

Exhibit No.: 300 301  
Issue: Condition of Cedar Glen  
Water and Sewer Systems  
Witness: David G. Krehbiel  
Sponsoring Parties: Public Water Supply District  
No. 5 of Camden County,  
Missouri.  
Cedar Glen Condominium  
Owners Association, Inc.  
Case Nos.: Case No. WA-2019-0185  
and SA-2019-0186

PUBLIC WATER SUPPLY DISTRICT NO. 5 OF CAMDEN COUNTY, MISSOURI.

CEDAR GLEN CONDOMINIUM OWNERS ASSOCIATION, INC.

Case Nos. WA-2019-0185  
and SA-2019-0186

REBUTTAL TESTIMONY

OF

DAVID G. KREHBIEL

PWSO Exhibit No. 301  
Date 9-18-19 Reporter B5B  
File No. WA-2019-0185

Camdenton, Missouri  
August, 2019

Exhibit No. \_\_\_\_\_  
Date \_\_\_\_\_ Reporter \_\_\_\_\_  
File No. \_\_\_\_\_

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

In the matter of the Application of Osage Utility )  
Operating Company, Inc. to Acquire Certain ) Case No. WA-2019-0185  
Water and Sewer Assets and for a Certificate of ) and SA-2019-0186  
Convenience and Necessity )

AFFIDAVIT OF DAVID G. KREHBIEL

STATE OF MISSOURI )  
 ) ss.  
COUNTY OF CAMDEN )

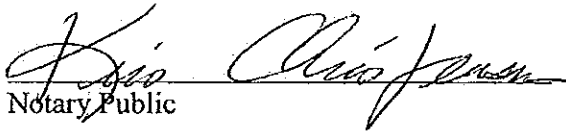
I, David G. Krehbiel, of lawful age, and being duly sworn, do hereby depose and state:

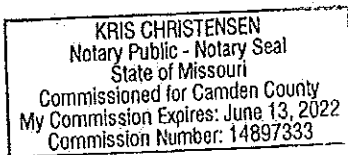
1. My name is David G. Krehbiel. I am a consulting engineer for Darren Krehbiel Consultants, LLC.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my personal knowledge, information and belief.

  
David G. Krehbiel

Subscribed and sworn to before me, a Notary Public, this 12 day of August, 2019.

My Commission expires: 06-13-2022 Notary Public

  
Kris Christensen



1 REBUTTAL TESTIMONY

2 OF

3 DAVID G. KREHBIEL

4 CASE NOS. WA-2019-0185; SA-2019-0186

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

6 A. My name is David G. Krehbiel. My business address is 63 Blair Ave, Camdenton,  
7 MO 65020.

8 **Q. Are you the same David G. Krehbiel who filed direct testimony on behalf of**  
9 **Public Water Supply District No. 5 of Camden County ("PWSD#5") and**  
10 **Cedar Glen Condominium Owners Association, Inc. in the case referenced**  
11 **above?**

12 A. Yes.

13 **Q. What is the purpose of your rebuttal testimony?**

14 A. I will be responding to portions of the direct testimony submitted by Mr. Todd  
15 Thomas on behalf of Osage Utility Operating Company, Inc. ("OUOC") and to  
16 portions of the direct testimony submitted by Staff witness Natelle Dietrich but at  
17 the outset I should correct a mistake about the location of Cedar Glen  
18 Condominiums that appears in Mr. Cox's testimony and Mr. Thomas's testimony  
19 and perhaps testimony submitted by other witnesses.

20 **Q. Where is Cedar Glen Condominiums located?**

21 A. Mr. Cox and Mr. Thomas both testify that "Cedar Glen is a residential  
22 condominium community . . . located in Camdenton, Camden County, Missouri."  
23 Cedar Glen is outside the corporate limits of Camdenton, Missouri although its

1 postal address is through the Camdenton post office. The condominiums are  
2 located in Camden County southwest of the Camdenton city limits.

3 **Q. On page 15 of his direct testimony, Mr. Thomas describes the condition of the**  
4 **water system assets serving Cedar Glen Condominiums. At page 15, line 20**  
5 **he states that “the water system has 216 customers serving approximately 432**  
6 **people.” Do you agree with this statement?**

7 A. I agree with the 216 customer figure. I do not agree with his approximation of 432  
8 people being served. That figure does not align with DNR’s minimum design  
9 guidelines which should be observed in this case as the Commission evaluates the  
10 status of the Cedar Glen water system and the persons served by those facilities.  
11 Additionally, that figure is below what in my opinion would be the more reasonable  
12 number of people served. In its *Minimum Design Standards for Missouri*  
13 *Community Water Systems, Effective December 10, 2013*, DNR directs how per-  
14 unit occupancy should be computed for compliance with the guidelines: 3.0  
15 persons per 2 bedroom unit and 3.7 persons per 3 bedroom unit. Since many of the  
16 units at Cedar Glen are utilized for recreational purposes I am of the opinion that  
17 the 3.7 persons per unit is a conservative figure. Based on 3.7 persons per unit, I  
18 calculate that 800 persons, and probably more, are served by the Cedar Glen water  
19 distribution system.

20 **Q. At page 15, line 23 and continuing to page 16, again discussing the Cedar Glen**  
21 **water system facilities, Mr. Thomas states that per conversations with**  
22 **Missouri DNR “ground storage capacity needs to be at least 1.5 times the**  
23 **average daily use.” Are you aware of this requirement?**

1 A. No, I am not. This is contrary to my understanding of DNR's published guidelines.  
2 Paragraph 7.1.2.b of DNR's Minimum Design Standards for Missouri Community  
3 Water Systems, Effective December 10, 2013, provides:

4 Provide ground level finished water storage with nominal  
5 capacity equal to or greater than one day's average demand. Duplex or  
6 variable speed high service pumps shall be provided with this option.  
7 The high service pumps shall have a capacity capable of meeting design  
8 instantaneous peak flow and of maintaining a minimum pressure of 35  
9 PSIG throughout the service area with the largest pump out of service.  
10 Emergency power generation facilities shall be provided to assure that  
11 water outages or low water pressures do not occur. Note the volume  
12 above low level withdrawal pump shut down is counted as nominal  
13 capacity.  
14

15 **Q. On page 17 of his direct testimony Mr. Thomas describes the condition of the**  
16 **sewer system serving Cedar Glen Condominiums. At page 17, line 9 he states**  
17 **that Central States Water Resources "reviewed EPAs Echo website for**  
18 **violations on wastewater facilities" and the Cedar Glen sewer system "had 2**  
19 **of 11 quarters as violations identified on the effluent [Discharge Monitoring**  
20 **Reports]." Have you reviewed this website and any reports about the Cedar**  
21 **Glen sewer system?**

22 A. Yes, I have reviewed the Detailed Facility Report document related to the Cedar  
23 Glen wastewater treatment facility. The two quarters that Mr. Thomas references  
24 are the 4<sup>th</sup> quarter in 2016 and the 2<sup>nd</sup> quarter in 2017. For the following seven  
25 consecutive quarters (21 months), the report notes "No Violations Identified." To  
26 me this means that a high quality of maintenance is being performed on these  
27 facilities.

1     **Q. One of Mr. Thomas's proposed additions to the Cedar Glen wastewater**  
2     **treatment facilities is the installation of a Moving Bed Biofilm Reactor**  
3     **(MBBR) for nutrient pollutant removal capability. Do you agree that a MBBR**  
4     **should be installed?**

5     A. I do not agree. I am of the opinion that the Cedar Glen recirculating sand filter  
6     wastewater treatment facility has the capability to meet the permit limits without  
7     the installation of a MBBR.

8     **Q. In her direct testimony Ms. Natelle Dietrich sponsors the Staff Memorandum**  
9     **of May 24, 2019. Have you reviewed number 12 and number 13 of Staff's**  
10    **conditions for approval of the application which are found at page 17 out of 39**  
11    **of the Staff Memorandum attached to her testimony (Confidential Schedule**  
12    **ND-d2)?**

13    A. Yes, I have. Number 12 requires OUOC to complete repairs to resolve bypassing  
14    of treatment at any wastewater treatment system within 90 days. Number 13  
15    requires OUOC to resolve all issues related to noncompliance with DNR  
16    regulations but prescribes no time limit. Because Staff would require OUOC to  
17    file a general rate case in 24 months as provided in condition number 17 on page  
18    18 of 39 of the Memorandum, I am supposing that Staff expects noncompliance  
19    issues will be resolved within 24 months.

20    **Q. With respect to the Cedar Glen water and sewer systems, would PWSD#5 be**  
21    **able to meet such conditions if it were to acquire those facilities.**

22    A. Absolutely. First there is no bypassing of treatment of wastewater at Cedar Glen  
23    so condition number 12 is not applicable. Mr. Stone's recommended repairs and

1 improvements to the Cedar Glen water and sewer systems as outlined in his  
2 testimony can be made within a twenty-four month interval if not sooner. The  
3 interconnection of the District's water system with Cedar Glen's water system may  
4 require more time but in the interim the facilities can still meet DNR requirements.

5 **Q. Does this conclude your rebuttal testimony?**

6 **A. Yes.**