the High Tide units to achieve more effective real-time monitoring of its facilities.

By way of example, the enhanced connectivity and data processing capabilities offered by High Tide enable the following functionalities that Mission cannot provide.

- **Additional Data Inputs:** The High Tide system allows more data inputs, allowing the Company to monitor more conditions at plants and pump stations. That enables the Company to respond proactively to issues as they occur and before they escalate, rather than waiting for a customer to report a problem that has already occurred.
- **Open Data Structure:** High Tide has an open data structure that allows the Company to extract real-time data and process it for more information, which again allows Bluegrass to predict and prevent adverse events before they occur. This enables several benefits to both the Company and the customer.
- **Power Supply Monitoring:** For example, the Company will be able to see if pumps or blowers have power supply issues (e.g., high or low amperage), which can be addressed before failure or equipment damage can occur. This can prevent both the

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

cost of a special operator callout and the cost of a pump replacement or repair. In other words, by responding quickly to an alert, Bluegrass Water can deal with issues preemptively and proactively, often before a customer even knows there is an issue or calls customer service.

- **Chlorine Level Monitoring:** Similarly, High Tide's open data structure allows the Company to monitor chlorine level trends (i.e., up or down) before they actually reach a maximum or minimum limit. That enables Bluegrass to adjust chlorine levels more quickly and long before they become issues on the customer's end.
- **Pump Cycling Monitoring:** High Tide's real-time monitoring enables Bluegrass Water to monitor whether redundant pumps are cycling as designed. Redundant pumps in the same lift station should alternate between the primary and secondary pump so that they each have equal run time, which in turn extends the life of both pumps. Similarly, access to this enhanced level of data from the High Tide units enables the Company to identify and locate pumps that may be starting and stopping too frequently. Frequent starts and stops can indicate a deeper problem with equipment; frequent starts and stops can also reduce a pump's life expectancy. Thus, having access to this enhanced level of data can alert the Company to potential issues before they occur.
- **Data Connectivity/Reliability:** In addition to these enhanced monitoring capabilities, High Tide also delivers data to Bluegrass Water in a more reliable manner than Mission. Many of Bluegrass Water's sites are located in rural areas where Internet connectivity is unreliable or unavailable. The satellite connectivity enabled by High Tide allows the Company to monitor a broader swath of its systems (more reliably) than it could with Mission's systems, which depend on Internet connectivity.
- **Additional Capabilities Under Development:** Bluegrass Water is also working with High Tide to develop a disaster tracking mode. Disaster tracking would enable Bluegrass Water to prepare for and track hurricanes, floods, severe thunderstorms, winter storms, tornadoes, and similar potentially service-affecting events. Disaster tracking would enable Bluegrass Water to better prepare for a severe weather event, track the impact of the event on its facilities, and efficiently deploy resources after the event to locations where most needed. Disaster tracking would also enable Bluegrass Water to communicate, at a neighborhood level, with customers regarding the condition and status of their utilities following an event.

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**This combination of additional monitoring capabilities, improved data extraction, and more robust system connectivity all enhance the Company's customer service in a manner that was previously unsupported by the Mission units.**

**Witness:        Todd Thomas**

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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**REQUEST NO. 4:** Refer to Bluegrass Water's response to Staff's First Request, Item

12. Explain how High Tide is going to make the remote monitoring more valuable to the customers  
of Bluegrass Water.

**RESPONSE:** Please see the response to PSC 2-3.

**Witness:      Todd Thomas**



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  
CASE NO. 2022-00216

BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC'S RESPONSES TO THE  
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

**REQUEST NO. 5:** Refer to Bluegrass Water's response to Staff's First Request, Item 29. State whether Bluegrass Water would commit to an in-person inspection schedule of at least three days per week for weeks when the in-person inspections do not occur on consecutive days. As an example, the Commission could require in-person inspections on Sunday, Monday, and Wednesday and remote inspections Tuesday, Thursday, Friday, and Saturday.

**RESPONSE:** Yes; Bluegrass would commit to an in-person inspection schedule of at least three days per week when the in-person inspections do not occur on consecutive days, if required. As noted in the referenced response, the Company intends to perform inspections on a schedule that would attempt to minimize the amount of time any plant would go without an in-person inspection. **However,** Bluegrass Water respectfully requests that the Commission preserve some operational flexibility for the Company to determine the specific days on which those in-person inspections may occur. Preserving that operational flexibility allows the operations staff to optimize their routes based upon changing system needs without sacrificing integrity of service or customer responsiveness. For example, if the High Tide system were to trigger an alarm that requires a site visit by an operator, the operator could – in addition to responding to the alarm – perform the scheduled preventative maintenance duties and standard plant process checks while already at the plant without having to schedule another in-person visit immediately thereafter.

Witness: Todd Thomas

**VERIFICATION**

I, Todd Thomas, verify, state, and affirm that the information request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.



Todd Thomas  
Senior Vice President  
Bluegrass Water Utility Operating Company, LLC

STATE OF MISSOURI                    )  
                                                  ) ss:  
COUNTY OF ST. LOUIS             )

SUBSCRIBED AND SWORN TO before me on this the 4<sup>th</sup> day of NOVEMBER, 2022.

My commission expires: 5/4/24



Notary Public

**VERIFICATION**

I, Brent Thies, verify, state, and affirm that the information request responses filed with this verification for which I am listed as a witness are true and accurate to the best of my knowledge, information, and belief formed after a reasonable inquiry.

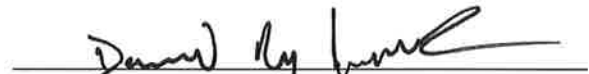


Brent Thies  
Vice President and Corporate Controller  
Bluegrass Water Utility Operating Company, LLC

STATE OF MISSOURI                    )  
                                                  ) ss:  
COUNTY OF ST. LOUIS            )

SUBSCRIBED AND SWORN TO before me on this the 4<sup>th</sup> day of NOVEMBER, 2022.

My commission expires: 5/4/24

  
Notary Public