

Exhibit No.:
Issue(s): Depreciation Rates
Witness: Keenan B. Patterson
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: WR-2017-0110
Date Testimony Prepared: May 31, 2017

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

ENGINEERING ANALYSIS UNIT

DIRECT TESTIMONY

OF

KEENAN B. PATTERSON

TERRE DU LAC UTILITIES CORPORATION

CASE NO. WR-2017-0110

Jefferson City, Missouri
May 2017

DIRECT TESTIMONY
OF
KEENAN B. PATTERSON
TERRE DU LAC UTILITIES CORPORATION
CASE NO. WR-2017-0110

Q. Please state your name and business address.

A. My name is Keenan B. Patterson. My business address is Missouri Public Service Commission (“Commission”), P.O. Box 360, Jefferson City, Missouri 65102.

Q. What is your position at the Commission?

A. I am a Utility Regulatory Engineer in the Engineering Analysis Unit, Operational Analysis Department, Commission Staff Division.

Q. Please describe your work and educational background.

A. A description of my work and educational background is attached as Schedule KBP-d1.

Q. What is the purpose of your testimony?

A. My testimony describes Staff’s recommendations for depreciation rates.

Q. What is depreciation?

A. As described by the National Association of Regulatory Utility Commissioners, “depreciation accounting is fundamentally a process of allocating in a systematic and rational manner the value of a depreciable asset over its life.”¹ The Commission has stated that the fundamental goal of depreciation accounting is to allocate the full cost of an asset, including its net salvage cost, over its economic or service life so that

¹ National Association of Regulatory Utility Commissioners (“NARUC”), Public Utility Depreciation Practices (Washington, DC: NARUC, 1996), p. 11.

1 utility customers will be charged for the cost of the asset in proportion to the benefit they
2 receive from its consumption.²

3 Q. What is Staff recommending for Terre Du Lac Utilities Corporation's
4 ("Terre Du Lac") depreciation rates?

5 A. Staff's recommended depreciation rates are attached as Schedule KBP-d2.

6 Q. How were Staff's recommended depreciation rates calculated?

7 A. In accordance with Staff's standard procedures the depreciation rate was
8 calculated from the average service life and net salvage rate using this equation³:

$$\text{Depreciation Rate} = \frac{100\% - \% \text{ Net Salvage}}{\text{Average Service Life (years)}}$$

11 Q. What depreciation rates has Terre Du Lac requested?

12 A. As of the time this testimony was prepared, Staff is unaware of specific
13 depreciation rates requested by Terre Du Lac in this rate case.

14 Q. What is Staff's recommendation?

15 A. Staff recommends that the Commission order the Company to use the
16 depreciation rates attached as Schedule KBP-d2. Staff's recommended depreciation rates are
17 based on its experience of typical service life and net salvage for various classes of assets
18 used by small water and sewer utilities.

19 Q. Does this complete your direct testimony?

20 A. Yes.

² In the Matter of Laclede Gas Co., Case No. GR-99-315 (3rd Report & Order, issued Jan. 11, 2005).

³ In the Matter of Laclede Gas Co., Case No. GR-99-315 (3rd Report & Order, issued Jan. 11, 2005).

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

In the Matter of the Request for Increase in
Annual Water and Sewer System Operating
Revenues for Terre Du Lac Utilities

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)
)

Case No. WR-2017-0110

AFFIDAVIT OF KEENAN B. PATTERSON, P.E.

State of Missouri)
) ss.
County of Cole)

COMES NOW KEENAN B. PATTERSON, P.E. and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Direct Testimony; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.



Keenan B. Patterson, P.E.

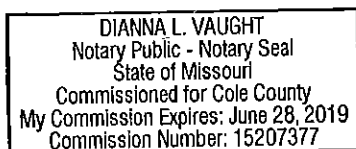
JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 31st day of May, 2017.



NOTARY PUBLIC

My commission expires: June 28, 2019.



KEENAN B. PATTERSON, PE

Education and Employment Background and Credentials

I am currently employed as a Utility Regulatory Engineer for the Missouri Public Service Commission (“Commission”). I have been employed by the Commission in this position since December 2016. From August 2015 to December 2016, I was employed by the Commission as a Utility Engineering Specialist.

I am a graduate of the University of Missouri where I earned the degrees of Bachelor of Science in Agricultural Engineering and Master of Public Administration. In addition, I am licensed as a Professional Engineer in Missouri.

Prior to working for the Commission, I was employed as an Environmental, Health and Safety Coordinator by Pittsburgh Corning Corporation from 2013 to 2015. I have also been employed as an Associate at The Cadmus Group from 2010 to 2013, an Environmental Engineer at GREDELL Engineering Resources in 2009, the owner of Infra Consulting LC from 2006 to 2013, and various environmental engineering positions at the Missouri Department of Natural Resources from 1994 to 2006.

Other cases I have been assigned to or that I have participated in are listed below:

Case Number	Company
GR-2017-0215	Laclede Gas Company
SM-2017-0187 WM-2017-0186	Lake Region Water & Sewer Company
SA-2017-0182 WA-2017-0181	Missouri-American Water Company
SM-2017-0150	Elm Hills Utility Operating Company, Inc.
WF-2017-0143 WR-2017-0110	Terre Du Lac Utilities Corporation
WR-2017-0139	Stockton Hills Water Company
SR-2017-0130	Gladlo Water and Sewer Company, Inc.
SR-2017-0099	Seges Partners Mobile Home Park, L.L.C.
WC-2017-0200 WR-2017-0042	Ridge Creek Water Company LLC
ER-2016-0285	Kansas City Power & Light Company
SR-2016-0202	Raccoon Creek Utility Operating Company, Inc.
EM-2016-0213	Empire District Electric Company
ER-2016-0179	Ameren Missouri

Case Number	Company
WM-2016-0169	Woodland Manor Water Company, LLC
SR-2016-0110 WR-2016-0109	Roy-L Utilities, Inc.
WM-2016-0094	Foxfire Utilities Company
WA-2016-0054	Missouri-American Water Company
WA-2016-0031 SA-2016-0030	Peaceful Valley Service Company
WR-2015-0301	Missouri-American Water Company

Terre Du Lac Utility Company
DEPRECIATION RATES
(SEWER)
WR-2017-0110

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
300	Stipulated Plant	2.5%	40	0%
311	Structures and Improvements	2.5%	44	-10%
352.1	Collection Sewers (Force)	2.0%	50	0%
352.2	Collection Sewers (Gravity)	2.0%	50	0%
353	Services	2.0%	50	0%
354	Flow Measurment Devices	3.3%	30	0%
362	Receiving Wells	5.0%	26	-5%
363	Electric Pumping Equipment	10.0%	10	0%
371	Treatment Plant Shed	2.5%	44	-10%
372	Treatment & Disposal Equipment	5.0%	22	-10%
390	Structure & Improvements Office/Shop	2.5%	44	-10%
391	Office Furniture and Equipment	5.0%	20	0%
391.1	Electronic Office Equipment	14.3%	7	0%
392	Transportation Equipment	0.0%		
393	Stores Equipment	4.0%	25	0%
394	Tools, Shop, and Garage Equipment	0.0%		
395	Laboratory Equipment	8.3%	12	0%
396	Power Operated Equipment	6.7%	13	13%
397	Communication Equipment	0.0%		

Terre Du Lac Utility Company
DEPRECIATION RATES
(WATER)
WR-2017-0110

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	NET SALVAGE
300	Stipulated Plant	2.5%	40	0%
311	Structures & Improvements	2.5%	44	-10%
314	Wells & Springs	2.0%	50	0%
316	Supply Mains	2.0%	50	0%
321	Structures & Improvements Well House	2.5%	44	-10%
325	Submersible Pump Equipment	10.0%	12	-20%
332	Water Treatment Equipment	2.9%	35	0%
332.1	Chemical Pumps	10.0%	10	0%
342	Distribution Reservoirs & Standpipes	2.5%	42	-5%
343	Transmission & Distribution Mains	2.0%	50	0%
345	Services	2.5%	40	0%
346.1	Meters - Bronze Chamber	9.5%	10	5%
346.2	Meters - Plastic Chamber	0.0%		
347	Meter Installations - Bronze Chamber	2.5%	40	0%
347.2	Meter Installations - Plastic Chamber	2.5%	40	0%
348	Hydrants	2.0%	50	0%
390	Structures & Improvements Office/Shop	2.5%	44	-10%
391	Office Furniture & Equipment	5.0%	20	0%
391.1	Office Computer Equipment	14.3%	20	0%
392	Transportation Equipment	0.0%		
393	Stores Equipment	4.0%	25	0%
394	Tool, Shop, and Garage Equipment	5.0%	18	10%
395	Laboratory Equipment	8.3%	12	0%
396	Power Operated Equipment	6.7%	13	13%
397	Communication Equipment	0.0%		