Exhibit No. _____
Issues: Local Public Hearing Comments; Consolidation; Missouri Operations
Witness: Josiah Cox
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Confluence Rivers Utility Operating Company, Inc
File Nos.: WR-2023-0006 / SR-2023-0007
Date: July 21, 2023

Missouri Public Service Commission

Surrebuttal Testimony

of

Josiah Cox

On Behalf of

Confluence Rivers Utility Operating Company, Inc

July 21, 2023

Table of Contents

SURREBUTTAL TESTIMONY OF
JOSIAH COX
CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC.

I. WITNESS INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Josiah Cox. My business address is 1630 Des Peres Road, Suite 140, St. Louis, Missouri, 63131.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am President of Confluence Rivers Utility Operating Company, Inc. ("Confluence Rivers" or "Company"). I am also President of CSWR, LLC, ("CSWR") and Central States Water Resources, Inc., ("Central States"), each of which is a Confluence Rivers affiliate.

Q. ARE YOU THE SAME JOSIAH COX WHO PREVIOUSLY SUBMITTED DIRECT AND REBUTTAL TESTIMONY IN THIS PROCEEDING ON BEHALF OF CONFLUENCE RIVERS?

A. Yes.

II. OVERVIEW

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. The purpose of my Surrebuttal Testimony is to respond to testimony at local public hearings. In addition, I will respond to the rebuttal testimony filed by the Missouri Public Service Commission Staff ("Staff") on the issue of consolidation (Keri Roth); as well as the testimony of the Office of the Public Counsel ("OPC") on the disallowance of Missouri third-party operations costs (Geoff Marke).

Q. WOULD YOU IDENTIFY THE CONFLUENCE RIVERS' WITNESSES THAT ARE FILING SURREBUTTAL TESTIMONY IN THIS PROCEEDING?

A. In total, Confluence Rivers is filing the surrebuttal testimony of six witnesses. In addition to me, the following persons are filing surrebuttal testimony on the identified issues:

- Todd Thomas – System Operations
- Brent Thies – Revenue Requirement, Rate Base Valuations, Net Operating Losses, Internal Operations Team
- Dylan D'Ascendis – Capital Structure, Cost of Debt, Return on Equity
- Tim Lyons – Consolidation, Rate Design
- Ned Allis – Depreciation

Q. ARE YOU FAMILIAR WITH THE REBUTTAL TESTIMONY IN THIS CASE?

A. Yes. On June 29, Staff filed extensive rebuttal testimony. As more fully described in the Surrebuttal Testimony of Mr. Thies, Staff's rebuttal testimony corrects a number of revenue requirement errors contained in Staff's direct testimony.[1] Relative to this testimony, Staff also filed testimony that discusses consolidation and rate design. In addition, on the same day, OPC filed rebuttal testimony that proposes to disallow $1,094,426 in third-party operations costs.

Q. WITH THE CORRECTIONS REFLECTED IN ITS REBUTTAL TESTIMONY, IS CONFLUENCE RIVERS IN AGREEMENT WITH STAFF'S RECOMMENDED REVENUE REQUIREMENT?

A. No. As Mr. Thies explains, because: (1) Staff's proposed revenue requirement decreased from that reflected in its direct testimony and (2) the Company's revenue requirement increased as a result of updating its revenue requirement, there is now a larger revenue

[1] Amenthor Rebuttal, page 2; Dhority Rebuttal, page 8; and Majors Rebuttal, pages 1 and 2.

requirement difference between the parties. If you factor in the impact of OPC's newly proposed disallowance, the difference of positions in this case is even larger.

Q. WOULD YOU BRIEFLY DISCUSS THE LARGEST REVENUE REQUIREMENT ISSUES THAT NOW EXIST BETWEEN THE PARTIES?

A. ***First***, there is a large difference involving the income tax effects of net operating losses. There, despite ratepayers receiving the benefit of rates that were adopted by Confluence Rivers at the time that it acquires a system (rates that routinely do not cover operating expenses), Staff now asserts that the ratepayers should also receive the tax benefits associated with the operating losses that were covered by investors. It is inequitable for Staff to deny the Company the tax benefits for such losses when investors were required to provide working capital – for which they received no return – to cover those operating cost shortfalls. ***Second***, as I discussed briefly in my rebuttal testimony, Staff continues to erroneously classify numerous investments as an expense instead of as a capital investment designed to restore the life of a plant that had been "neglected" by previous owners.[2] The practical effect of this reclassification is to remove a significant amount of rate base. Staff compounds the effect of its misclassification by also proposing a normalized level of operating expenses, which allows Confluence Rivers to recover only a portion of that newly classified repair expense. In addition, relative to other rate base values, Staff continues to disallow legal and preliminary costs that were necessary for Confluence

[2] Roos Direct, page 4. "In Missouri, Confluence has acquired a number of distressed water and sewer utilities, refurbished them, and operates them. ***Typically, these distressed systems have significant environmental compliance issues, and are in need of significant investment due to deferred maintenance and neglect by the previous owner.***" (emphasis added).

Rivers to acquire these distressed systems. Interestingly, as explained in rebuttal testimony, Staff's position with regard to these capitalized costs is 180° opposite from that which it took in previous rate cases. ***Third***, as in virtually all rate cases, there are still significant issues associated with cost of capital, including capital structure, return on equity, and cost of debt. ***Fourth***, as indicated, Public Counsel seeks to disallow over $1 million of the Company's annual third-party operating costs. As will be quantified between my testimony and that of Mr. Thies, Dr. Marke's testimony reflects a fundamental lack of understanding regarding the economics of using internal versus external operators. In fact, the internalization of operations, as suggested by Dr. Marke, would ultimately lead to a revenue requirement increase of approximately $553,000.

Q. DO YOU HAVE ANY OVERARCHING COMMENTS?

A. Yes. I had anticipated that there would be a significant number of revenue requirement issues between the Company and Staff / OPC. What surprised me, however, was the tone of Staff and OPC's testimony and their failure to recognize the nature of the Confluence Rivers' business model. As reflected in the linked videos,[3] Confluence Rivers and its operating affiliates are focused on the acquisition of distressed water and wastewater systems. Many of these systems had failed, despite being subject to pervasive regulatory oversight. In fact, several of the systems had been languishing under state appointed receivers.[4] Oftentimes, at the request of Staff or the Missouri Department of Natural

[3] Elm Hills UOC: Before and After - YouTube; Indian Hills Utility Operating Company — Transformation on Vimeo

[4] The Osage Water Company ("OWC") is an excellent example of a regulated system that had been neglected by its previous owner and then languished in a court-appointed receivership. "Due to certain decisions by company management, failure to properly construct, and failure to properly maintain the water and sewer

Resources ("DNR"), Confluence Rivers purchased distressed systems and, utilizing its technical, managerial, and financial expertise, restored these systems to a state in which they now meet federal and state environmental requirements.

In their testimony, however, Staff and Public Counsel now appear to be unwilling to recognize that as a part of the rehabilitation process Confluence Rivers must have some time to operate these systems and, through the DNR permitting and construction process, bring them into compliance with applicable laws and regulations. Such a period also allows the Company to better understand the problems plaguing these systems and to determine the most economical method to solve these problems. Given this, compliance is not achieved overnight.

Despite this reality, however, based upon limited examples described in its testimony,[5] Staff suggests that Confluence Rivers' systems are not "well-maintained"[6] and that Confluence Rivers operations have exhibited "a lack of oversight."[7] Other than the testimony of Mr. Roos, in which he finds that every capital investment made by Confluence Rivers is prudent, Staff seems unwilling to recognize the exemplary efforts that Confluence

systems, there are several compliance issues that need to be addressed. Some facilities are operating without permits from DNR; at least one wastewater treatment system is in such a state of disrepair that wastewater is bypassing treatment processes. Varying degrees of immediate repairs and longer term capital improvements are necessary among the systems." (Dietrich Supplemental Testimony, Appendix A, Case No. WA-2019-0185, filed September 13, 2019). In her testimony in that case, Ms. Bolin stated, "OWC was placed into permanent receivership on October 21, 2005, ***approximately 14 years ago*** and the receiver was unable to finalize any sale of the assets during the entire historical time period until now." See, Bolin Surrebuttal, Case No. WA-2019-0185, filed September 4, 2019, at page 4 (emphasis added).

[5] While Confluence Rivers has 68 systems in Missouri, Staff made its conclusions based simply on Auburn Lakes and Fox Run. (See, Gateley Direct; Williams Rebuttal; Harris Rebuttal).

[6] Harris Rebuttal, page 2.

[7] Gateley Direct, page 10.

Rivers has made to rehabilitate the other 66 systems that it has acquired. This stands in stark contrast to the opinions of the DNR.

> When systems are unable to resolve their technical, managerial, or financial problems, one reliable solution is selling the system to a higher-performing utility operating company. ***In Missouri, Confluence Rivers Utility Operating Company, Inc. (CRUOC) is one of the few utility operating companies who is willing to acquire some of the most difficult failing systems. CRUOC has consistently taken swift actions after taking control of these systems to bring them into compliance by employing qualified operators, effectively administering and managing the systems, and investing in repairs and upgrades***.
>
> CRUOC's willingness to acquire systems with long-standing compliance issues has proven to be beneficial to human health and the environment by bringing many of these systems into compliance with environmental laws. The Department looks forward to continuing to work with CRUOC as it continues to acquire wastewater and public water systems in Missouri, in furtherance of the Department's initiative to encourage regionalization and consolidation of the many private systems in Missouri that are struggling to achieve compliance with laws for the protection of public health and the environment.[8]

Beyond Staff's limited operational concerns, Staff also levels criticisms related to customer service. Citing only alleged "quality of service issues" and "comments made by ratepayers at local public hearings . . . [regarding purported] difficulties in reaching Confluence's customer service department," Staff proposes to disallow half the costs of Confluence Rivers' third-party call center operator. While those comments certainly must be considered, it should also be recognized that criticisms regarding difficulty reaching customer service were coincidentally limited to one local public hearing (Farmington) at which the vast majority of customers (Port Perry[9] and Terre du Lac) had not seen a rate

[8] See, Cox Rebuttal, Schedule JMC-R-2 (emphasis added).
[9] The testimony from Port Perry residents represents a continuation of the opposition that such customers had to the acquisition of the troubled Port Perry system in 2019. (See, Case No. WA-2019-0299).

increase in decades and, therefore, were seeing significant proposed increasing from a percentage standpoint.[10] In contrast, it is remarkable that similar alleged systemic customer service failures were not also leveled by customers receiving proposed rate decreases (i.e., Hillcrest, Branson Cedars; Majestic Lakes, etc.). I will discuss the legitimacy of Staff's alleged "quality of service issues" later in this testimony.

Most disconcerting, however, as will be discussed later, is OPC witness Marke's suggestion that the Commission "disallow $1,094,426 from the Company's combined water and wastewater operations expense budget" based upon his belief that Confluence Rivers should be operating its water and wastewater systems utilizing internal operators rather than third party contractors. Dr. Marke claims that such a disallowance will "make customers whole for the Company's imprudent business decisions." As will be discussed in greater detail later in this testimony, such a position demonstrates a fundamental lack of understanding of water and wastewater operations. In fact, while Dr. Marke has garnered significant experience testifying regarding electric and gas matters, his credentials demonstrate a dearth of experience when it comes to water / wastewater cases. In addition, he has no education, experience or training relative to the operation of water and wastewater systems.[11] Lack of experience aside, Dr. Marke's recommendation (that

[10] The inevitable fact that the rehabilitation of these systems, that have previously been neglected, will lead to higher rates has previously been recognized by Staff. "Staff has worked with CSWR for nearly five years. CSWR has purchased many distressed systems and returned them to compliance. That is a benefit to the customers and, overall, to the state of Missouri. Unfortunately, the cost to do so has resulted in high rates to the consumers in those areas. . . Although high rates have been an eventual outcome, due to the dilapidated condition of the systems that were purchased, CSWR has shown the capabilities needed to purchase and upgrade these systems." (Busch Surrebuttal, Case No. WA-2019-0299, filed September 23, 2019, at page 8).

[11] In 10 years, Dr. Marke has testified in 104 Commission dockets, but only 7 other cases involving water or wastewater. In those water cases it does not appear that Dr. Marke has ever testified regarding to water or wastewater operations.

Confluence Rivers should rely upon internal operators), is based upon a complete lack of understanding regarding the nature of water operations and, more specifically, the specific nature of Confluence Rivers' systems. Indeed, if the Commission were to include the full cost of his recommendation that Confluence Rivers internalize system operations, it would actually result in greater costs ($550,000) for customers. As I will discuss later, and as quantified by Mr. Thies, the utilization of third-party operators is the most economical and cost-effective approach to operations. It also ensures that our systems are operated and maintained by qualified personnel who are available around the clock to deal with significant service-affecting problems and who can ensure those systems are operated in accordance with applicable laws and regulations. As such, Dr. Marke's uninformed opinion should be summarily rejected.

III. RESPONSE TO LOCAL PUBLIC HEARING COMMENTS

Q. ARE YOU FAMILIAR WITH THE COMMENTS FROM THE LOCAL PUBLIC HEARINGS?

A. Yes. As I mentioned in my Rebuttal Testimony, I personally attended several of the local public hearings and, for those which I could not attend, I received specific updates regarding the nature of the comments and the systems in question.

Q. WERE YOU SURPRISED BY THE ATTENDANCE AT THE LOCAL HEARINGS?

A. No. It is a fact of the utility business that no one likes a rate increase and I believe many of the comments reflected that fact, either in terms of displeasure with the percentage increase or in terms of the final rate.

Q. WERE YOU ABLE TO ADDRESS THE LOCAL HEARING COMMENTS COMPLETELY AT THE TIME OF YOUR REBUTTAL TESTIMONY?

A. No. At the time that I filed my Rebuttal Testimony, the transcripts from the local public hearings were not yet available. Since that time, however, these transcripts have become available and Confluence Rivers has had an opportunity to review the testimony with reference to the customers and individuals that raised those comments. This allowed Confluence Rivers to attempt to link comments with the Company's customer service records.

Q. DO YOU HAVE ANY OVERARCHING COMMENTS REGARDING YOUR EXPERIENCE WITH CUSTOMER CONCERNS?

A. I certainly understand the concerns about rate increases. Unfortunately, that is a natural extension of correcting problems in most, if not all, of the systems owned by Confluence Rivers. It is the nature of Confluence Rivers' mission to identify, acquire and rehabilitate distressed systems that are not meeting customers' service expectations. Because of this, Confluence Rivers sometimes gets assigned blame for service issues that happen both prior to acquisition (because customers are not as locked in on closing dates as the parties) and for experiences between acquisition and when repairs are actually completed.

It takes time for Confluence Rivers to help customers forget the past poor water and wastewater service they have received from a poorly operated system, an abandoned system, or a system that languished in a court-appointed receivership.

Q. DO YOU HAVE AN EXAMPLE OF THIS SITUATION?

A. Yes. An excellent example of this situation was raised at the Camdenton local public hearing. There, Norman Thrall and Joseph Maixner, both from the Glen Meadows service area, testified regarding dirty water and lack of water pressure.[12] Mr. Maixner complained that the Company has not yet made the investments (i.e., "disinfection system for chlorinating") referenced in the customer welcome letter. That said, as Mr. Maixner acknowledged, however, the Glen Meadows system was purchased relatively recently by the Company in December 2022.[13] Therefore, Confluence Rivers has not had an adequate opportunity to address the deficiencies associated with that system. For instance, the evaluation, system design, and permitting process for the water disinfection system alone will commonly take longer than six months. As such, Confluence Rivers receives blame for poor utility service even though those service problems are a lingering reminder of past owner neglect.

Q. WOULD YOU COMMENT ON ASSERTIONS THAT CUSTOMERS HAVE HAD DIFFICULTY IN REACHING CONFLUENCE RIVERS' CUSTOMER SERVICE?

A. Yes. It is certainly a core part of our function to be able to be available for communication with our customers. For this reason, I personally lead a weekly meeting to discuss customer

[12] Tr. Pages 11-17.
[13] *Id.* at page 16.

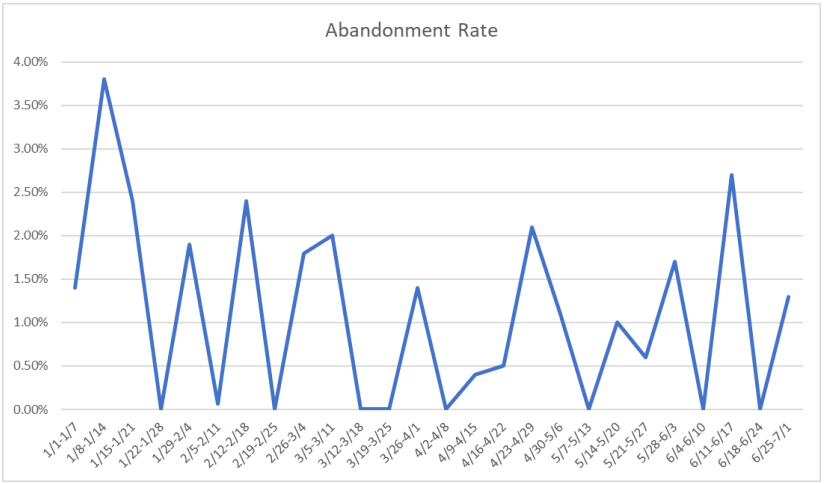
service metrics for the prior week. Among the metrics reviewed for Confluence Rivers are call volumes, calls handled by agent vs. calls processed through the interactive voice response ("IVR") process, abandonment rate, average wait time, and average handle time. The monthly customer service metrics are also shared in reports with the Commission's Customer Experience Department.[14]

Q. WHAT DOES THAT EXPERIENCE SHOW YOU AS TO THE ABILITY OF CUSTOMERS TO REACH A REPRESENTATIVE FO THE COMPANY?

A. First, in a perfect world, we would never miss a customer's call. However, experience in the industry shows that that situation is, unfortunately, impossible. Confluence Rivers strives to achieve an abandonment rate of less than 7% – which means no more than 7% of customers who call our customer service line abandon the call because it has not been answered.[15] We believe this is consistent with the industry standard and the Company has routinely met this goal. For instance, in May 2023, of 1,198 Confluence Rivers customer service calls, only five (0.42%) were abandoned. The May 2023 abandonment rate is not an aberration. As the following diagram depicts, for every week this year, Confluence Rivers has easily met the 7% industry standard abandonment rate.

[14] See, Schedule JMC-S-1 for the May 2023 customer service report provided to the Commission's Customer Experience department.

[15] The 7% abandonment rate is based upon an industry standard. For instance, the following website discussing top call center industry standard metrics states, "average abandonment rate is a percentage of calls that are dropped by customers before they are able to reach an agent. This percentage shows how satisfied customers are with wait times and call experienced. The global call metric for call abandonment rates is between 5% to 8%." Top Call Center Metrics - Industry Standards |LiveAgent



Thus, while I am concerned about any customer who is unable to reach us, I do not believe that the statistics show a situation worthy of the Staff proposed disallowance.

Q. DOES THE TESTIMONY OFFERED AT THE LOCAL PUBLIC HEARINGS AND THE WRITTEN COMMENTS REPRESENT CONTINUING COMPLAINTS FROM THOSE CUSTOMERS?

A. Not for the most part. Confluence Rivers has approximately 9,684 water and sewer connections.[16] Of those, 263 (2.7%) either submitted written comments in this docket or provided testimony at the local public hearing.[17] Based upon Company's customer experience software queries, of the 263 customers that provided comments or submitted testimony, it found 40 that had contacted the Company in the last year with any service or billing related issues. As such, the vast majority of the comments or testimony submitted

[16] See, Roth Direct, Attachments 1-7. Confluence Rivers acknowledges that there are some customers that have both water and sewer service. As such, there are not 9,684 unique customers. Nevertheless, this does not change the conclusions from this analysis.

[17] The referenced number (263) include every unique comment or piece of testimony. In its research, the Company identified several individuals that submitted duplicate testimony and / or comments. As such, there were 216 unique individuals. This analysis, however, relies upon comments / testimony and not individuals.

in this case (84.8%) were associated with customers whose concerns may have been triggered by the proposed rate increase.

Q. WHAT DOES THAT MEAN FOR THE COMMENTS THAT HAVE BEEN RECEIVED?

A. Confluence Rivers must still be aware of those comments and consider each as to whether any change in operations is necessary. However, all parties must also remember the context in which they have been raised in determining what action, if any, is appropriate.

Q. HOW HAVE RATE INCREASES IMPACTED CUSTOMER COMMENTS IN THIS CASE?

A. As I mentioned, 263 customers either filed comments or provided testimony at the local public hearings. Of those 263 customers, 233 (88.6%) were experiencing their first rate increases since being acquired by Confluence Rivers. The remaining 30 commenters (11.4%) had already gone through a rate case. As can be seen then, the likelihood of a customer commenting in this rate case appears to be directly affected by whether the customer is facing a rate increase. This is significant because most customers, at the time that they are acquired by Confluence Rivers, generally have artificially low rates that were adopted by Confluence Rivers when it acquired a system. In most cases, these rates are artificially low because previous owners have not gone through a rate case for decades. For instance, the current Port Perry sewer rates are $18.94 / month and have not changed since January 1, 1994.[18] Not surprisingly then, after having such deflated rates for 30 years,

[18] *Order Approving Tariffs and Agreement*, Case No. SR-94-122, issued December 22, 1993, at page 4.

these customers become vocal when faced with a proposed 277% rate increase.[19] In contrast, however, customers that have already experienced their initial rate increase do not appear to have similar service concerns. These customers have already experienced their initial rate increase and, as a result of the economies of scale being achieved in this case, are proposed to receive rate reductions. As mentioned, of the commenters in this case, 11.4% were associated with customers that had already gone through a rate case and, as a result, were not subject to the same rate concerns.

Q. HAS THE COMPANY TAKEN OTHER STEPS TO ADDRESS THE TESTIMONY FROM THE LOCAL PUBLIC HEARINGS?

A. Yes. Confluence Rivers has also worked with Staff to identify all of the service-related testimony. From this, the Company will either seek to identify whether any service-related issue has already been resolved or, if not, what can be done to resolve the issue.

To really put Confluence Rivers customer service metrics into perspective, it is important to expand the focus beyond connections and focus, instead, on customers. This is demonstrated by the fact that it was individual people who commented or testified in this case. While serving 9,684 connections, Confluence Rivers services over 20,000 individuals. Of these 20,000 individuals, 263 individuals (1.3%) either commented or testified in this case. Three of those 263 individuals had previously contacted Confluence Rivers about their service. Therefore, 0.2% of the people served by Confluence Rivers has called Confluence Rivers in the past year **and** voiced concerns to the Commission.

[19] The Commission will undoubtedly recall the large number of Port Perry attendees at the Farmington local public hearing that were clad in red t-shirts and complaining about the rate increase in this case.

Q. ARE THERE ANY SPECIFIC ISSUES FROM THE LOCAL HEARINGS THAT YOU WOULD LIKE TO ADDRESS?

A. Yes. At the Farmington local public hearing held on June 23, the fire chief for the Terre du Lac volunteer fire department raised concerns regarding the inability of the Terre du Lac water system to provide proper fire suppression coverage.[20] It is the Company's understanding that the fire chief is concerned that the Terre du Lac water system, including the existing hydrants, are incapable of supplying full-service fire suppression.

Q. DO YOU UNDERSTAND THE TERRE DU LAC FIRE CHIEF'S CONCERNS?

A. Absolutely. The fire chief is primarily concerned with the water infrastructure's ability to fight fires. As such, his focus is typically on his fire suppression needs.

Q. IS THE INFRASTRUCTURE WITH WHICH THE FIRE CHIEF IS CONCERNED SOMETHING THAT WAS INSTALLED BY CONFLUENCE RIVERS OR CURRENTLY VIOLATES ANY SAFE DRINKING WATER REQUIREMENTS?

A. No.

Q. ARE THERE OTHER ISSUES THAT MUST ALSO BE CONSIDERED BEFORE THE COMPANY WOULD REPLACE THAT INFRASTRUCTURE?

A. Yes. Unfortunately, the cost of installing assets capable of meeting fire suppression needs, including mains, pipes, tanks, pumping and hydrants, can be exorbitant for a small system. As the American Water Works Association indicated in a 2008 report:

[20] Reflecting his lack of training / experience with water operations, and without understanding the various types and purposes of hydrants, Dr. Marke has blindly adopted the fire chief's concerns and proposed to disallow any Terre du Lac hydrant investment from rate base. As explained, this proposal is clearly misplaced.

> The decision to provide water for fire protection means that a utility must explicitly consider fire flow requirements in sizing pipes, pumps, and storage tanks. In larger systems, fire protection has a marginal effect on sizing decisions, but ***in smaller systems these requirements can correspond to a significant increase in the size of many components***. In general, the impact of providing water for fire protection ranges from being minimal in large components of major urban systems to being ***very significant*** in smaller distribution system pipes and small distribution systems.
>
> The most significant impacts are installing and maintaining fire hydrants, providing adequate storage capacity, and meeting requirements for minimum pipe sizes (e.g., 6-in. [150-mm] pipes in loops and 8-in. [200-mm] dead ends) in neighborhood distribution mains when much smaller pipes would suffice for delivery of potable water only. These requirements make designing distribution systems easier for the engineer but more costly for the water utility. Other impacts include providing extra treatment capacity at plants and extra pumping capacity at pump stations.[21]

Recognizing that the cost of sizing water assets is "very significant" for smaller systems like Terre du Lac, it is not surprising that developers do not typically install facilities adequate for fire suppression.

As such, while a water system may contain hydrants, the underlying infrastructure (pipes, mains, pumps, storage) may not actually be capable of providing the volume of water necessary for fire suppression.

Q. DOES THE TERRE DU LAC SYSTEM CURRENTLY INCLUDE HYDRANTS?

A. Yes, but simply because a system contains hydrants does not mean that they are hydrants that are expected to provide fire suppression.[22] Specifically, given the size of the mains serving the hydrants, it is estimated that the underlying infrastructure is only intended to

[21] *Distribution System Requirements for Fire Protection*, American Water Works Association, AWWA Manual 4th edition, 2008, at page 1 (emphasis added). Distribution System Requirements for Fire Protection, Fourth Edition M31 (awwa.org)

[22] The fact that there are different types of hydrants is reflected in the testimony in this case. Specifically, in the rebuttal testimony, Staff witness Harris discussed the recent investment in "flushing assemblies" (a/k/a flushing hydrants).

deliver 500 gallons / minute. As such, while the hydrants at Terre du Lac may be used for system flushing or to fill a fire truck tank, they are not intended to be used for all forms of fire suppression. Indeed, if attached to such a hydrant, a fire pumper truck would rapidly collapse the underlying mains.

Q. WHAT WOULD BE THE COST OF UPGRADING THE TERRE DU LAC SYSTEM TO PROVIDE ADEQUATE FIRE SUPPRESSION CAPABILITY?

A. As indicated, the cost of providing fire suppression infrastructure to a small system can be "very significant." As reflected in Schedule JMC-S-2, the Terre du Lac water system is extensive. According to its 2020 Annual Report, the Terre du Lac water system consists of 590,749 feet of water mains. Of this, approximately 43% (256,485 feet) are 4" or 6" mains that would need to be upgraded in order for the system to provide fire suppression. Given the rocky nature of the ground at Terre du Lac, I conservatively estimate a cost of $50 / linear foot for pipe, labor, and excavation. Thus, the incremental cost of simply upgrading the mains to provide adequate fire suppression would be $12,824,250.[23] Recognizing that the current rate base for the Terre du Lac system is approximately $1.4 million, the upgrade of just the mains would increase system rate base by roughly 816%.

Q. HAS CONFLUENCE RIVERS SOUGHT TO REACH OUT TO THE TERRE DU LAC FIRE CHIEF?

A. Yes, based upon the comments made at the Farmington local public hearing, as well as the letter attached to the testimony of Dr. Marke, Confluence Rivers has reached out to the fire

[23] In addition to the upgrade in mains, providing fire suppression services would mandate an upgrade in storage and pumps as well as the installation of fire hydrants.

chief in an effort to better inform him of the limitations of the water system, the cost of upgrades, as well as to initiate improved communications going forward.

Q. THE FIRE CHIEF MENTIONED HIS BELIEF THAT THERE MAY BE GRANTS AVAILABLE THAT WOULD FUND, OR AT LEAST OFFSET, THE COST OF THE REPLACEMENTS YOU DISCUSSED. IS CONFLUENCE RIVERS WILLING TO WORK WITH THE FIRE CHIEF AND THE COMMUNITY ON THOSE EFFORTS?

A. Absolutely.

Q. WOULD YOU PLEASE ADDRESS OPC WITNESS MARKE'S RECOMMENDATION REGARDING TERRE DU LAC HYDRANT INVESTMENT?

A. Yes. As can be seen from the previous discussion, it is inappropriate to blindly assume that all hydrants are meant to provide fire suppression. Instead, while hydrants were installed by the initial developer at Terre du Lac, they were likely intended to provide system flushing or tank filling, and not fire suppression. However, Dr. Marke's concludes that the Commission should disallow the entire investment in the Terre du Lac hydrants since these hydrants are incapable of providing full-service fire suppression.

> I recommend that $22,304 be removed from account 348.000 related to fire hydrants as these assets do not appear to be used or useful to the fire department of Terre du Lac.[24]

While the Terre du Lac hydrants may not provide the fire suppression services that Dr. Marke now requires, they are capable of providing other services for which they likely

[24] Marke Rebuttal, page 19.

were installed in the first place. Dr. Marke's conclusion (that all hydrants are installed for simply fire suppression) and assumption (that any hydrant that is incapable of meeting this purpose is useless and of no value to the utility or its customers) is without merit and should be rejected by the Commission.

Q. WERE THERE ANY OTHER ISSUES RAISED AT THE LOCAL PUBLIC HEARINGS ON WHICH YOU WISH TO COMMENT?

A. Yes. At the Farmington local public hearing, concerns were raised as to the method by which the Company notifies customers of boil water advisories. The Company certainly wants to reach as many people in these situations as we can. The Company currently provides multiple avenues for customers to receive boil water advisories such as via social media, on the Company's website, via email, via door hangers, and posted community signage. In addition, the Company has begun to research options regarding text message notifications for any/all advisories. As I mentioned in my Rebuttal Testimony, I believe that the creation of the new corporate communications department, as well as the modifications made to the company website, will help to drive improvements in the ways in which customers receive timely communications from the Company.

IV. RATE CONSOLIDATION

Q. HAVE YOU REVIEWED STAFF'S TESTIMONY ON RATE CONSOLIDATION?

A. Yes. On June 29, 2023, Staff filed the Rebuttal Testimony of Keri Roth on the issue of consolidation. While Staff acknowledged that changes would need to be made to "rates" to account for "corrections and updates to Staff's revenue requirement," Ms. Roth stated

that "Staff's rate design structure proposal remains the same as proposed in its direct testimony."[25]

Q. SHOULD STAFF HAVE MADE CHANGES TO ITS CONSOLIDATION PROPOSAL?

A. Absolutely. Staff's failure to make changes to its consolidation proposal ("rate design structure proposal") to account for "corrections and updates to Staff's revenue requirement" demonstrates the point raised in my Rebuttal Testimony: i.e., that Staff's approach to consolidation (using each system's cost of service), is not stable. Specifically, the measure of each system's cost of service will be in a constant state of flux depending on numerous factors including whether capital improvements have been made to a system.

Q. DID YOU FORESEE THIS PROBLEM WITH STAFF'S CONSOLIDATION PROPOSAL?

A. Yes. In my Rebuttal Testimony, I indicated that "[t]he primary problem underlying Staff's consolidation approach (i.e., use of system cost of service) is that it is not static – i.e., a system that has a high cost of service today may become low cost (or vice versa) between Confluence Rivers' rate cases. That is to say, the designation of a system as high cost or low cost will be in a constant state of flux as improvements are made."[26] I then pointed out that the change in a system's cost of service and, its consolidation grouping, is directly

[25] Mr. Roth makes clear that her "rate design structure proposal" is tantamount to her consolidation proposal of "three (3) water districts and four (4) sewer districts." (Roth Rebuttal, page 7).
[26] Cox Rebuttal, page 18.

contrary to Staff's previously statement that "one of the basic principles of rate design is stability."[27]

While my Rebuttal Testimony focused primarily on changes that occur between Confluence Rivers' rate cases, I also predicted the instability that could occur within a rate case as a result of changes in Staff's revenue requirement calculation.

> The tentative nature of a system as either a high or low-cost system is also reflected in the fact that it is absolutely dependent on the revenue requirement calculated for that system. Thus, if Staff's revenue requirement in this case for any particular system has errors, those errors will ultimately flow to the determination of whether a system is a high or low-cost system.[28]

Ultimately, changes to correct errors in Staff's revenue requirement did occur. Specifically, Staff made the following corrections in its rebuttal testimony: (1) correction of depreciation reserve;[29] (2) update of plant in service balances to January 31, 2022;[30] (3) call center cost disallowances;[31] (4) elimination of liveVoice costs;[32] (5) adjustments for customer billing expense, DNR costs and PSC assessment;[33] (6) adjustment for sanitation expense;[34] (7) elimination of sponsorship expenses;[35] and (8) inclusion of homeowner's association dues.[36] As a result of these changes, Staff's "cost of service" for each system changed. That said, however, Staff did not account for these acknowledged changes in its "rate design structure proposal." Therefore, just a month after it filed its proposed

[27] *Id.* at page 22 (citing to Busch Rebuttal, Case No. WR-2017-0285, filed January 24, 2018, page 13).
[28] *Id.* at page 19, footnote 17.
[29] Majors Rebuttal, page 1.
[30] *Id.*
[31] Dhority Rebuttal, page 2
[32] *Id.*
[33] *Id.* at page 8.
[34] *Id.*
[35] *Id.*
[36] *Id.*

consolidation based upon system "cost of service," Staff's methodology was already erroneous. Staff's approach, therefore, is contrary to Staff's assertion that "[o]ne of the basic principles of rate design is stability. Constantly changing rate design does not allow for stability and could lead to greater customer confusion and dissatisfaction."[37]

Q. WOULD YOU EXPLAIN FURTHER THE PROBLEMS WITH STAFF'S CONSOLIDATION APPROACH?

A. Yes. As Staff indicates, its consolidation approach, as described in its testimony, is based upon some vague notion of bundling systems with a "similar cost of service."[38] Only after it was provided workpapers on July 19 was Confluence Rivers able to determine that cost of service, as used in this context, meant system overall revenue requirement.

Q. IS THIS AN APPROPRIATE APPROACH TO CONSOLIDATION?

A. No, as mentioned previously, since "cost of service" is not a static number for a system, Staff's consolidation approach "will be in a constant state of flux as improvements are made."[39] As improvements are made to some systems, and as depreciation reduces rate base in other systems, the cost of service for each system will change and the relative groupings will also need to be adjusted. As I indicated, this "is an unworkable and an unsound approach."[40] In addition, Staff's failure to move to full consolidation denies the primary benefit of consolidation – the mitigation of rates. Specifically, mitigation of a large investment is achieved by spreading that cost across a larger group of customers. By

[37] Busch Rebuttal, Case No. WR-2017-0285, filed January 24, 2018, page 13.
[38] Roth Direct, page 4.
[39] Cox Rebuttal, page 18.
[40] *Id*. at page 19.

minimizing the number of customers in each grouping, Staff undermines the potential of rate mitigation.

Q. DID STAFF'S CONSOLIDATION APPROACH (USING COST OF SERVICE) ACTUALLY GROUP TOGETHER SYSTEMS WITH A SIMILAR "COST OF SERVICE"?

A. No. Since the Staff's approach looks solely at a system's revenue requirement, it fails to consider the number of customers. Therefore, Staff's approach largely groups together systems with similar numbers of customers. That is to say, since systems with a large number of customers will necessarily have a higher level of investment (in the form of number and size of treatment facilities as well as distribution mains), Staff's focus on cost of service is simply a *de facto* consolidation based on the number of customers served by each system.

Q. CAN YOU DEMONSTRATE THIS FACT?

A. Yes, the following table of Staff's sewer groupings shows that the utilization of revenue requirement as a consolidation approach is essentially a consolidation based on the number of customers.

Sewer System[41]	Staff District	Cost of Service[42]	# of Customers[43]	Staff's Rate[44]
Deer Run	A	$10,748	61	$60.64
Missing Well	A	$30,270	30	$60.64
Prairie Heights	A	$40,127	19	$60.64
DeGuire	A	$43,073	25	$60.64
Freeman Hills	A	$43,893	16	$60.64

[41] Roth Direct, page 7.
[42] Roth Workpapers
[43] Roth Workpapers
[44] Roth Direct, Attachment 4 (District A); Attachment 5 (District B); Attachment 6 (District C); and Attachment 7 (District D).

Cedar Green	A	$48,923	55	$60.64
Branson Cedars	B	$70,651	59	$74.54
Glen Meadows	A	$102,403	233	$60.64
Clemstone	B	$119,417	76	$74.54
Hillcrest	B	$156,089	252	$74.54
Port Perry	C	$185,509	256	$41.34
Osage Utilities	C	$266,163	386	$41.34
Raccoon Creek	D	$452,207	535	$73.60
Terre du Lac	C	$526,999	1331	$41.34
Confluence	D	$584,747	946	$73.60
Elm Hills	D	$901,672	714	$73.60

As can be seen therefore, the systems with the larger number of customers, since they will have a higher "cost of service" will naturally end up grouped together.[45] Similarly, systems with a smaller number of customers, since they will necessarily have a lower "cost of service" will also naturally group together under Staff's approach. Therefore, as I indicated, Staff's approach is essentially a consolidation based upon number of customers.

Q. PUTTING ASIDE CONCERNS WITH ITS APPROACH, ARE THERE ERRORS IN THE MECHANICS OF STAFF'S APPROACH?

A. Yes.[46] Despite the problems associated with essentially grouping systems together on the basis of number of customers, there are also at least two errors in the mechanics of Staff's analysis. As can be seen, Staff's approach seeks to stack systems on the basis of cost of service. For inexplicable reasons, while Branson Cedars has a lower cost of service than

[45] The one example of a system with a larger number of customers being grouped with systems with smaller numbers of customers is Glen Meadows. The Glen Meadows was system was only acquired in December 2022. Recognizing that Staff's cost of service calculation is based upon the twelve-months ended January 31, 2023, the Company has made little, if any, investment in that system. Once that investment is made, the Glen Meadows system will immediately have a higher cost of service. As such, the Glen Meadows system will necessarily fall into a grouping with systems of a similar number of customers.

[46] The Company was not aware of this error until July 19 as it was not provided timely access to this workpaper. As such, the Company did not have the opportunity to resolve such errors with Staff prior to filing this testimony.

Glen Meadows ($70,651 and $102,403 respectively), Branson Cedars is grouped with the higher cost of service group and Glen Meadows is grouped with the lower cost of service group. Similarly, Raccoon Creek and Terre du Lac appear to be inexplicably flipped.

This would initially seem to be a minor error – simply move these systems into the appropriate grouping. The problem, however, is that changing these groupings will have implications for the Staff's entire rate design. That is to say, for rate design purposes, Staff adds all elements of cost of service (revenues, investment, expenses, and number of customers) to achieve a flat monthly sewer rate. Changing Staff's groupings at this point would necessarily mean, therefore, the calculated rate for each affected grouping would also change.

Q. HOW SHOULD A TRUE COST OF SERVICE APPROACH BE ACCOMPLISHED?

A. Any attempts to consider a system's cost of service should naturally include some focus on the number of customers. In that way, system groupings would show cost on a per customer basis.

Q. HOW WOULD SUCH A GROUPING THEN LOOK?

A. The following table seeks to correct Staff's simplistic approach and take into account the number of customers in a system.

Sewer System	Staff District	Cost of Service	# of Customers	Staff's Rate	$ / Customer / Month
Deer Run	A	$10,748	61	$60.64	$14.68
Missing Well	A	$30,270	30	$60.64	$84.08
Prairie Heights	A	$40,127	19	$60.64	$176.00
DeGuire	A	$43,073	25	$60.64	$143.58
Freeman Hills	A	$43,893	16	$60.64	$228.61
Cedar Green	A	$48,923	55	$60.64	$74.13
Branson Cedars	B	$70,651	59	$74.54	$99.79
Glen Meadows	A	$102,403	233	$60.64	$36.62

Clemstone	B	$119,417	76	$74.54	$130.94
Hillcrest	B	$156,089	252	$74.54	$51.62
Port Perry	C	$185,509	256	$41.34	$60.39
Osage Utilities	C	$266,163	386	$41.34	$57.46
Raccoon Creek	D	$452,207	535	$73.60	$70.44
Terre du Lac	C	$526,999	1331	$41.34	$33.00
Confluence	D	$584,747	946	$73.60	$51.51
Elm Hills	D	$901,672	714	$73.60	$105.24

This table points out the fundamental problem in Staff's approach. By failing to consider number of customers in a system, Staff's approach ends up assigning rates to systems that are completely disassociated from the system's costs.

Q. WHY IS THIS IMPORTANT?

A. In its testimony, Staff claims that the primary benefit of district specific pricing, and presumably its consolidation approach, is that "customers who caused a cause to occur are the customers responsible for paying those costs." As can be seen, however, either because of errors in its grouping or problems with the actual consolidation approach, the customers who caused a cause are not the ones that are responsible for that cost. For instance, while the Freeman Hills systems show a cost of service of $228.61 / customer / month, Staff's misguided consolidation approach, and the resulting rate design, would only charge the Freeman Hills customers a rate of $60.64 / month. On the other end of the spectrum, Staff's consolidation / rate design would charge each Deer Run customer a rate of $60.64 / month, when the actual cost of service is $14.68 / customer / month.

Q. IN HER TESTIMONY, MS. ROTH ASSERTS THAT STAFF'S CONSOLIDATION APPROACH WILL MITIGATE "RATE SHOCK". DO YOU AGREE WITH HER ASSESSMENT?

A. As an initial matter, I would assert that any "rate shock" in this case is not the result of consolidation approaches. Rather, it is the result of the artificially low rates that Confluence Rivers has adopted when it acquires systems. For instance, as I mentioned earlier, the Port Perry sewer rates have not changed since 1993. Given that rates have not changed in 30 years, there will necessarily be large rate increases. Again, the rate consolidation approach does not result in this "rate shock". Instead, rate shock occurs because rates have not increased periodically over time to reflect the system's increased cost of service.

That said, however, Ms. Roth's depiction of rate shock appears to be limited to the short-term. Specifically, it only seems to be focused on the rate shock occurring in this rate case. In the long-term, however, Staff's approach will likely lead to even greater rate shock as customer rates for individual systems bounce around based upon Staff's perception of "cost of service" for a particular system and the consolidated grouping that arises out of that cost of service. Mr. Lyons will provide surrebuttal testimony to better address Staff's claims of "rate shock."

Q. IN HER TESTIMONY, MS. ROTH ASSERTS THAT THE "PRIMARY BENEFIT" OF FULL CONSOLIDATION (SINGLE TARIFF PRICING) IS THE MITIGATION OF LARGE CAPITAL EXPENDITURES. DO YOU AGREE WITH THIS ASSESSMENT?

A. While the mitigation of the impact of a large capital expenditure is a large benefit of rate consolidation, Staff fails to recognize the numerous other benefits associated with rate consolidation. Implying that there is only one benefit stands in stark contrast to Staff's

previous assessment of the benefits of rate consolidation. Specifically, in a 2011 Report, Staff identified all of the following benefits of single tariff pricing:

- Mitigates rate shock to utility customers
- Lowers administrative costs to the utilities
- Provides incentives for utility regionalization and consolidation
- Physical interconnection is not considered a prerequisite
- Addresses small-system viability issues
- Improves service affordability for customers
- Provides ratemaking treatment similar to that for other utilities
- Facilitates compliance with drinking water standards
- Overall benefits outweigh overall costs
- Promotes universal service for utility customers
- Lowers administrative cost to the commission
- Promotes ratepayer equity on a regional basis
- Encourages investment in the water supply infrastructure
- Promotes regional economic development
- Encourages further private involvement in the water sector[47]

Staff's approach in this case, therefore, denies customers (and regulators) the value of the vast majority of these benefits.

Q. DID STAFF RAISE OTHER CONCERNS WITH THE COMPANY'S CONSOLIDATION APPROACH?

A. Yes. In her testimony, Ms. Roth claims that consolidation will create "a disincentive to keep construction costs as low as practicable."[48]

Q. DO YOU AGREE WITH STAFF'S CONCERN THAT CONSTRUCTION COSTS WILL NOT BE PROPERLY MANAGED?

A. No, I find Staff's argument to be specious. Staff has previously raised this argument in an attempt to deter the Commission from implementing consolidation for Missouri American.

[47] *Brief and Scenarios of the Staff of the Missouri Public Service Commission*, Case No. SR-2010-0023, filed September 1, 2010, at pages 16-17.
[48] Roth Rebuttal, page 6.

There the Commission summarily rejected Staff's concerns. Instead, the Commission found that the filing of a capital expenditure plan would lessen this concern as the Staff would have a baseline document of anticipated capital projects against which to compare construction costs. Specifically, to mitigate Staff's concern, the Commission, in its Report and Order in Case No. WR-2015-0301, adopted a Staff proposal that Missouri American "be required to file a five-year capital expenditure plan with the Commission for review by January 31 of each year after the effective date of rates in this case. Staff, and every party to this case, would then have the ability to review Missouri-American's plans and could make recommendations regarding investment and the need to make investments in any service area. All expenditures would be subject to full review in Missouri-American's future rate cases."[49] Given this, I committed, in my rebuttal testimony that "Confluence Rivers is willing to develop and provide a five-year capital plan similar to that ordered for Missouri American when the Commission began consolidating its rates."[50]

In addition, as I further pointed out in my rebuttal testimony, unlike Missouri American that has almost 500,000 combined water and sewer customers, Confluence Rivers has barely over 9,000 combined water and sewer customers. As such, concerns that Confluence Rivers would have an incentive to over-invest simply because it would be spread over a larger customer base are muted. Specifically, a large over-investment would not only be detected in a prudence review, it would also be evident from the impact of

[49] Report and Order, Case No. WR-2015-0301, issued May 26, 2016, pages 15-16.
[50] Cox Rebuttal, page 28.

over-investment on what is still a small customer base.[51] For this reason, concerns that consolidated pricing would lead to over-investment are significantly minimized.[52]

Q. IN ADDITION TO ITS COST OF SERVICE APPROACH TO CONSOLIDATION, DOES STAFF NOW APPEAR TO INTRODUCE OTHER CONSIDERATIONS?

A. Yes, in her testimony, Ms. Roth appears to want to introduce an element of geography to the consolidation issue. Specifically, in attempting to justify the rationale for not grouping Cedar Green with Indian Hills, Ms. Roth claims that their location (Camden County and Crawford County respectively) means that these systems "are clearly not similar."

> As previously discussed, Staff has attempted to group systems with similar costs of service into districts together. For example, operating characteristics are clearly not similar between the Indian Hills water system and Cedar Green water system based on each systems cost of service; therefore, it does not make sense for customers connected to those two systems to pay the same rate. Indian Hills is located in east-central Missouri in Crawford County and has approximately 617 customers. Indian Hills' cost of service is approximately $491,042. Cedar Green is located further west in Camden County and has approximately 54 customers. Cedar Green's cost of service is approximately $44,790.[53]

Q. DO YOU AGREE THAT CONSOLIDATION SHOULD INCLUDE A GEOGRAPHIC CONSIDERATION?

A. No, in fact, on its way towards near-complete consolidation for Missouri American, the Commission has also rejected Staff's geographic considerations. Specifically, the entirety

[51] Importantly, Confluence Rivers has specialized in avoiding costly system upgrades by refurbishing equipment. For instance, the Company has routinely repurposed existing tankage into an equalization basin. Moreover, the Company has been at the forefront of utilizing innovative technologies like Moving Bed Bio-Reactors ("MBBRs"), Fixed Fill inserts, and micro-inserted MBBRs to minimize the capital cost associated with bringing water and wastewater systems back into environmental compliance.
[52] *Id.* at page 28.
[53] Roth Rebuttal, page 5.

of Missouri American's water system is consolidated except for the St. Louis County area that has a special consideration associated with the statutory ISRS mechanism.[54]

In any event, while appearing to want to introduce geography as a factor in consolidation, Staff's own groupings reflect zero consideration for geography. I attached, as Schedule JMC-R-4 and JMC-R-5 to my Rebuttal Testimony, maps showing that Staff's groupings "fail to recognize any geographic considerations."

V. MISSOURI OPERATIONS

Q. PLEASE EXPLAIN THE ISSUE REGARDING MISSOURI OPERATIONS.

A. In his Rebuttal Testimony, OPC Witness Marke suggests that the Commission "disallow $1,094,426 from the Company's combined water and wastewater operations expense budget."[55] Specifically, Dr. Marke claims that, while the Company's combined operations expense is $1,694,426, the Company can "hire and train nine new full-time employees to oversee the Company's Missouri water and wastewater assets full-time" at a cost of $600,000.[56] Thus, he proposes to disallow the remainder of the water and wastewater operations expense.

Q. HOW DID DR. MARKE CONCLUDE THAT AN INTERNALIZED OPERATIONS STAFF COULD BE HIRED FOR $600,000?

[54] Report and Order, Case No. WR-2017-0285, issued May 2, 2018, page 30.
[55] Marke Rebuttal, page 9.
[56] *Id.*

A. Dr. Marke claims that the Company's water and wastewater systems can be internally operated by nine operators.[57] He arrives at this conclusion through nothing more than simply drawing boxes around the systems on the Confluence Rivers facility map.[58]

By then relying on the Missouri Economic Research and Information Center ("MERIC") database, Dr. Marke asserts that the annual mean salary for water and wastewater system operators is $48,220. He then ratchets up this salary to $60,000 to account for employee benefits including health insurance.[59] This leads to total of $540,000. Dr. Marke then claims that an additional $60,000 be used "to cover any overtime or extra expenses."[60]

Q. HOW DO YOU RESPOND TO DR. MARKE'S ASSERTION THAT CONFLUENCE RIVERS OPERATIONS CAN BE INTERNALIZED AND SAVINGS REALIZED?

A. As an initial matter, I reiterate my earlier point that Dr. Marke's credentials demonstrate a dearth of experience when it comes to water / wastewater cases and, more specifically to the issues in this case, no education, experience, or training relative to operational issues.[61] After a decade in the industry, I can assure the Commission that the economics of staffing water / wastewater operations cannot simply be addressed by drawing boxes.

[57] Marke Rebuttal, page 10.
[58] *Id.* at page 12.
[59] *Id.* at page 10.
[60] *Id.*
[61] In 10 years, Dr. Marke has testified in 104 Commission dockets, but only 7 other cases involving water or wastewater. In those water cases it does not appear that Dr. Marke has ever testified regarding to water or wastewater operations.

More specifically, however, Dr. Marke's testimony on this issue will be addressed jointly by me as well as Mr. Thies. In this testimony, I will discuss the complexities of the Confluence Rivers system, as well as its specific water and wastewater systems, to show why these systems cannot be operated by merely hiring nine operators. Instead, given: (1) the lack of operators caused by the aging of the industry; (2) OSHA regulations that require certain tasks be conducted by a team of operators; (3) the nature and complexity of the Confluence Rivers systems; (4) the need for operators to not only operate, but also repair these distressed systems; and (5) the scattered nature of the Company's systems, I estimate that it would require approximately 22 employees, including managers, to operate these systems.

As reflected in his Rebuttal Testimony, Mr. Thies concludes that the MERIC data relied upon by Dr. Marke is of questionable value in certain situations. It is the Company's experience that the salary required to hire a water and wastewater system operator is much greater than Dr. Marke estimates. Again, these salaries are currently driven in large part by the rapid retirement of skilled operators. In addition, as Mr. Thies points out, salaries and benefits are just a single part of the cost equation. In addition, each operator will need to be provided a truck and set of specialized tools, neither of which are accounted for in Dr. Marke's calculation.

Q. DO YOU HAVE ANY INITIAL COMMENTS ON DR. MARKE'S CONCLUSION THAT CONFLUENCE RIVERS SYSTEMS COULD BE INTERNALLY OPERATED BY NINE EMPLOYEES?

A. At the most basic level, it is impossible to staff internal operations simply by drawing a box. The illogical nature of Dr. Marke's method is apparent from his own chart on page 11. Specifically, as a result of Dr. Marke's elementary analysis, he would hire one operator (operator #6) to operate two systems in Boone and Audrain County. Meanwhile, Dr. Marke concludes that operator #3 should be responsible for operating 13 water and wastewater systems across roughly 2,150 square miles.[62] There is an obvious disparity in the delegation of responsibilities here.

Moreover, recognizing that Confluence Rivers inspects all mechanical facilities three times a week, operator #3 would have to make approximately 39 system inspections in a five-day week. If each inspection took just one hour, operator #3 would have 39 hours / week devoted to just inspections. This would leave one hour in the week for his travel time across the 2,150 square mile area of responsibility. Additionally, this leaves zero time for paperwork and documentation. Finally, this leaves zero time for additional duties. For instance, if operator #3 identifies a problem at a system, he would have no time to take corrective actions as such actions would prevent the operator from getting to his next system of responsibility and conducting an inspection. Such simple considerations are completely ignored by Dr. Marke's elementary map drawing.

Q. PLEASE DISCUSS THE IMPLICATIONS OF THE GENERAL LACK OF WATER / WASTEWATER OPERATORS.

[62] While the boxes on Dr. Marke's testimony (page 12) are not subject to exact measurement, the Confluence Rivers surveyor estimated that the area for which operator #3 would be responsible for is 2,150 square miles.

A. As with the other utility industries, for the last several years, there has been an increasing concern over the acute lack of skilled labor resulting from the retirement of such skilled operators - otherwise dubbed the "Silver Tsunami". Articles populate the internet. For instance, the California Rural Water Association notes:

> To operate and serve water to California residences, businesses, and agriculture water utilities need to have State certified water operators onsite to meet compliance standards for consumption.
>
> ***However, in the next five to ten years, more than half of the most skilled water operators in the State will retire***. Folks in the water industry call it the "Silver Tsunami" because once these baby boomers leave, they're taking decades of institutional knowledge with them along with their State certifications.
>
> It doesn't sound like a big deal as an outsider looking in, but the impact to the water systems will be tremendous and long lasting.[63]

Still again, the Chartered Institution of Water and Environmental Management states:

> Recent studies by the Engineering Construction Industry Training Board (ECITB) show that ***48 per cent of the water-engineering workforce will retire in the next 20 years***. The challenge is so acute that people in our industry have started to talk about a silver tsunami.[64]

Finally, the Water Citizen News:

> The "Silver Tsunami" or "Brain Drain" is a term used in the water industry to refer to the ongoing exodus of Baby Boomers who are now hitting retirement age – taking with them a massive amount of water system experience and expertise.
>
> At a time when Infrastructure (including water infrastructure) is receiving new funding and financing opportunities, there have been challenges in finding the Water Workforce to design, build, operate and maintain systems – and to lead these activities – with ***many utilities seeing 30-50% of their workforce reaching retirement age within 5 years*** (if not retiring already). For at least the last 10 years, Water Industry Associations such as the

[63] Silver Tsunami – California Rural Water Association (calruralwater.org) (emphasis added).
[64] Tomorrow's water skills - how to tackle the silver tsunami - CIWEM (emphasis added).

> American Water Works Association and Think Tanks such as Brookings have studied this issue.[65]

In fact, according to that Brookings Institute report, about a third of U.S. drinking water and wastewater operators will become eligible for retirement over the next decade. The practical implication of this "silver tsunami" is that it is exceedingly difficult to locate experienced, certified operators, especially in the rural areas in which Confluence Rivers operates, but the salaries demanded by such operators are much greater than that assumed by Dr. Marke and MERIC.

Q. PLEASE DISCUSS YOUR CONCERN WITH OSHA REGULATIONS REGARDING CONFINED SPACES.

A. It is my understanding, given my past experience as well as from talking to the Vice President at Clearwater Solutions, Confluence Rivers' single largest operator, that the Occupational Safety and Health Administration ("OSHA") has issued numerous regulations involving worker safety that are applicable to the water and wastewater industry. For instance, OSHA has promulgated rules regarding the number of workers that must be present whenever work involves a confined space.

Q. DO SEWER SYSTEMS INCLUDE CONFINED SPACES?

A. Yes, as the following quote from an OSHA fact sheet indicates, confined spaces in sewer systems are "extensive":

> Sewer systems are extensive and include many different components that are considered confined spaces, including pipelines, manholes, wet wells, dry well vaults, and lift / pump stations. Therefore, employers conducting work in sewer systems will likely have workers who will encounter confined spaces.

[65] Solving Water's Silver Tsunami: Special Edition : Water CItizen News (emphasis added).

> Sewer systems also consist of wastewater treatment plants, where confined spaces include digestion and sedimentation tanks, floating covers over tanks, sodium hypochlorite tanks, and wastewater holding tanks, among others. Many of these components may also qualify as permit-required confined spaces.[66]

Q. WHAT ARE THE REGULATORY IMPLICATIONS OF WORK PERFORMED IN A CONFINED SPACE?

A. The primary implication to this discussion of work performed in a confined space, such as that detailed in sewer systems, is that work cannot be performed by a single individual. Specifically, OSHA regulations mandate that, when work is performed in a confined space, an attendant be stationed outside the confined space. In addition, an entry supervisor must also be present. Therefore, contrary to Dr. Marke's suggestion that a single operator can handle all functions in his assigned area, OSHA would deem such actions unlawful.

Q. ARE THERE OTHER CONSIDERATIONS THAT MAKE IT IMPOSSIBLE FOR A SINGLE OPERATOR TO BE RESPONSIBLE FOR A WATER / WASTEWATER SYSTEM?

A. Yes. Putting aside legal considerations associated with entry into a confined space, there are a multitude of responsibilities at a water / wastewater system that requires multiple operators. For instance, virtually all of the repair functions will require multiple operators. The replacement of a pump, blower, or aerator all will require multiple operators to handle. Moreover, simply inspecting a corrective action on a leaking pipe will typically take multiple operators – one to open a valve and another to inspect the repair on a leak. For

[66] Schedule JMC-S-3.

all these reasons, many of the actions taken by operators at the Confluence Rivers systems will necessarily involve a team of operators.

Q. HOW WOULD YOU DESCRIBE THE NATURE OF THE CONFLUENCE RIVERS SYSTEMS?

A. More than probably any other water / wastewater company, the Confluence Rivers systems demonstrate a varied level of technology and complexity. Not only does Confluence Rivers have water and wastewater systems, those systems, because they were all installed by previous owners, utilize a large variety of technologies. For instance, in its wastewater systems, Confluence Rivers has aerated lagoons, systems with extended aeration, recirculating sand filters, facultative lagoons, and an oxidation ditch. The complexity of each of these systems may be heightened by the presence of MBBR technology. Moreover, each system will inevitably use varying types of pumps, blowers, aerators and controllers. Operating these varying systems is not an easy task that can be handled by an inexperienced, entry level operator.

Q. ARE OPERATORS ALSO REQUIRED TO PERFORM REPAIR WORK?

A. Yes. As indicated, an operator's work goes well beyond simple inspection. In addition, these operators are also tasked with performing repairs as systems fail. For example, when pumps, blowers and aerators need replacing, the operators are generally expected to perform such replacements. Not only does this result in the need for a second operator to be present, it also increases the time spent at a particular system and, as a result, limits that operator's ability to immediately inspect another system. Given the distressed nature of the systems acquired by Confluence Rivers, these repair responsibilities are significant and

time consuming. Clearly then, it is not practical for Dr. Marke to simply draw boxes on a map and assume that an operator can handle all necessary duties at the systems in his box.

Q. HOW WOULD YOU DESCRIBE THE DISTRIBUTION OF CONFLUENCE RIVERS' SYSTEMS ACROSS THE STATE OF MISSOURI?

A. As reflected in Schedule TT-1 to the Direct Testimony of Mr. Thomas, the Confluence Rivers' systems are "scattered" across Missouri. The necessary implication of this dispersion is that Confluence Rivers does not have a density, such as that displayed by Missouri American, that allows an operator to address a large number of systems in a particular day. Instead, travel time to and from the systems is a necessary consideration of any staffing analysis.

Q. DO YOU HAVE AN ESTIMATE OF THE NUMBER OF OPERATORS THAT WOULD BE REQUIRED TO INTERNALLY OPERATE THE CONFLUENCE RIVERS SYSTEMS?

A. Yes, given all of these considerations, it is my expert opinion that it would require 22 operators to appropriately staff an internal operations team. Importantly, each of these operators would not have identical responsibilities. Instead, as with any department, an operations team of this size would include junior operators, senior operators, managers and directors. Moreover, as responsibilities are increased, the salary and benefits for each level of employee will increase.

Q. HAVE YOU ESTIMATED THE COST OF AN INTERNAL OPERATIONS DEPARTMENT AT CONFLUENCE RIVERS?

A. Yes. As detailed more fully in the Surrebuttal Testimony of Mr. Thies, I estimate that the total cost of an internalized operations team, including salaries, benefits, trucks and tools, would be approximately $2,248,018. Contrary to Dr. Marke's opinion, such an amount greatly exceeds the current cost of a third-party operator ($1,694,426). Given this, I reject Dr. Marke's assertion that his adjustment is necessary "to make customers whole for the Company's imprudent business decisions."[67]

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

[67] Marke Rebuttal, page 15.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Confluence Rivers Utility Operating Company, Inc.'s Request for Authority to Implement a General Rate Increase for Water Service and Sewer Service Provided in Missouri Service Areas.	)))))	**File No. WR-2023-0006**

VERIFICATION OF JOSIAH M. COX

STATE OF MISSOURI)
)
COUNTY OF ST. LOUIS)

I, Josiah M. Cox, of lawful age, under penalty of perjury, and pursuant to Section 509.030, RSMo, state as follows:

1. My name is Josiah M. Cox. I am President of Confluence Rivers Utility Operating Company, Inc.

2. My Surrebuttal Testimony on behalf of Confluence Rivers Utility Operating Company, Inc. is attached to this verification.

3. My answers to each question in the attached surrebuttal testimony are true and correct to the best of my knowledge, information, and belief.

/s/ Josiah M. Cox
Ned W. Allis

July 21, 2023
Date

KPI Daily-CSWR

Report Criteria:

Start:	May 1, 2023 12:00:00 AM Central Daylight Time
End:	May 31, 2023 11:59:00 PM Central Daylight Time
Campaign:	Confluence Rivers
Call type:	Inbound
Speed of Answer Min. Time (sec):	20
Speed of Answer Threshold (sec):	20

CAMPAIGN	CALLS	ABANDONED count	ABANDONED (%rec)	Average SPEED OF ANSWER	Average HANDLE TIME	Average HOLD TIME
Confluence Rivers	1198	5	0.42%	00:00:14.581	00:05:31	00:00:12
	1198	**5**	**%rec: 0.42%**	**Avg: 00:00:14.581**	**Avg: 00:05:31**	**Avg: 00:00:12**

26-Jun-2023

TERRE DU LAC UTILITIES CORPORATION

Company Full Certificated Name

Do not abbreviate; include any Commission approved AKA/DBA/Fictitious Name, if applicable.

WATER and/or SEWER ANNUAL REPORT

SMALL COMPANY

(Fewer than 8,000 customers)

FILED

MAY 2 4 2021

Missouri Public Service Commission

TO THE MISSOURI PUBLIC SERVICE COMMISSION

January 1 - December 31, 2020

This filing is required pursuant to Commission Rules 20 CSR 4240-10.145 and/or Section 393.140 RSMo.

Please indicate which type of service the Company is certificated to provide by checking the appropriate box(es). *(Check all that apply.)*

- ☑ **Water Service Provider**
- ☑ **Sewer Service Provider**

Please choose one of the following filing type options:

- ◉ **Public Submission** (NOT Confidential)
- ○ **Non-Public Submission** (CONFIDENITAL / Filed Under Seal)
  For this filing to be considered confidential, additional submission of materials is required pursuant to Commission Rule 20 CSR 4240-2.135.

(To be used when filing under seal.)

Revised: 12/12/2019

1 For the calendar year of January 1 - December 31, 2020

2 **Company Name:** TERRE DU LAC UTILITIES CORPORATION

2a **Parent Company Name:** *(if applicable)*

3 **Company Mailing Address:** 1628 S ST. FRANCOIS RD BONNE TERRE MO 63628

4 **Company Street Address:** 1628 S ST. FRANCOIS RD BONNE TERRE MO 63628

5 **Company Phone Number:** 573-747-6803

6 **Company E-mail Address:** TDLU@CHARTER.NET

7 **Name, title, address, phone number, and e-mail of person(s) to contact concerning information contained in this report:**

7a	MICHAEL TILLEY, PRESIDENT Name/Title	MICHAEL TILLEY, PRESIDENT Name/Title
7b	1628 S ST. FRANCOIS RD Mailing Address	1628 S ST. FRANCOIS RD Mailing Address
7c	1628 S ST. FRANCOIS RD Street Address	1628 S ST. FRANCOIS RD Street Address
7d	BONNE TERRE MO 63628 City State Zip	BONNE TERRE MO 63628 City State Zip
7e	573-747-6803 Telephone Number	573-747-6803 Telephone Number
7f	TDLU@CHARTER.NET E-mail Address	TDLU@CHARTER.NET E-mail Address

8 Provide the **Total Company and** gross intrastate **Operating Revenues** (i.e., Missouri Jurisdictional) for Calendar Year 2020 .

(BOTH COLUMNS MUST BE COMPLETED)

	Water Revenues	**	**MO Jurisdictional**	**	**	**Total Company**	**
9	Total Operating Revenues *(From Pg. W-2, Line 22)*		$ 356,466			$ 356,466	
10	Total Non-Tariffed Revenues *(Pg. W-2, Line 25)*		$ -				
11	**TOTAL REVENUES** *(From Pg. W-2, line 26)*		$ 356,466			$ 356,466	

(Total MO Jurisdictional Revenue (Line 11 above) should match Statement of Revenue - MoPSC Assessment).

	Sewer Revenues	**	**MO Jurisdictional**	**	**	**Total Company**	**
12	Total Operating Revenues *(From Pg. S-2, Line 22)*		$ 326,827			$ 326,827	
13	Total Non-Tariffed Revenues *(From Pg. S-2 , Line 25)*		$ 35,075			$ 35,075	
14	**TOTAL REVENUES** *(From Pg. S-2, Line 26)*		$ 361,902			$ 361,902	

(Total MO Jurisdictional Revenue (Line 14 above) should match Statement of Revenue - MoPSC Assessment).

Indicates a link to or from another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

CAPITAL STOCK (COMMON AND PREFERRED)

	Class and Series of Stock (a)	Total Number of Shares Authorized (b)	Par or Stated Value Per Share (c)	Total Number of Shares Issued (d)	Current Book Value of Issued Shares of Stock (e)
3	COMMON	1,000	$ 1.00	400	$ 400
4					$ -
5					$ -
6					$ -
7					$ -
8				**Total Value**	$ 400

SECURITY HOLDERS AND VOTING POWERS

Report below the **NAMES** and **ADDRESSES** of the 10 stockholders who, at the end of the year, had the greatest voting powers in the respondent, **AND STATE THE NUMBER OF VOTES** each would have had a right to cast on that date. If any such holder held in trust, give the nature of the trust and the beneficial owner. Show also total votes of **ALL** securities with voting powers.

	Names and Addresses (a)	Number of Votes (b)
9	MICHAEL TILLEY 1662 NOTRE DAME BONNE TERRE, MO 63628	200
10	PAUL TILLEY 3538 NICHOLSON PARK HILLS, MO 63601	200
11		
12		
13		
14		
15		
16		
17	**Total Number of Votes Held by Above**	400
18	**Total Number of Votes of All Securities with Voting Rights**	400

Identify the principal or general officers of the company at the end of the year. Please include an additional sheet, if enough space is not provided on this page, to completely provide the requested information.

	Title of General Officer(s)	Name of Person Holding Office
19	PRESIDENT	MICHAEL TILLEY
20	SECRETARY	KATHY TILLEY
21		
22		
23		
24		

Indicates formula cell(s)

(To be used when filing under seal.)

1 For the calendar year of January 1 - December 31, 2020

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

3 This Utility Company is a: (Check the appropriate box.)

- [x] C-Corporation
- [ ] S-Corporation
- [ ] Sole Proprietorship
- [ ] Partnership
- [ ] LLC
- [ ] LP
- [ ] Other (Please explain)

4 If different than certificated name listed above (e.g., parent corporation name) or if 'Other' is identified, explain:

5 Name of state under the laws of which respondent is incorporated and date of incorporation. If incorporated under a specific law, give reference of such law. If not incorporated, state the fact and give the type of organization and date organized.

MO 9-19-1967

6 Describe **MAJOR** transactions occurring during the year which will have a effect on operations, such as rate changes, replacement of major equipment and other abnormal cash expenditures of $250 or more. *(Dollar amounts to be recorded on Page W-5 and/or Page S-4, columns d.)*

7 NONE

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

(To be used when filing under seal.)

1 For the calendar year of January 1 - December 31, 2020

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

NOTE: Please do not try to type over formulas. Totals will calculate automatically in this spreadsheet.

BALANCE SHEET
WATER AND SEWER OPERATIONS
ASSETS

	Account Description (a)	**	Amount (b)	**
3	Water Plant In Service *(From Pg. W-5)*		$ 1,469,985	
4	LESS: Water Depreciation Reserve *(From Pg. W-5)*		$ 836,984	
5	Net Water Plant in Service *(Line 3* ***MINUS*** *Line 4)*		$ 633,001	
6	Water Materials and Supplies		$ 1,229	
7	Water Construction Work in Progress			
8	Water Plant Held for Future Use			
9	Water Plant Acquisition Adjustment			
10	Sewer Plant in Service *(From Pg. S-4)*		$ 1,073,510	
11	LESS: Sewer Depreciation Reserve *(From Pg. S-4)*		$ 673,300	
12	Net Sewer Plant in Service *(Line 10* ***MINUS*** *Line 11)*		$ 400,210	
13	Sewer Materials and Supplies		$ 4,432	
14	Sewer Construction Work in Progress			
15	Sewer Plant Held for Future Use			
16	Sewer Plant Acquisition Adjustment			
17	Other Plant			
18	Cash		$ 6,809	
19	Accounts Receivable *(i.e., Amounts due from customers or other parties.)*		$ 40,024	
20	Other Assets		$ 883	
21	**Total Assets***		$ 1,086,588	

* **Total Assets should balance with Total Equity and Liabilities on Page 5** ***(see instructions).***
Difference between Equity & Liabilities and Assets ***(from Pg. 5)*** **.**

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

NOTE: Please do not try to type over formulas. Totals will calculate automatically in this spreadsheet.

BALANCE SHEET
WATER AND SEWER OPERATIONS
EQUITY AND LIABILITIES

	Account Description (a)	**	Amount (b)	**
3	Capital Stock *(From Page 2)*		$ 400	
4	Retained Earnings		$ (160,186)	
5	Long-Term Debt *(banks, etc.- over 1 year) (From Pg. 9)*		$ 799,595	
6	Short-Term Debt *(banks, etc.- less than 1 year) (From Pg. 9)*		$ 56,316	
7	Water Customer Deposits			
8	Water Advances for Construction			
9	Water Contributions In Aid of Construction *(From Pg. 8, Line 16)*		$ 311,352	
10	LESS: Water Amortization of Contributions In Aid of Construction *(From Page 8, line 24)*		$ 109,690	
11	Net Water Contributions In Aid of Construction *(i.e., Line 9 **MINUS** Line 10)*		$ 201,662	
12	Sewer Customer Deposits			
13	Sewer Advances for Construction			
14	Sewer Contributions In Aid of Construction *(From Pg. 8, Line 16)*		$ 328,557	
15	LESS: Sewer Amortization of Contributions In Aid of Construction *(From Page 8, line 24)*		$ 142,688	
16	Net Sewer Contributions In Aid of Construction *(i.e., Line 14 **MINUS** Line 15)*		$ 185,869	
17	Deferred Taxes - ITC			
18	Deferred Taxes - Other			
19	Accounts Payable; *(Amounts owed to other parties; other than debt listed above.)*			
20	Other Liabilities		$ 2,931	
21	**Total Equity and Liabilities***		$ 1,086,588	

*** Total Equity and Liabilities should balance with Total Assets on Pg. 4 *(see instructions).***
Difference between Equity & Liabilities and Assets *(From Pg. 4)*.

☐ Indicates a link to another worksheet within workbook
☐ Indicates formula cell(s)

(To be used when filing under seal.)

EMPLOYEE PAYROLL INFORMATION

INSTRUCTIONS: Please provide names, titles and salaries for all officers and employees with W-2's. Show total compensation paid to each during the year. Include all amounts including bonuses and other allowances. Enter "0" or none where applicable. Provide explanations where necessary. Use additional sheets if necessary.

Contract Employees (i.e., 1099's or other outside parties) should not be listed on this page. (See page 7.)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

	Name and Title (a)	Payroll Charged To: Total Utility Compensation (b)	Water Expense (c)	Sewer Expense (d)	Capitalized Payroll (e)
3	ROBERT BRAKE LABORER	$ 8,640	$ 4,666	$ 3,974	
4	ROBERT GOUGH LABORER	$ 11,072	$ 4,429	$ 6,643	
5	CYNTHIA HOLLOCK OFFICE	$ 19,750	$ 9,875	$ 9,875	
6	ROBERT LUDWIG LABORER	$ 34,301	$ 16,106	$ 18,195	
7	JOHN PRATT LABORER	$ 12,675	$ 4,943	$ 7,732	
8	MATTHEW ROHLIC LABORER	$ 4,380	$ 2,190	$ 2,190	
9	KATHY TILLEY MANAGER	$ 50,898	$ 25,449	$ 25,449	
10	MICHAEL TILLEY MANAGER	$ 50,898	$ 25,449	$ 25,449	
11	HAYDEN TILLEY LABORER	$ 33,259	$ 13,304	$ 19,955	
12					
13					
14					
15					
16					
17					
18					
19	**Total**	$ 225,873	$ 106,411	$ 119,462	$ -
			(Total to Pg. W-1)	*(Total to Pg. S-1)*	

(To be used when filing under seal.)

Indicates formula cell(s)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

PAYMENTS FOR SERVICES RENDERED BY OTHER THAN EMPLOYEES
(W-2 Employees should be listed on Page 6)

INSTRUCTIONS: Report below all information concerning rate, management, construction, engineering, research, financial, valuation, legal, accounting, purchasing, advertising, labor relations, public relations, contract operators and contract labor, or other similar professional services or outside services other than employees rendered the respondent under written or verbal arrangements, for which total payments during the year to any corporation, partnership, individual or organization of any kind whatsoever. Attach additional worksheet pages if necessary.

	Name of Recipient and Description of Service (a)	Amount of Payments: Water Expensed (b)	Water Capitalized (c)	Sewer Expensed (d)	Sewer Capitalized (e)
3	JS TAX AND ACCOUNTING ACCOUNTANT	$ 1,805		$ 1,805	
4	BRUNTRAGER & BILLINGS LEGAL	$ 1,613		$ 1,612	
5	FISCHER & DORITY PC LEGAL	$ 3,475		$ 3,475	
6	KALEB POLITTE LABOR	$ 1,580		$ 1,580	
7	MATT POHLIC LABOR	$ 780		$ 780	
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19	**Total**	$ 9,253	$ -	$ 9,252	$ -
		(Total to Pg. W-1)		*(Total to Pg. S-1)*	

Indicates formula cell(s)

(To be used when additional pages are needed)

For the calendar year of January 1 - December 31, 2020

Company Name: TERRE DU LAC UTILITIES CORPORATION

CONTRIBUTIONS IN AID OF CONSTRUCTION

INSTRUCTIONS: This account shall include donations or contributions in cash, services, or property for construction purposes. The records supporting the entries to this account shall be so kept that the utility can furnish information as to the purpose of each donation, the conditions, if any, upon which it was made, the amount of each donation, and the amount applicable to each utility department. The credits (deductions) to this account shall not be transferred to any other account without the approval of the Commission.

	(a)	Water (b)	Sewer (c)
3	Balance at Beginning of Year *(From last years report, Pg. 8)*	$ 311,352	$ 328,557
4	**PLUS:** Additions During the Year *(Please provide a detailed explanation.)*		
5		$ -	$ -
6			
7			
8			
9	**Total Additions**	$ -	$ -
10	**LESS:** Deductions During the Year *(Please provide a detailed explanation.)*		
11			
12			
13	Retire and cap off service connection, but no connection fee money returned = no entry here		
14			
15	**Total Deductions**	$ -	$ -
16	Balance at End of Year	$ 311,352	$ 328,557
		(Total to Pg. 5)	*(Total to Pg. 5)*

AMORTIZATION OF CONTRIBUTIONS IN AID OF CONSTRUCTION

(Please identify as Account Number 271A)

17 PLEASE CHOOSE FROM THE DROP DOWN BOX WHICH METHOD THE UTILITY UTILIZES FOR ITS RECORDS. Distribution Method

Distribution Method

	(a)	Water (b)	Sewer (c)
18	Balance of Amortization at First of Year *(**not** Total of CIAC line 3)*	$ 98,610	$ 125,177
19	**Total Contributions in Aid at End of Year** ***(see above)***	$ 311,352	$ 328,557
20	**Total Plant in Service at End of Year** *(From Pg. W-5 or S-4)*	$ 1,469,985	$ 1,073,510
21	Percentage Contributions to Plant	21.18%	30.61%
22	**Total Depreciation Expense** *(From Pg. W-5 or S-4)*	$ 52,311	$ 57,213
23	**Total Amortization of Contributions** *(To Pg. W-1, S-1)*	$ 11,080	$ 17,511
24	Balance at End of Year	$ 109,690	$ 142,688
		(Total to Pg. 5)	*(Total to Pg. 5)*

OR

Attached Method

	(a)	Water (b)	Sewer (c)
25	Balance of Amortization at First of Year (***not*** *Total of CIAC Line 3)*		
26	**Total Amortization of Contributions** *(To Pg. W-1, S-1)*		
27	Balance at End of Year		
		(Total to Pg. 5)	*(Total to Pg. 5)*

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

INTEREST EXPENSE, NOTES PAYABLE, BONDS, BANK LOANS AND OTHER DEBTS

INSTRUCTIONS: Please report information for the **current annual reporting** year. List each separate item of debt. Please identify the named borrower for each debt, if different from the company. Show principal amount to which each interest rate applies. Include all items on which interest was paid during the year. Use additional worksheets if necessary.

	Type of Debt *(i.e., Notes Payable, Bonds, Bank Loans, Shareholder Loans, Affiliate Loans, etc.)* (a)	Contact Information of Each Lender *(Name, Address, Phone No., Email)* (b)	Origination Date (c)	Initial Loan Amount (d)	Interest Rate (e)	Type of Interest Rate: (Fixed, Variable) (f)	Frequency of Payments *(Semi-Monthly, Monthly, Quarterly, Annually, etc.)* (g)	Balance of Loan at Year End: Long Term Debt (Over one year.) (h)	Balance of Loan at Year End: Short Term Debt (Less than one year.) (i)	Date of Maturity (j)	Debt Paid off During Year? Y or N (k)	Total Interest Paid During the Year (l)	Interest Paid - Charged To: Water Utility (m)	Interest Paid - Charged To: Sewer Utility (n)
3	NOTE PAYABLE	FIRST STATE COMMUNITY BANK	9/1/16	$ 797,000	4.25%	F	M	$ 673,873.00	$ 38,400.00	7/22/26	N	$ 37,258	$ 18,629	$ 18,629
4	NOTE PAYABLE	FIRST STATE COMMUNITY BANK	1/31/17	$ 122,961	5.88%	F	M	$ 98,654.00	$ 7,200.00	6/30/33	N	$ 5,723	$ 2,862	$ 2,861
5	NOTE PAYABLE	TOYOTA FINANCIAL	4/24/18	$ 23,752	0.00%	F	M	$ 5,706.00	$ 4,716.00	3/24/23	N	$ -	$ -	$ -
6	NOTE PAYABLE	ALLY	10/30/19	$ 3,318	6.00%	F	M	$ 21,362.00	$ 6,000.00	11/30/25	N	$ 2,175	$ 1,088	$ 1,087
7														
8														
9	**Total**							$ 799,595.00 *(Totals to Page 5)*	$ 56,316.00			$ 45,156	$ 22,579 *(Total to Pg. W-1)*	$ 22,577 *(Total to Pg. S-1)*

10 If the answer to column (f) is variable, please explain the method used for the interest rate calculation below with corresponding line number from above.

Indicates formula cell(s)

(To be used when filing under seal.)

1 For the calendar year of January 1 - December 31, 2020

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

WATER OPERATING REVENUES, EXPENSES AND STATISTICS

	Description (a)	Amount (b)
3	**Total Revenues** *(From Pg. W-2)*	$ 356,466
	Operating Expenses	
4	Salaries & Wages *(From Pg. 6)*	$ 106,411
5	Employee Pensions and Benefits	$ 1,903
6	Purchased Water	
7	Plant Operations Expenses *(From Pg. W-3, Line 12)*	$ 49,838
8	Billing Expenses	$ 2,185
9	Supplies and Expenses	$ 13,233
10	Transportation Expenses	$ 7,983
11	Rent Expense	$ 203
12	Insurance Expense	$ 51,199
13	Outside Services Employed *(e.g, Legal, Accounting, etc.) (From Pg.7)*	$ 9,253
14	Regulatory Commission Expenses	$ 8,453
15	Uncollectible Expenses	
16	Depreciation Expense *(From Pg. W-5, Line 49)*	$ 52,311
17	Amoritization of Contributions in Aid of Construction (From Page 8)	$ (11,080)
18	Amortization Expense	
19	Tax Expenses *(e.g., Property, State, Federal, etc.) (From Pg. W-3, Line 20)*	$ 11,111
20	Interest Expense *(From Pg. 9)*	$ 22,579
21	Other Expenses	$ 9,466
22	**Total Operating Expenses**	$ 335,048
23	**Net Income** (Loss) - *(A negative number indicated by ( ) represents a loss.)*	$ 21,418

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: TERRE DU LAC UTILITIES CORPORATION

WATER OPERATING REVENUES, EXPENSES AND STATISTICS (*Continued*)

(Please indicate if metered amounts are in cubic feet measurements.)

	Description (a)	No. of Customers Beginning of Year (b)	No. of Customers End of Year (c)	No. of Gallons Sold (000's Omitted) (d)	Revenue Amount (e)
	Unmetered Sales of Water				
3	Residential - Single Family	7	7	XXXX	$ 535
4	Residential - Apartments			XXXX	
5	Residential - Mobile Homes			XXXX	
6	Commercial			XXXX	
7	Other Sales to Public Authorities			XXXX	
8	Other			XXXX	
9	**Total Unmetered Sales**	7	7		$ 535
	Metered Sales of Water				
10	5/8" Meter	1,307	1,307	62,784,119	$ 345,888
11	3/4" Meter	4	4	115,810	$ 4,954
12	1" Meter				
13	1 1/2" Meter				
14	2" Meter	1	1	1,755,300	$ 4,586
15	Other				
16	**Total Metered Sales**	1,312	1,312	64,655,229	$ 355,428
	Tariffed Operating Revenues				
17	Late Payment Fees				$ 503
18	Returned Check Fees				
19	Inspection Fees				
20	Reconnect Fees				
21	Other Revenue				
22	**Total Operating Revenues** *(From Tariffed Services) (To Pg. 1, line 9)*				$ 356,466
	Non Tariffed Revenues				
23	Rent Income				
24	Other Income, *(e.g., from Merchandising, Jobbing & Contract Work, etc.)*				
25	**Total Non-Tariffed Revenues** *(To Pg. 1, Line 10)*				$ -
26	**Total Revenues** * *(To Pg. 1, Line 11)*				$ 356,466 *(Total to Pg. W-1 and Pg. 1)*

* **Total Operating Revenues should match Statement of Revenue (MOPSC Assessment).**

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

1 For the calendar year of January 1 - December 31, 2020

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

WATER OPERATING REVENUES, EXPENSES AND STATISTICS *(Continued)*

	Description of Expenses (a)	Amount (b)
	Plant Operations Expenses	
3	Repairs of Water Plant - Pump Repair	
4	Repairs of Water Plant - Well Repair	$ 1,135
5	Repairs of Water Plant - Water Line Repair	$ 558
6	Repairs of Water Plant - Equipment Repair	
7	Repairs of Water Plant - Other	$ 109
8	Fuel or Power Purchases for Pumping *(i.e., Electric Bills, etc.)*	$ 40,488
9	Chemicals	$ 3,535
10	Water Testing Expenses	
11	Other Plant Operations Expenses	$ 4,013
12	**Total Plant Operations Expenses**	$ 49,838
		(Total to Page W-1)
	Tax Expenses	
13	Tax Expense - Property Taxes	$ 1,784
14	Tax Expense - Payroll Taxes	$ 9,327
15	Tax Expense - Franchise Taxes	
16	Tax Expense - Other Taxes	
17	Tax Expense - Federal Income Taxes	
18	Tax Expense - State Income Taxes	
19	Tax Expense - Investment Tax Credits	
20	**Total Tax Expenses**	$ 11,111
		(Total to Pg. W-1)

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

PUMPING AND PURCHASED WATER STATISTICS

(Omit 000's in reporting number of gallons or cubic feet of water. Use additional sheets if necessary.)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

GALLONS PUMPED INTO SYSTEM

Please indicate measurements given are in gallons or cubic feet by choosing from the dropdown box. Gallons

SERVICE MONTHS (Number of gallons pumped per month.) (a)	SOURCE OF SUPPLY (Please name each source below in columns b-e *(i.e., Well #1, etc.)*)				TOTAL OF ALL METHODS (b+c+d+e=f) (f)
	WELL #2	WELL #3	WELL #4		
	(b)	(c)	(d)	(e)	
JANUARY		5,939,120	325,141		6,264,261
FEBRUARY		3,962,301	656,038		4,618,339
MARCH		262,750	4,586,201		4,848,951
APRIL		0	3,916,146		3,916,146
MAY		501,301	5,323,119		5,824,420
JUNE		40,800	6,271,947		6,312,747
JULY		312,500	7,783,444		8,095,944
AUGUST		0	6,697,874		6,697,874
SEPTEMBER		0	6,146,320		6,146,320
OCTOBER		0	2,625,050		2,625,050
NOVEMBER		0	5,473,279		5,473,279
DECEMBER		0	3,678,123		3,678,123
Totals for Year	0	11,018,772	53,482,682	0	64,501,454

Maximum Quantity Supplied to the System in Any One Day: 638,108 Minimum: 204,102

Range of Pressure in the Mains as Measured at the Highest Point on System: 30 PSI - 100 PSI

If Water is Sold to Other Utilities for Resale, List Names, Addresses, Phone Numbers and Quantities Below:

Name of Reseller	Address	Phone Number	Quantity
N/A			

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

	Account Description (A)	USOA Account. No. Class B, C or D (B)	Plant Balance at Beginning of Year (C)	Additions During the Year (D)	Retirement of Property: Book Cost of Plant Retired* (E)	Retirement of Property: Cost of Removal* (F)	Retirement of Property: Salvage Credit* (G)	Plant Balance at End of Year (C+D-E) (H)	Reserve Balance at Beginning of Year (I)	Annual Depreciation Rate % (J)	Depreciation Expense** J*(C+H)/2 (K)	Reserve Balance at END of Year (I-E-F+G+K) (L)
	WATER UTILITY PLANT IN SERVICE				**DEPRECIATION EXPENSES AND RESERVE - WATER UTILITY PLANT**							
	Intangible Plant											
3	Organization	301						0				0
4	Franchise and Consents	302						0				0
5	Miscellaneous Intangible Plant	303						0				0
	Source of Supply Plant											
6	Land and Land Rights	310						0				0
7	Structures and Improvements	311	178,387					178,387	161,098	2.50%	4,460	165,558
8	Collecting & Impounding Reservoirs	312						0				0
9	Lake, River, and Other Intakes	313						0				0
10	Wells and Springs	314	543,287					543,287	107,733	2.00%	10,866	118,599
11	Infiltration Galleries and Tunnels	315						0				0
12	Supply Mains	316						0				0
13	Other Water Source Plant	317	238,950					238,950	78,130	2.50%	5,974	84,104
	Pumping Plant											
14	Land and Land Rights	320						0				0
15	Structures and Improvements	321						0				0
16	Boiler Plant Equipment	322						0				0
17	Other Power Production Equipment	323						0				0
18	Submersible Electric Pumping	325.1						0				0
19	High Service or Booster Pumps	325.2						0				0
20	Diesel Pumping Equipment	326						0				0
21	Hydraulic Pumping Equipment	327						0				0
22	Other Pumping Equipment	328	11,665					11,665	2,613	2.50%	292	2,905

For calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

WATER UTILITY PLANT IN SERVICE

DEPRECIATION EXPENSES AND RESERVE - WATER UTILITY PLANT

	Account Description (A)	USOA Account. No. Class B, C or D (B)		Plant Balance at Beginning of Year (C)	Additions During the Year (D)	Retirement of Property: Book Cost of Plant Retired* (E)	Retirement of Property: Cost of Removal* (F)	Retirement of Property: Salvage Credit* (G)	Plant Balance at End of Year (C+D-E) (H)	Reserve Balance at Beginning of Year (I)	Annual Depreciation Rate % (J)	Depreciation Expense** J*(C+H)/2 (K)	Reserve Balance at END of Year (I-E-F+G+K) (L)
	Water Treatment Plant												
23	Land and Land Rights	330							0				0
24	Structures and Improvements	331							0				0
25	Water Treatment Equipment	332							0				0
	Transmission & Distribution Plant												
26	Land and Land Rights	340							0				0
27	Structures and Improvements	341							0				0
28	Distribution Reservoirs & Standpipes	342		66,995					66,995	77,043	2.50%	1,675	78,718
29	Transmission & Distribution Mains	343		122,863					122,863	60,558	2.00%	2,457	63,015
30	Fire Mains	344							0				0
31	Services	345		16,755					16,755	12,821	2.50%	419	13,240
32	Meters	346		72,645					72,645	80,858	9.50%	6,901	87,759
33	Meter Installations	347							0				0
34	Hydrants	348		7,113					7,113	4,342	2.00%	142	4,484
35	Other Transmission & Distribution Plant	349							0				0
	General Plant - (Class B&C are Same)	B &C	D										
36	Land and Land Rights	389	370	1,000					1,000				0
37	Structures and Improvements	390	371	7,115					7,115	2,826	2.50%	178	3,004
38	Office Furniture and Equipment	391	372	8,214					8,214	10,680	5.00%	411	11,091
39	Office Computer & Electronic Equipment	391.1	372.1						0				0
40	Transportation Equipment	392	373	94,863					94,863	91,956	13.00%	12,332	104,288
41	Other General Equipment	none	379						0				0
42	Stores Equipment	393	none						0				0

1

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

For calendar year of January 1 - December 31, 2020

WATER UTILITY PLANT IN SERVICE | **DEPRECIATION EXPENSES AND RESERVE - WATER UTILITY PLANT**

	Account Description (A)	USOA Account. No. Class B, C or D (B)		Plant Balance at Beginning of Year (C)	Additions During the Year (D)	Retirement of Property: Book Cost of Plant Retired* (E)	Retirement of Property: Cost of Removal* (F)	Retirement of Property: Salvage Credit* (G)	Plant Balance at End of Year (C+D-E) (H)	Reserve Balance at Beginning of Year (I)	Annual Depreciation Rate % (J)	Depreciation Expense** J*(C+H)/2 (K)	Reserve Balance at END of Year (I-E-F+G+K) (L)
43	Tools, Shop and Garage Equipment	394	none						0				0
44	Laboratory Equipment	395	none						0				0
45	Power-operated Equipment	396	none	87,313					87,313	79,071	6.70%	5,850	84,921
46	Communication Equipment	397	none	4,185					4,185	5,013	3.30%	138	5,151
47	Miscellaneous Equipment	398	none	7,451					7,451	8,567	2.50%	186	8,753
48	Other Tangible Property	399	none	1,184					1,184	1,364	2.50%	30	1,394
49	Total Water Utility Plant In Service	**Totals**		1,469,985	0	0	0	0	1,469,985	784,673		52,311	836,984
									(Total to Pg. 4 & 8)			(Total to Pg. 8 & Pg. W-1)	(Total to Pg. 4)

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

* All entries included in Columns "E", "F" and "G" should be supported by records that identify the property retired and the cost of removal or salvage in detail.

** Annual Depreciation Expense should be calculated based upon actual in-service and retirement date(s) of new equipment and retirements during the period.

** The depreciation expense formula provided is only an approximation assuming all activity for the year occurred mid year.

NOTE: All entries should be supported by records that identify the property being added or retired, its location, and its original cost in as much detail as reasonably possible. If adjustments are included in Columns "E", "F" and/or "G", use additional sheets.

Comments:

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

PUMP INFORMATION

	Pump Manufacturer (a)	Type of Pump *(i.e., High Service, Well, Standby, etc.)* (b)	Capacity (c)	Date Installed (d)	Date of Last Motor Replacement (e)	Date of Last Pump Replacement (f)
3	GRUND	FOS	90	5/1/69	12/6/10	12/6/10
4	GRUND	FOS	114	1/1/70	9/1/05	9/1/05
5	GRUND	FOS	300	7/1/07	5/6/16	1/15/13
6	GRUND	FOS	300	7/1/16	7/1/16	7/1/16
7						
8						
9						
10						
11						
12						

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

WELL INFORMATION

Description of Wells (a)	Well ID#/ Location	Well ID#/ Location	Well ID#/ Location	Well ID#/ Location
	WELL #1	WELL #2	WELL #3	WELL #4
	(b)	(c)	(d)	(e)
Year Constructed	1969	1970	1980	2016
Type of Construction	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN
Type and Depth of Casing	STEEL & DEPTH UNKNOWN	STEEL & DEPTH UNKNOWN	STEEL & DEPTH UNKNOWN	STEEL & DEPTH UNKNOWN
Depth and Diameter of Well	10" 1005'	6 1/4" 665'	12" 665'	12" 820'
Yield of Well in Gallons per day	2,280	1,440	4,800	7,200
Chemicals				
Type -	CHLORINE	CHLORINE	CHLORINE	CHLORINE
Annual Cost -	NOT IN USE	$ 129.83	$ 2,503.90	$ 2,750.00
Annual Quantity -	NA	19466000	57690300	

(To be used when filing under seal.)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

METERS AND METER SETTINGS

	Customer Class (a)	Meter Size (b)	Total at Beginning of Year (c)	Total Number of Additions (d)	Total Number Removed or Disconnected (e)	Total at End of Year (f)
3	Residential:					
4		5/8"	1,307			1,307
5		1"	4			4
6		2"	1			1
7	Other Customers:					
8						0
9						0
10	**Total in Use by Customers**		1,312	0	0	1,312
11	Not in Use: *(i.e., Inventory)*					
12						0
13						0
14	**Total Meters**		1,312	0	0	1,312

STORAGE FACILITIES

	Type of Storage *(i.e., Pneumatic, Ground, Standpipes, Elevated Tanks, etc.)* (a)	Construction Material (b)	Last Date Painted if Applicable (indicate interior or exterior) (c)	Capacity (d)
15	ELEVATED STORAGE	STEEL	1994 INT & EXT	50,000
16	ELEVATED STORAGE	STEEL	1994 INT & EXT	100,000
17				
18				
19				

Indicates formula cell(s)

(To be used when filing under seal.)

Company Name: TERRE DU LAC UTILITIES CORPORATION

For the calendar year of January 1 - December 31, 2020

WATER MAINS *(measurement in feet)*

	Kind of Pipe *(i.e., Cast Iron, Galvanized, Iron, PVC, etc.)* (a)	Diameter of Pipe (b)	Total at Beginning of Year (c)	Total Additions During the Year (d)	Total Removed or Abandoned During the Year (e)	Total at End of Year (f)
3	PLASTIC	4"	161,750			161,750
4	PLASTIC	6"	94,735			94,735
5	PLASTIC	8"	334,264			334,264
6						0
7						0
8						0
9						0
10						0
11						0
12						0
13						0
14						0
15						0
16	**Total Mains**		590,749	0	0	590,749

SERVICE CONNECTIONS AVAILABLE FOR USE *(from Main to Property Line)*

	Size and Type of Material *(i.e., Iron, Copper, PVC, etc.)* (a)	Total No. at Beginning of Year (b)	Total No. of Additions (c)	Total No. Retired or Abandoned (d)	Total No. at End of Year (e)
	In Use:				
17					0
18	NA				0
19					0
20					0
	For Future Use:				
21					0
22					0
23					0
24					0
25	**Total of All Services**	0	0	0	0

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

SEWER OPERATING REVENUES, EXPENSES AND STATISTICS

	Description (a)	Amount (b)
3	**Total Revenues** *(From Page S-2)*	$ 361,902
	Operating Expenses	
4	Salaries & Wages *(From Pg. 6)*	$ 119,462
5	Employee Pensions and Benefits	$ 1,903
6	Purchased Water	
7	Plant Operations Expenses *(From Pg. S-3)*	$ 71,691
8	Billing Expenses	$ 2,185
9	Supplies and Expenses	$ 1,639
10	Transportation Expenses	$ 8,701
11	Rent Expense	$ 543
12	Insurance Expense	$ 51,199
13	Outside Services Employed *(e.g., Legal, Accounting, etc.) (From Pg. 7)*	$ 9,252
14	Regulatory Commission Expenses	$ 14,127
15	Depreciation Expense *(From Pg. S-4)*	$ 57,213
16	Amoritization of Contributions in Aid of Construction *(From Pg. 8)*	$ (17,511)
17	Amortization Expense	
18	Tax Expenses *(From Pg. S-3)*	$ 12,967
19	Interest Expense *(From Pg. 9)*	$ 22,577
20	Other Expenses	$ 9,732
21	**Total Operating Expenses**	$ 365,680
22	**Net Income** *(Loss)* - *(A negative number indicated by ( ) represents a loss.)*	$ (3,778)

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

SEWER OPERATING REVENUES, EXPENSES AND STATISTICS *(Continued)*

(Please indicate if metered amounts are in cubic feet measurements.)

	Description of Revenues (a)	No. of Customers Beginning of Year (b)	No. of Customers End of Year (c)	No. of Gallons Sold *(000's Omitted)* (d)	Revenue Amount (e)
	Flat Rate Sales				
3	Residential - Single Family	1,294	1,294	XXXX	$ 308,105
4	Residential - Apartments			XXXX	
5	Residential - Mobile Homes			XXXX	
6	Commercial	1	1	XXXX	$ 1,893
7	Other Sales to Public Authorities			XXXX	
8	Other			XXXX	
9	**Total Unmetered Sales**	1,295	1,295	XXXX	$ 309,998
	Metered Sales Based on Gallon Usage				
10	Residential - Single Family				
11	Residential - Apartments				
12	Residential - Mobile Homes				
13	Commercial				
14	Other Sales to Public Authorities				
15	Other				
16	**Total Metered Sales**	0	0	0	$ -
	Tariffed Operating Revenues				
17	Late Payment Fees				$ 16,829
18	Returned Check Fees				
19	Inspection Fees				
20	Reconnect Fees				
21	Other Revenue				
22	**Total Operating Revenues** *(From Tariffed Services)(To Pg. 1, Line 12)*				$ 326,827
	Non-Tariffed Revenues				
23	Rent Income				$ 2,205
24	Other Income *(e.g., from Merchandising, Jobing & Contract Work, etc.)*				$ 32,870
25	**Total Non-Tariffed Revenues** *(To Pg. 1, Line 13)*				$ 35,075
26	**Total Revenues** * *(To Pg. 1, Line 14)*				$ 361,902
					(Totals to Pg. 1, Pg. S-1)

* **Total Revenues should match Statement of Revenue** ***(MOPSC Assessment)***.

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

For the calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

SEWER OPERATING REVENUES, EXPENSES AND STATISTICS *(Continued)*

	Description (a)	Amount (b)
	Plant Operations Expenses	
3	Contracted Maintenance Expenses	
4	Repairs of Sewer Plant - Pump Repair	$ 33,831
5	Repairs of Sewer Plant - Treatment Repair	$ 899
6	Repairs of Sewer Plant - Collecting Sewers and Manhole Repair	$ 2,053
7	Repairs of Sewer Plant - Equipment Repair	$ 3,900
8	Repairs of Sewer Plant - Other	$ 6,046
9	Utility Bills	$ 15,676
10	Chemicals	$ 1,345
11	Sludge Hauling Expenses	
12	Effluent Testing Expenses	$ 2,928
13	Other Plant Operations Expenses	$ 5,013
14	**Total Plant Operations Expenses**	$ 71,691
		(Total to Pg. S-1)
	Tax Expenses	
15	Tax Expense - Property Taxes	$ 3,640
16	Tax Expense - Payroll Taxes	$ 9,327
17	Tax Expense - Franchise Taxes	
18	Tax Expense - Other Taxes	
19	Tax Expense - Federal Income Taxes	
20	Tax Expense - State Income Taxes	
21	Tax Expense - Investment Tax Credits	
22	**Total Tax Expenses**	$ 12,967
		(Total to Pg. S-1)

Indicates formula cell(s)

(To be used when filing under seal.)

For calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

SEWER UTILITY PLANT IN SERVICE — **DEPRECIATION EXPENSES AND RESERVE - SEWER UTILITY PLANT**

	Account Description (A)	USOA Account No. Class: B, C or D (B)		Plant Balance at Beginning of Year (C)	Additions During the Year (D)	Book Cost of Plant Retired* (E)	Cost of Removal* (F)	Salvage Credit* (G)	Plant Balance at End of Year (C+D-E) (H)	Reserve Balance at Beginning of Year (I)	Annual Depreciation Rate % (J)	Depreciation Expense** J*(C+H)/2 (K)	Reserve Balance at END of Year (I-E-F+G+K) (L)
						Retirement of Property							
	Intangible Plant												
3	Organization	301	301						0				0
4	Franchise and Consents	302	302						0				0
5	Miscellaneous Intangible Plant	303	303						0				0
	Land & Structures												
6	Land and Land Rights	none	310						0				0
7	Structures and Improvements	none	311						0				0
	Collection Plant												
8	Land and Land Rights	350	none	1,000					1,000				0
9	Structures and Improvements	351	none	77,102					77,102	70,016	2.50%	1,928	71,944
10	Collection Sewer - Force	352.1	352.1	433,582					433,582	201,777	2.00%	8,672	210,449
11	Collection Sewer - Gravity	352.2	352.2	37,233					37,233	25,040	2.00%	745	25,785
12	Other Collection Plant Facilities	353	353	21,252					21,252	9,417	2.00%	425	9,842
13	Services to Customers	354	354						0				0
14	Flow Measuring Devices	355	355						0				0
	Pumping Plant												
15	Land and Land Rights	360	none						0				0
16	Structures and Improvements	361	none						0				0
17	Receiving Wells and Pump Pits	362	362						0				0
18	Other Pumping Equipment	363	363	272,990					272,990	106,240	10.00%	27,299	133,539
	Treatment & Disposal												
19	Land and Land Rights	370	none						0				0
20	Structures and Improvements	371	none						0				0
21	Oxidation Lagoon	none	372						0				0
22	Treatment & Disposal Equipmen:	372	373	30,687					30,687	17,850	5.00%	1,534	19,384

For calendar year of January 1 - December 31, 2020

Company Name: **TERRE DU LAC UTILITIES CORPORATION**

SEWER UTILITY PLANT IN SERVICE — **DEPRECIATION EXPENSES AND RESERVE - SEWER UTILITY PLANT**

	Account Description (A)	USOA Account No. Class: B, C or D (B)		Plant Balance at Beginning of Year (C)	Additions During the Year (D)	Retirement of Property: Book Cost of Plant Retired* (E)	Retirement of Property: Cost of Removal* (F)	Retirement of Property: Salvage Credit* (G)	Plant Balance at End of Year (C+D-E) (H)	Reserve Balance at Beginning of Year (I)	Annual Depreciation Rate % (J)	Depreciation Expense** J*(C+H)/2 (K)	Reserve Balance at END of Year (I-E-F+G+K) (L)
23	Sewer Collection (Septic) Tanks	372.1	373.1						0				0
24	Plant Sewer	373	374						0				0
25	Outfall Sewer Lines	374	375						0				0
26	Other Treatment & Disposal Plant Equipment	375	376	4,466					4,466	3,803	4.00%	179	3,982
	General Plant												
27	Land and Land Rights	389	none						0				0
28	Structures and Improvements	390	none						0				0
29	Office Furniture and Equipment	391	391	11,645					11,645	14,555	5.00%	582	15,137
30	Office Computer & Electronic Equipment	391.1	391.1						0				0
31	Transportation Equipment	392	392	94,521					94,521	102,797	13.00%	12,288	115,085
32	Other General Equipment	none	393	89,032					89,032	64,592	4.00%	3,561	68,153
33	Stores Equipment	393	none						0				0
34	Tools, Shop and Garage Equipment	394	none						0				0
35	Laboratory Equipment	395	none						0				0
36	Power-operated Equipment	396	none						0				0
37	Communication Equipment	397	none						0				0
38	Miscellaneous Equipment	398	none						0				0
39	Total Sewer Utility Plant In Service	**Totals**		1,073,510	0	0	0	0	1,073,510	616,087		57,213	673,300
									(Total to Pg. 4 & Pg. 8)			(Total to Pg. 8 & Pg. S-1)	(Total to Pg. 4)

Indicates a link to another worksheet within workbook

Indicates formula cell(s)

(To be used when filing under seal.)

* All entries included in Columns "E", "F" and "G" should be supported by records that identify the property retired and the cost of removal or salvage in detail.

** Annual Depreciation Expense should be calculated based upon actual in-service and retirement date(s) of new equipment and retirements during the period.

** The depreciation expense formula provided is only an approximation assuming all activity for the year occurred mid year.

NOTE: All entries should be supported by records that identify the property being added or retired, its location, and its original cost in as much detail as reasonably possible. If adjustments are included in Columns 'E", "F" and/or G", use additional sheets.

Comments:

1 For the calendar year of January 1 - December 31, 2020

2 Company Name: **TERRE DU LAC UTILITIES CORPORATION**

GENERAL INFORMATION

3 Type of Treatment Facilities - Please describe *(e.g., lagoon, mechanical or sand filter) and list all that apply.*

THREE CELL FACULATIVE LAGOON SERVICE (FIRST 2 CELL AERATOR) WITH SERVICE AERATOR AND OXIDATION DITCH

4 What is the designed capacity of each treatment facility?

490000 GPD

5 What percent of designed capacity of each facility is currently being utilized?

OXIDATION DITCH 50% LAGOON 50%

SLUDGE

6 Was sludge pumped and hauled from your facility? (•) Y ( ) N Please provide the hauling provider information in the section below.

(If you have more than five (5) hauls during the year, only list the total annual amount.)

Name of Hauling Co.	Hauling Company's Facility/Location	Date of Haul	No. of Gallons Hauled	Rates Per Gallon	Total Cost of Removal
POOLE'S SEPTIC	OXIDATION DITCH TO THREE CELL LAGOON NORTH	ANNUAL	78,200		$ 700
				Total Cost	$ 700

7 What is the ultimate disposal of waste solids *(e.g. land application, disposal at qualified facility, etc.)?*

CONTRACT HAULER LAND APPLICATION

8 List any equipment failure(s) that occurred during the year. Please list when failure(s) occurred and briefly describe them and any corrective measure(s) taken specifically major item(s), (i.e., problem(s) fixed was/were $250 or above as listed on page 3). Denote "N/A", if applicable.

NA

COLLECTING SEWERS *(measurement in feet)*

	Kind of Pipe *(i.e. Cast Iron, VCP, PVC, etc.)* (a)	Diameter of Pipe (b)	Total No. at Beginning of Year (c)	Total No. of Additions During the Year (d)	Total No. Removed or Abandoned During the Year (e)	Total No. at End of Year (f)
9	Force:					0
10	PVC	4"	13,100			13,100
11	Gravity:					0
12	PVC	6"	10,000			10,000
13	PVC	8"	100,100			100,100

LIFT STATIONS

	Pumps: Name, Size, Type	Location	H.P.	GPM	TDH
14	GORMAN RUPP	LAFAYETTE DRIVE	20	250	85
15	GORMAN RUPP	RUE CHANTILLEY	7.5	135	38
16	GORMAN RUPP	RUE CHANTILLEY	20	250	85
17					
18					
19					

☐ Indicates a formula cell

(To be used when filing under seal.)

For the calendar year January 1 - December 31, 2020

Company Name: TERRE DU LAC UTILITIES CORPORATION

VERIFICATION

The foregoing report must be verified by the Oath of the President, Treasurer, General Manager or Receiver of the Company. The Oath required may be taken before any person authorized to administer an oath (Notary Public) by the laws of the State in which the same is taken.

OATH

State Of MISSOURI }
} ss:
County Of }

MICHAEL TILLEY makes oath and says that
Name of Affiant *(Company Official/Representative)*

s/he is PRESIDENT
Official Title of the Affiant *(Company Official/Representative)*

of TERRE DU LAC UTILITIES CORPORATION
Exact Legal Title or Name of the Respondent *(Certificated Company Name)*

and is located at 1628 S ST FRANCOIS RD BONNE TERRE MO 63628 573-747-6803
Address and Telephone Number of the Affiant *(Company Official/Representative)*

that s/he has 1) examined the foregoing report; that to the best of his or her knowledge, information, and belief, all statements of fact contained in the said report are true and the said report is a correct statement of the business and affairs of the above-named respondent, and 2) examined (and updated as applicable) the Company's contact information in EFIS; to the best of his or her knowledge, information, and belief, all listed contacts are correct.

from January 1 (Month/Day), 2020 (Year), to and including December 31 (Month/Day), 2020 (Year)

Signature of Affiant *(Company Official/Representative)*
(If electronic signatures are used, you must use "/s/" before the name.)

Subscribed and sworn to before me, a Notary Public, in and for the State and County above named,
this 14th day of May, 2021.
My Commission expires: November 28, 2023

JENNIFER LYNN SADLER
Notary Public - Notary Seal
Washington County - State of Missouri
Commission Number 11462469
My Commission Expires Nov 28, 2023

Signature of Notary Public
(If electronic signatures are used, you must use "/s/" before the name.)

11462469
Notary Public Commission Number

Missouri Revised Statutes § 392.210 or §393.140

See the Instructions for more information to complete this page.

OSHA® FactSheet

Confined Spaces in Construction: Sewer Systems

Confined spaces can present conditions that are immediately dangerous to workers if such conditions are not properly identified, evaluated, tested, and controlled. This fact sheet highlights many of the confined space hazards associated with sewer systems and how employers can protect workers in these environments.

OSHA has developed a new construction standard for Confined Spaces (29 CFR 1926 Subpart AA)—any space that meets the following three criteria:

- Is large enough for a worker to enter it;
- Has limited means of entry or exit; and
- Is not designed for continuous occupancy.

A space may also be a **permit-required** confined space if it has a hazardous atmosphere, the potential for engulfment or suffocation, a layout that might trap a worker through converging walls or a sloped floor, or any other serious safety or health hazard.

Fatal Incidents

Confined space hazards in sewer systems have led to worker deaths. Several tragic incidents in sewers have included:

- A worker who lost consciousness and died when he climbed into a sewer vault to retrieve a tool. His co-worker also died when he attempted a rescue.
- While repairing a natural gas leak, a worker entered a drainage pipe to retrieve survey equipment. The natural gas ignited, killing the worker.

Training

The new Confined Spaces standard requires employers to ensure that their workers know about the existence, location, and dangers posed by each permit-required confined space, and that they may not enter such spaces without authorization.

Employers must train workers involved in permit-required confined space operations so that they can perform their duties safely and understand the hazards in permit spaces and the methods used to isolate, control or protect workers. Workers not authorized to perform entry rescues must be trained on the dangers of attempting such rescues.

Safe Entry Requirements

The new Confined Spaces standard includes several requirements for safe entry.

Preparation: Before workers can enter a confined space, employers must provide pre-entry planning. This includes:

- Having a competent person evaluate the work site for the presence of confined spaces, including permit-required confined spaces.
- Once the space is classified as a permit-required confined space, identifying the means of entry and exit, proper ventilation methods, and elimination or control of all potential hazards in the space.
- Ensuring that the air in a confined space is tested, before workers enter, for oxygen levels, flammable and toxic substances, and stratified atmospheres.
- If a permit is required for the space, removing or controlling hazards in the space and determining rescue procedures and necessary equipment.
- If the air in a space is not safe for workers, ventilating or using whatever controls or protections are necessary so that employees can safely work in the space.

Ongoing practices: After pre-entry planning, employers must ensure that the space is monitored for hazards, especially atmospheric hazards. Effective communication is important because there can be multiple contractors operating on a site, each with its own workers needing to enter the confined space. Attendants outside confined spaces must make sure that unauthorized workers do not enter them. Rescue attempts by untrained personnel can lead to multiple deaths.

Confined Spaces in Sewer Systems

Types of sewer systems include sanitary (domestic sewage), storm (runoff), and combined (domestic sewage and runoff). Sewer systems are extensive

and include many different components that are considered confined spaces, including pipelines, manholes, wet wells, dry well vaults, and lift/pump stations. Therefore, employers conducting work in sewer systems will likely have workers who will encounter confined spaces.

Sewer systems also consist of wastewater treatment plants, where confined spaces include digestion and sedimentation tanks, floating covers over tanks, sodium hypochlorite tanks, and wastewater holding tanks, among others. Many of these components may also qualify as permit-required confined spaces.

Employers must take all necessary steps to keep workers safe in confined spaces, including following the OSHA Construction Confined Spaces standard. This standard applies to both new construction within an existing sewer and alterations and/or upgrades. For example:

- Installing or upgrading a manhole.
- Altering or upgrading sewer lines.
- Making nonstructural upgrades to joints, pipes, or manholes.
- Demolition work.
- Installing new or upgraded pump equipment, cables, wires, or junction boxes.

Construction work can create confined spaces, even if there are none at the start of a project. Changes to the entry/exit, the ease of exit, and air flow could produce a confined space or cause one to become permit-required.

Hazards Associated with Sewer Systems

Sewer systems can present a host of confined space hazards, including:

- Atmospheric hazards (low oxygen, toxic or flammable gases).
- Chemicals in piping and from roadway runoff (may harm lungs, skin, or eyes).
- Engulfment and drowning.
- Electrocution (e.g., using electrical equipment in wet working conditions).
- Slips, trips, and falls.
- Falling objects.
- High noise levels, low visibility, limits to communication, and long distances to exits.

Personal protective equipment: Employers should assess the work site to determine what personal protective equipment (PPE) is needed to protect workers. Employers should provide workers with the required PPE and proper training on its use and about any related hazards before the work starts.

How to Contact OSHA

For questions or to get information or advice, to find out how to contact OSHA's free on-site consultation program, order publications, report a fatality or severe injury, or to file a confidential complaint, visit www.osha.gov or call 1-800-321-OSHA (6742).

Additional Information

OSHA's Confined Spaces in Construction standard (29 CFR 1926 Subpart AA)

Confined Spaces: OSHA Construction Industry Topics by Standard

OSHA Fact Sheet: Procedures for Atmospheric Testing in Confined Spaces

Confined Spaces: NIOSH Workplace Safety and Health Topics Page

State Plan Guidance: States with OSHA-approved state plans may have additional requirements for confined space safety.

Help for Small and Medium-Sized Employers: OSHA's On-site Consultation Program offers free and confidential advice to businesses nationwide.

OSHA® Occupational Safety and Health Administration

DOC FS-3789 05/2015

Schedule JMC-S-3