

# EXHIBIT 2

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

**In the Matter of:**

**ELECTRONIC APPLICATION OF )  
BLUEGRASS WATER UTILITY )  
OPERATING COMPANY, LLC FOR AN ) Case No. 2022-00432  
ADJUSTMENT OF SEWAGE RATES )**

**DIRECT TESTIMONY**

**OF**

**JOSIAH COX**

**ON BEHALF OF**

**BLUEGRASS WATER UTILITY OPERATING COMPANY, LLC**

**FILED: February 27, 2023**

**Case No. 2022-00432  
Application Exhibit 2  
Direct Testimony of Josiah Cox**

**DIRECT TESTIMONY  
OF  
JOSIAH COX  
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1 **DIRECT TESTIMONY**

2 **OF**

3 **JOSIAH COX**

4 **I. INTRODUCTION**

5 **Q. Please state your name and business address.**

6 A. My name is Josiah Cox. My business address is 1630 Des Peres Road, Suite 140, St. Louis  
7 Kentucky, 63131.

8 **Q. What is your position with Bluegrass Water Utility Operating Company?**

9 A. I am President of Bluegrass Water Utility Operating Company, LLC (“Bluegrass Water”  
10 or “Company”). I am also President of CSWR, LLC (“CSWR”) and Central States Water  
11 Resources, Inc., (“Central States”), each of which is a Bluegrass Water affiliate.

12 **Q. Please describe CSWR, LLC and Bluegrass Water Utility Operating Company, LLC.**

13 A. CSWR is a holding company that, as of December 31, 2022, operated utility operating  
14 companies in 10 states. Bluegrass Water is the CSWR utility operating company in the  
15 Commonwealth of Kentucky. A corporate organization chart illustrating the relationship  
16 is attached hereto as Exhibit JC-1. For all companies shown in that Exhibit, Central States  
17 serves as the designated manager.

18 **Q. Please summarize your education and professional experience.**

19 A. I received a Bachelor of Science with a major in Environmental Science from the  
20 University of Kansas. In 2007, I earned an MBA from Washington University in St. Louis.

21 Professionally, I have worked at the Kansas state biological survey, where I  
22 performed wildlife habitat studies. I then worked at a civil engineering firm where I was

1 involved in various facets of the land development process including permitting,  
2 entitlement, civil design, project management, and construction management. I focused  
3 mainly on the water and wastewater side of the civil engineering business and participated  
4 in every part of that business from waste-load allocation studies (now known as the anti-  
5 degradation processes), design, permitting, project management, and construction  
6 management. I also ran the firm's environmental consulting division and was the second  
7 private consultant to submit a water quality impact study in the state of Kentucky in 2003.  
8 I later joined the engineering firm's executive leadership team and helped run all the firm's  
9 operations.

10 Beginning in 2005, I raised money from a group of investors and formed a full-  
11 service civil engineering, environmental consulting, general contracting, and construction  
12 management firm. I served the firm as the Chief Operating Officer, and finally Chief  
13 Executive Officer, and while there I obtained extensive experience with rural communities  
14 in every facet of the water and wastewater compliance process, including environmental  
15 assessment, permitting, design, construction, operation and community administration of  
16 the actual water and wastewater (sewerage) systems. The firm performed stream sampling  
17 and built waste-load allocation models to determine permissible particle effluent pollutant  
18 loads for receiving water bodies. The firm did full engineering design of multiple whole  
19 community wastewater and water infrastructure systems including wells, water  
20 distribution, water treatment, water storage, wastewater conveyance, and wastewater  
21 treatment plants, pursued the designs through federal and state administered permitting  
22 processes in Kentucky, and supervised the construction of these water and wastewater

1 systems from green field site selection all the way through system startup and final  
2 engineering sign off.

3 In addition to running a design/build firm, starting in 2008, I took over the  
4 operations of an existing rural sewer district. I still act as the administrator of this system,  
5 where I manage the system's functioning, testing, and maintenance; perform all the billing,  
6 emergency response, accounts payable/accounts receivable, collections, budgeting, and  
7 customer service; and host public meetings required to service the community.

8 In late 2010, after working on several small, failing water and wastewater systems,  
9 I created a business plan to acquire and recapitalize failing systems as investor-owned  
10 regulated water and wastewater utility companies. In early 2011, I went to the capital  
11 markets to raise money to implement my plan. Over a period of approximately three years,  
12 I met with over fifty-two infrastructure investment groups trying to raise necessary  
13 financing. In February 2014, I achieved my goal, and I used the debt and equity capital I  
14 was able to raise to start CSWR. In 2018, I was able to attract an additional large  
15 institutional private equity investor, which allowed me to expand the scope of my business  
16 plan.

17 Since its formation, CSWR has acquired, and currently is operating through various  
18 affiliates, approximately 800 water and/or wastewater systems in Missouri, Kentucky,  
19 Louisiana, Texas, Arkansas, Tennessee, Mississippi, Arizona, North Carolina, South  
20 Carolina, and Florida. Utilities within the CSWR affiliate group have additional  
21 applications pending in Texas, Tennessee, Louisiana, Florida, North Carolina, South  
22 Carolina, Arizona, California, and Mississippi seeking authorization from utility regulators  
23 in those states to acquire even more systems and serve even more customers.

1 **Q. Have you previously testified before the Kentucky Public Service Commission**  
2 **(“Commission”)?**

3 A. Yes, in addition to testimony before numerous other state utility commissions, I have  
4 previously testified before the Kentucky Commission including in Case No. 2020-00290.

5 **Q. What is the purpose of your testimony in this proceeding?**

6 A. The purpose of my testimony is four-fold. First, I will briefly describe Bluegrass Water’s  
7 operations and history in Kentucky. Second, I will generally describe Bluegrass Water’s  
8 request for an increase in rates, why that increase is necessary, and why the Commission  
9 should grant that request. Third, I will introduce each of the Bluegrass Water witnesses in  
10 this case. Finally, I will present Bluegrass Water’s request to further consolidate rates  
11 across all of its Kentucky operations.

12 **Q. Are you sponsoring any exhibits?**

13 A. Yes, as previously introduced in this testimony, I am sponsoring Exhibit JC-1 – an  
14 organizational chart of CSWR and its operating utilities.

15

16 **II. DESCRIPTION OF BLUEGRASS WATER OPERATIONS**

17  
18 **Q. Please describe Bluegrass Water’s current operations in Kentucky.**

19 A. Bluegrass Water currently provides water service to approximately 348 water connections<sup>1</sup>  
20 and 2,488 wastewater connections in portions of the following Kentucky counties: Bullitt,  
21 Shelby, Madison, Hardin, Scott, Franklin, Marshall, McCracken, Oldham, Calloway,  
22 Graves, Garrard, Jessamine, and Campbell. A map showing the geographically dispersed

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<sup>1</sup> I mention the Bluegrass Water water operations to provide the Commission a thorough understanding of Bluegrass Water operations. That said, however, the requested rate increase would only apply to Bluegrass Water’s wastewater operations. Bluegrass Water intends to maintain its current water rates in Kentucky.

1 nature of Bluegrass Water's operations is attached as Exhibit TT-1 to the direct testimony  
2 of Senior Vice President Todd Thomas. As of the dating of the filing of this rate case,  
3 Bluegrass Water has invested approximately \$16 million to acquire, upgrade, and improve  
4 the wastewater systems it currently owns and operates.

5 **Q. Please describe the general nature and condition of the wastewater treatment**  
6 **facilities acquired by Bluegrass Water.**

7 A. As described more fully in Mr. Freeman's testimony, at the time of acquisition, the  
8 wastewater treatment facilities acquired by Bluegrass Water were in poor condition and  
9 were frequently incapable of meeting effluent quality requirements. Treatment facilities  
10 routinely exhibited significant levels of steel deterioration in the tanks, aeration piping,  
11 sludge returns, walkways, handrails, and interior tank baffling. Additionally, tanks were  
12 regularly filled with impacted sludge which prevented aeration and clarification.  
13 Moreover, these treatment facilities lacked proper aeration as a result of ineffective pumps  
14 or deteriorated diffusers. Furthermore, systems often lacked proper disinfection or had  
15 disinfection systems that were ineffective. Finally, the area around the treatment facilities  
16 typically had collapsed fencing, significant vegetation overgrowth and scattered trash and  
17 debris.

18 Even where treatment facilities could be repaired and brought to their original  
19 condition, Bluegrass Water quickly realized that the systems, as originally designed, were  
20 incapable of treating to current effluent limits. Specifically, the treatment facilities  
21 purchased by Bluegrass Water regularly showed exceedances for *E.coli*, total suspended  
22 solids, total residual chlorine, ammonia, and biochemical oxygen demand. Given the  
23 inability for some of these systems to ever meet permitted limits, Bluegrass Water has

1 applied for certificates of public convenience and necessity to implement process  
2 improvements including the addition of moving bed biofilm reactors, solids handling  
3 enhancements, peroxyacetic acid disinfection systems, and wet-weather-overflow systems.

4 **Q. Please describe the general nature and condition of the wastewater collection systems  
5 acquired by Bluegrass Water.**

6 A. As with the treatment facilities, the systems acquired by Bluegrass Water routinely had  
7 collection systems that were deficient. Like the treatment tankage, lift stations often were  
8 filled with accumulated sludge. Lift stations also had ineffective pumps and lacked the  
9 required redundant pumps. The failure of lift station pumps could lead to backups into  
10 customer residences or overflows into the environment. In addition, the collection systems  
11 regularly showed signs of allowing infiltration of storm water that overwhelmed lift  
12 stations and the treatment facilities. This added to the treatment problems by pushing  
13 solids and beneficial microorganisms out of the treatment facility as well as preventing  
14 treatment and disinfection.

15 **Q. You stated that Mr. Freeman would provide specific information about the conditions  
16 Bluegrass Water found at the wastewater systems it acquired. Can you provide some  
17 general background of the actions the Company took to rectify those conditions and  
18 improve service to customers?**

19 A. Yes, I can. Bluegrass Water has built an enviable track record of acquiring troubled  
20 systems, investing capital necessary to bring those systems into compliance with applicable  
21 health, safety, and environmental laws, and then operating those systems in a professional  
22 and cost-effective manner. The mission of our affiliate group is to “bring safe, reliable and  
23 environmentally responsible water resources to every community in the United States.” In

1 December of 2022, CSWR became the single largest owner of individual domestic  
2 wastewater treatment plants and one of the largest owners of individual drinking water  
3 systems in the US. I believe that CSWR is on track to being the entity to bring the most  
4 wastewater systems from noncompliance to compliance with Clean Water Act in US  
5 history. CSWR definitely has the largest amount of recent experience turning around the  
6 largest amount of small water and wastewater systems that I am aware of in the US.

7  
8 **III. RATE CASE OVERVIEW / WITNESS INTRODUCTION**  
9

10 **Q. Please summarize the rate increase Bluegrass Water is proposing in this case.**

11 A. Bluegrass Water is asking the Commission to approve a total annual revenue requirement  
12 for the wastewater operations of \$3,727,085. Recognizing that current revenues are  
13 \$2,435,594, this represents an annual increase of \$1,291,491. The specific elements of the  
14 revenue requirement and how it was derived are discussed in detail in the direct testimony  
15 of Mr. Brent Thies, who serves as Vice President and Controller of our affiliate group.

16 As the Commission is aware, the systems Bluegrass Water acquired are typically  
17 poorly managed, with failing infrastructure, and almost all the owners of those systems did  
18 not have the technical, managerial, and financial ability to make capital investments  
19 necessary to ensure regulatory compliance and provide safe, efficient, and reliable service  
20 to customers. Most of those owners also failed to timely seek rate increases necessary to  
21 enable them to properly operate and maintain the systems. As a result, the rates that  
22 Bluegrass Water adopted when it acquired the systems (the rates in effect at closing) were  
23 insufficient to cover the operating costs for operations that were themselves woefully  
24 unprofessional and inadequate and also failed to provide a fair rate of return.

1           Bluegrass Water’s acquisitions changed all that. As described in Mr. Thomas’  
2 testimony, professional, experienced, and licensed professionals now oversee the operation  
3 and maintenance of these systems. And Bluegrass Water has made plant investments  
4 necessary to significantly improve service and set systems on a path that will ensure they  
5 will fully comply with federal, state, and local laws and regulations. As Mr. Thomas  
6 further described, Bluegrass Water also has greatly upgraded and improved customer  
7 service so that customers are informed of the ongoing issues being remediated in each  
8 community. However, the costs to upgrade and improve the systems and operate them in  
9 a manner that ensures customers have safe and reliable service that complies with all  
10 applicable health, safety, and environmental regulations have significantly increased  
11 operating costs. To address those costs, Bluegrass Water is forced to seek an increase in  
12 rates, which for some of the systems have not changed for many years. Bluegrass Water  
13 has spent a great deal of effort to mitigate these costs by building scale across the family  
14 of affiliates; using historical cash flows to lower debt costs, using innovative construction  
15 techniques to lower installation costs; pioneering wastewater treatment technologies to  
16 more efficiently treat waste at lower price points; and lowering operating costs with actual  
17 functioning water and wastewater systems across the state in an inflationary business  
18 environment.

19           This rate filing is designed to achieve two primary objectives. First, Bluegrass  
20 Water wants to increase rates to a level that allows it to recover reasonable operating costs  
21 and provide a fair return on the investments it has made to serve customers. Second,  
22 Bluegrass Water seeks to unify the terms of service and consolidate rates statewide.

1 **Q. What are the primary differences between the relief requested in this proceeding and**  
2 **Bluegrass Water’s last rate case in 2020?**

3 A. First, Bluegrass Water only requests changes to its sewer rates in this proceeding, whereas  
4 the prior rate case involved both sewer and water rates. Second, the relief requested in this  
5 proceeding is based upon a historical test year, as opposed to a forecasted test year. Despite  
6 those differences, there are also similarities. Specifically, Bluegrass Water seeks to adjust  
7 rates primarily to recover the investment necessary to bring historically violative  
8 wastewater plants into compliance with applicable law for systems that have not seen rate  
9 increases in years – in some instances, decades. Simply put, the revenue generated from  
10 rates approved decades ago is simply not adequate to provide safe, reliable service to  
11 Bluegrass Water’s service areas that complies with applicable law.

12 **Q. What witnesses are providing direct testimony in support of the Bluegrass Water rate**  
13 **increase request and what subjects will each of those witnesses address?**

14 A. In addition to myself, seven other witnesses will provide direct testimony in support of the  
15 proposed rate increase. Those witnesses and the subjects they will cover in their respective  
16 testimonies are as follows:

- 17 ● Todd Thomas, Senior Vice President of CSWR explains the process CSWR uses  
18 to identify and engage qualified third-party contractors to provide day-to-day O&M  
19 functions for its operating companies like Bluegrass Water; explains why using  
20 third parties to perform these functions is in the best interests of both Bluegrass  
21 Water and its customers; identifies and describes the O&M contractor that  
22 Bluegrass Water currently engages for its Kentucky systems as well as certain steps  
23 it has taken to maximize its ability to provide safe and adequate service; and  
24 explains the process by which CSWR relies upon a third party to provide quality  
25 customer service to Kentucky customers.
- 26  
27 ● Jacob Freeman, Director of Engineer of CSWR describes in detail the systems  
28 owned and operated by Bluegrass Water, the challenges confronted by Bluegrass  
29 Water upon taking ownership of these systems, and the steps that it is taking to

1 resolve those problems in order to ensure compliance with applicable state and  
2 federal regulations. In addition, Mr. Freeman describes the process by which  
3 Bluegrass Water engages third-party engineering and construction partners to  
4 implement these system improvements.  
5

- 6 ● Brent Thies, Vice President and Controller for CSWR sponsors the books and  
7 records of Bluegrass Water that support the requested revenue increase. He also  
8 describes the method by which the Bluegrass Water revenue requirement was  
9 calculated.
- 10
- 11 ● Dylan D'Ascendis, ScottMadden, Inc., supports the appropriate capital structure  
12 and corresponding rates the Company should be given the opportunity to earn on  
13 its jurisdictional rate base.
- 14
- 15 ● John Spanos, Gannett Fleming Valuation and Rate Consultants, LLC, discusses the  
16 recent depreciation study conducted for Bluegrass Water sewer assets and supports  
17 and justifies the recommended depreciation rates for the Company's sewer assets  
18 based on the results of the depreciation study.
- 19
- 20 ● Timothy Lyons, ScottMadden, Inc., provides the method by which rates are  
21 designed.
- 22
- 23 ● Quentin Watkins, ScottMadden, Inc., introduces the wage and benefit study used  
24 to establish the reasonableness of CSWR wage and benefits.

25 **Q. Why are the rate increases that Bluegrass Water seeks in this case reasonable and**  
26 **necessary?**

27 A. There are several reasons why the request is reasonable and why the increases are  
28 necessary. First, it costs more to professionally operate wastewater systems in a manner  
29 that complies with applicable law than it costs to operate failing, non-compliant systems  
30 that are often times violating state and federal laws. Almost all of the systems Bluegrass  
31 Water acquired had significant long-term compliance and operational issues, and this rate  
32 request reflects the increased capital and operating costs required to address those  
33 deficiencies. As a simple example, many wastewater systems did not have operational  
34 mechanical components. As a result, chemical and power costs were often non-existent.

1 Not surprisingly, when that equipment is brought online and operated properly, power and  
2 operational costs immediately increase. Second, Bluegrass Water has made significant  
3 capital investments to upgrade its Kentucky systems and bring them into regulatory  
4 compliance. This proposed rate increase seeks a fair return on the value of those  
5 investments in addition to the value of the assets Bluegrass Water acquired from the  
6 systems' previous owners. Finally, as I mentioned earlier, some of the systems that  
7 Bluegrass Water has acquired have not sought rate increases in years or even decades. As  
8 a result, the rates currently in effect, and which Bluegrass Water adopted upon acquisition,  
9 do not come close to reflecting current operating and compliance costs, including recent  
10 inflation-driven cost increases. Consequently, the rates proposed in this case represent a  
11 significant percentage increase over current rates because current rates are well below what  
12 they would have been had previous owners exercised regulatory diligence in terms of  
13 critical repairs, capital investment, professional operations, and providing compliant  
14 customer service. Regulatory diligence by the prior owners would have required regular  
15 rate increases to provide safe and reliable service to customers.

#### 16 IV. RATE CONSOLIDATION

17  
18 **Q. How does Bluegrass Water plan to mitigate the effect on customers of the rate  
19 increase that it seeks in this case?**

20 **A.** Bluegrass Water acknowledges that the rates required to cover increases in operating costs  
21 and provide its investors a fair rate of return will impact customers. However, because the  
22 expenditures and investments necessary to bring some of the worst systems into  
23 compliance are significantly greater, customer impact would be much more significant if

1 rates in this case are set on a system-by-system basis. Therefore, Bluegrass Water proposes  
2 to mitigate the impact of the rate increases it requires by consolidating rates for all of its  
3 Kentucky systems. Under that consolidation proposal, all Bluegrass Water customers in  
4 the same tier and rate class would be charged the same statewide rate for wastewater  
5 service.

6 **Q. Has the Commission previously agreed to some level of rate consolidation for**  
7 **Bluegrass Water?**

8 A. Yes. In its decision in Bluegrass Water Case No. 2020-00290, the Commission  
9 consolidated the rates for all of the systems that were addressed in that case.

10 A separate rate for each geographically distinct merged system of Bluegrass  
11 Water would create unreasonable and undue hardship to individuals in some  
12 areas served by Bluegrass Water. **The Commission finds that the proposed**  
13 **unified monthly flat rate design, with wastewater multi-family dwellings**  
14 **and commercial customers monthly rates based on residential**  
15 **equivalency, should be approved for Bluegrass Water's customers.**<sup>2</sup>  
16

17 **Q. Have consolidated rates been recognized as a solution to the problem of small, non-**  
18 **viable water and wastewater systems?**

19 A. Yes. For years it has been recognized that single tariff pricing and the consolidation of  
20 rates encourages the consolidation of small water and wastewater systems into larger  
21 utilities. For instance, in a 2008 report, the National Regulatory Research Institute stated:

22 Single tariff pricing is another way to encourage mergers. Enabling a uniform  
23 rate structure or consolidated rates for systems owned by the same entity may  
24 encourage a corporate utility to grow its business by acquiring – whether  
25 contiguous or interconnected or not – other systems. With consolidated  
26 pricing, customers pay the same price even though their individual system may

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<sup>2</sup> Case No. 2020-00290, *Order*, issued August 2, 2021, at page 113.

1 have unique operating characteristics and needs. Single tariff pricing makes it  
2 easier to share costs among larger numbers of customers.<sup>3</sup>  
3

4 After the Commission approved rate consolidation, Bluegrass Water subsequently  
5 acquired five additional systems that are currently charging the rates that were previously  
6 in effect for those systems. Specifically, customers in the Delaplain, Herrington Haven,  
7 Springcrest, Woodland Acres and Darlington Creek service areas are currently charged the  
8 rates that were adopted by Bluegrass Water at the time of the acquisition. Through this  
9 case and, more specifically through this consolidation request, the rates for these five  
10 systems would be consolidated with the other systems into a single set of statewide rates.

11 **Q. Won't consolidated rates require customers served by "better" systems to support  
12 the cost of improvements Bluegrass Water is making to some of its worst systems?**

13 **A.** While this may appear to be true in the short run, it isn't true if you take a longer-term  
14 view. In each of the communities Bluegrass Water serves all of the distribution and  
15 treatment systems will eventually require major repairs and replacements. Some of those  
16 systems require more urgent investments that require upgrades and improvements today.  
17 However, over time all the systems that Bluegrass Water acquires in Kentucky will require  
18 those same or similar investments. So, whatever short-term support may flow between  
19 systems that are in differing states of repair and compliance initially, that situation will  
20 inevitably reverse over time.

21 I also note that cross-subsidies in utility rates are the rule rather than the exception.

22 For example, although it may cost an electric or gas utility much more to serve some

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<sup>3</sup> *Small Water Systems: Challenges and Recommendations*, National Regulatory Research Institute, February 7, 2008 (citing to *Joint Report of the US EPA and NARUC, Consolidated Water Rates: Issues and Practices in Single Tariff Pricing*, September 1999).

1 individual customers than it does to serve others, electric and gas utilities have for decades  
2 had uniform rates for all customers within each rate class.

3 Bluegrass Water also believes consolidated rates reflect the common benefits all of  
4 its Kentucky customers will receive from being served by Bluegrass Water—services that  
5 are provided more cost-effectively by consolidating systems to realize economies of scale,  
6 rather than system-specific rates, which would, in effect, punish customers of the currently  
7 most challenged systems for necessary investments each community will certainly require  
8 in the future.

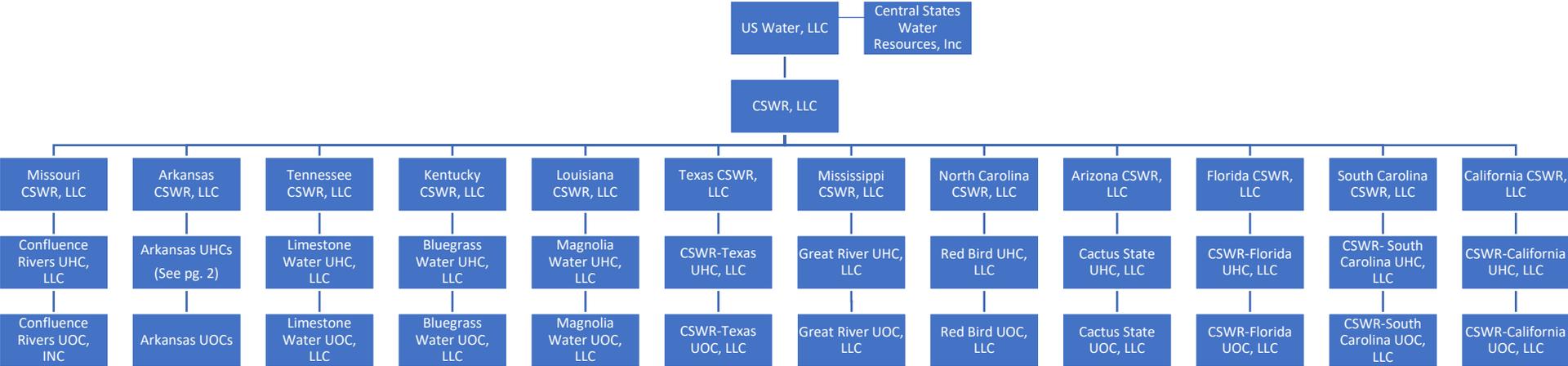
9 **Q. Does this conclude your direct testimony?**

10 A. Yes, it does.



# EXHIBIT 1

**Central States Water Resources Corporate Entity Organizational Chart**



**Arkansas CSWR Organizational Chart Detail**

