Exhibit No.:

Maintenance, Service Area Issue(s):

> Maps and Legal Descriptions

Witness: Daronn A. Williams

Sponsoring Party: MoPSC Staff Type of Exhibit: Rebuttal Testimony
Case No.: WR-2023-0006

Date Testimony Prepared: June 29, 2023

MISSOURI PUBLIC SERVICE COMMISSION INDUSTRY ANALYSIS DIVISION WATER, SEWER & STEAM DEPARTMENT

REBUTTAL TESTIMONY

OF

DARONN A. WILLIAMS

CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC.

CASE NO. WR-2023-0006

Jefferson City, Missouri June 2023

1 REBUTTAL TESTIMONY 2 **OF** 3 **DARONN A. WILLIAMS** 4 CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC. 5 CASE NO. WR-2022-0303 Please state your name and business address. 6 Q. 7 My name is Daronn A. Williams. My business address is 200 Madison Street, A. 8 Jefferson City, MO 65101. 9 Q. By whom are you employed and in what capacity? 10 A. I am employed by the Missouri Public Service Commission ("Commission") as 11 an Associate Engineer with the Water, Sewer, & Steam Department. My credentials and a 12 listing of the cases in which I have previously filed testimony before this Commission are 13 attached to this rebuttal testimony as Schedule DAW-r1. 14 What is the purpose of your rebuttal testimony? Q. 15 A. The purpose of my rebuttal testimony is to respond to Confluence Rivers 16 Utility Operating Company, Inc. ("Confluence") witness Todd Thomas' Direct Testimony 17 regarding the claim that a software program is capable of ensuring that utility systems are 18 well-maintained. Specifically I address Staff concerns at the Fox Run Wastewater Treatment 19 Facility ("Fox Run"), which is also discussed in Staff witness Curt B. Gateley's Direct Testimony. Staff witness Andrew Harris also discusses this software program in his Rebuttal 20 21 Testimony. In addition, I discuss the need for Confluence to update the maps and legal 22 descriptions in its water and sewer tariffs.

¹ Todd Thomas Direct page 13, lines 2 through 7.

² Curt B. Gateley Direct beginning page 9, line 8.

testimony?

Response to Todd Thomas' Direct Testimony; Lack of System Maintenance at Fox Run Q. What part of Mr. Thomas' testimony will you address in your rebuttal

- A. In his direct testimony, Mr. Thomas states:
 - Utility Cloud ensures that Confluence Rivers systems are well-maintained; property, plant, and equipment records are maintained; and customer service needs are systematically and expeditiously addressed with appropriate record keeping of customer service needs. Further, CSWR is able to monitor its Missouri O&M contractors to ensure that the contractors are doing work for which they were hired; are doing that work on a timely and competent basis; and are meeting the needs of the Company and its customers.³
- Q. Do you agree with Mr. Thomas that Confluence's systems are well-maintained and that a software program can ensure that Confluence's systems are well-maintained?
 - A. No. I do not.
 - Q. Do you have an example of a Confluence system that is not well-maintained?
- A. Yes. As mentioned by Staff witness Mr. Curt B. Gateley (beginning on page 9, line 7 of his Direct Testimony), on April 11, 2023, I conducted several inspections of wastewater systems owned by Confluence in the Kansas City area. One of those systems was the Fox Run wastewater treatment facility, a recirculating sand filter bed. Upon arrival, visual inspection revealed this facility's sand bed was overflowing with partially treated sewage. It was pooling on the surface of the sand bed and running onto the sides of the berms. The small field on the north side of the sand bed was completely saturated with wastewater. There were large pools of wastewater around the fencing that surrounded the facility and on the access road. Photographic evidence of the saturated fields and pooling of wastewater are located in

 $^{^3}$ Todd Thomas Direct page 13, lines 2 through 7.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

Schedules DAW-r2 through DAW-r6. This incident is considered a bypass and, based on the condition of the facility at the time of inspection, it appears this bypass had been occurring for at least several days to a few weeks. Mr. Jacob Freeman, Director of Engineering for Central States Water Resources, LLC, (Confluence's parent company) accompanied me on the inspections and it appeared that he was unaware of the situation at Fox Run prior to arriving on site. Upon seeing the condition of the system, Mr. Freeman made one or more phone calls to whom I believe were the contractor or another Confluence employee.

- Q. Did this bypass violate a federal or state regulation?
- A. It is Staff's understanding, based upon a review of the Fox Run operating permit (Permit No. MO-0120006) issued by the Missouri Department of Natural Resource ("DNR"), that this bypass is a violation of the permit conditions⁴ and the federal Clean Water Act.⁵
 - Q. Did Staff follow-up with DNR on this manner?
- A. Yes, Staff contacted DNR on April 12, 2023, to verify that Confluence reported the bypass. ⁶ DNR stated they were aware of the bypass.
 - Q. Did Staff follow-up with the Company?
- A. Yes. During the inspection, Mr. Freeman mentioned Confluence would do an internal investigation on the cause of the bypass and summarize their findings in a Root Cause Analysis ("RCA") Report. On April 17, 2023, I sent Mr. Freeman an e-mail asking for the RCA Report. Confluence e-mailed a copy of this report to me on May 4, 2023.
- In addition, on May 3, 2023 I submitted Data Request ("DR") No. 0268 to Confluence, which states:

-

⁴ Section D Special Conditions 7 and Standard Conditions Part I, Section C.2.c.

⁵ 40 CFR 122.41(m)(4)(i).

⁶ Per 40 CFR 122.41(l)(6)(i), unanticipated bypasses must be reported within 24 hours of the permittee becoming aware of the event.

1 2 3		During Staff's field inspection of the Fox Run Wastewater Treatment Facility (WWTF) on April 11, 2023, it was discovered that the WWTF was overflowing sewage from the sand filter bed.				
4 5		(1) Please submit copies of all documentation (reports, overflow notices, etc.) that were submitted to the Missouri Department of Natural				
6 7		Resources for this overflow incident. (2) What corrective actions have been taken to rectify the overflow?				
8 9 10		Please include a description of the associated clean-up efforts. (3) Was emergency pumping and hauling implemented? If so, how much was pumped and hauled, during what dates, and where was the sewage				
11		hauled to? (4) During the field inspection, Confluence personnel indicated a Root				
13 14		Cause Analysis (RCA) for the bypass would be completed. Please provide a copy of this RCA report.				
15		(5) What steps are being taken to prevent this from happening again?				
16	Q.	What was Confluence's response to DR No. 0268?				
17	A.	Confluence responded to this DR on May 22, 2023 with the same RCA Report				
18	as before, wh	nich is included as Schedule DAW-r9. Confluence indicated that no emergency				
19	pumping and hauling had been implemented, but Staff believes this was stated in error because					
20	the RCA Rep	port states sludge was removed from pump stations. The DR response did not				
21	indicate the a	mount of sludge pumped and hauled, or the final location of the sludge.				
22	Q.	Based on the RCA Report, what were the causes of the bypass?				
23	A.	The RCA Report list the following causes of bypass:				
24		(1) The solids in the influent pump stations were not removed on a regular basis,				
25		and				
26		(2) The filter media in the bed was highly packed with solids, which then slowed				
27		the filtration rate and caused the bed to overflow.				
28	Q.	Does Staff believe the bypass was associated with a failure with Utility Cloud?				
29	A.	Not necessarily. Staff believes reliance on this remote software, without regular				
30	routine physi	cal maintenance and checks, contributed to the bypass.				

1		Q.	How did Confluence rectify the situation at Fox Run?
2		A.	The corrective actions undertaken by Confluence, according to RCA Report,
3 4	were:		(1) Sludge removal from pump stations,
5			(2) Filter media was broken up with an auger to break up any coagulated sludge
6			mats and existing solids, and
7			(3) The effluent drainage line was cleaned out using an air compressor.
8		Q.	Would the Utility Cloud software that Mr. Thomas mentioned in his testimony
9	be expe	ected to	alert Confluence of a bypass of this nature?
10		A.	No. Staff does not believe remote software can detect or prevent a bypass of this
11	nature.	A byp	pass of this nature is prevented by routine physical maintenance and physical
12	evaluat	ions of	the system. Staff recommends Confluence be more diligent in conducting routine
13	physica	al main	tenance and physical evaluations of their systems. Mr. Curt B. Gateley elaborates
14	in more	e detail	on Staff's recommendations in his Direct Testimony. ⁷
15		Q.	Did Confluence's clean-up efforts to rectify the situation at Fox Run
16	satisfy	Staff?	
17		A.	Staff was partially satisfied with Confluence's clean-up efforts at Fox Run. The
18	report o	does no	t mention the removal of the partially treated wastewater from the field and access
19	road ar	nd does	not include a timeline to replace or investigate the replacement of the sand filter
20	media.	Neithe	r the DR response nor the RCA Report discuss any step Confluence is taking to
21	preven	t this fr	om happening again, such as regular sludge removal from pump stations and filter
22	media	bed ma	intenance. Staff recommends Confluence be more diligent in conducting routine
23	physica	al main	tenance and physical evaluations of their systems. In addition, Staff recommends

⁷ Curt B. Gateley Direct beginning page 13, line 8.

Confluence remediate the overflowed sewage at Fox Run, investigate if the sand filter media 1 2 needs replacing, and if the filter media requires replacing, to replace the filter media as soon as 3 possible. Lastly, Staff recommends Confluence look into its other sand filter WWTFs and see if these facilities are in need of physical maintenance to prevent additional bypasses. 4 **Updates to Maps and Legal Descriptions** 5 Has Staff reviewed Confluence's current tariffs? 6 Q. 7 A. Yes. 8 What has Staff concluded? Q. 9 A. Staff has concluded that: 10 (1) Many maps need to be updated because they are hard to read, due to outdated information and/or poor visual acuity, and therefore, it is difficult to 11 12 determine if a customer is in a particular service area, and 13 (2) Many of the legal descriptions need to be updated because they contain 14 lot numbers, subdivision boundary lines and surveying language that the 15 general public may not understand. In addition, some of the items in the legal 16 description may be outdated and have changed over time, such as individual 17 landowners' names. 18 Q. Which maps and legal descriptions of Confluence's water and sewer systems 19 need updating? 20 A. Staff has prepared Schedule DAW-r7 and Schedule DAW-r8, which show the 21 systems that require map and/or legal description updates. Below are tables that summarize 22 which maps and legal descriptions of water and sewer systems Staff recommends Confluence 23 update:

1 2

Table 1: Summary of Sewer Tariff Recommended Changes

Current Tariff #	System Name	Service Area Map and/or Legal Description
PSC MO No. 13	Roy-L	Service Area Map
	Villa Ridge	Legal Description
	Freeman Hills	Legal Description
	DeGuire	Legal Description
PSC MO No. 15	Port Perry	Service Area Map
PSC MO No. 17	Branson Cedars	Service Area Map and Legal Description
PSC MO No. 19	Terre Du Lac	Service Area Map and Legal Description
PSC MO No. 21	Missouri Utilities	Service Area Map
	State Park Village	Service Area Map
	Rainbow Acres	Service Area Map
	Twin Oaks/ Preserve	Service Area Map and Legal Description
	Berkshire Glen/Walnut Hills	Service Area Map
	Bar-B Acres	Service Area Map
	Countryside Meadows	Service Area Map and Legal Description
	Wil-mar Estates and Fox Run	Service Area Map
	Country Hill	Service Area Map
	Private Gardens/ Prairie Field	Service Area Map
PSC MO No. 23	Hillcrest	Service Area Map and Legal Description
PSC MO No. 25	Chelsea Rose	Service Area Map and Legal Description
	Cimarron Bay	Service Area Map and Legal Description
	Cedar Glen	Service Area Map
	State Route KK	Service Area Map and Legal Description
MO No. 27	Village at Whiteman	Service Area Map and Legal Description
	Hunter's Ridge	Service Area Map
	South Walnut	Service Area Map

3

1

Table 2: Summary of Water Tariff Recommended Changes

Current Tariff #	System Name	Service Area Map and/or Legal Description
PSC MO No. 12	Auburn Lakes	Service Area Map
	Majestic Lakes	Service Area Map
	Roy-L	Service Area Map and Legal Description
	Fawn Lake	Service Area Map
	Spring Branch	Service Area Map
	Evergreen Lake	Service Area Legal Description
PSC MO No. 14	Port Perry	Service Area Map and Legal Description
PSC MO No. 16	Branson Cedars	Service Area Map and Legal Description
PSC MO No. 18	Terre Du Lac	Service Area Map and Legal Description
PSC MO No. 20	Missouri Utilities	Service Area Map
PSC MO No. 22	Hillcrest Manor	Service Area Map and Legal Description
PSC MO No. 24	Chelsea Rose	Service Area Map and Legal Description
	Cimarron Bay	Service Area Map and Legal Description
	Cedar Glen	Service Area Map
	State Route KK	Service Area Map
PSC MO No. 26	Indian Hills	Service Area Map and Legal Description

3

Q. What is Staff's recommendation regarding these changes?

5

6

4

and legal descriptions with its compliance tariffs ordered by the Commission at the conclusion

Staff recommends that the Commission order Confluence to file updated maps

7

Q. Does this conclude your rebuttal testimony?

89

A. Yes it does.

A.

of this rate case.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Confluen Operating Company, Inc. Authority to Implement a Increase for Water Service Service Provided in Misse	's Request for General Rate e and Sewer)	Case No. WR-2023-0006	
A	AFFIDAVIT (OF DARONN	A. WILLIAMS	
STATE OF MISSOURI COUNTY OF COLE)) ss.			
	ntributed to th	ne foregoing R	n his oath declares that he is of ebuttal Testimony of Daronn A	
Further the Affiant say	eth not.	DARON	m G. Williams	_
		JURAT		
			d and authorized Notary Public Jefferson City, on this <u>27</u>	
DIANNA L VAUGHT Notary Public - Notary Seal STATE OF MISSOURI Cole County My Commission Expires: July 18, Commission #: 15207377	2023	Diar Notary Pu	na L. Vaust	

Daronn A. Williams

As an Associate Engineer with the Water, Sewer and Steam Department of the Commission Staff, my core duties revolve around being the lead engineer for a variety of cases such as Application for Certificate, Merger, Sale, Transfer, Rate Case, Territorial Agreement, and more filed with the Commission from water and sewer utilities. I also hold a Drinking Water Distribution Level – 1, Drinking Water Treatment Level – D, and Wastewater Treatment Level – D Operations Certification from the Missouri Department of Natural Resources.

Educational Background and Work Experience

I hold a Bachelor of Science Degree in Environmental Engineering from Missouri University of Science & Technology. Prior to starting at the Commission, in December 2018, I worked as an Environmental Engineer at the Missouri Department of Natural Resources for the Air Pollution Control Program, from January 2009 to November 2018.

Previous Testimony Before the Public Service Commission

Case Number SA-2021-0017	Company Missouri American Water Company (MAWC)	Type of Filing Surrebuttal & Live Testimony	Issue General Info & Misc.
WR-2022-0303	MAWC	Rebuttal	Class Cost of Service/Rate Design











Current Tariff #	# System Name	Service Area Map and/or Legal Description	tion Notes
	- /	Service Area Map	Not a clearly defined boundary of the service area; streets and highways not clear
	Villa Ridge	Legal Description	Includes lot numbers, surveyor's record page numbers, subdivision lines, arcs, curves and chords
	Freeman Hills	Legal Description	Includes lot numbers
	DeGuire	Legal Description	Includes lot numbers
	<u> </u>	 	
PSC MO No. 15	Port Perry	Service Area Map	Not a clearly defined boundary of the service area; streets and highways not clear
PSC MO No. 17	Branson Cedars	Service Area Map and Legal Description	Street names not clear on map; legal description uses arc lengths and chords
PSC MO No. 19	Terre Du Lac	Service Area Map and Legal Description	Not a clearly defined boundary of the service area, streets and highways not clear, service area not one defined boundary on map;
		+	legal description in "sections;" need to be one section
PSC MO No. 21	Missouri Utilities	Service Area Map	Map out of focus; can't read highway names
	State Park Village	Service Area Map	Map needs to be zoomed in; street names within subdivision would be nice
		Service Area Map	Needs street/highway names
	Twin Oaks/ Preserve	Service Area Map and Legal Description	Map needs street/highway names and zoomed in some; legal description contains curves, arc lengths and chords
		Service Area Map	Aerial imagine preferred
	Bar-B Acres	Service Area Map	Not a clearly defined boundary of the service area; streets and highways not clear
	Countryside Meadows	Service Area Map and Legal Description	Highway names not clear on map; legal description too vague
	Wil-mar Estates and Fox Run	Service Area Map	Aerial imagine preferred; county unclear
		Service Area Map	Aerial imagine preferred; county unclear; zoomed too far out
	Private Gardens/ Prairie Field	Service Area Map	Aerial imagine preferred; needs to be zoomed in
PSC MO No. 23	Hillcrest	Service Area Map and Legal Description	Map is hard to read, no roads/highways, aerial imagine preferred; legal description uses land owner's names
PSC MO No. 25	Chelsea Rose	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description is too vague
		Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description uses lot numbers and is too vague
1		Service Area Map	Map is hard to read, aerial imagine preferred
		Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description uses plat book/page numbers
MO No. 27	Village at Whiteman	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred, more street names preferred; legal description needs to match map (without Tract 1 & Tract 2
1	Š	Service Area Map	Aerial imagine preferred
í		Service Area Map	Map is hard to read, aerial imagine preferred
	Journ V. aa.	Del vice / ii eaap	Indep is hard to read, derial inagine presented

Current Tariff #	System Name	Service Area Map and/or Legal Description	Notes
PSC MO No. 12	Auburn Lakes	Service Area Map	Please add street/ highways names (esp. withing service area) and remove shading inside service area
	Majestic Lakes	Service Area Map	Please add street/ highways names (esp. withing service area) and remove shading inside service area
	Roy-L	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description is too vague
	Fawn Lake	Service Area Map	Please add street/ highways names (esp. withing service area)
	Spring Branch	Service Area Map	Please add street/ highways names (esp. withing service area)
	Evergreen Lake	Legal Description	Legal Description discusses an "exception area" that's not shown on map; updated language suggested to match map
PSC MO No. 14	Port Perry	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description is too vague by using "County Rd" and "Public Rd"
DCC MO No. 46	Daniel Carlons	Continue Managed Land Description	Street names not clear and red line for hwy might be confusing on map; legal description doesn't have county name, uses surveying language (arcs, curves &
PSC MO No. 16	Branson Cedars	Service Area Map and Legal Description	chords), "T" for township and directions (N and W) not capitalized
PSC MO No. 18	Terre Du Lac	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred, map should be one contiguous boundary; legal description needs to describe one contiguous area
PSC MO No. 20	Missouri Utilities	Service Area Map	Can't read street and highway names, more street names preferred
PSC MO No. 22	Hillcrest Manor	Service Area Map and Legal Description	Map is hard to read, aerial imagine with street names preferred; legal description uses land owner names
PSC MO No. 24	Chelsea Rose	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred; legal description is too vague
	Cimarron Bay	Service Area Map and Legal Description	Map is hard to read, aerial imagine preferred, title spells "Cimmarron" with one "R" and it should be two "Rs"; legal description uses lot numbers and is too vague
	Cedar Glen	Service Area Map	Map is hard to read, aerial imagine preferred
	State Route KK	Service Area Map	Map is hard to read, aerial imagine preferred
PSC MO No. 26	Indian Hills	Service Area Map and Legal Description	Street names on map preferred; point to point description is preferred for the legal description



Environmental Incident Investigation and Root Cause Analysis

					J
The person completing the Form:	Brady Graves		Incident Location:		Kearney, MO
Project:	Fox Run		Incident Da	cident Date: 04/11/23	
Root Cause	Factor? X = Yes	Rank 1 = Low 5 = High		Description	
	Why was equipment or ma		ıse?	T	
A. Defective or failed part of	of the equipment				
B. Error by manufacturer					
C. Did not perform prevent did not perform the task in a		X	4		t pump stations need regular solids al. This has not been done in a timely r.
D. Was equipment operate	ed improperly				
E. Chemical specification p	problem				
F. Other		х	5	solids a	media in bed is highly packed with and is slowing down the rate of n, causing the bed to fill up and w.
2. Procedure – Why was	the procedure a cause?		_		
A. Inadequate procedure					
B. Lack of procedure					
C. Procedure not followed					
3. Human Error – Why wa	as human error a cause?				
A. Aware of poor judgment	/ bad decision				
B. Inattention to detail					
C. Violation of requirement					
D. Communication problem					
E. Other human error (lack					
tiredness, hurried, lapse, et					
	Why was training deficienc		1		
A. No training provided					
B. Insufficient practice or C	DJT				
C. Inadequate content					
D. Inadequate refresher tra	aining				
E. Inadequate presentation	n of materials				
	 Why was management p 	roblem a ca	use?		
A. Work organization/plann	ning deficiency				
B. Inadequate supervision					
C. Improper resource alloc					
D. Procedure not adequate or enforced					
E. Other management prob					
6. Facility Factors - Why		1	1		
A. Raw water out of spec of above design					
B. Flow too high or excess	ive water demand				
C. Solids handling issue	Х	4		nt pump stations need regular solids al. This has not been done in a timely r.	
D. Man-machine interface	problem				
E. Instrumentation problem	ı				

F. Inadequate backup or st								
G. Other								
7. Process Control - Why	7. Process Control – Why was process control a cause?							
A. Inadequate control proce	ess							
B. Inadequate PCMP imple	ementation							
C. Nutrient imbalance								
D. Disinfection problem								
E. Inadequate mass balance	ce							
F. Coagulation problem								
8. External Factors – Why	were external factors a ca	ause?						
A. Weather / environmenta	1							
B. Fire or explosion								
C. Security (assault, tampering, sabotage)								
D. Contractor								
E. Other								
	Ca	tegory Sun	nmary					
Category	Category Description							
1. Equipment /	Solids need to be removed	d from tanks	, and filter m	edia is packed with solids.				
Material								
2. Procedure								
3. Human Error								
4. Training Deficiency								
5. Management								
Problem								
6. Facility Factors	eed solids re	moved to pre	event pumping more solids to filter media.					
7. Process Control								
8. External Factors								

Comments:

Filter media may still need to be replaced. Once operations auger the media and conduct additional filtration testing, we will better understand whether the media will require replacement.

Samples were collected in the bypass stream entering the creek for BOD, TSS, NH3, and e-Coli and sent to a third-party laboratory for analysis.

MODNR was notified via MOGEM on 4.11.23

Given the above contributive factors, what corrective action(s) will be taken to prevent a repeat of this type of incident? Provide action(s) and planned completion date(s).

Root Cause	Corrective Action	Responsible Person	Planned Completion Date
Filter media is packed with	Sand filter media replacement. TBD if applicable		TBD if applicable
solids.			
Pump stations have a high	Sludge removal from pump stations.	H&H Septic	4.21.23
level of solids.			
Filter media age.	Auger filter media to break up any	David Duncan	4.17.23
	coagulated sludge mats and existing	CWS	
	solids.		

Excessive sludge in filter media	Clean out the effluent drainage	David Duncan	4.19.23
is slowing drainage to the 80/20	line using an air compressor.	CWS	
valve.			

Date

Reviewed and approved by:

CSWR RM

4.18.23