

*Exhibit No.:*  
*Issue:* Depreciation  
*Witness:* Arthur W. Rice  
*Sponsoring Party:* MoPSC Staff  
*Type of Exhibit:* Surrebuttal Testimony  
*Case No.:* SR-2013-0321  
*Date Testimony Prepared:* October 23, 2013

**MISSOURI PUBLIC SERVICE COMMISSION**  
**REGULATORY REVIEW DIVISION**  
**UTILITY SERVICES**  
**ENGINEERING AND MANAGEMENT SERVICES**

**SURREBUTTAL TESTIMONY**

**OF**

**ARTHUR W. RICE, PE**

**LINCOLN COUNTY SEWER & WATER, LLC**

**CASE NO. SR-2013-0321**

*Jefferson City, Missouri*  
*October 2013*

Staff 9

Staff 9  
Exhibit No. 9  
Date 11-05-13 Reporter KF  
File No. SR-2013-0321

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**SURREBUTTAL TESTIMONY**

**OF**

**ARTHUR W. RICE, PE**

**LINCOLN COUNTY SEWER & WATER, LLC**

**CASE NO. SR-2013-0321**

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1                               **SURREBUTTAL TESTIMONY**

2                               **OF**

3                               **ARTHUR W. RICE, PE**

4                               **LINCOLN COUNTY SEWER & WATER, LLC**

5                               **CASE NO. SR-2013-0321 and WR-2013-0322**

6               Q.     Please state your name and business address.

7               A.     My name is Arthur W. Rice, and my business address is Missouri Public  
8     Service Commission, P.O. Box 360, Jefferson City, MO 65102.

9               Q.     What is your position with the Staff ("Staff") of the Missouri Public Service  
10     Commission ("Commission")?

11              A.     I am a Utility Regulatory Engineer I in the Engineering and Management  
12     Services Unit of the Utility Services Unit.

13     **BACKGROUND OF WITNESS**

14              Q.     Please describe your educational background and other qualifications.

15              A.     I received a Bachelor's of Science in Chemical Engineering from the  
16     University of Massachusetts in 1979. I am a licensed Professional Engineer in the State of  
17     Missouri, license No 028012.

18              From 1998 to 2008, I worked as a self-employed business owner. I established  
19     Arthur Rice Contracting LLC and developed a residential subdivision on 270 Acres in  
20     Callaway County Missouri, obtained appropriate permits, installed infrastructure, (including  
21     a sewer collection and treatment system), and built residential homes. Forty-one families  
22     have moved into the development and joined the homeowners association which owns and  
23     operates the sewer system.

Surrebuttal Testimony of  
Arthur W. Rice

1 From 1979 to 1998, I was employed by Monsanto Company and then Air Products  
2 and Chemicals as an engineer and project manager in an industrial equipment manufacture  
3 and sales division. The processes revolved around manufacturing, installation and operation  
4 of gas separation equipment for oil refineries, chemical plants and natural gas processing.

5 From 1972 to 1977, I was employed by General Electric Company as a tool and die  
6 maker. The facility I worked at produced power, distribution and pole transformers, plus  
7 electrical switch gear, surge arrestors and electrical connectors.

8 From 1966 to 1972, I was trained and employed by the U.S. Navy as a nuclear  
9 propulsion plant operator, plant water chemist, and radiological controls specialist. I was  
10 qualified in submarines and served 3 ½ years on a nuclear submarine.

11 Q. What has been the nature of your duties with the Commission?

12 A. From April 2008 to present, my duties include providing expert witness  
13 testimony regarding the assessment and development of appropriate regulatory depreciation  
14 rates and accounting treatment of plant and equipment installed and/or contributed, retired, or  
15 transferred to water, sewer, electric and natural gas companies' regulatory operations.

16 Q. Have you previously filed testimony before this Commission?

17 A. Yes. A list of cases in which I have filed testimony before this Commission is  
18 attached as Schedule AWR-1 to my Surrebuttal testimony.

19 Q. With reference to Case No. SR-2013-0321 and WR-2013-0322, have you  
20 participated in Staff's audit of Lincoln County Sewer & Water, LLC ("Company" or  
21 "LCSW") concerning its request for a rate increase in this proceeding?

22 A. Yes.

1 **EXECUTIVE SUMMARY and STAFF RECOMMENDATION**

2 Q. What is the purpose of this testimony?

3 A. The purpose of my testimony is to provide surrebuttal testimony to the  
4 rebuttal testimony of Office of the Public Counsel's ("Public Counsel") witness Mr. William  
5 Addo and to provide Staff's recommendation to the Commission regarding depreciation rates  
6 for LCSW. Staff's recommended depreciation rate schedules for Lincoln County Sewer &  
7 Water LLC are included with this testimony as schedules AWR-2 and AWR-3.

8 **INTRODUCTION**

9 Q. In general, what rules are used by Staff as a basis for applying depreciation to  
10 regulated water and sewer utility plant accounts in Missouri?

11 A. For water, the Code of State Regulations, 4 CSR 240-50.030 specifies the use  
12 of the Uniform System of Accounts (USOA) issued by the National Association of  
13 Regulatory Utility Commissioners (NARUC) in 1973, as revised in 1976. For sewer, 4 CSR  
14 240-61.020 specifies the use of the USOA issued by the NARUC in 1976.

15 Q. What was the basis for the depreciation rates Staff used to date in the  
16 accounting schedules for this Company?

17 A. Staff's standard depreciation rates schedules for small water and sewer  
18 companies.

19 Q. How were Staff's standard depreciation schedules for small water and sewer  
20 companies derived?

21 A. Staff's standard depreciation schedules were created decades ago by  
22 engineering experts in the Commission Staff Water and Sewer Unit. Depreciation rates from  
23 depreciation studies of large water and sewer companies in St. Louis, Kansas City, and St.

1 Joseph areas were used as a basis and were subsequently modified over years of observations  
2 by Staff experienced in the operation and maintenance of small water and sewer companies.  
3 Periodic reviews of these schedules are conducted by engineering experts from the  
4 Engineering and Management Services Unit and the Water and Sewer Unit. The most recent  
5 review was conducted in March of this year, with an emphasis on the net salvage component  
6 of the standard depreciation rates for each class of small water and sewer company.

7 **SURREBUTTAL TO WILLIAM ADDO**

8 Q. Has Staff conducted any additional review of its recommended depreciation  
9 rates since Staff submitted its Direct Testimony in this case?

10 A. Yes. Public Counsel took issue with the accumulated depreciation reserves  
11 for water well submersible pumping equipment, as explained in William Addo's Rebuttal  
12 Testimony, page 37. Staff conducted further review of the Company's reserves and  
13 retirement history for all of the Company's plant accounts. Subsequent to this Staff  
14 review, the recommended depreciation rate for water well submersible pumping equipment,  
15 USOA account 325.1, has been reduced from the Staff standard depreciation rate of 10% to a  
16 rate of 6.6%.

17 Q. Is this change from a 10% to a 6.6% depreciation rate for account 325.1  
18 reflected in the Staff accounting schedules submitted as Direct or Rebuttal Testimony?

19 A. No. This surrebuttal testimony is the first time that this 6.6% depreciation rate  
20 for account 325.1 has been introduced into testimony.

21 Q. Is this 6.6% depreciation rate for account 325.1 reflected in attached schedules  
22 AWR-2 and AWR-3?

23 A. Yes.

Surrebuttal Testimony of  
Arthur W. Rice

1 Q. Do you agree with the definition of depreciation Mr. Addo cites on page 38 of  
2 his Rebuttal Testimony?

3 A. Yes, it is the general broad definition cited by NARUC's USOA, which, as  
4 explained above, is specified for use by the Commission in 4 CSR 240-50.030 for water  
5 utilities, and in 4 CSR-240-61.020 for sewer utilities. But this broad definition does not  
6 provide guidance as to the practice of computing a regulatory depreciation rate and applying  
7 depreciation expense as a component of customer rates.

8 Q. How are regulatory depreciation rates computed?

9 A. The basic formula for Missouri regulatory depreciation was defined by the  
10 Commission in a Report and Order issued March 10, 2005, for Empire District Electric  
11 Company in rate case No. ER-2004-0570. The Commission-defined depreciation rate  
12 equation and component definitions are consistent with the NARUC USOA definitions and  
13 are represented as follows:

14 Depreciation expense = (Depreciation Rate) \* (Total Original Cost of Plant in  
15 Service)

16 Depreciation Rate % =  $\frac{100 - (\text{Net Salvage \%})}{\text{ASL}}$  =  $\frac{100}{\text{ASL}} - \frac{\text{Net Salvage \%}}{\text{ASL}}$   
17

18 The average service life (ASL) is the average number of years the dollars in the  
19 account are expected to remain in service. ASL is determined using past retirement history  
20 from the utility in question if sufficient history is available from that utility, or, if sufficient  
21 history is unavailable, from the retirement histories of utilities with similar operations. Net  
22 salvage, (also referred to as Salvage Value), is gross salvage minus cost of removal. Cost of  
23 Removal is the cost of demolishing, dismantling, tearing down or otherwise removing utility  
24 plant, including the cost of transportation and handling incidental thereto. Net salvage is also

1 determined using past retirement history from the utility in question if sufficient history is  
2 available from that utility, or if that history is unavailable, from the retirement histories of  
3 utilities with similar operations. Net salvage percentage is computed as follows:

4 Net Salvage = gross salvage - cost of removal

5 Net Salvage % =  $\frac{\text{Net Salvage \$}}{\text{Retirement \$}} * 100$   
6

7 Gross salvage and cost of removal information is collected whenever plant and  
8 equipment is retired. This includes interim net salvage where equipment is replaced in an  
9 ongoing "living" utility system or terminal net salvage when an entire facility is removed  
10 from service and disposed of.

11 Under the above traditional depreciation rate equation, the depreciation rate is applied  
12 to the total plant account's original cost. Net salvage is thus applied to the total plant in  
13 service in a straight line method over the expected life of the dollars in service. Thus, if the  
14 expected cost of removal exceeds the expected gross salvage, (producing a negative net  
15 salvage), the amount that should be in the accumulated reserves at the end of the ASL will be  
16 greater than the original cost. Example: If net salvage is a negative 10%, then at the end of  
17 the average service life, the accumulated reserves should exceed the original cost by 10%.  
18 And yes, as the physical equipment approaches its average expected service life for an  
19 account, that account will contribute a negative rate base component to the computation of  
20 customer rates. It is in this manner that customers are compensated for accrued depreciation  
21 expense funds being held by the company for future use.

22 Q. Mr. Addo's testimony on page 39, lines 14 to 16, states that LCSW has fully  
23 recovered the cost of the submersible pump as of May 30, 2010. Does Staff agree with



1 Mr. Addo's statement that LCWS has fully recovered the cost of service for this one pump,  
2 or for this pumping equipment plant account?

3 A. No. In order to compute that May 30, 2010 date, Mr. Addo had to make two  
4 incorrect assumptions regarding the depreciation rate of 10% currently ordered by the  
5 Commission for LCSW plant account 325.1. One incorrect assumption is that the 10%  
6 depreciation rate applies to only the Bennington water well. The reality is that the  
7 Company's total submersible pumping equipment plant account 325.1 also includes the  
8 Rockport well. Another incorrect assumption is that the net salvage component for  
9 account 325.1 is zero. The current ordered depreciation rate schedules for LCSW, recorded  
10 on June 8, 2012, in Case No. WA-2012-0018 and ordered in the Report and Order filed  
11 June 27, 2012, show the net salvage for all accounts as blanks. Assuming that these blanks  
12 are equivalent to a zero is incorrect. These "blanks," along with other cases showing blanks  
13 in rate schedules, are what prompted the review of Staff's small water and sewer Standard  
14 Depreciation Schedules in March of this year. The revised (current) Staff Standard  
15 Depreciation Schedules show net salvage and average service lives consistent with the  
16 depreciation rates listed on the schedules. For small water companies, the current Staff  
17 Standard Depreciation Schedule shows a negative 20% net salvage for account 325.1.

18 Q. What date does Staff compute as the point in time when LCSW's account  
19 325.1, (all of LCSW's account 325.1 with a negative 20% net salvage), would be evaluated  
20 as having fully accrued depreciation reserves?

21 A. October of 2014.

22 Q. Does Staff agree with Mr. Addo's testimony claiming that LCSW has fully  
23 recovered its investment in submersible pumping equipment?

Surrebuttal Testimony of  
Arthur W. Rice

1           A.    No. Even without considering collection of cost of removal through  
2 depreciation expense, as of the end of the test year (12/31/12), the accrued depreciation for  
3 LCSW account 325.1 is 8% less than original cost.

4           Q.    What date does Staff compute as the point in time when LCSW's  
5 Bennington-only account 325.1 (with a negative 20% net salvage) would be evaluated as  
6 having fully accrued depreciation reserves?

7           A.    In March of 2012.

8           Q.    Does Staff agree with Mr. Addo's testimony on page 40, line 1, that  
9 LCSW customers derive no compensation for the value of their money contributed as  
10 depreciation expense?

11          A.    No, Staff does not agree with Mr. Addo. Customers do get compensated.  
12 Depreciation expense is recorded and accumulated as contributions from the customers  
13 towards consumption of plant in service. Every dollar accumulated as depreciation that has  
14 not been consumed further reduces rate base, effectively giving the customer  
15 compensation equivalent to the Company's allowed Rate of Return. The Rate of Return  
16 for LCSW is approximately 7%, thus giving the customer approximately a 7% annual  
17 compensation for any over collection for current consumption, or reserve accumulation for  
18 future cost of removal.

19          Q.    Does Staff agree with Mr. Addo's testimony on page 40, line 12, that the  
20 depreciation rate for the Bennington submersible pump account should be set to zero?

21          A.    No, Staff does not agree with Mr. Addo, for two reasons. One reason is that  
22 depreciation rates are set for a company's plant consumption of dollars in service for  
23 specific accounts as defined by the USOA; they are not set for individual items such as one

1 well. The second reason is that the depreciation rate assigned is an estimate of future  
2 expected consumption of dollars assigned to the account. Even if Staff just looked at the one  
3 well, Staff would not recommend to the Commission that the future expected ongoing  
4 retirement rate for this well is zero.

5 Q. Why has Staff proposed lowering the depreciation rate from Staff's Standard  
6 rate of 10% to a rate of 6.6%?

7 A. Staff's review of depreciation reserves shows that the depreciation rate in use  
8 for submersible pumping equipment has exceeded LCSW's actual consumption rate. This  
9 conclusion is based on Staff's review of the overall depreciation reserve accruals. A typical  
10 utility with a growing customer base that routinely replaces equipment to maintain safe and  
11 adequate service typically exhibits 30% to 70% total reserves to total plant, depending on the  
12 age of the company. Since Lincoln County is very young, with total plant surviving dollars  
13 averaging only about 8 years, reserves would be expected to be at the low end of this normal  
14 percentage range. At 12/31/12, Lincoln County Water exhibited a total company reserve  
15 accrual of 36%, with a submersible pumping equipment reserve accrual of 77%. Staff's  
16 conclusion is that LCSW's submersible pumping equipment account has been assigned a  
17 depreciation rate that exceeds the actual consumption rate. Staff estimated a revised  
18 depreciation rate for LCSW using the very limited number of data points available. The  
19 current retirement and net salvage rates observed for LCSW account 325.1 results in an  
20 observed depreciation rate of 6.6%.

21 Q. For Bennington water, did Staff review other plant accounts for an under  
22 accrual that would offset the over accrual for the submersible pumping equipment?

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1           A.     Yes. The review found no account under accrued that could be used to offset  
2 the over accrual in the submersible pumping equipment account.

3           Q.     During Staff's review of retirements for LCSW's submersible  
4 pumping equipment, did Staff identify any recommended adjustments to the balances in  
5 account 325.1?

6           A.     Yes. The book entries for the replacement of a submersible pump in January  
7 of 2010 resulting from a lighting strike failed to account for cost of removal. The total labor  
8 and materials cost of the replacement was recorded as the new additional plant in service.  
9 Staff recommends an adjustment in this rate case, entered at the end of the test year date, to  
10 correct the books going forward. Staff recommends recording \$1000 of the total \$9,439  
11 replacement cost as cost of removal. The recommended adjusting entries for account 325.1  
12 (within the Rockport subaccount) at the end of the test year date are 1) reduce plant in service  
13 by \$1,000, and 2) reduce accumulated reserves by \$1000.

14          Q.     Does this cost of removal adjustment alter the revenue equipment for this  
15 rate case?

16          A.     Yes. Depreciation expense will be reduced by the assigned depreciation  
17 rate times the \$1000 reduction in plant, or \$66.00 per year at the 6.6% depreciation rate.  
18 Note: These recommended adjustments affect both the plant and reserves balances equally  
19 and thus do not alter rate base.

20          Q.     Is there a difference between over accrued and fully accrued when discussing  
21 reserves for an account?

22          A.     Yes, over accrued refers to a condition where the accumulated reserves for an  
23 account exceed what would be expected for the current age of the dollars invested, while

Surrebuttal Testimony of  
Arthur W. Rice

1 fully accrued refers to a condition where the accumulated reserves have reached or exceeded  
2 the original cost corrected for net salvage. An account may be deemed to be greatly over  
3 accrued and still not be fully accrued.

4 Q. Does Staff agree with Mr. Addo's rebuttal testimony on page 39, lines 1  
5 and 2, that depreciation ends when the utility fully recovers the cost of the asset?

6 A. No, Staff does not agree with Mr. Addo. With respect to regulatory  
7 depreciation for rate making purposes, the utility may not stop accruing depreciation for  
8 plant still in service simply because the accumulated depreciation reserve has reached an  
9 amount equivalent to the original cost for several reasons, including:

10 a) Regulatory depreciation includes net salvage, thus the lifetime cost is often not  
11 equivalent to the original installed cost (as explained above for LCSW's submersible  
12 pumping equipment).

13 b) Customer rates are set during a rate case with a revenue requirement including an  
14 amount for depreciation expense for total plant in service. Thus, the amount included in  
15 customers' bills for depreciation does not stop or reduce just because an account may  
16 experience reserve accumulation beyond fully accrued. The customer payments contributing  
17 to consumption of plant in service should continue to be recorded as depreciation expense  
18 until the next rate case where the amounts may be reviewed and appropriate adjustment made  
19 going forward.

20 c) Only the Commission has the authority to change depreciation rates. Stopping  
21 depreciation on a plant account is equivalent to an unauthorized change of depreciation  
22 rate from the Commission-ordered rate to a rate of 0%. The Company does not have the

Surrebuttal Testimony of  
Arthur W. Rice

1 authority to change depreciation rates, either by an increase or decrease, without  
2 Commission order.

3 d) Finally, at some point in the future, the existing pump will need replacement, and  
4 the new pump should accrue depreciation. The timing of equipment failures rarely, if ever,  
5 coincides with a rate case such that a new depreciation rate is ordered at the exact time a new  
6 piece of equipment is placed in service.

7 Q. Does Staff agree with Mr. Addo's recommendation on page 42 of his rebuttal  
8 testimony that Staff alter the accumulated depreciation reserve for the Bennington  
9 subdivision water well pumping account 325.1 by reducing reserves by \$11,356?

10 A. No. Staff does not agree with Mr. Addo's recommendation that the accrual of  
11 depreciation be stopped for the Bennington water account 325.1 at May 30, 2010. Customers  
12 have continued to pay, and the accrual should continue to reflect the contributions customers  
13 have provided. Mr. Addo does not address what would become of this \$11,356 difference.  
14 Simply reducing the reserves would hand the company owners \$11,356 of the rate payers'  
15 contributions to depreciation, with no compensation to the rate payers. This action would  
16 also increase rate base in the current rate case, resulting in an approximate increase of \$1,300  
17 in revenue requirement.

18 **SUMMARY**

19 Q. Please summarize why Mr. Addo's depreciation rate and reserve modification  
20 recommendations are inappropriate?

21 A. Mr. Addo's recommendations have failed to take into account the cost of  
22 removal component of regulatory depreciation and that depreciation expense is recorded as  
23 customer contributions to plant in service. These contributions forever reduce rate base,

1 providing just and reasonable compensation to rate payers for any excess accumulation of  
2 reserves above current consumption that may occur between rate cases, including  
3 compensation for the accumulation of funds for future expected cost of removal.

4 Mr. Addo's recommendations fail to recognize that depreciation expense is a fixed,  
5 imbedded component of customer rates and may only be addressed in the context of a rate  
6 case as a modification going forward, and that all active, in-service plant accounts will  
7 exhibit a future consumption rate greater than zero.

8 **STAFF'S RECOMMENDATION AND CONDITIONS**

9 Q. What method of adjustment does Staff recommend to address the over-accrual  
10 for submersible pumping equipment account 325.1?

11 A. Staff recommends a reduction in Lincoln County's depreciation rate for  
12 account 325.1 from Staff's Standard 10% rate to a 6.6% depreciation rate.

13 Q. What depreciation rates does Staff recommend for all other Lincoln County  
14 water and sewer plant accounts?

15 A. The Staff's standard depreciation rates for USOA size class C and D for water  
16 and sewer, as shown in attached schedules AWR-2 and AWR-3.

17 Q. Does this end your testimony?

18 A. Yes.

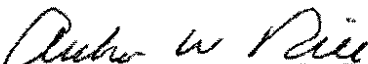
**BEFORE THE PUBLIC SERVICE COMMISSION**  
**OF THE STATE OF MISSOURI**

In the Matter of the Application of Lincoln County     )  
Sewer and Water, LLC for Approval Of a Rate         ) Case No. SR-2013-0321  
Increase   )

AFFIDAVIT OF ARTHUR W. RICE, PE

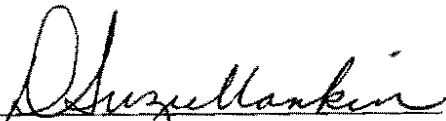
STATE OF MISSOURI                     )  
   )     ss.  
COUNTY OF COLE                     )

Arthur W. Rice, PE, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 13 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

  
\_\_\_\_\_  
Arthur W. Rice, PE

Subscribed and sworn to before me this 22<sup>nd</sup> day of October, 2013.

D. SUZIE MANKIN  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: December 12, 2016  
Commission Number: 12412070

  
\_\_\_\_\_  
Notary Public



**CASE PARTICIPATION of  
Arthur W. Rice**

<b>Case/Tracking Number</b>	<b>Company Name - Issue</b>
SR-2008-0388	WPC Sewer, Depreciation Review
SR-2008-0389	West 16Th Street, Depreciation Review
WA-2008-0403	Seges Mobile Home Park, Depreciation Assignment
WR-2009-0098	Raytown Water Company, Depreciation Review
SR-2009-0144	Cannon Home Assoc. Depreciation Review
WR-2009-0145	Peaceful Valley Service Co., Depreciation Review
SR-2009-0146	Peaceful Valley Service Co., Depreciation Review
WR-2009-0218	Terre Du Lac Utilities Corp., Depreciation Review
SR-2009-0219	Terre Du Lac Utilities Corp., Depreciation Review
WR-2009-0227	Lakeland Heights Water, Depreciation Review
WR-2009-0228	Wispering Hills Water, Depreciation Review
WR-2009-0229	Oakbrier Water Company, Depreciation Review
SR-2009-0226	R. D. Sewer Company, Depreciation Review
GA-2009-0264	Missouri Gas Utilities, Depreciation Assignment
WA-2009-0316	Highway H Utilities, Depreciation Assignment
SA-2009-0317	Highway H Utilities, Depreciation Assignment
SA-2009-0319	Mid Mo Sanitation LLC, Depreciation Assignment
SR-2009-0298	Port Perry Service Company, Depreciation Review
WR-2009-0299	Port Perry Service Company, Depreciation Review
SA-2009-0401	Seges Mobile Home Park, Depreciation Assignment
SR-2009-0392	Highway H Utilities, Depreciation Review
WR2009-0393	Highway H Utilities, Depreciation Review
WR-2009-0418	Gladlo Water and Sewer, Depreciation Review
SR-2009-0419	Gladlo Water and Sewer, Depreciation Review
WR-2009-0395	Noel Water Co., Depreciation Review
ER-2010-0036	AmerenUE, Staff Expert for Depreciation
SR-2010-0095	Mid Mo Sanitation LLC, Depreciation Review
WR-2010-0139	Valley Woods Water Company, Depreciation Review
SR-2010-0140	Valley Woods Water Co., Depreciation Review
WA-2010-0281	Holtgrewe Farms Water, Depreciation Assignment
SA-2010-0282	Holtgrewe Farms Sewer, Depreciation Assignment
WR-2010-0304	Raytown Water Company, Depreciation Review
WR-2010-0309	Middlefork Water, Depreciation Review
ER-2010-0355	KCP&L - Staff Expert for Depreciation
ER-2010-0356	KCP&L - GMO, Staff Expert for Depreciation
WR-2011-0337	Missouri American Water - Staff Expert For Depreciation
SR-2011-0338	Missouri American Water - Staff Expert For Depreciation
EO-2912-0340	KCP&L - Depreciation Authority Order
EO-2912-0354	KCP&L - Transmission Line Sale
SA-2012-0362	Emerald Pointe CCN -Staff Expert for Depreciation
WR-2012-0405	Raytown Water Company, Staff Expert for Depreciation
ER-2012-0174	KCP&L - Staff Expert for Depreciation
ER-2012-0175	KCP&L GMO - Staff Expert for Depreciation
WR-2013-0259	Gladlo - Staff Expert for Depreciation
SR-2013-0258	Gladlo - Staff Expert for Depreciation
WR-2013-0326	Woodland Manor - Staff Expert for Depreciation
SR-2013-0435	Rouge Creek Utilities - Staff Expert for Depreciation
WR-2013-0436	Rouge Creek Utilities - Staff Expert for Depreciation
WO-2013-0403	Tri-State Utilities sale to MAWC - Staff Expert for Depreciation

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**SCHEDULE AWR-2 to SURREBUTTAL TESTIMONY**

**OF**

**ARTHUR W. RICE, PE**

<b>Lincoln County Sewer &amp; Water. LLC</b>				
<b>SCHEDULE of DEPRECIATION RATES</b>				
<b>(WATER)</b>				
<b>WR-2013-0322</b>				
NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
311	Structures and Improvements	2.5%	44	-10%
	<b>Source of Supply</b>			
314	Wells & Springs	2.0%	55	-8%
	<b>Pumping Plant</b>			
325.1	Submersible Pumping Equipment	6.6%	16	-6%
	<b>Water Treatment Equipment</b>			
331	Structures & Improvements	2.5%	44	-10%
332	Water Treatment Equipment	2.9%	35	0%
	<b>Transmission and Distribution</b>			
342	Distribution Reservoirs & Standpipes	2.5%	42	-5%
343	Transmission and Distribution Mains	2.0%	50	0%
345	Customer Services	2.5%	40	0%
346	Meters	10.0%	10	0%
347	Meter Installations (Meter pits)	2.5%	40	0%
	<b>General Plant</b>			
372	Office Furniture and Equipment	5.0%	20	0%
372.1	Office Electronic & Computer Equip.	20.0%	5	0%
379	Other General Equipment (tools, shop equip., backhoes, trenchers, etc.)	6.7%	13	13%

Version, 9/25/2013. The above are standard small company depreciation rates modified by Staff's review of the Company's operation and records, onsite visits, and discussion with company representatives.

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**SCHEDULE AWR-3 to SURREBUTTAL TESTIMONY**

**OF**

**ARTHUR W. RICE, PE**

<b>Lincoln County Sewer &amp; Water, LLC</b>				
<b>SCHEDULE of DEPRECIATION RATES</b>				
<b>(SEWER)</b>				
<b>WR-2013-0321</b>				
NARUC				
USOA			AVERAGE	
ACCOUNT		DEPRECIATION	SERVICE LIFE	
NUMBER	ACCOUNT DESCRIPTION	RATE	(YEARS)	NET SALVAGE
311	Structures and Improvements	2.5%	44	-10%
	<b>Collection Plant</b>			
352.1	Collection Sewers (Force)	2.0%	50	0%
352.2	Collection Sewers (Gravity)	2.0%	50	0%
354	Services	2.0%	50	0%
	<b>Treatment &amp; Disposal Plant</b>			
373	Treatment & Disposal Facilities	5.0%	22	-10%
	<b>General Plant</b>			
391	Office Furniture and Equipment	5.0%	20	0%
391.1	Office Electronic & Computer Equip.	20.0%	5	0%
393	Other General Equipment (tools, shop equip., backhoes, trenchers, etc.)	10.0%	8.7	13%

Version, 8/28/2013. The above are Staff's standard small company depreciation rates.