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Exhibit No. 203

OPC – Exhibit 203
Robinette
Surrebuttal
File No. WR-2023-0344

Exhibit No.: _____
Issue(s): Depreciation Reserve Transfers/ Water Loss and Distribution Mains Operation/ Maintenance Expense
Witness/Type of Exhibit: Robinett/Surrebuttal
Sponsoring Party: Public Counsel
Case No.: WR-2023-0344

SURREBUTTAL TESTIMONY

OF

JOHN A. ROBINETT

Submitted on Behalf of the Office of the Public Counsel

RAYTOWN WATER COMPANY

CASE NO. WR-2023-0344

November 8, 2023

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SURREBUTTAL TESTIMONY
OF
JOHN A. ROBINETT
THE RAYTOWN WATER COMPANY

CASE No. WR-2023-0344

Q. What is your name and what is your business address?

A. John A. Robinett, PO Box 2230, Jefferson City, Missouri 65102.

Q. Are you the same John A. Robinett who filed direct testimony on behalf of the Missouri Office of the Public Counsel ("OPC") in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. First, I will address the rebuttal testimony of Staff witness Ms. Angela Niemeier. Then, I will address concerns related to values provided by Staff and Raytown for distribution mains operation and maintenance expense.

Additionally, I will discuss the rebuttal testimony of Mr. David A. Spratt and Mr. Daronn A. Williams about the water loss amount in Staff's recommendation and its relationship to the Non-Unanimous Stipulation and Agreement's ("Agreement") operation and maintenance ("O&M") expense for water mains. Finally, I will address the rebuttal testimony of Raytown witness Ms. Chiki Thompson related to operations and maintenance expense.

DEPRECIATION RESERVE

Q. What was Staff's response to your concerns about its removal of depreciation reserve from fully accrued accounts?

A Staff's response appears in Ms. Angela Niemeier's rebuttal testimony, beginning at page 2 line 18 and continuing through page 3 line 16. Her testimony states as follows:

DEPRECIATION RESERVE

Q. In his direct testimony, page 9 lines 19-20, Mr. Robinett states, "Staff has removed the depreciation reserve accruals that exceed the original plant investment value". How does Staff respond?

A. In an attempt to correct the over recovery of four depreciation reserve account balances, Staff made an adjustment to these accounts to remove the over recovery. These accounts are 346.1 Meters-Bronze Chamber, 395 Laboratory Equipment, 396 Power Operated Equipment, and 397 Communication Equipment.

Q. Was Staff's adjustment made in error?

A. It was not an error to make these adjustments. However, there was a second step to the process that Staff inadvertently omitted. Staff should also have transferred the over recovery amounts to other depreciation reserve accounts that are not over-accrued. This would have restored the amount that ratepayers have overpaid for those assets, thus making the ratepayer whole.

Q. Did Staff correct the depreciation reserve balances?

A. Staff is currently working with Staff's depreciation department to transfer the over recovery of depreciation reserve to accounts that are no over-accrued.

Q. Does Staff agree with Mr. Robinett's calculation of the amount?

A. No. When Staff made the same calculation, the decrease to revenue requirement should be $4,297, while Mr. Robinett claims the value is $3,506.

Staff disagrees that not reallocating the depreciation reserve was an error, phrasing the mistake instead as an "inadvertently[-]omitted" second step. Staff also indicated that I missed an additional, fully-accrued account that had reserve adjusted out without it being transferred to another account that was not fully depreciated.

Q. Does Staff indicate where it will place the removed reserves in testimony?

A. No. As the testimony above indicates, Auditing Staff is planning on working with Staff's depreciation department to determine where to transfer the depreciation reserves.

Q. Do you have an opinion on where the depreciation reserves that Staff removed should be placed?

A. Yes, I do. The removed reserves should first be placed into account 346.000 for Raytown's plastic meters that are currently in the process of being replaced. Once account 346.000 for

meters has been fully recovered, I recommend that the remaining reserve balance be transferred into account 346.200, meters-hot rod. This account has more than enough plant that still needs to be collected and can easily absorb the remaining reserve without the need to shutoff depreciation expense to another account.

Q. Does your recommendation, placing reserves against the existing meters in account 346 and the remaining reserve against account 346.200 meters-hot rod, require any other adjustments to Staff's revenue requirement?

A. Yes. Staff should also remove the depreciation expense included in its case for the plastic meters going forward. Placing the removed reserve into that account will make Raytown whole for the existing meters so the Company will not need to continue depreciating them.

Q. What is the revenue requirement impact of ceasing to depreciate the existing meters?

A. The revenue requirement that Staff and Raytown agreed to would decrease by a further $35,624 if depreciation on the existing meters ended. There would be no revenue requirement impact for the shifting of reserves to account 346.200 for meters-hot rod except for the initial reduction resulting from placing reserves back in to reserve accounts that had been removed but not transferred.

Operation and Maintenance Expense/ Water Loss

Q. Do you know of which Commission-Staff Division and Department Mr. Spratt and Mr. Williams are members?

A. Yes. Mr. Spratt and Mr. Williams are in the Water, Sewer, & Steam Department of the Industry Analysis Division of the Missouri Public Service Commission.

Q. Did either Mr. Spratt or Mr. Williams attach the Water and Sewer Department Report?

A. No.

Q. What has Staff included for non-labor O&M expense for distribution mains?

A. The Accounting Schedule 09, which was attached to Staff witness Mr. Keith Foster's direct testimony, includes an annual value for non-labor O&M of $494,681. Staff and Raytown provide a slightly different value for distribution main O&M expense of $490,641 for account 673.000 Maint. of Transmission & Distribution Mains in the ratemaking income statement which is Attachment A to the stipulation.

Q. Are those values consistent with numbers previously ordered or stipulated to?

A. No. Schedule JAR-S-1, attached, is the O&M value, $245,324, that was included in the 2015 rate proceeding. Attached Schedule JAR-S-2 is the $170,140 O&M value from the 2020 rate proceeding. Finally, attached as Schedule JAR-S-3, is Raytown's response to Staff data request number 0022, which sought the expense to capitalization ratio for distribution mains account 673. The values included in response to Staff data request 0022 are $217,196 for 2020, $217,196 for 2021 and $474,606 for 2022 for maintenance expense on distribution mains account 673.

Q. Did Staff or Raytown address either the distribution mains maintenance expense or the Company's water loss as part of their direct or rebuttal recommendations?

A. Staff just included in attached accounting schedules and audit memorandum without direct testimony discussion. Raytown briefly discussed the water loss issue and mentioned the City of Kansas City replacing the meters connected to Raytown. However, there was no discussion related to the continuing nature of the much higher expense.

Q. Do you have any corrections to make to your recommendation on O&M disallowance?

A. Yes.

Q. Why are you making this change?

A. OPC submitted a data request 8517 to Raytown to confirm the values of its response to Staff data 0022 in which Raytown's response indicated identical values for 2020 and 2021 for distribution main operation and maintenance expense. Raytown, in response to OPC data request 8517, indicated the values in its initial response were in error and provided updated value in response to OPCs data request. My edit will reflect a new number based on the information provided in response to OPC data request 8517 is attached as Schedule JAR-S-4.

Q. What are the values for O&M expense on mains from the response to OPC data request number 8517?

A. According to the corrected response for Staff data request 0022 given in response to OPC data request 8517 asking for confirmation of expense values, Raytown states that it expended for 2020 $217,196 consistent with Raytown's response to Staff data request 0022, $344,678 for 2021, and $474,606 for 2022.

Q. What are the values for distribution mains that have been capitalized from the response to OPC data request number 8517?

A. According to the corrected response for Staff data request 0022 given in response to OPC data request 8517 asking for confirmation of expense values, Raytown states that it capitalized for distribution mains $61,243 in 2020, $613,687 in 2021, and $948,536 in 2022.

Q. What is your recommended value for O&M expense and how was it calculated?

A. I recommend an annual O&M expense of $345,494 for distribution mains, account 673, based on the three year average of the Company's response to OPC data request 8517 and the corrected response to Staff data request 0022.

Q. How does that compare to Staff's recommended level?

A. The Accounting Schedule 09, attached to Mr. Foster's direct testimony, includes an annual value for non-labor O&M of $494,681. Attachment A, in the Agreement's ratemaking income statement, differs slightly from Mr. Foster's testimony for distribution main O&M expense, $490,641 for account 673.000 Maint. of Transmission & Distribution Mains. My recommended average value of $345,494 for distribution mains O&M is approximately $150,000 less that what Raytown and Staff included in the Agreement.

Q. Did Raytown have anything to say about the issues of water loss and operation and maintenance expense you raised in direct testimony?

A. Ms. Chiki Thompson addresses these issues starting at page 11 line 4 continuing to page 13 line 12. She further discusses Raytown regularly selling more water than it purchased and supports relying on the 2020 water loss values.

Q. What is your opinion of the water loss value from the 2020 rate case?

A. My opinion is that the 2020 water loss value is also highly flawed. Reviewing the water-loss number from the 2020 rate case, it is clear that Staff did not calculate the 12.04% loss amount in the way most would expect. Rather than a simple average over three consecutive years, Staff removed three values that it identified as "outliers" from the average to begin with. Two "outliers" were around 3% loss and one "outlier" was 25% loss. Staff then adjusted another value after a hydrant was hit in RWC's territory, and averaged this adjusted value with the two other, unadjusted values to create the average. This methodology creates a question as to the validity of the water-loss data from the 2020 case.

Q. Do you have a water loss recommendation?

A. Yes. Ultimately the best course of action is to utilize the entire history of water loss as it has varied over time. After averaging *all* of the data, the average water loss value from 2009 through 2022 is approximately 10.12%. I did not throw out any data as provided in my direct testimony showing the water loss fluctuations since 2009.

work papers WR-2015-0264					
	Gallons purchased	**Gallons sold**	**Loss Factor**	**% Loss**	
2009	424,215,484	409,062,700	15,152,784	3.57%	
2010	434,197,544	404,723,500	29,474,044	6.79%	
2011	441,164,416	384,003,472	57,160,944	12.96%	
2012	522,747,280	421,524,840	101,222,440	19.36%	
2013	410,312,408	381,695,600	28,616,808	6.97%	
2014	464,466,860	447,396,000	17,070,860	3.68%	
work papers WR-2020-0264					
	Gallons purchased	**Gallons sold**	**Loss Factor**	**% Loss**	*Data obtained from DR 7*
2014	393,417,867	378,281,800	15,136,067	3.85%	
2015	428,441,684	373,381,300	55,060,384	12.85%	
2016	429,493,372	383,107,700	46,385,672	10.80%	
2017	394,310,444	378,916,600	15,393,844	3.90%	
2018	444,218,711	364,247,900	79,970,811	18.00%	
2019	467,929,706	346,845,488	121,084,218	25.88%	
3 yr avg	435,486,287	363,336,663	72,149,624	**15.93%**	
work papers WR-2023-0344					
2018	444,218,711	364,247,900	79,970,811	18.00%	*Data obtained from WR-2020-0264 Staff Purchased Water WP*
2019	**467,929,716**	346,845,488	121,084,228	25.88%	*Data obtained from WR-2020-0264 Staff Purchased Water WP*
2020	413,046,535	352,841,100	60,205,435	14.58%	*WR-2023-0344 DR 7*
2021	343,445,694	338,093,900	5,351,794	1.56%	*WR-2023-0344 DR 7*
2022	338,156,783	336,135,700	2,021,083	0.60%	*WR-2023-0344 DR 7*
3 yr avg	**364,883,004**	**342,356,900**	**22,526,104**	**5.58%**	

The only changes I made when using the data sets were deleting duplicate data points, so I did not use two 2020 or two 2014 numbers. Also, in an instance of conflicting percentages I used the higher number. The average I calculated was a 10.12% for the entire time period of 2009 to 2022. This calculation was previously provided to Staff and Raytown as part of my direct testimony work papers.

Q. What is the importance of the water loss percentage calculation?

A. The water loss percentage calculation by itself seems insignificant except when used to look at how the utility is operating as was discussed in my direct testimony. The recent

data is supportive of expectations with increased capital expenditures since to 2020 rate case. If new mains are being placed into the ground you would expect to see decreased O&M and a decrease in water loss. One of these occurs according to the data, however, maintenance expense has continued to increase despite the increased capitalization that has occurred in account 343 distribution mains since 2020. Water loss showed a trend downward as would be expected with increases in capitalization and maintenance expense.

Q. Ms. Thompson discusses the increase in the cost of new hydrants on page 13 of rebuttal testimony lines 6 through 12. Did you recommend any disallowance for hydrant expense or recommend a disallowance related to hydrants?

A. No. My recommendation was solely on distribution mains. Since hydrants are counted for separately in a difference expense and plant account, the increase in price for a hydrant has zero effect on the distribution mains accounts.

Q. Have you reviewed the 2015, 2020, and 2023 Staff water and sewer reports attached to each of the disposition agreements?

A. Yes.

Q. Is there anything present in the reports for 2015 and 2020 that appears to be missing from the 2023 report?

A. Yes. The 2015 and 2020 reports clearly discuss the condition of the distribution mains and describe them as corroded and leaking. The 2015 and 2020 report are attached as schedules JAR-S-5 and JAR-S-6.

Q. Does the 2023 Water and Sewer report discuss corrosion and leakage?

A. No. Attached as Schedule JAR-S-7 is the water and sewer report from the 2023 Agreement. This report was not attached to anyone's direct testimony or rebuttal testimony for Staff in

this case. Further, the report does not state that the system is experiencing leaks or that the system has corroded piping that needs to be replaced. In fact, Staff stated the following in its introduction paragraph, "At the time of Staff's inspection the facilities appeared to be operating routinely." Further, in its summary, Staff wrote, "Staff has no specific recommendations at this time regarding operations. Staff has not received any customer complaints nor customer comments that would indicate significant shortcomings from an operations perspective."

Q. How do you respond to Mr. Williams' discussion from page 3 line 17 through page 4 line 15 indicating the water and sewer report didn't discuss the water loss excessive leaks or the fact that the utility sold more water than it purchased for fourteen months since the last case?

A. Mr. Williams believes the problems are fixed and Staff was conservative using data from the 2020 case on water loss

Q. Do you have concerns with Staff's belief that the 2020 data it relied upon was a conservative value?

A Yes. A review of the work paper that supported Staff's Water loss data from the 2020 case shows some questionable decisions in deeming it a conservative estimate and a good base for the number. The following is a photo snippet of the work paper from the 2020 case that was used to calculate Staff's conservative water loss value.

		Gallons purchased	Gallons sold	Loss Factor	% Loss	Data obtained from DR 7
	2014	393,417,867	378,281,800	15,136,067	3.85%	
	2015	428,441,684	373,381,300	55,060,384	12.85%	
	2016	429,493,372	383,107,700	46,385,672	10.80%	
	2017	394,310,444	378,916,600	15,393,844	3.90%	
Adjusted -28,125,000 for hydrant leak →	2018	416,093,711	364,247,900	51,845,811	12.46%	
	2019	467,929,706	346,845,488	121,084,218	25.88%	
	3 yr avg	426,111,287	363,336,663	62,774,624	**12.04%**	Highlighted years excluded from the average as outliers.

First, the work papers provide six years of gallons purchased, gallons sold, and the

calculated percentage of water loss. Staff's "conservative number" throws away half of the data as outliers. Then, more concerning, Staff adjusts one third of the remaining "good data" to create the 12.04% value.

Q. Staff's 2023 water and sewer report discusses the following statement:

> ***Suez has also been working with RWC to replace all of the water meters to new Advanced Meter Infrastructure (AMI) technology to increase reliability and decrease water loss reporting.***

Mr. Williams' statements on page 5 lines 4 through 8:

> ***Q. So, an important part of being able to identify 'lost' water is also ensuring accurate customer meters as well?***
>
> ***A. Yes. RWC's efforts to replace older customer meters in its system will improve the quality of data so that other sources of non-revenue water can be identified, including actual loss.***

What is your response to these two statements?

A. I struggle to answer this question when the data is critically flawed. I don't know how or if the AMI meters will lower the reported water loss as there is no reliable baseline off of which to judge this statement or measure the results. Additionally, there is no discussion in Staff's 2023 water and sewer report about Raytown's meters being defective. In fact, Staff's own data shows that Raytown's meters registered more water sold than the City of Kansas City's meters showed purchased on fourteen monthly instances since the 2020 rates case.

Q. Do you agree with Mr. Williams' claim on pages 5 and 6 where he states that Raytown sold more water than they bought in 2020, 2021, 2022?

A. No. I strongly disagree with his statement. As the data, provided above, shows, each of the years 2020, 2021 and 2022 have more water purchased from City of Kansas City than sold by Raytown. While I agree that there are instances where Raytown sold more water than

they purchased *on a monthly basis* since the last rate case, in all three years gallons purchased is more than gallons sold, meaning more purchases than sales. Mr. Williams' statement is mathematically false.

Q. Mr. Williams supplies an American Water works Association chart for water loss. Does the level of detail present in the chart exist for Raytown?

A. My review of Staff work papers for the previous two rate cases and this case do not indicate that the level of detail shown in this chart exists for Raytown. Therefore, Mr. Williams' point misses the mark. I utilized the data Raytown and Staff's work papers presented and reviewed that information, which clearly shows the same level of detail does not exist for Raytown, currently. Mr. Williams makes no recommendation in the water and sewer report that Staff needs or expects this level of detail in the water loss data that its largest small water company provides.

Q. How do you respond to Mr. Williams' statements on the bottom of page 6 concerning an acceptable level of non-revenue water?

A. Mr. Williams states generally that there is no acceptable value for non-revenue water that applies to all systems. However, Mr. Williams then makes generalized statements about what a utility *should* do and how Staff examines various factors before making a recommendation. Ultimately, Staff's recommendation is a non-recommendation. Mr. Williams states that the City of Kansas City's meters have been replaced, Raytown's meters are being replaced, all of the problems are solved, and no changes are necessary.

Q. On page 7 of Mr. Williams' rebuttal testimony he alludes to your recommendation as punishing the utility. Do you agree with Mr. Williams?

A. No. It is the utility's burden to prove their case. Furthermore, as I discussed earlier, I had questions related to Raytown's response to Staff data request 0022 related to distribution mains maintenance expense being identical for 2020 and 2021 coupled with a large jump in 2022 expense. As was discussed earlier OPC was provided in response to data request 8517 a correct response to Staff data request 0022 in which the 2021 value for maintenance expense on distribution mains was changed so it is no longer identical to 2020. Additionally, Staff did not and has not described why it included the much higher 2022 number rather than a three year average.

Q. How do you respond to the chart that Mr. David Spratt placed in his testimony related to the cases where there has been an agreed to increase that exceeds the initial request of the utility in water and sewer cases?

A. Mr. Spratt's table, in my opinion, gives further credence to the need for additional notice as the amount above the request in this case exceeds the highest listed value in his table by four times the largest monetary difference of the examples he provided.

Q. How do you respond to Mr. Spratt's statement that we had a local public hearing and no one showed and we have only had 5 filed comments?

A. This in my opinion is a problem with the current small water and sewer assisted rate case rule. This rule requires a local public hearing to be held within the first 60 days of the case being filed. At day 60 parties are still seeking information and developing their audits. Numbers are not known or projected to what they may be at this time. Staff and OPC initial audits are due at day 90 which is the starting point of knowing potentially where this case may fall in terms

of a potential increase. This rule is truly calling for notifying the public before it is really known what the value may be that actually affects them going forward. A better time to hold these local public hearings is after the initial audits are exchanged and all parties have an idea of where the case stands and the information provided to customers is not just based on the utility's initial estimate that may be widely wrong as is seen in the case at hand.

Q. Do you agree with Mr. Williams' statements that you are punishing the utility for prudent investments?

A. No. My disallowance was related to O&M annual maintenance expense. I did not disallow any capital investments related to distribution mains. Staff has provided to date not a single discussion about where their value for distribution maintenance expense comes from. Staff's number is higher than what Raytown provided in response to Staff data request 0022 for the value from 2022, and Staff's number is $150,000 higher than the three year average from 2020, 2021, and 2022.

Q. How do you respond to Mr. Williams' statements as a whole?

A. Mr. Williams seems to misunderstand which party has the burden of proof. My duty is to make sure that Staff and the utility presented their case with numbers that have sufficient support. In my mind, Staff has failed to support the numbers highlighted by the Agreement it made with RWC. In my view, the OPC's skepticism towards the numbers present in Staff's case is not only reasonable, but necessary to protect the public from receiving rate increases based on unreliable data.

Q. Did you issue any data requests to Staff as part of your investigation in this case?

A. Yes, I did. Some of the responses raised some concerns and caused the need for additional requests to be made. Attached as Schedule JAR-S-8 are Staff's responses to data requests that caused me concern.

Q. What is your opinion of Staff's response to data request 0128 and 0143?

A. There appears to be a disconnect between Staff's DR responses and Mr. Williams' rebuttal testimony, claiming the water-loss-data problem is solved and the causes have been determined. Mr. Williams has been identified as the respondent to data request 0143 but Staff's response there is that it has not identified any date to begin collecting future water loss data that is accurate. This response conflicts with Mr. Spratt's response to data request 0128, which indicated that, although it was a small sample size, the data was of a higher quality. When the OPC asked whether Staff's Water, Sewer, & Steam Department assessed Raytown's physical system, Mr. Spratt responded that it is not Staff's job to do additional analysis for OPC.

Q. What is your opinion of Mr. Spratt's response to data request 0128?

A. Staff did not provide any analysis in this case related to water loss. Staff's auditing department made the statement in their memo that Raytown sold more water than it purchased during fourteen months since the end of the 2020 rate case. Therefore, Staff utilized the 2020 water loss value, but as I discussed earlier in this testimony, the data from that 2020 rate case is highly questionable at best. Again, Staff eliminated or altered 66% of the data related to water loss as inaccurate in that case.

However, a review of the table I presented in my direct testimony, and again on page 9 of this testimony, indicates the water loss data has heavily fluctuated from 2009 through

2022. If Staff's method of calculating the water-loss data in the 2020 case reflects its method of calculating data, generally, I question whether the data has ever been accurate since Staff began employing this method.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of a Rate	)	
Increase of Raytown Water Company	)	Case No. WR-2023-0344

AFFIDAVIT OF JOHN A. ROBINETT

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

John A. Robinett, of lawful age and being first duly sworn, deposes and states:

1. My name is John A. Robinett. I am a Utility Engineering Specialist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

John A. Robinett
Utility Engineering Specialist

Subscribed and sworn to me this 8th day of November 2023.

TIFFANY HILDEBRAND
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES AUGUST 8, 2027
COLE COUNTY
COMMISSION #15637121

My Commission expires August 8, 2027.

Tiffany Hildebrand
Notary Public

Raytown Water Company
Case No. WR-2015-0246
Test Year Ending 12-31-2014
Update Period 7/15/2015, EMS Updated 8/13/2015
Income Statement

Line Number	A Category Description	B Total Test Year	C Test Year Labor	D Test Year Non Labor	E Adjustments	F Total Company Adjusted	G Jurisdictional Adjustments	H MO Final Adj Jurisdictional	I MO Juris. Labor	J MO Juris. Non Labor
1	TOTAL OPERATING REVENUES	$3,509,632	See Note (1)	See Note (1)	See Note (1)	$3,509,632	$118,880	$3,628,512	See Note (1)	See Note (1)
2	TOTAL SOURCE OF SUPPLY EXPENSES	$1,237,850	$0	$1,237,850	$67,286	$1,305,136	$0	$1,305,136	$0	$1,305,136
3	TOTAL PUMPING EXPENSES	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	TOTAL WATER TREATMENT EXPENSES	$0	$0	$0	$0	$0	$0	$0	$0	$0
5	TOTAL TRANSMISSION & DIST. EXPENSES	$408,633	$141,506	$267,127	-$21,568	$387,065	$0	$387,065	$141,741	$245,324
6	TOTAL CUSTOMER ACCOUNTS EXPENSE	$294,466	$251,284	$43,182	-$13,974	$280,492	$0	$280,492	$251,700	$28,792
7	TOTAL CUSTOMER SERVICE EXPENSES	$12,280	$9,504	$2,776	-$348	$11,932	$0	$11,932	$9,520	$2,412
8	TOTAL SALES PROMOTION EXPENSES	$0	$0	$0	$0	$0	$0	$0	$0	$0
9	TOTAL ADMIN. & GENERAL EXPENSES	$886,868	$202,265	$684,603	$67,100	$953,968	$0	$953,968	$202,600	$751,368
10	TOTAL DEPRECIATION EXPENSE	$323,238	See Note (1)	See Note (1)	See Note (1)	$323,238	$46,630	$369,868	See Note (1)	See Note (1)
11	TOTAL AMORTIZATION EXPENSE	$0	$0	$0	$5,980	$5,980	$0	$5,980	$0	$5,980
12	TOTAL OTHER OPERATING EXPENSE	$16,814	$0	$16,814	-$4,431	$12,383	$0	$12,383	$0	$12,383
13	TOTAL TAXES OTHER THAN INCOME	$171,099	$0	$171,099	$4,043	$175,142	$0	$175,142	-$343	$175,485
14	TOTAL OPERATING EXPENSE	$3,351,248	$604,559	$2,423,451	$104,088	$3,455,336	$46,630	$3,501,966	$605,218	$2,526,880
15	NET INCOME BEFORE TAXES	$158,384	$0	$0	$0	$54,296	$72,250	$126,546	$0	$0
16	TOTAL INCOME TAXES	$38,953	See Note (1)	See Note (1)	See Note (1)	$38,953	-$31,787	$7,166	See Note (1)	See Note (1)
17	TOTAL DEFERRED INCOME TAXES	$0	See Note (1)	See Note (1)	See Note (1)	$0	$25,733	$25,733	See Note (1)	See Note (1)
18	NET OPERATING INCOME	$119,431	$0	$0	$0	$15,343	$78,304	$93,647	$0	$0

(1) Labor and Non Labor Detail not applicable to Revenue & Taxes

Accounting Schedule: 09
Sponsor: Paul R. Harrison

JAR-S-1

The Raytown Water Company
Case No. WR-2020-0264
Test Year Ending 12/31/2019
Updated Through June 30, 2020
Income Statement Detail

Line Number	A Account Number	B Income Description	C Test Year Total (D+E)	D Test Year Labor	E Test Year Non Labor	F Adjust. Number	G Total Company Adjustments (From Adj. Sch.)	H Total Company Adjusted (C+G)	I Jurisdictional Allocations	J Jurisdictional Adjustments (From Adj. Sch.)	K MO Final Adj Jurisdictional (H x I) + J	L MO Adj. Juris. Labor	M MO Adj. Juris. Non Labor L + M = K
Rev-1		OPERATING REVENUES											
Rev-2	461.100	Residential	$3,026,153	See note (1)	See note (1)	Rev-2	See note (1)	$3,026,153	100.00%	$69,211	$3,095,364	See note (1)	See note (1)
Rev-3	461.110	Commercial	$400,006			Rev-3		$400,006	100.00%	$21,255	$421,261		
Rev-4	0.000	Industrial	$0			Rev-4		$0	100.00%	$0	$0		
Rev-5	462.000	Private Fire Protection	$17,686			Rev-5		$17,686	100.00%	-$2,018	$15,668		
Rev-6	0.000	Public Fire Protection	$0			Rev-6		$0	100.00%	$0	$0		
Rev-7	0.000	Other Public Auth.	$0			Rev-7		$0	100.00%	$0	$0		
Rev-8	0.000	Sales for Resale	$0			Rev-8		$0	100.00%	$0	$0		
Rev-9	0.000	Other Water Revenue - Oper. Rev.	$414,987			Rev-9		$414,987	100.00%	-$29,581	$385,406		
Rev-10		TOTAL OPERATING REVENUES	$3,858,832					$3,858,832		$58,867	$3,917,699		
1		SOURCE OF SUPPLY EXPENSES											
2	600.000	Operation Supervision & Engineering	$0	$0	$0	E-2	$0	$0	100.00%	$0	$0	$0	$0
3	601.000	Operation Labor & Expenses	$0	$0	$0	E-3	$0	$0	100.00%	$0	$0	$0	$0
4	602.000	Purchased Water	$1,513,915	$0	$1,513,915	E-4	-$166,826	$1,347,089	100.00%	$0	$1,347,089	$0	$1,347,089
5		TOTAL SOURCE OF SUPPLY EXPENSES	$1,513,915	$0	$1,513,915		-$166,826	$1,347,089		$0	$1,347,089	$0	$1,347,089
6		PUMPING EXPENSES											
7		TOTAL PUMPING EXPENSES	$0	$0	$0		$0	$0		$0	$0	$0	$0
8		WATER TREATMENT EXPENSES											
9		TOTAL WATER TREATMENT EXPENSES	$0	$0	$0		$0	$0		$0	$0	$0	$0
10		TRANSMISSION & DIST. EXPENSES											
11	660.000	Operation Supervision & Engineering - T&D	$61,666	$55,305	$6,361	E-11	$15,451	$77,117	100.00%	$0	$77,117	$71,152	$5,965
12	662.100	Water Samples	$3,076	$2,326	$750	E-12	$1,456	$4,532	100.00%	$0	$4,532	$2,993	$1,539
13	663.000	Meter Testing	$215	$15	$200	E-13	$4	$219	100.00%	$0	$219	$19	$200
14	664.000	Customer Installations Expenses - T&D	$0	$0	$0	E-14	$0	$0	100.00%	$0	$0	$0	$0
15	665.000	Miscellaneous Expenses - T&D	$0	$0	$0	E-15	$0	$0	100.00%	$0	$0	$0	$0
16	666.000	Rents - T&D	$0	$0	$0	E-16	$0	$0	100.00%	$0	$0	$0	$0
17	671.000	Maint. of Structures & Improvements - T&D	$0	$0	$0	E-17	$0	$0	100.00%	$0	$0	$0	$0
18	672.000	Maint. Of Towers / Tower Utilities	$17,255	$4,072	$13,183	E-18	$1,840	$19,095	100.00%	$0	$19,095	$5,239	$13,856
19	673.000	Maint. Of Mains / Tools Purch-Rpr / Gen. Supp. / Maint. Of Valves / Line Locates	$202,148	$31,978	$170,170	E-19	$9,131	$211,279	100.00%	$0	$211,279	$41,139	$170,140
20	675.000	Maint. of Services - T&D / Maint. Of Customer Meter Wells	$34,037	$2,293	$31,744	E-20	$633	$34,670	100.00%	$0	$34,670	$2,950	$31,720
21	676.000	Maint. of Meters - T&D / Meter Tools/Equipment	$754	$1,773	-$1,019	E-21	$488	$1,242	100.00%	$0	$1,242	$2,281	-$1,039
22	677.000	Maint. of Hydrants - T&D / Hydrant Accident Rprs	$735	$464	$271	E-22	$125	$860	100.00%	$0	$860	$597	$263
23		TOTAL TRANSMISSION & DIST. EXPENSES	$319,886	$98,226	$221,660		$29,128	$349,014		$0	$349,014	$126,370	$222,644
24		CUSTOMER ACCOUNTS EXPENSE											
25	901.000	Supervision	$0	$0	$0	E-25	$0	$0	100.00%	$0	$0	$0	$0
26	902.000	Meter Reading Cus Acct Expense / Uniforms	$97,656	$55,915	$41,741	E-26	$20,056	$117,712	100.00%	$0	$117,712	$71,936	$45,776
27	903.000	Customer Accounting / Customer Turn On-Off	$215,982	$213,370	$2,612	E-27	$60,857	$276,839	100.00%	$0	$276,839	$274,507	$2,332
28	904.000	Uncollectible Customer Account	$20,532	$0	$20,532	E-28	$738	$21,270	100.00%	$0	$21,270	$0	$21,270
29	905.000	Misc. Customer Accounts Expense	$0	$0	$0	E-29	$0	$0	100.00%	$0	$0	$0	$0
30		TOTAL CUSTOMER ACCOUNTS EXPENSE	$334,170	$269,285	$64,885		$81,651	$415,821		$0	$415,821	$346,443	$69,378
31		CUSTOMER SERVICE EXPENSES											
32	907.000	Safety Meetings / Safety Equipment	$26,520	$10,432	$16,088	E-32	$2,989	$29,509	100.00%	$0	$29,509	$13,421	$16,088
33		TOTAL CUSTOMER SERVICE EXPENSES	$26,520	$10,432	$16,088		$2,989	$29,509		$0	$29,509	$13,421	$16,088

JAR-S-2

Data Response Display - WR-2023-0344 - 0022.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0022.0
Requested Date	4/10/2023
Due Date	4/30/2023
Issue	Expense Operations Payroll
Requested From	Raytown Water Company, The (Water) Data Requests Raytown Water mpscdatareq@raytownwater.net
Requested By	MO PSC Staff (Other) Kevin Thompson kevin.thompson@psc.mo.gov
Brief Description	Operations & Maintenance Expense Ratio
Description	Please provide Raytown's Operation & Maintenance (O&M) expense ratio for the calendar years 2020, 2021, and 2022, updated through March 31, 2023. Please include calculations showing how the O&M expense ratios were determined. Data Request submitted by Keith Foster (Keith.Foster@psc.mo.gov).
Request Security	Public (DR)

Response Date	4/25/2023
Response	Please see the attached spreadsheet as provided by RWC's accountant, Dave Aldrich.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

Name	Size	Security
dr 0022 oandm exp.xlsx	10.54 KB	Public (DR)

Total: 1 file(s), 10.54 KB

DR #0022 O&M EXPENSE/CAPITALIZATION

	TOWER & STORAGE	DISTRIBUTION MAINS	SERVICE LINES	METERS PLASTIC / HOT RODS	METER WELLS	HYDRANTS
Expense	661 / 672	673 / 673-3	675 / 675/1	676 / 676-1	675 / 675-1	677 / 677-1
Plant	342 / 342-1	343 / 343-1	345 / 345-1	346 / 10/20	347 / 347-1	348 / 348-1
2020						
O&M	$16,221.90	$217,196.06	$16,511.09	$5,785.85	$11,208.83	$2,622.74
Capitalzed	$0.00	$61,243.10	$33,112.27	$11,596.89	$0.00	$21,599.52
2021						
O&M	$16,221.90	$217,196.06	$16,511.09	$5,785.85	$11,208.83	$2,622.74
Capitalzed	$0.00	$613,686.80	$3,649.37	$27,658.77	$0.00	$56,593.80
2022						
O&M	$21,032.87	$474,606.43	$44,983.83	$4,878.59	$4,612.33	$6,120.17
Capitalzed		$948,536.32	$6,856.10	$28,149.17	$3,349.42	$157,475.57

Responses by: Neal Clevenger

PUBLIC COUNSEL DATA REQUEST NOS. 8510 – 8527

DATA REQUESTS

8510. In reference to the direct testimony of Mr. Neal S. Clevenger, page 6 line 15 through page 7 line 2, please provide the water volumes the City of Kansas City billed RWC for in August 2023 and September 2023.

Please see attached, 2023 Water Loss (Wholesale Water Purchase VS. RWC Sales).

8511. In reference to the direct testimony of Mr. Neal S. Clevenger, page 6 line 15 through page 7 line 2, please provide the water volumes Raytown sold to its customers for August 2023 and September 2023.

Please see attached, 2023 Water Loss (Wholesale Water Purchase VS. RWC Sales).

8512. Does Raytown Water track the work being performed on its distribution system? If so, please specify how.

Yes, a work order is completed for each.

8513. Does the Company generate a work order or similar document for each repair or replacement job?

Yes.

8514. Does the Company keep a separate repair record of the work performed per year besides the general ledger?

Yes.

8515. Assuming that Raytown Water does keep a repair record of the work performed in a year, outside of the information contained in the general ledger, please indicate how Raytown verifies the following information:

a. When the work is performed; **Each work order contains the date of work.**

b. Where the work is performed; and

Each work order contains the address of where the work is performed.

c. The cost of each repair itemized as materials supplies, labor, and any other expenses.

The completed work orders are itemized for each.

8516. Assuming that Raytown Water does keep a repair record of the work performed in a year, outside of the information contained in the general ledger, please provide copy of all such repair records for the last three years.

Please find attached work orders for 2020-2023.

8517. In reference to Raytown's response to Staff data request number 0022, the capitalization and maintenance expense ratio, please verify that the identified values for the expense incurred in 2020 and 2021 are meant to be identical.

a. If so, please explain what caused the costs to be identical;

b. If not, please provide an update to correct this information.

This was an error. Please see corrected 2020-2022 O&M spreadsheet.

8518. Please provide copies of any and all invoices and other documentation that support the values in Raytown's response to Staff data request 0022.

Please see attachment, 8518 Plant.

8519. Based on Raytown's response to Staff data request 0022, the value for O&M expense related to distribution mains has more than doubled from 2021 to 2022. Please provide a detailed description of why Raytown has experienced this dramatic increase. In addition, please provide any and all supportive documentation related to this issue.

The majority of the increase was due to the dramatic increase in water leaks, averaging one a day. Please see 8516 & 8526 for the repair records. The company made an all-out effort to keep up with them day and night.

8520. Based on Raytown's response to Staff data request 0022, the value for O&M expense related to distribution mains has more than doubled from 2021 to 2022. Please provide any documents that demonstrate any monetary increase related to materials and supplies for distribution main work or indicate where those documents have been previously provided.

Please see 8516.

8521. Based on Raytown's response to Staff data request 0022, the value for O&M expense related to distribution mains has more than doubled from 2021 to 2022. Please provide any documents that demonstrate any monetary increase related to labor for distribution main work or indicate where those documents have been previously provided.

Please see 8516.

8522. Based on Raytown's response to Staff data request 0022, the value for O&M expense related to distribution mains has more than doubled from 2021 to 2022. Please provide any documents that demonstrate any monetary increase related to engineering and design work

for distribution main work or indicate where those documents have been previously provided.

Please see 8516.

8523. Based on Raytown's response to Staff data request 0022, the value for O&M expense related to distribution mains has more than doubled from 2021 to 2022. Please provide any documents that demonstrate any monetary increase related to overheads charged for distribution main work or indicate where those documents have been previously provided.

Please see 8516.

8524. What amount of overhead, if any, has been booked as expense and included in the amounts shown in the response to Staff data request number 0022?

Please see 8516.

8525. What amount of overhead, if any, has been booked as capital and included in the amounts shown in the response to Staff data request number 0022?

Please see 8516.

8526. Please provide the same information Staff requested for data request 0022, but for calendar years 2018 and 2019. Further, please ensure you provide sufficient detail to allow a comparison of this data and the information provided in response to OPC data request 8500 regarding the number of leaks per year and the associated O&M expense.

Please see attachments, 2018 & 2019 work orders, O&M expense for 2018-2019 and 8526 Plant.

8527. Please provide the date RWC linked the annual leak reports for 2021 and 2022 to the Company's website, and provide the date the Company expects to provide the 2023 annual leak report on its website.

2021 and 2022 Annual Leak Loss reports added to website on 10/13/23.

2023 Annual Leak Loss report received and added on website 10/25/23.

DR #0022 O&M EXPENSE/CAPITALIZATION

	TOWER & STORAGE	DISTRIBUTION MAINS	SERVICE LINES	METERS PLASTIC / HOT RODS	METER WELLS	HYDRANTS
Expense	661 / 672	673 / 673-3	675 / 675/1	676 / 676-1	675 / 675-1	677 / 677-1
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2020						
O&M	$16,221.90	$217,196.06	$16,511.09	$5,785.85	$11,208.83	$2,622.74
Capitalzed	$0.00	$61,243.10	$33,112.27	$11,596.89	$0.00	$21,599.52
2021						
O&M	$25,421.51	$344,678.23	$30,979.39	$4,230.89	$5,806.28	$2,845.80
Capitalzed	$0.00	$613,686.80	$3,649.37	$27,658.77	$0.00	$56,593.80
2022						
O&M	$21,032.87	$474,606.43	$44,983.83	$4,878.59	$4,612.33	$6,120.17
Capitalzed		$948,536.32	$6,856.10	$28,149.17	$3,349.42	$157,475.57

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of a Request	)	
For Increase in Annual Water	)	**Case No. WR-2015-0246**
System Operating Revenues	)	
For Raytown Water Company	)	

NOTICE OF DISPOSITION

COMES NOW the Staff of the Missouri Public Service Commission, by and through counsel, and on behalf of Raytown Water Company, Inc. (Raytown), and for their *Notice of Disposition* in this matter hereby state:

1. Raytown filed a letter initiating its Small Company Rate Increase Application with the Commission pursuant to 4 CSR 240-3.050(2) on April 1, 2015. Staff filed a Small Utility Rate Case Timeline pursuant to 4 CSR 240-3.050(5) on April 6, 2015, establishing the procedural schedule.

2. Staff conducted an investigation and audit of Raytown pursuant to 4 CSR 240-3.050(6), complying with 4 CSR 240-3.050(9), the requirement to file a preliminary report within 90 days of filing, and 4 CSR 240-3.050(10), the requirement to file a settlement proposal within 120 days of filing. Staff has provided its findings to Raytown and the Office of the Public Counsel (Public Counsel).

3. On October 2, 2015, the Office of the Public Counsel requested a local public hearing, and on October 8, 2015, the Commission granted that request. A local public hearing was held October 22, 2015, revealing no material information to substantively change the original disposition agreement.

4. Subsequent to Staff's investigation, and through negotiations between Staff, Raytown and Public Counsel, Staff, Raytown and Public Counsel have reached an agreement as to all of the elements of the small company rate increase request. Attached to this pleading as Attachment A, and reflecting that agreement, is a disposition as approved by Staff and Raytown pursuant to 4 CSR 240-3.050(11).

5. The disposition includes expenses, revenues and rate base for the 12-month period ending December 31, 2014, and updated for all known, measurable and significant changes as of July 15, 2015. It reflects agreements reached between the parties as to appropriate accounting of company assets, payroll, structural updates, depreciation and customer rates. It provides for an increase of $447,005 to be added to the existing Missouri final adjusted jurisdictional revenues of $3,628,512 for an increase of 12.32% and total annual revenue of $4,075,517. The rate base agreed upon is $5,323,601 and the agreed upon capital structure is 82.16% equity with a return of 7.70%.

6. This disposition reflects updates to the water amounts with corrected proper usage. It also reflects that the Evanston House adjustment has been removed from plant.

7. Raytown will file proposed updated tariff sheets with the Commission pursuant to 4 CSR 240-3.050(14), which reflect the agreements set forth in the disposition and bearing an effective date of December 7, 2015. Raytown will also implement Staff's recommendations regarding the creation of new sub accounts

to track expenses relating to new services and regarding the recording of all depreciation expenses in Account 403. Final written notice of the rate revisions and tariff updates will be sent to the customers within Raytown's next billing cycle.

8. Staff has verified that Raytown filed its annual report and is current on payments of all annual assessments.

WHEREFORE, Staff recommends that the Commission approve this disposition as a final resolution of all matters of Raytown's Small Company Rate Increase Request; and grant such other and further relief as the Commission considers just in the circumstances.

/s/ Whitney Payne
Whitney Payne
Legal Counsel
Missouri Bar No. 64078
Attorney for the Staff of the
Missouri Public Service Commission
P. O. Box 360
Jefferson City, MO 65102
(573) 751-8706 (Telephone)
(573) 751-9285 (Fax)
whitney.payne@psc.mo.gov

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served by electronic mail, or First Class United States Postal Mail, postage prepaid, on this 3rd day of November, 2015, to all counsel of record.

/s/Whitney Payne

APPENDIX A

CASE NO. WR-2015-0246

UNANIMOUS DISPOSITION AGREEMENT WITH ATTACHMENTS AND STAFF AFFIDAVITS

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Agreement Attachment I

Water & Sewer Unit Memorandum

Water and Sewer Unit

Report on System Operations

Raytown Water Company

Case No. WR-2015-0246

INTRODUCTION

The Water and Sewer Unit conducted an investigation of Raytown Water Company's (RWC) system operations and operations recordkeeping practices in the context of RWC's pending rate case before the Missouri Public Service Commission (PSC or Commission). The investigation was conducted by, and this report was prepared by, James Merciel, Curtis Gateley and James Russo. During a Staff visit to RWC on June 19, 2015, RWC stated that it has plans to obtain bond financing to undertake several capital improvement and rehabilitation projects. Although none of the costs of these projects are proposed to be included in this pending rate case, some of the planned projects to be included with this upcoming capital improvements program are important for system operations, and for that reason will be mentioned within this report.

WATER SYSTEM OVERVIEW

RWC has a described service area that includes approximately two-thirds of the City of Raytown, and also a small portion of the City of Independence, both of which are suburban communities near Kansas City, MO. RWC reported 6,611 metered service connections[1] in its 2014 annual report filed with the Commission, consisting of residential customers, small and large commercial customers, and private fire protection customers. RWC's source of supply is the City of Kansas City (KC), from which it purchases water through seven 6-inch metering points and one 4-inch metering point. RWC borders KC and its municipal water system on its north, east and west, and borders Jackson County Public Water Supply District No. 2, also a wholesale customer of KC, to the south. RWC's distribution system consists of cast iron and ductile iron pipe of 2-inch through 12-inch sizes, and galvanized iron and poly vinyl chloride (PVC) of the smaller sizes, 2-inch and less. RWC has three elevated storage tanks, totaling 2.5 million gallons volume. (Merciel)

SYSTEM CAPACITY EVALUATION

RWC's Water Purchase Agreement with KC, which expired in 2011 and is being renegotiated for renewal, contemplates purchase by RWC of up to 3 million gallons per day (mgd). RWC's maximum day demand is estimated by Staff to be approximately 1.2 to 1.5 mgd. Average day demand is approximately 1.1 mgd, according to information reported by RWC in its annual report. RWC has the responsibility to be able to take the amount of water it requires, by

[1] This customer count is snapshot at the end of the year 2014, and also there are variations in how to count customers; as a result, it is likely a different number will be used by the Auditing and Water and Sewer Units to calculate revenues and rate design.

constructing adequate metering points if necessary, with KC's approval. The amount of water that is available through the metering points is also subject to emergencies that could take place within KC's system, and actual flow capability. The actual source of supply capacity for RWC as a wholesale customer cannot be expressed as easily as for a water utility that operates a source facility such as a treatment plant or a series of wells. The reason for this is because the availability of water through the KC meters depends upon the localized hydraulic flow capabilities of both KC's and RWC's distribution systems, customer water-usage, and emergency events that take place within KC's water system such as main breaks and water flow for firefighting. Extraordinary usage such as this can affect available flow through several of the metering points at the same time. RWC has not studied flow testing of the metering points recently, if ever, either by hydraulic modeling, nor by actual flow with the metering points isolated. RWC has studied hydraulic modeling of its own distribution system in the past. Flow testing of the metering points probably is not necessary because of the apparent adequacy of the source of supply, and also due to the fact that it would be rather expensive to create hydraulic models to study both the KC and RWC distribution systems. Although variable hydraulic flow conditions through KC's and RWC's distribution pipelines is a factor, just simple water meter flow capacity of approximately 1,200 gallons per minute (gpm) for six-inch meters and 600 gpm for four-inch meters, would suggest source capacity of approximately 7 million gallons per day (mgd) available at most times even with several metering points shut off, exceeding RWC's current demand. Staff thus concludes that source capacity is adequate, absent highly unusual hydraulic limitation.

Water in storage tanks normally is used to supplement source capacity during peak-hour flow times during the day, and also to maintain a reserve for fire protection. Since RWC is a wholesale customer, its own storage on most days is a supplement to storage from KC's water system, which is available as well for peak flow and fire flow, again subject to unusual hydraulic flow limitations affecting flow through the metering points. However, since emergencies in KC and occasional flow limitations are in fact real considerations, KC requires all of its wholesale customers, RWC among them, to be able to meet their own flow requirements including their own emergencies and fire flows during the evening hours between 5:00pm and 11:00pm with all metering points shut off[2]. So, as a result, unlike storage capacity design for most other water systems, RWC's storage capacity is designed to meet all evening demand especially on peak days, plus fire reserve and other contingencies such as main breaks, without any flow through the metering points. The construction of an additional new storage tank for this purpose, along with distribution system upgrades to address flow throughout the RWC distribution system from the storage tanks rather than from the metering points, was addressed when this newly created turnoff provision was included with the renewed Wholesale Water Agreement in the early 1990s.

Staff takes the position that RWC has a sufficient source of supply capacity, storage capacity and distribution system capacity that is needed to provide safe and adequate water service. (Merciel)

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[2] This requirement is by the terms of RWC's 1991 Wholesale Water Agreement with KC. Construction of a new storage tank to comply with this requirement, and additional water mains to address associated distribution system hydraulics, were among the issues in Case Nos. WR-92-88 and WF-92-95.

SYSTEM OPERATIONS REVIEW

The KC metering points are owned by RWC, except for the meters installed in them. These facilities consist of concrete or mason vaults, inside which an operator may access valves and the meters along with associated components. RWC states that replacement of the meter vaults is one project intended to be included with its upcoming capital improvements program. The two newest vaults were constructed more than 23 years ago along with the distribution system improvements constructed at that time. The vaults are becoming obsolete, some are difficult to enter, and vault modernization will result in features such that both KC and RWC could read the meters remotely at any time, resulting in better monitoring of flows during peak usage or any other time, and remote valve operation by either KC or RWC.

RWC states that KC in fact occasionally shuts off individual metering points when KC experiences emergencies or when it has scheduled major repairs on its system. RWC also states that during times of normal water usage it sometimes chooses to turn off certain individual metering points on its own, in order to draw down water in its storage tanks. The reason for doing this is because normal flow available through the KC metering points can largely meet average and peak flows, and as such water does not flow out of the storage tanks to a significant extent. Aged water in storage tanks is undesirable from a drinking water quality standpoint, and for this reason, some percentage of storage water turnover, usually approximately 25% of the volume, is incorporated into water system design[3] and/or operations practices.

RWC utilizes a specialty contractor for storage tank maintenance. The contractor monitors tank condition, and undertakes minor and major repairs and rehabilitation when necessary. RWC states that the contractor provides excellent response when called upon. The storage tanks are in generally good condition. RWC's storage tank in the northern portion of its service area along East 51st Street has a leak at its control valve, called an "altitude valve," which is located in a vault near the base of the tank. Water from this leak, occasionally visible on the road surface, was reported by a customer in a Public Comment that was sent to the Commission in the context of this rate case. The correction of this problem is a major undertaking, and is planned to be included in RWC's capital improvements program.

RWC's elevated storage tanks have water level indicators. At present, an operator must go to each storage tank location to monitor water levels. RWC has remote indicators in its office that continuously indicate and record tank levels on circular paper charts, which it has used for many years; but these indicators are no longer working well, and are obsolete. RWC states that one of the projects to be included in its upcoming capital improvements program will be to convert the tank level indicators to electronic readout and recording. This will allow easier and more effective tank level monitoring, and allow electronic storage of tank level records.

As stated above, RWC's distribution system includes 2-inch galvanized iron water mains, most of which are located on cul-de-sac streets or other short, dead-end locations. Galvanized iron

[3] Water system design in Missouri most often follows the recommendations of the Missouri Department of Natural Resources *Minimum Design Standards for Missouri Community Water Systems*, publication number 2489, referred to as the "Design Guide". "One-quarter" turnover of the water in a storage tank is stated in Section 7.1.1.c. of the Design Guide.

was used as water main material many years ago, and like other water utilities that utilize this material, RWC's galvanized water main pipelines are old and corroded, with leakage and restricted flow problems. RWC has been replacing galvanized pipe in past years as funds are available, with either ductile iron pipe or PVC pipe of appropriate size needed for the specific location. RWC reported more than 13,000 feet of galvanized iron pipe in its 2004 annual report, and reported a little more than 4,000 feet in its 2014 annual report. RWC states that it plans to complete the remaining 2-inch galvanized iron replacements with the upcoming capital improvements program. RWC has also undertaken replacements of larger sized water main pipeline, often related to either valve or fire hydrant repair or installation, or in conjunction with other projects such as street work or the City of Raytown's downtown revitalization projects.

In addition to water main replacements, RWC modified its water service line rules several years ago, converting the portion of the water service pipe between the water main and the customers' property lines, defined as the "service connection," from customer ownership to RWC ownership. Essentially, when an existing customer-owned service connection requires repair or replacement, RWC steps in and undertakes the work, and then after replacement owns the service connection. The customer retains ownership of the service line between the property line and the premises. Several of the service connections that RWC has replaced involved removal of obsolete galvanized iron pipe. (Merciel)

OPERATIONS RECORDS

RWC contracted to create a Geographic Information System (GIS) record of its water mains along with locations of valves, fire hydrants and meter settings. Locations of these components are on photograph maps, both on paper and in electronic format that is available in the office on a computer or in the field on an electronic tablet.

In addition to locations on the GIS map system, fire hydrant inventory with information regarding the make, condition, and maintenance work is kept in paper form. RWC undertakes routine painting and maintenance checks every few years. Additionally, RWC states that it regularly corresponds with the city fire department, which is authorized to operate and test fire hydrants, and which keeps hydrant test flow records. RWC's communication with the fire department includes information regarding correct operation of fire hydrants; i.e. slowly opening and closing hydrants to prevent mechanical shock or water hammer, and to open hydrants completely[4].

Similar to hydrants, valve inventory is shown on RWC's GIS map system, but RWC also has paper records of valve location and operation with information regarding size, location, direction

[4] To prevent freezing, fire hydrants are drained after use by an underground orifice that remains normally open. As a hydrant is opened, water begins flowing not only out of the hydrant nozzle, but also under pressure out of the drainage orifice, in order to clear dirt and debris and allow drainage to occur. The orifice becomes closed when the hydrant is fully open. Proper operation requires the hydrant be fully opened so that the drainage orifice closes, because if water continually flows from the orifice while the hydrant is open, then the surrounding ground could become saturated, potentially compromising thrust block footing, which in extreme cases could cause the hydrant to blow off the water main.

and number of turns to open, normal position (open or closed), condition information of the valve and valve box, and date of exercise/inspection. Valves are inspected and operated as needed, and as such, there is not a regularly conducted valve exercise program. RWC states that it has identified several areas where additional valves are desirable, in order to reduce the number of affected customers when work is conducted in those areas. Installations of additional valves, in conjunction with new mains or main replacements, are future capital improvements to be included with the upcoming capital improvements program.

All RWC customers are metered. Meter records are kept by electronic database format that can be sorted for a necessary task, for example to look at meter/customer locations, meter serial numbers, meter size, and meter ages. RWC uses the meter size and age sort functions for the meter test/replacement program that meets the Commission's rule 4 CSR 240-10.030(38). This rule requires 5/8-inch meters, used on most residential and small commercial customers, to be tested or replaced every ten (10) years or 1.5 million gallons indication[5]. Larger meters are required to be tested or replaced on more frequent schedules and with greater registered volumes, based on size. Although in the past, water utilities including RWC would test and rebuild all meters on this schedule, now most utilities simply replace 5/8-inch and 3/4-inch size meters with new meters, because the low cost of new small meters makes simple replacement more economical. However, it is more economical to test and if necessary rebuild the larger meters of 1-inch and greater size, because these meters are more expensive, and because of the greater cost of more frequent testing. RWC's larger meters are aging past their useful lives however, and RWC has begun a program of replacing the larger-size mechanical displacement meters with meters that register usage using a principle of measuring the speed of sound through the flowing water. There are no moving parts in these new meters. The cost of the large meters that have already been replaced may be included in this rate case, but the cost of future meter replacements may be included with RWC's capital improvements program.

RWC manually reads most of its meters by opening the meter box lid, visually observing the reading and recording it, but for certain locations it uses "radio-read" meters. Radio read meters have an electronic wireless transponder that permits electronic reading and recording while driving by the location in a service vehicle, without the need for visual access or physical contact. Radio reads are currently used by RWC where access is dangerous or difficult, such as along busy streets or in potentially obstructed areas like parking lots. At the time of Staff's visit on June 19, 2015 RWC stated it had 6,071 visual read meters and 481 radio-read meters.

Because of RWC's proximity to its wholesale water provider, KC, there are some sections of KC's or RWC's water mains that are located generally along city limit boundaries in streets, with KC residents/customers on one side of the street and RWC customers as either City of Raytown or City of Independence residents on the other side. There are currently eleven (11) RWC customers who are actually connected directly to a water main owned by KC and served through KC meters, where KC bills RWC for water service and RWC bills each customer using its approved water rates. Additionally the opposite scenario exists; there are currently twenty-six (26) KC customers who are connected directly to a water main owned by RWC and served

[5] 1.5 million gallons over ten years is about 400 gallons per day average use. Residential customers typically use less than that, approximately 180 gallons per day. Therefore, the ten year period is almost always the test/replacement frequency applied to residential customers.

through RWC meters, where RWC bills KC for water service and then KC (presumably) bills its customers using its water rates. (Merciel)

OTHER OPERATIONS MATTERS

RWC, and the City of Raytown, have an agreement that provides for discontinuance of water service by RWC for nonpayment of sewer bills to the City of Raytown, which is the sewer utility. This activity is authorized by state statutes §393.015 and §393.016, and RWC tariff Rule 13 B.1. RWC states that the agreement is exercised routinely, and seems to be working well.

As a public water system that is subject to the Missouri Department of Natural Resources (DNR), defined in DNR's regulations at 10CSR 60-2.015(2)(P)8., RWC is required to comply with a number of regulations that pertain to drinking water quality. DNR conducted an inspection of RWC within the past year. RWC has a copy of DNR's inspection report readily available for reference, which is in notebook format. There are no violations, nor major compliance issues.

Among the DNR requirements directly affecting customers:

- RWC collects routine water samples for analysis of chemical and microbiological contaminant levels, as per 10 CSR 60-4.010 and 10 CSR 60-4.020. Other provisions of 10 CSR 60 Chapter 4, involving water quality, safety and characteristics, are undertaken by or with the cooperation of KC as the owner and operator of a surface water treatment facility.

- RWC is subject to public notice requirements of 10 CSR 60 Chapter 8 involving extraordinary conditions that adversely affect water quality, and also to annually publish a Consumer Confidence Report (CCR) that provides pertinent information to customers about the drinking water.

- RWC and some of its customers are required to comply with what is sometimes referred to as the "backflow prevention rule," in 10 CSR 60 Chapter 11, which outlines requirements for the installation and testing of backflow prevention devices to protect the public water system from contaminants flowing from customers' premises. RWC keeps records of customers required to install and regularly test backflow devices. The City of Raytown has ordinances pertaining to backflow rule compliance and can assist with enforcement if necessary.

- RWC is subject to DNR's Lead and Copper rule, 10 CSR 60 Chapter 15, as is KC as the water supplier. RWC has a sampling site plan for monitoring of lead and copper, and also provides information to customers since a major source of lead and copper contamination is within house plumbing fixtures.

This report is not intended to be an all-inclusive overview of DNR's regulations regarding water quality and monitoring, treatment facility and distribution system operator certification,

laboratory requirements, or construction approval. These items listed above are certain major points that directly involve customer service or impose requirements upon customers. (Merciel)

Tariff Review

Staff reviewed RWC's current tariff. Raytown's current tariff became effective December 21, 2012. Based on this review, Staff is recommending the Company update the tariff to align with the latest changes to 4 CSR 240 Chapter 13, by adding some definitions, clarifying a rule regarding service connections, and correcting some minor typographical errors. The most significant changes were in Rule 10 'Bill Adjustments Based on Meter Tests', and Rule 13, 'Discontinuance of Service by the Company'. Staff is not recommending changes to any service charges at this time. (Gateley)

Rate Design

Staff reviewed and discussed with the Company the current rate design. As a result of this review and discussions, Staff is not making any recommendations in this rate case that would change the existing rate structure. Currently, all of the Company's customers pay a monthly fixed customer charge and a commodity rate per thousand gallons of water consumed. (Russo)

Conclusion and Recommendations

Staff has no specific recommendations at this time for RWC regarding operations. Staff has not received any substantial number of customer complaints nor significant customer comments that would indicate shortcomings from an operations perspective. Staff notes that RWC appears to be undertaking adequate planning for future projects regarding repairs, rehabilitations and improvements that are necessary for continued safe and adequate service, but none of the projects are so critical as to be immediately needed.

The Staff of the Water and Sewer Unit makes the following recommendations:

- The Commission cancel the current water tariff PSC MO Number 5 1st revised sheet No. 3, and replace with 2nd revised sheet No. 3.
- The Commission cancel the current water tariff PSC MO Number 5 original sheet Nos. 2, 10, 11, 13, 15-17, and replace with 1st revised sheet Nos. 2, 10, 11, 13, and 15-17.
- The Commission cancel the current water tariff PSC MO Number 5 2nd revised sheet No. 9, and replace with 3rd revised sheet No. 9.
- The Commission approve the addition of water tariff PSC MO Number 5 original sheet No. 17A.
- The Commission cancel the current water tariff PSC MO Number 5 original sheet Nos. 18-19, 21, 23, 34, and 36-39, and replace with 1st revised sheet Nos. 18-19, 21, 23, 34, and 36-39.

- The Commission cancel the current water tariff PSC MO Number 5 original sheet No. 40, and replace with first revised sheet No. 40.
- The Commission approve the addition of water tariff PSC MO Number 5 original sheet Nos. 40A, 40B, and 40C.
- The Commission cancel the current water tariff PSC MO Number 5 original sheet No. 41, and replace with 1st revised sheet No. 41.
- The Commission cancel the current water tariff PSC MO Number 5 original sheet Nos. 42-45, and replace with 1st revised sheet Nos. 42-45.

UNANIMOUS AGREEMENT REGARDING DISPOSITION OF SMALL UTILITY COMPANY REVENUE INCREASE REQUEST

THE RAYTOWN WATER COMPANY

MO PSC FILE NO. WR-2020-0264

BACKGROUND

The Raytown Water Company ("Company") initiated the small company revenue increase request ("Request") for water service that is the subject of the above-referenced Missouri Public Service Commission ("Commission") File Number by submitting a letter to the Secretary of the Commission in accordance with the provisions of Commission Rule 20 CSR 4240-10.075, Staff Assisted Rate Case Procedure ("Staff Assisted Procedure"). In its Request letter, which was received at the Commission's offices on March 1, 2020, the Company set forth its request for an increase of $663,332 in its total annual water service operating revenues. The Company also acknowledged that the design of its customer rates, its service charges, its customer service practices, its general business practices and its general tariff provisions would be reviewed during the Commission Staff's ("Staff") review of the revenue increase request, and could thus be the subject of Staff's recommendations. The Company provides service to approximately 6,582 water customers.

Pursuant to the provisions of the Staff Assisted Procedure and related internal operating procedures, Staff initiated an audit of the Company's books and records, a review of the Company's customer service and general business practices, a review of the Company's existing tariff, an inspection of the Company's facilities and a review of the Company's operation of its facilities. (These activities are collectively referred to hereinafter as Staff's "investigation" of the Company's Request.)

Upon completion of its investigation, Staff provided the Company and the Office of the Public Counsel ("Public Counsel") with information regarding Staff's investigation and the results of the investigation, including Staff's initial recommendations for resolution of the Company's Request.

RESOLUTION OF THE COMPANY'S RATE INCREASE REQUEST

Pursuant to negotiations held subsequent to the Company's and Public Counsel's receipt of the above-referenced information regarding Staff's investigation of the Company's request, Staff, Public Counsel, and the Company hereby state the following Unanimous Disposition Agreement:

(1) The agreed upon water revenue requirement increase of $482,575 (12.3% increase) added to the level of previous revenues of $3,917,699 results in overall annual revenues of $4,400,274. This revenue requirement is just and reasonable and designed to recover the Company's cost of service. These amounts are shown on the ratemaking income statements found in Attachment A;

(2) The Auditing Department conducted a full and complete audit of the Company's books and records using the 12-month period ended December 31, 2019, updated through June 30, 2020, as the basis for the revenue requirement determined above. The audit findings can be found in Attachments B and C;

(3) The agreed upon net rate base is $5,314,088 for water service. The development of this amount is shown on the rate base worksheet that is found in Attachment D. This amount is included in the audit work papers in the ultimate determination of the revenue requirement shown in (1) above;

(4) Included in Attachment B is the agreed upon capital structure which includes the Company's overall recommended rate of return of 7.24%, which is calculated based on a hypothetical capital structure consisting of 4.79% debt and 95.21% equity, with a cost of debt of 3.44% and a cost of equity of 7.50%.

(5) The schedule of depreciation rates in Attachment E includes the depreciation rates used by Staff in its revenue requirement analysis and shall be the prescribed schedule of water plant depreciation rates for the Company;

(6) To allow the Company the opportunity to collect the revenue requirement agreed to in (1) above, the rates as shown on Attachment F are just and reasonable rates that the Company will be allowed to charge its customers. The impact of these rates will be as shown on Attachment G;

(7) Included in the agreed to in the agreed to water revenue requirement is an increase to the Company's payroll expense. As part of this increase the Company agrees to increase its base wages for the listed positions to the minimum amount included in the accounting schedules that support this disposition agreement. These positions are:

i) Field Service Technician – Crew Chief,
ii) Field Service Technician,
iii) Assistant Service Technician, and
iv) Meter Reader.

The base wages by position and amount that are included in the revenue requirement have been provided to the Company, and shall be applicable to any employees in the listed positions. In the event an employee discontinues employment, the Company shall attempt to replace the employee in the same position. In the event that the Company does not employ a replacement for a continuous period of six months, the Company agrees that it shall be subject to a

regulatory liability to return the funds to customers included in the revenue requirement for the incremental difference between the actual wages and salary paid, and the wage and salary expense for the listed positions during the period the position is vacant." Ratemaking treatment for any regulatory liability of this nature will be determined in the Company's next general rate proceeding.

(8) For the purposes of implementing the agreements set out in this disposition agreement, the Company will file with the Commission proposed tariff sheet revisions containing the rates, charges, and language set out in the example tariff sheet(s) attached hereto as Attachment H. The proposed tariff sheet revisions will contain rates, charges, and rules for water customers. The proposed tariff sheet revisions will bear an effective date of September 08, 2020;

(9) The following current PSC MO No. 5 Tariff Sheets will be cancelled:

- 3rd Revised Sheet No. 9
- 1st Revised Sheet No. 10
- 1st Revised Sheet No. 11
- 1st Revised Sheet No. 35
- 1st Revised Sheet No. 36

Canceled Tariff Sheets will be replaced with:

- 4th Revised Sheet No. 9
- 2nd Revised Sheet No. 10
- 2nd Revised Sheet No. 11
- 2nd Revised Sheet No. 35
- 2nd Revised Sheet No. 36

(10) Within thirty (30) days of the effective date of an order approving this Unanimous Disposition Agreement, the Company shall implement the recommendations contained within the Customer Experience Department (CXD) Report, attached hereto as Attachment I and outlined below, and subsequently provide proof of the implementation of the recommendations to the Manager of the Commission's CXD Department:

(a) Change its estimating usage process to comply with Chapter 13 or have a Commission-approved tariff;

(b) Bill customers according to the billing period defined in Chapter 13.015 (1) (C). Consider changing procedures to address staff shortages and short billing periods such as occurred in February, 2020;

(c) Discontinue charging a minimum monthly charge after water service has been shut off;

(d) Revise and distribute, to all current and future customers, written information specifying the rights and responsibilities of the Company and its customers as required by Commission Rule 20 CSR 4240-13.040(3).

Update Commission Rule numbers referenced in the brochure. This recommendation should be completed prior to mailing brochures following the conclusion of this rate case.

(11) The Company shall mail its customers a final written notice of the rates and charges included in its proposed tariff revisions prior to or with its next billing cycle after issuance of the Commission order approving the terms of this Unanimous Disposition Agreement. The notice shall include a summary of the impact of the proposed rates on an average residential customer's bill.

(12) The Company shall undertake the following measures for the purpose of improving the current state of its system:

i) The Company shall file a new case before the Commission within sixty (60) days of the effective date of an order approving this Unanimous Disposition Agreement in order to acquire financing needed to begin making necessary improvements to its system;

ii) The Company shall include in the filing identified in (i) a list of the improvements it seeks to make in a manner that is substantially similar in structure to the list of Proposed Capital Improvements that has been included as Attachment J;

iii) The same list of projects identified in (ii) shall be listed on the Company's publicly available website with monthly updates regarding the completion of projects - including description of work completed and benefits realized - once the Company begins work;

iv) The Company shall adopt a policy that all leaks and Right of Way (ROW) requirements will be completed within eight (8) months of the Company discovering the problem, weather permitting, which will include ROW requirements listed in Attachment J;

v) The Company agrees to develop a means to better track water loss arising from fire hydrants struck by automobiles (with Staff or Public Counsel's assistance, as necessary) and to consider possible means to mitigate these risks in the future;

vi) The Company shall track dividends paid to shareholders from the time rates go into effect until the improvements for which it seeks financing under (i) are completed with the understanding that the Public Counsel may argue these payments should be used as an offset to income in a future rate case in the event the Company fails to make timely improvements to its system;

vii) The Company shall continue to conduct an annual leak detection survey and shall post the results of that survey to its publicly available website and provide copies to Staff and Public Counsel;

viii) The Company shall seek information in its procurement of outside vendor services to complete the improvements for which it seeks financing under (i) regarding wage and benefits paid to contractor employees; and,

ix) The Company shall conduct and maintain a water rate study to be able to determine its standing with surrounding water distribution entities.

(13) Staff or Public Counsel may conduct follow-up reviews of the Company's operations to ensure that the Company has complied with the provisions of this Unanimous Disposition Agreement;

(14) Staff or Public Counsel may file a formal complaint against the Company, if the Company does not comply with the provisions of this Unanimous Disposition Agreement;

(15) The Company, Staff, and Public Counsel agree that they have read the foregoing Unanimous Disposition Agreement, that facts stated therein are true and accurate to the best of the Company's knowledge and belief, that the foregoing conditions accurately reflect the agreement reached between the parties; and that the Company freely and voluntarily enters into this Unanimous Disposition Agreement; and

(16) The above agreements satisfactorily resolve all issues identified by Staff, Public Counsel, and the Company regarding the Company's request.

Additional Matters

Other than the specific conditions agreed upon and expressly set out herein, the terms of this Unanimous Disposition Agreement reflect compromises between the Staff, Public Counsel, and the Company, and no party has agreed to any particular ratemaking principle in arriving at the amount of the annual operating revenue increase specified herein.

The results of Staff's inspections and review of the Company's operation of its facilities can be found in the Water and Sewer Department Report, Attachment K. Staff has completed a Summary of Case Events and has included that summary as Attachment L to this Unanimous Disposition Agreement.

The Company, Public Counsel, and Staff acknowledge that Staff will be filing this Unanimous Disposition Agreement and the attachments hereto, in the existing case and that the Company will file the proposed tariff revisions called for in the disposition agreement. The Company and Public Counsel also acknowledge that Staff may make other filings in this case.

Additionally, the Company and Public Counsel agree that subject to the rules governing

practice before the Commission and without waiving the confidentiality of the facts and positions disclosed in the course of settlement, Staff shall have the right to provide an oral explanation to support its entering into this Unanimous Disposition Agreement, if the Commission requests one at any agenda meeting at which this case is noticed to be considered by the Commission. Subject to the rules governing practice before the Commission and without waiving the confidentiality of the facts and positions disclosed in the course of settlement, Staff will be available to answer Commission questions regarding this Unanimous Disposition Agreement. To the extent reasonably practicable, Staff shall provide the Company with advance notice of any such agenda meeting so that it may have the opportunity to be present and/or represented at the meeting.

SIGNATURES

Agreement Signed and Dated:

Neal Clevenger Aug 4 20 — August 4, 2020

Neal Clevenger
President
Raytown Water Company — Date

August 4, 2020

Jim Busch
Manager – Water & Sewer Department
Missouri Public Service Commission Staff — Date

John Clizer — August 4, 2020

John Clizer
Senior Counsel
Office of the Public Counsel — Date

List of Attachments

Attachment A – Ratemaking Income Statements
Attachment B – Auditing Department Report
Attachment C – EMS Run
Attachment D – Rate Base Worksheets
Attachment E – Schedules of Depreciation Rates
Attachment F – Rate Design Worksheets
Attachment G – Billing Comparison Worksheet
Attachment H – Example Tariff Sheets
Attachment I – CXD Report
Attachment J – Proposed Capital Improvements
Attachment K – Water and Sewer Department Report
Attachment L – Summary of Events

WATER AND SEWER DEPARTMENT
FIELD OPERATIONS AND TARIFF REVIEW

Case No. WR-2020-0264

INTRODUCTION

The Water and Sewer Department conducted an investigation of Raytown Water Company's (RWC) system operations and recordkeeping practices in the context of RWC's pending rate case before the Public Service Commission (PSC or Commission).

During Staff's visit to RWC on May 7, 2020, RWC stated that it has plans to obtain bond financing to undertake several capital improvement and rehabilitation projects. A statement about the financing plan is also found in the RWC 2019 Annual Report. Although none of the cost of these projects are proposed to be included in this pending rate request, projects that are planned to be included with this upcoming capital improvements program are important for system operations, and for that reason will be mentioned within this report.

WATER SYSTEM OVERVIEW

RWC has a service area that includes approximately two-thirds of the City of Raytown, and also a small portion of the City of Independence, both of which are suburban communities near Kansas City, Missouri. RWC's source of supply is the City of Kansas City Water Department (KC), from which it receives water through seven 6-inch metering points and one 4-inch metering point. RWC borders KC and its municipal water system on its north, east, and west, and borders Jackson County Public Water Supply District No. 2, also a wholesale customer of KC, to the south. RWC's distribution system consists of cast iron, ductile iron, and polyvinyl chloride (pvc) pipe of 2-inch through 12-inch sizes, and some galvanized iron of the smaller sizes, 2-inch and less. RWC has three elevated storage tanks, totaling 2.5 million gallons volume.

SYSTEM CAPACITY EVALUATION

Source of supply capacity for RWC as a wholesale customer cannot be expressed as easily as for a water utility that operates a source facility, such as a treatment plant or a series of wells. The reason is because the availability of water through the KC meters depends upon KC customer water-using activity, and emergency events that take place within KC's water system, such as main breaks and water flow for firefighting. Extraordinary usage caused by events such as these can affect available flow through several of the metering points at the same time. Although variable hydraulic flow conditions through KC's and RWC's distribution pipelines is a factor, simple meter flow capacity of approximately 1,200 gallons per minute (gpm) for six-inch meters and 600 gpm for four-inch meters, and with several metering points shut off, would suggest source capacity of approximately 7 million gallons per day (mgd) available at most times. RWC's maximum day demand is estimated by Staff to be approximately 1.2 to 1.5 mgd, so source capacity appears to be adequate, absent highly unusual hydraulic limitation. Average day demand is approximately 1.1 mgd.

Water in storage tanks normally is used to supplement source capacity during peak-hour flow times and also to maintain a reserve for fire protection. Since RWC is a wholesale customer, its own storage on most days is a supplement to storage from KC's water system which is available as well for peak flow and fire flow, again subject to unusual hydraulic flow limitations affecting flow through the metering points. As a result, unlike storage capacity design for most other water systems, RWC's storage capacity is designed to meet all peak day evening demand plus fire reserve and other contingencies, such as main breaks, without any flow through the metering points. Construction of an additional new storage tank for this purpose, along with distribution system upgrades to address flow from the storage tanks rather than from the metering points throughout the RWC distribution system, was completed to satisfy a condition in RWC's Water Purchase Agreement (WPA) with KC that was signed in the early 1990s.[1] According to information provided by RWC personnel, while there is no WPA in effect at this time, RWC is planning to pursue a new agreement with KC. RWC is currently purchasing water from KC on a month to month basis under general terms of service. Staff recommends that RWC pursue a formal WPA which would include the volume and pressure range of water supply that will be provided. Among the list of system upgrades RWC is proposing for bond financing is a tie-in to the City of Independence as an emergency source of supply. Both KC and Independence treat drinking water by a lime softening process, and these water supplies are compatible.

Staff takes the position that RWC has sufficient source of supply capacity, storage capacity, and distribution system capacity that is needed to provide safe and adequate water service.

SYSTEM OPERATIONS REVIEW

The KC metering points are owned by RWC. The meters installed in them are owned by KC. These facilities consist of concrete or mason vaults inside which an operator may access the valves and meters along with associated components. RWC states that KC occasionally shuts off individual metering points when KC experiences emergencies or when it has scheduled major repairs on its system. RWC also states that during times of normal water usage it sometimes chooses to turn off certain individual metering points on its own, in order to use water in its storage tanks. The reason this is necessary is because normal flow available through the KC metering points can largely meet average and peak flows, and as such water does not flow out of the storage tanks to a significant extent. Aged water in storage tanks is undesirable from a drinking water quality standpoint, and for this reason, some percentage of storage water turnover, usually approximately 25% of the volume, is incorporated into water system design[2] and/or operations practices.

A recently completed capital improvement was the installation of a Supervisory Control and Data Acquisition (SCADA) system. The SCADA system provides remote visual monitoring of

[1] Construction of a new storage tank, and additional water mains to address distribution system hydraulics, were among the issues in Case Nos. WR-92-88 and WF-92-95.

[2] Water system design in Missouri most often follows the recommendations of the Missouri Department of Natural Resources *Minimum Design Standards for Missouri Community Water Systems*, publication number 2489, referred to as the "Design Guide." "One-quarter" turnover of the water in a storage tank is stated in Section 7.1.1.c. of the Design Guide.

the system, remote control of the storage tank valves and master meters, access to system status for flows and pressures, and historical data storage of operating conditions. While alarms are activated when setpoints are triggered, SCADA gives operations personnel the ability to see system trends and make adjustments prior to alarm conditions being reached. These adjustments can be made on the touch screen in the SCADA room or by smart phone technology. Vault improvements, new storage tank valves, and master meters with associated electrical upgrades were among the improvements with the SCADA installation. RWC has recently relocated their offices to a larger building that provides space for parts and equipment in addition to the SCADA room and other operational work areas.

RWC utilizes a specialty contractor for storage tank maintenance. The contractor monitors tank condition, and undertakes minor and major repairs and rehabilitation when necessary. RWC states that the contractor provides excellent response when called upon. The storage tanks are in generally good condition as detailed in 2019 tank inspection reports reviewed by Staff.

As stated above, RWC's distribution system includes 2-inch galvanized iron water mains, most of which are located on cul-de-sac streets or other short, dead-end locations. Galvanized iron was used as water main material many years ago, and like other water utilities that utilize this material, RWC's galvanized water main pipelines are old and corroded, with leakage and restricted flow problems. RWC has been replacing galvanized pipe in past years as funds were available, with either ductile iron pipe or pvc pipe of appropriate size needed for the specific location. RWC reported more than 13,000 feet of galvanized iron pipe in its 2004 annual report, and reported a little more than 4,000 feet in its 2019 annual report. RWC states that it plans to complete additional 2-inch galvanized iron replacements with an upcoming capital improvements program. RWC has also undertaken replacements of larger size water main pipeline, often related to valve or fire hydrant repair or installation, or in conjunction with other projects such as street work.

In addition to water main replacements, RWC modified its water service line rules several years ago, converting the portion of the water service pipe between the water main and the customers' meter well, defined as the "service connection," from customer ownership to RWC ownership. Essentially, when an existing customer-owned service connection requires repair or replacement, RWC steps in and undertakes the work, and then after replacement owns the service connection. The customer retains ownership of the service line between the property line and the premises. Several of the service connections that RWC has replaced involved removal of obsolete galvanized iron pipe and replacement with copper pipe. Recent RWC Board decisions have resulted in pvc being the selected pipe for all future RWC system main replacements.
Staff received and investigated three customer complaints that were all related to the frequency of water main breaks in the aging distribution system and the disruptions that result. RWC has prepared a list of greater than one hundred locations and sections of the distribution system that it plans to upgrade during the next capital financed projects. These upgrades will be completed by contractor personnel.

OPERATIONS RECORDS

RWC maintains a Geographic Information System (GIS) record of its water mains along with locations of valves, fire hydrants and meter settings. Locations of these components are on photograph maps both on paper, and in electronic format available in the office on a computer or in the field on an electronic tablet.

In addition to locations on the GIS map system, fire hydrant inventory with information regarding the make, condition, and maintenance work is kept in a paper document. RWC undertakes routine painting and maintenance checks every few years. Additionally, RWC states that it regularly corresponds with the city fire department, which is authorized to operate and test fire hydrants, and which keeps hydrant test flow records. RWC's communication with the fire department includes information regarding correct operation of fire hydrants, i.e. slowly open and close to prevent mechanical shock or water hammer, and do not leave hydrants flowing partially open. When partially opened, water will flow from the drainage orifice to clear dirt and debris, but underground water flow from the orifice can compromise the thrust block footing, and in extreme cases could cause the hydrant to blow off the water main.

Similar to hydrants, valve inventory is shown on RWC's GIS map system, but RWC also has paper records of valve location and operation with information regarding size, location, direction and number of turns to open, normal position (open or closed), condition information of the valve and valve box, and date of exercise/inspection. Valves are inspected and operated as needed, and as such, there is not a regularly conducted valve exercise program. RWC states that it has identified several areas where additional valves are desirable, in order to reduce the number of affected customers when work is conducted in the areas. Additional valves, sometimes in conjunction with new mains or main replacements, are future capital improvements to be included with its upcoming capital improvements program.

All RWC customers are metered. Meter records are kept by electronic database format that can be sorted for a necessary task, for example to look at meter/customer locations, meter serial numbers, meter size, and meter ages. RWC uses the meter size and age sort functions for the meter test/replacement program that meets Commission Rule 20 CSR 4240-10.030(38). This rule requires 5/8-inch meters used on most residential and small commercial customers to be tested or replaced every ten (10) years or 1.5 million gallons indication;[3] larger meters are required to be tested or replaced on more frequent schedules and with greater registered volumes, based on size. Although in the past, water utilities including RWC would test and rebuild all meters on this schedule, now most utilities simply replace 5/8-inch and 3/4-inch size meters with new meters, because the low cost of new small meters is more economical. Larger meters of 1-inch and greater size are more expensive, and that fact along with more frequent test schedules makes it more economical to test them and rebuild if necessary.

RWC manually reads most of its meters by opening the meter box lid, visually observing the reading and recording it, but for certain locations it uses "radio-read" meters. Radio read meters

[3] 1.5 million gallons over ten years is about 400 gallons per day average use. Residential customers typically use less than that, approximately 180 gallons per day. Therefore, the ten year period is almost always the test/replacement frequency applied to residential customers.

have an electronic wireless transponder that permits electronic reading and recording while driving by the location in a service vehicle, without the need for visual access or physical contact. Radio reads are currently used by RWC where access is dangerous or difficult, such as along busy streets or in potentially obstructed areas like parking lots. According to RWC Staff, there are 689 radio read meters presently, with the remainder being manually read.

Because of RWC's proximity to its wholesale water provider, KC, there are some sections of KC's or RWC's water mains that are located generally along city limit boundaries in streets, with KC residents/customers on one side of the street and RWC customers as either City of Raytown or City of Independence residents on the other side. According the RWC staff, there are currently eleven (11) RWC customers who are actually connected directly to a water main owned by KC and served through KC meters, where KC bills RWC for water service and RWC bills each customer using its approved water rates. Also the opposite scenario exists; there are currently twenty-six (26) KC customers who are connected directly to a water main owned by RWC and served through RWC meters, where RWC bills KC for water service and then KC (presumably) bills its customers using its water rates.

RWC maintains written operations plans that include: Operational Policy & Procedures, Main Leak and Repair Program, and Contractor Qualification Requirements. Copies of these plans were provided during the system inspection and they are adequate for the RWC system. While RWC states that it has not used contractors significantly at present, RWC plans to implement the Contractor Qualification Requirements plan for future capital improvements as those improvements will be completed by contractors and not by in-house personnel.

OTHER OPERATIONS MATTERS

RWC, and the City of Raytown, have an agreement that provides for discontinuance of water service by RWC for nonpayment of sewer bills to the City of Raytown as the sewer utility. This activity is authorized by state statutes, §§393.015 and 393.016, RSMo, and RWC tariff Rule 13A. RWC states that the agreement is exercised routinely, and seems to be working well.

As a public water system that is subject to the Missouri Department of Natural Resources (DNR), as defined in DNR's regulations at 10 CSR 60-2.015(2)(P)8., RWC is required to comply with a number of regulations that pertain to drinking water quality, including the Missouri Safe Drinking Water Act. RWC operates under DNR permit MSOP MO1010676. DNR last conducted an inspection of RWC on July 13, 2017, and noted the following compliance issue:

1. The 2 million gallon hydropillar overflow flap screen was clogged with mud and debris. DNR also noted that the existing flap valve and screen in this pipe are not appropriate.

In addition, DNR added the following recommendations, which are **not** required:

1. The 250,000 gallon Gregory storage tank overflow terminates below ground and DNR recommends that it terminate above ground to avoid clogs and entry of dirt and debris, and;

2. The piping vault is not adequately protected from trespassing and vandalism. The access hatch for the piping vault was locked, but the overall lid was unlocked and can be removed. DNR recommends adding physical barriers, such as a fence, and installing a locking mechanism for the entire lid.

Based on feedback from DNR, the compliance issue has been rectified. The 2 million gallon hydropillar overflow pipe that originally connected to an underground drain was moved to discharge above ground and RWC equipped the overflow with an 18 inch mesh screen and an appropriate flap valve. In addition, the 250,000 gallon Gregory storage facility's overflow that originally terminated below ground was corrected to terminate above ground with a weighted flapper valve, as recommended by DNR. RWC has chosen not to add additional security for the piping vault.

Per DNR's Drinking Water Watch Web site (https://dnr.mo.gov/DWW/), RWC has not had a recent positive E. coli sample.

Among the DNR requirements directly affecting customers:

- RWC collects routine water samples for analysis of chemical and microbiological contaminant levels, as per 10 CSR 60-4.010 and 10 CSR 60-4.020. Other provisions of 10 CSR 60 Chapter 4, involving water quality, safety and characteristics, are undertaken by or with the cooperation of KC as the owner and operator of a surface water treatment facility.

- RWC is subject to public notice requirements of 10 CSR 60 Chapter 8 involving extraordinary conditions that adversely affect water quality, and also to annually publish a Consumer Confidence Report (CCR) that provides pertinent information to customers about the drinking water.

- RWC and some of its customers are required to comply with what is sometimes referred to as the "backflow prevention rule," 10 CSR 60 Chapter 11, which outlines requirements for the installation and testing of backflow prevention devices to protect the public water system from contaminants flowing from customers' premises. RWC keeps records of customers required to install and regularly test backflow devices. The City of Raytown has ordinances pertaining to backflow rule compliance and can assist with enforcement if necessary.

- RWC is subject to DNR's Lead and Copper rule, 10 CSR 60 Chapter 15, as is KC as the water supplier. RWC has a sampling site plan for monitoring of lead and copper, and also provides information to customers since a major source of lead and copper contamination is within house plumbing fixtures.

This report is not intended to be an all-inclusive overview of DNR's regulations regarding water quality and monitoring, treatment facility and distribution system operator certification,

laboratory requirements, or construction approval. These items listed above are certain major points that directly involve customer service or impose requirements upon customers.

Tariff Review

Staff reviewed a current copy of the tariff. Raytown's current tariff became effective December 7, 2015. Current PSC MO No. 5 3rd Revised Sheet No. 9, 1st Revised Sheet No. 10 and 1st Revised Sheet No. 11 will be cancelled and replaced by PSC MO No. 5 4th Revised Sheet No. 9, 2nd Revised Sheet No. 10 and 2nd Revised Sheet No. 11.

Rate Design

Staff reviewed the current rate design and as a result, Staff is not making any recommendations in this rate case that would change the existing rate structure. Currently, all of the Company's customers pay a monthly fixed customer charge and a commodity rate per thousand gallons of water consumed.

Conclusion and Recommendations

Staff has no specific recommendations at this time for RWC regarding operations. Staff has not received any substantial number of customer complaints nor customer comments that would indicate significant shortcomings from an operations perspective. Staff notes that RWC appears to be undertaking adequate planning for future projects regarding repairs, rehabilitations and improvements that are necessary for continued safe and adequate service, but none of the projects are so critical as to be immediately needed.

NON-UNANIMOUS AGREEMENT REGARDING DISPOSITION OF SMALL UTILITY COMPANY REVENUE INCREASE REQUEST

THE RAYTOWN WATER COMPANY

MO PSC FILE NO. WR-2023-0344

BACKGROUND

The Raytown Water Company, ("Company") initiated the small company revenue increase request ("Request") for water service that is the subject of the above-referenced Missouri Public Service Commission ("Commission") File Number by submitting a letter to the Secretary of the Commission in accordance with the provisions of Commission Rule 20 CSR 4240-10.075, Small Utility Rate Case Procedure ("Small Company Procedure"). In its request letter, which was received at the Commission's offices on April 3, 2023, the Company set forth its request for an increase of $735,103 in its total annual water service operating revenues. The Company also acknowledged that the design of its customer rates, its service charges, its customer service practices, its general business practices and its general tariff provisions would be reviewed during the Commission Staff's ("Staff") review of the revenue increase request, and could thus be the subject of Staff's recommendations. The Company provides service to approximately 6,541 water customers.

Pursuant to the provisions of the Staff Assisted Rate Case Procedure and related internal operating procedures, Staff initiated an audit of the Company's books and records, a review of the Company's customer service and general business practices, a review of the Company's existing tariff, an inspection of the Company's facilities and a review of the Company's operation of its facilities. (These activities are collectively referred to hereinafter as Staff's "investigation" of the Company's Request.)

Upon completion of its investigation of the Company's Request, Staff provided the Company and the Office of the Public Counsel ("Public Counsel") with information regarding Staff's investigation and the results of the investigation, including Staff's initial recommendations for resolution of the Company's Request.

RESOLUTION OF THE COMPANY'S RATE INCREASE REQUEST

Pursuant to negotiations held subsequent to the Company's and Public Counsel's receipt of the above-referenced information regarding Staff's investigation of the Company's request, Staff and the Company hereby state the following agreements:

(1) The agreed upon water revenue requirement increase of $1,174,782 (27.26% increase) added to the level of current revenues of $4,309,019 results in overall annual revenues of $5,483,801. This revenue requirement is just and reasonable and designed to recover the Company's cost of service. These amounts are shown on the ratemaking income statements found in Attachment A, incorporated by reference herein;

(2) The Auditing Department conducted a full and complete audit of the Company's books and records using the 12-month period ended December 31, 2022 updated to June 30, 2023, as the basis for the revenue requirement determined above. The audit findings can be found in Attachments B and C, incorporated by reference herein;

(3) The agreed upon net rate base is $9,144,649 for water service. The development of this amount is shown on the rate base worksheet that is found in Attachment D, incorporated by reference herein. This amount is included in the audit work papers in the ultimate determination of the revenue requirement shown in (1) above;

(4) Included in Attachment B is the agreed upon capital structure which includes the Company's overall recommended rate of return of 6.80%, which is calculated based on a hypothetical capital structure consisting of 37.97% debt, 47.20% common equity, and 14.82% preferred equity, with a cost of debt of 3.75%.

(5) The schedule of depreciation rates in Attachment E, incorporated by reference herein, includes the depreciation rates used by Staff in its revenue requirement analysis and shall be the prescribed schedule of water/sewer plant depreciation rates for the Company;

(6) To allow the Company the opportunity to collect the revenue requirement agreed to in (1) above, the rates as shown on Attachment F, incorporated by reference herein, are just and reasonable rates that the Company will be allowed to charge its customers. The impact of these rates will be as shown on Attachment G, also attached and incorporated by reference herein;

(7) For the purposes of implementing the agreements set out in this disposition agreement, the Company will file with the Commission, proposed tariff revisions containing the rates, charges, and language set out in the example tariff sheet(s) attached as Attachment H. The proposed tariffs will contain a set of consolidated rates, charges, and rules for water customers. The proposed tariff revisions will bear an effective date of October 30, 2023;

(8) The Company shall mail its customers a final written notice of the rates and charges included in its proposed tariff revisions prior to or with its next billing cycle after issuance of the Commission order approving the terms of this Non-Unanimous

Disposition Agreement. The notice shall include a summary of the impact of the proposed rates on an average residential customer's bill.

(9) Staff or Public Counsel may conduct follow-up reviews of the Company's operations to ensure that the Company has complied with the provisions of this Non-Unanimous Disposition Agreement;

(10) Staff or Public Counsel may file a formal complaint against the Company, if the Company does not comply with the provisions of this Non-Unanimous Disposition Agreement;

(11) The Company, Staff and Public Counsel agree that they have read the foregoing Disposition Agreement, that facts stated therein are true and accurate to the best of the Company's knowledge and belief, that the foregoing conditions accurately reflect the agreement reached between the parties; and that the Company freely and voluntarily enters into this Disposition Agreement; and

(12) The above agreements satisfactorily resolve all issues identified by Staff, Public Counsel and the Company regarding the Company's request, except as otherwise specifically stated herein additional matters.

Additional Matters

Other than the specific conditions agreed upon and expressly set out herein, the terms of this Non-Unanimous Disposition Agreement reflect compromises between the Staff and the Company, and no party has agreed to any particular ratemaking principle in arriving at the amount of the annual operating revenue increase specified herein.

The results of Staff's inspections and review of the Company's operation of its facilities can be found in the Water, Sewer, & Steam Department Report, Attachment J. Staff has completed a Summary of Case Events and has included that summary as Attachment K to this Non-Unanimous Disposition Agreement.

The Company, Public Counsel, and Staff acknowledge that Staff will be filing this Non-Unanimous Disposition Agreement and the attachments hereto, in the existing case and that the Company will file the proposed tariff revisions called for in the agreement. The Company and Public Counsel also acknowledge that Staff may make other filings in this case.

Additionally, the Company and Public Counsel agree that subject to the rules governing practice before the Commission and without waiving the confidentiality of the facts and positions disclosed in the course of settlement, Staff shall have the right to provide an oral explanation to support its entering into this Non-Unanimous Disposition Agreement, if the Commission requests one at any agenda meeting at which this case is noticed to be considered by the

Commission. Subject to the rules governing practice before the Commission and without waiving the confidentiality of the facts and positions disclosed in the course of settlement, Staff will be available to answer Commission questions regarding this Non-Unanimous Disposition Agreement. To the extent reasonably practicable, Staff shall provide the Company with advance notice of any such agenda meeting so that it may have the opportunity to be present and/or represented at the meeting.

SIGNATURES

Agreement Signed and Dated:

Neal Clevenger — Sept. 7, 2023
Neal Clevenger — Date
President
The Raytown Water Company

Curtis Gateley — 9-11-23
Curtis Gateley — Date
Manager – Water & Sewer Department
Missouri Public Service Commission Staff

List of Attachments

Attachment A – Ratemaking Income Statement
Attachment B – Auditing Department Report
Attachment C – EMS Run
Attachment D – Rate Base Worksheet
Attachment E – Schedules of Depreciation Rates
Attachment F – Rate Design Worksheet
Attachment G – Billing Comparison Worksheet
Attachment H – Example Tariff
Attachment I – CXD Report
Attachment J – Water and Sewer Department Report
Attachment K – Summary of Events

Disposition Agreement Attachment J
Water, Sewer, & Steam Department Report

WATER, SEWER, & STEAM DEPARTMENT
FIELD OPERATIONS AND TARIFF REVIEW

INTRODUCTION

Staff performed an inspection of the water system on Wednesday Thursday April 26, 2023 with the Owner / President, Neal Clevenger and Vice-President, Chiki Thompson. A description of the facilities and a listing of Staff's observations and suggestions for improvement is listed below. At the time of Staff's inspection the facilities appeared to be operating routinely.

WATER SYSTEM OVERVIEW

The RWC certificated service includes approximately two-thirds of the City of Raytown and a small portion of the City of Independence, both of which are suburban communities in Jackson County, near Kansas City, MO. RWC reported 6,541 metered service connections.[1] RWC does not produce any of its own water, it purchases water wholesale from Kansas City (KC).

There are 379,210 feet of water main distributing water through the RWC service area. The majority of the pipe, 318,941 feet (84%), is cast iron. The rest of the distribution system is made up of various materials of pipes including: galvanized iron, polyvinyl chloride (PVC), ductile iron, and even some copper pipe. The pipes range in size from two-inches to twelve-inches in diameter. Water is received through any of eight metered connections which can be opened and closed as needed. Seven of the connections are six-inch water meters and the other is a four-inch water meter. The metering points are owned by RWC but the meters themselves are owned by KC.

On July 14, 2022, RWC signed a twenty year Purchase Water Agreement (PWA) with KC. This agreement guarantees RWC up to three million gallons of water per day (MGD) under normal operating conditions. The PWA allows for KC to restrict water use to RWC in the event KC is not able to provide more. It is written in the PWA that RWC maintain enough water in storage to "during normal and peak operating periods, storage facilities shall be available and used to the fullest extent for the purpose of offsetting peak demand." The PWA also includes language allowing the cost of water being purchased by RWC to be increased by KC as needed.

RWC customers use an average of 1.1 MGD. The availability of water to RWC and others who receive water from KC can depend on KC customer water use as well as emergency events that take place within KC's water system, such as main breaks and water flow for firefighting. Extraordinary usage caused by events such as these can affect available flow through several of

[1] DR 0092

the metering points at the same time. Under normal operating conditions RWC should be able to receive more than adequate water supply from KC, but if flow is disrupted then it is good for RWC to maintain plenty of water in storage.

Since RWC is a wholesale customer, it is important to have sufficient storage in the event the event of a lack of supply. RWC has three elevated storage tanks, which in total can store 2.5 million gallons of water. KC delivers water to Raytown with enough pressure to push the water to the top of the storage tanks so pumping equipment is not required. In the event of a water main break or fire in the KC area or to one of the other districts to which it supplies water, the amount of water being provided to RWC could be limited. In that case, it would be beneficial to RWC to have additional water storage. A fourth elevated storage tank, built in 1925, stands near the old office building. This tank was taken out of service and removed from rates by the PSC several years ago after the large two-million gallon hydropillar storage tank was built, because it was determined by Staff to no longer be needed. According to RWC, the city fire department has urged RWC to place the fourth storage tank back in service to provide more consistent water pressure in the downtown area.

SYSTEM OPERATIONS REVIEW

RWC has a contract with Suez, a specialty contractor, for storage tank maintenance. The contractor monitors tank condition, and undertakes minor and major repairs and rehabilitation when necessary. Suez has also been working with RWC to replace all of the water meters to new Advanced Meter Infrastructure (AMI) technology to increase reliability and decrease water loss reporting. RWC states that the contractor provides excellent response when called upon. The storage tanks are in generally good condition as detailed in 2019 tank inspection reports reviewed by Staff.

OPERATIONS RECORDS

RWC maintains a Geographic Information System (GIS) record of its water mains along with locations of valves, fire hydrants and meter settings. Locations of these components are on photograph maps both on paper, and in electronic format available in the office on a computer or in the field on an electronic tablet. In addition to locations on the GIS map system, fire hydrant inventory with information regarding the make, condition, and maintenance work is kept in a paper document. RWC undertakes routine painting and maintenance checks every few years. Additionally, RWC states that it regularly corresponds with the city fire department, which is authorized to operate and test fire hydrants, and which keeps hydrant test flow records.

Similar to hydrants, valve inventory is shown on RWC's GIS map system, but RWC also has paper records of valve location and operation with information regarding size, location, direction and number of turns to open, normal position (open or closed), condition information of the valve and valve box, and date of exercise/inspection. Valves are inspected and operated as needed, and as such, there is not a regularly conducted valve exercise program. RWC states that

it has identified several areas where additional valves are desirable, in order to reduce the number of affected customers when work is conducted in the areas. Additional valves are being installed in conjunction with new mains or main replacements.

All RWC customers are metered. Meter records are kept in a searchable electronic database. RWC uses the meter size and age sort functions for the meter test program that meets Commission Rule 20 CSR 4240-10.030(38). This rule requires 5/8-inch meters used on most residential and small commercial customers to be tested every ten (10) years or 1.5 million gallons, whichever is first. Larger meters are required to be tested more frequently and with greater registered volumes, based on size.

Although in the past, water utilities, including RWC, would test and rebuild all meters on this schedule, now most utilities simply replace 5/8-inch and 3/4-inch size meters with new meters, because the low cost of new small meters makes this more economical. RWC has replaced approximately half of the old meters with new AMI meters which can be read remotely. AMI technology will save time for meter readers who can now perform other tasks. AMI meters allow RWC to give better information to customers who dispute high water bills. The data provided by AMI meters can determine down to the hour how much water was used by a customer.

Because of RWC's proximity to its wholesale water provider, KC, there are some sections of KC's or RWC's water mains that are located generally along city limit boundaries in streets, with KC residents/customers on one side of the street and RWC customers as either City of Raytown or City of Independence residents on the other side. According to the RWC staff, there are currently eleven RWC customers who are actually connected directly to a water main owned by KC and served through KC meters, where KC bills RWC for water service and RWC bills each customer using its approved water rates. Also the opposite scenario exists; there are currently twenty-six KC customers who are connected directly to a water main owned by RWC and served through RWC meters, where RWC bills KC for water service and then KC bills its customers using its water rates.

RWC maintains written operations plans that include: Operational Policy & Procedures, Main Leak and Repair Program, and Contractor Qualification Requirements. Copies of these plans were provided during the system inspection and they are adequate for the RWC system.

RWC states that it is understaffed to perform the work required and would greatly benefit from two additional field workers which would all the Company to have a fully staffed leak repair and main replacement crew as well as a fully staffed restoration crew in addition to the meter readers who also perform disconnections and reconnections as needed. Staff has encouraged RWC to hire two new field workers in order to do the work required and show evidence of the benefit to have these additional workers approved and have the additional salaries included in rates. To date, Staff has not received any documentation from RWC about the hiring of additional workers

or any information about the efforts made and the difficulties encountered in the attempt to hire qualified workers.

OTHER OPERATIONS MATTERS

RWC, and the City of Raytown, have an agreement that provides for discontinuance of water service by RWC for nonpayment of sewer bills to the City of Raytown as the sewer utility. This activity is authorized by state statutes, §§393.015 and 393.016, RSMo, and RWC tariff Rule 13A. RWC states that the agreement is exercised routinely, and seems to be working well.

TARIFF REVIEW

Staff reviewed a current copy of the tariff. Raytown's current tariff became effective September 8, 2020. Staff will work with Raytown to revise P,S.C. MO No. 5 4th Revised Sheet No. 9, 2nd Revised Sheet Nos. 10 – 11, and 1st Revised Sheet No. 12 if changes to rates are approved by the Commission.

RATE DESIGN

Staff reviewed the current rate design and is not making any recommendations in this rate case that would change the existing rate structure. Currently, all of the Company's customers pay a monthly fixed customer charge and a commodity rate per thousand gallons of water consumed. New rates have been calculated based on the increase and have been included in the supporting documents.

CONCLUSION AND RECOMMENDATIONS

Staff has no specific recommendations at this time regarding operations. Staff has not received any customer complaints nor customer comments that would indicate significant shortcomings from an operations perspective.

Data Response Display - WR-2023-0344 - 0128.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0128.0
Requested Date	10/5/2023
Due Date	10/15/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	Water and Sewer Report
Description	Please provide a narrative reconciliation of why the Water and Sewer Report discusses neither water loss nor the 14 separate months that Raytown sold more water than it purchased since the 2020 case. Specifically, please explain why Staff only discussed these issues in the purchased water section of the Auditing Department Report.
Request Security	Public (DR)

Response Date	10/16/2023
Response	Because the faulty meters owned by Kansas City were replaced, there was no reason to attempt to perform additional analysis. Non-revenue water cannot be reliably determined with the small sample size of recent, higher quality data. Staff prepares a recommendation for the Commission, and is under no requirement to include special analysis for the Office of Public Counsel in its recommendations.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0138.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0138.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	In reference to Staff's response to OPC Data Request number 0128.0
Description	In reference to Staff's response to OPC Data Request number 0128.0, please confirm that the Staff's water and sewer department did not identify, review, or address any engineering concerns related to water loss or leaks as part of the Water and Sewer Report attached to the non-unanimous stipulation and agreement reached between Raytown and Public Service Commission Staff. If this is not accurate, please identify where in the Water and Sewer Report Staff's water and sewer department identifies, reviews, or addresses any engineering concerns related to water loss or leaks.
Request Security	Public (DR)

Response Date	10/23/2023
Response	Staff did not address any engineering concerns with water loss.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0140.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0140.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	water loss and leak data
Description	Does Staff believe that water loss and leak data is not an engineering concern for operation of water company?
Request Security	Public (DR)
Response Date	10/23/2023
Response	Staff understands that water loss is a fraction of non-revenue water, and non-revenue water is an engineering, maintenance, and administrative concern for a water company.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0142.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0142.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	meters
Description	Please provide the approximate date Staff became aware that the meters that recorded the volume of water sold to Raytown from the city of Kansas City were replaced. Also, please provide a list of the actions the Company took after discovering the discrepancy.
Request Security	Public (DR)

Response Date	10/23/2023
Response	The company contacted Kansas City to initiate an investigation. Staff is not aware of the date.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0143.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0143.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	data for water loss
Description	According to Staff, what is the first month of reliable data for water loss? Does Staff believe that any of the months prior to the meters from Kansas City being changed are reliable? Why or why not?
Request Security	Public (DR)
Response Date	10/23/2023
Response	Staff has not identified a new date for a future analysis of water loss.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0144.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0144.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	Staff's response to OPC Data Request number 0128.0
Description	In reference to Staff's response to OPC Data Request number 0128.0, please provide a narrative response indicating what "additional analysis" Staff would have performed if the faulty meters owned by Kansas City had not been replaced.
Request Security	Public (DR)
Response Date	10/23/2023
Response	In a typical rate case Staff examines non-revenue water, attempts to determine the fractions of water loss, water theft, poor metering, adjustments, etc., and determines if additional intervention is necessary by a company.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0145.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0145.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	Staff's response to OPC Data Request number 0128.0
Description	In reference to Staff's response to OPC Data Request number 0128.0, please confirm that the "small sample size of recent, higher quality of data" would only exist outside of the test year and update period of June of 2023. If not please explain why this assumption in false given Raytown's direct testimony of Mr. Neal S. Clevenger that meters were replaced in June and July of 2023 by the City of Kansas City.
Request Security	Public (DR)

Response Date	10/23/2023
Response	The test year ended June 30, 2023, therefore the data problems associated with the meters owned by Kansas City would not have been resolved within the test year.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0146.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0146.0
Requested Date	10/18/2023
Due Date	10/23/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	Staff answer to data request number 0128
Description	Please refer to Staff answer to data request number 0128, which indicates that Staff believed there was no reason to attempt to perform additional water loss analysis. Please provide a narrative description of what analysis was performed as part of this case related to water loss as my understanding is that Staff used an adjusted water loss number from the 2020 rate case.
Request Security	Public (DR)
Response Date	10/23/2023
Response	See DR 0127 Response.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

No Attachments Found

Data Response Display - WR-2023-0344 - 0127.0

Request Summary

Submission No.	WR-2023-0344
Request No.	0127.0
Requested Date	10/5/2023
Due Date	10/15/2023
Issue	Other
	Other
Requested From	MO PSC Staff (Other) Casi Aslin casi.aslin@psc.mo.gov
Requested By	Office of the Public Counsel (OPC) (Other) John Robinett john.robinett@opc.mo.gov
Brief Description	Staff Workpapers
Description	Please provide any and all work papers that support Staff's recommendation of 12.04% for water loss in this case.
Request Security	Public (DR)
Response Date	10/12/2023
Response	Please see the attached workpaper from the WR-2020-0264 rate case for the 12.04% water loss calculation. This was used to calculate the purchased water expense adjustment for the EMS run attached to the Unanimous Disposition Agreement approved by the Commission on August 26, 2020.
Objections	
Response Security	Public (DR)
Rationale	

Attachments

Name	Size	Security
Purchased Water Expense - Settlment.xlsx	90.35 KB	Public (DR)

Total: 1 file(s), 90.35 KB

Raytown Water Company
WR-2020-0264
Test Year 12/31/2019
Purchased Water
Source: DR 7, 10, 11, 12, GL
Prepared by: Antonija Nieto

Annualized Revenue Usage from Revenue Workpapers (3 year average)		**358,303,540**	gallons
Gallons per hundred cubic feet (ccf)	divided by	748	gallons
Annualized Usage in CCF	equals	479,015.43	ccf
Annualized Loss Factor (3 year average)	times 1 + (	12.04%	)
Total Annualized CCF Purchased	equals	536,688.89	ccf
FY2019 rate per ccf	times	**$2.510**	
Annualized Cost	equals	$1,347,089	
May 1, 2020 1.7% rate increase		$0	
Total Annualized CCF Purchased		$1,347,089	
Test Year Cost (Account 602)	minus	$1,513,915	
Staff Adjustment to Account 602.000:	equals	***-$166,826***	
(To adjust test year purchased water to an annualized amount)			

1CCF (100 cubic feet) = 748 gallons

***Note: C*alculated from DR 7 "2019 Wholesale Water Bills vs. RWC Sales" - De**

***Note*: Per update to DR 10, there will be a rate increase freeze in 2020 due t**

	Gallons purchased	Gallons sold	Loss Factor	% Loss
2014	393,417,867	378,281,800	15,136,067	3.85%
2015	428,441,684	373,381,300	55,060,384	12.85%
2016	429,493,372	383,107,700	46,385,672	10.80%
2017	394,310,444	378,916,600	15,393,844	3.90%
Adjusted -28,125,000 for hydrant leak 2018	416,093,711	364,247,900	51,845,811	12.46%
2019	467,929,706	346,845,488	121,084,218	25.88%
3 yr avg	426,111,287	363,336,663	62,774,624	12.04%

Data obtained from DR 7

Highlighted years excluded from the average as outliers.

Purchase Water - Source of Sup	01.7100.602				
1/31/2019 01/2019	RECORD WATER PURCHASED	DR	Beginning Balance	0.00	
2/28/2019 02/2019	Record Water Purchased	DR	Pd Exp	118,567.10	0.00 1-19
3/31/2019 03/2019	RECORD WATER PURCHASED	DR	Pd Exp	124,688.73	0.00 2-19
4/30/2019 04/2019	Record Water Purchased	DR	Pd Exp	108,998.51	0.00 3-19
5/31/2019 05/2019	RECORD WATER PURCHASED	DR	Pd Exp	118,018.10	0.00 4-19
6/30/2019 06/2019	Record Water Purchased	DR	Pd Exp	160,257.91	0.00 5-19
7/30/2019 07/2019	RECORD WATER PURCHASED	DR	Pd Exp	97,252.33	0.00 6-19
8/31/2019 08/2019	RECORD WATER PURCHASED	DR	Pd Exp	149,876.09	0.00 7-19
9/30/2019 09/2019	Record Water Purchased	DR	Pd Exp	139,094.35	0.00 8-19
10/31/2019 10/2019	RECORD WATER PURCHASED	DR	Pd Exp	138,265.59	0.00 9-19
11/30/2019 11/2019	Record Water Purchased	DR	Pd Exp	126,450.04	0.00 10-19
12/31/2019 12/2019	RECORD WATER PURCHASED	DR	Pd Exp	114,573.33	0.00 11-19
			Pd Exp	117,873.02	0.00 12-19
			Ending Balance	1,513,915.10	

Totals: Orig-App= .00 Rev/Amend= .00 Transfers= .00 Per-Exp= 1,513,915.10 Encumb= .00

cember total $ over CCF usage

n Covid-19.