Exhibit No.:	
Issue(s):	*System Conditions and Rate Base*
Witness:	*James A. Merciel, Jr., PE*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Direct Testimony*
Case Nos.:	*WM-2018-0116 and SM-2018-0117*
Date Testimony Prepared:	*November 19, 2018*

MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

WATER AND SEWER DEPARTMENT

DIRECT TESTIMONY

OF

JAMES A MERCIEL, JR., PE

CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC.

CASE NO. WM-2018-0116

AND

CASE NO. SM-2018-0117

Jefferson City, Missouri
November 2018

**** Denotes Confidential Information ****

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REBUTTAL TESTIMONY

OF

JAMES A. MERCIEL, JR., PE

CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC.

CASE NO. WM-2018-0116

AND

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REBUTTAL TESTIMONY

OF

JAMES A. MERCIEL, JR., PE

CONFLUENCE RIVERS UTILITY OPERATING COMPANY, INC.

CASE NO. WM-2018-0116

AND

CASE NO. SM-2018-0117

Q. Please state your name and business address.

A. My name is James A. Merciel, Jr., PE, and my address is P. O. Box 360, Jefferson City, Missouri, 65102.

Q. By whom are you employed and in what capacity?

A. I am employed by the Missouri Public Service Commission ("Commission") as a Utility Regulatory Engineering Supervisor, in the Water and Sewer Department.

Q. Can you please describe your education, work responsibilities, and work experience?

A. Yes. My qualifications, responsibilities, and experience, along with a list of cases in which I have provided testimony, are included with this Direct Testimony as Schedule JAM-d1.

EXECUTIVE SUMMARY

Q. What is the purpose of this Direct Testimony?

A. The purpose of this Direct Testimony is to outline Staff's recommendations regarding Confluence Rivers Utility Operating Company, Inc.'s ("CRU") request as it relates to

the Tartan Energy Criteria, and CRU's Technical Managerial and Financial capacities. This Direct Testimony will also address issues with some of the systems, and describe my role in determining rate base for all of the systems. Based upon its pre-existing knowledge of some of these systems from prior cases and site visits, and upon field observations of current conditions, Staff agrees that issues associated with the various water and sewer systems as outlined by CRU could affect or are presently affecting adequacy of utility service negatively, and that CRU's stated proposals for improvements would address these issues.

Q. Does Staff recommend that the Commission approve the proposed transactions?

A. Yes.

Q. What does Staff do to review transfers of assets and new Certificate of Convenience and Necessity ("CCN") proposals?

A. Staff investigates the conditions of the systems including performance, adequacy of service to customers, compliance with drinking water and environmental regulations, or other unique issues. In most situations when regulated utilities are involved, Staff is already familiar with operational and business problems. For its review of transfers of assets of regulated utilities, Staff evaluates "Technical, Managerial, and Financial Capacity" ("TMF") as established by the United States Environmental Protection Agency ("EPA") and adopted by the Missouri Department of Natural Resources ("DNR").[1] For its review of a new CCN where a regulated utility does not already exist, Staff evaluates the "Tartan Energy Criteria" or "Tartan Criteria," which were established by the Commission for the evaluation of new CCNs, in a case filed by the Tartan Energy Company.[2]

[1] Ref DNR regulation 10 CSR 60-3.030, and State Statutes §640.100 and §640.115, RSMo.
[2] Commission Case No. GA-94-127, filed by the Tartan Energy Company, L.C., d/b/a Southern Missouri Gas Company (Tartan).

Q. Did Staff look at system conditions, TMF and the Tartan Criteria for this CRU case?

A. Yes. Staff's observations and comments regarding system conditions and other aspects of business and corporate status issues were addressed in the two recommendation memorandums supported by Staff witness, Natelle Dietrich. Staff stated it had studied TMF and the Tartan Criteria regarding four of CRU's affiliates that are regulated utilities ("Affiliates," or "regulated Affiliates," but does not include affiliated entities that are not regulated utilities), in their previous CCN and transfer of assets cases before the Commission.[3] The relevance of Staff's experience with the Affiliates is that, with the exception of local operations personnel, the officers, employees, and contractors of CRU and the Affiliates are largely the same people.

TECHNICAL, MANAGERIAL, AND FINANCIAL CAPACITY

Q. Can you briefly describe TMF?

A. Yes. The TMF points may be summarized as follows:[4]

- **Technical Capacity:** The water system meets standards of engineering and structural integrity necessary to serve customer needs. Technically capable water systems are constructed, operated, and maintained according to accepted quality standards.
- **Managerial Capacity:** The water system's management structure is capable of providing proper stewardship of the system. Governing boards or authorities are actively involved in oversight of system operations.
- **Financial Capacity:** The water system can raise and properly manage the money it needs to operate efficiently over the long term.

However, in addition to DNR's intended application of TMF to new drinking water systems, Staff finds it appropriate to expand applicability of the TMF points to the study of most

[3] Hillcrest Utility Operating Company, Inc., Case No. WO-2014-0340; Raccoon Creek Utility Operating Company, Inc., Case No. SM-2015-0014; Indian Hills Utility Operating Company, Inc., Case No. WO-2016-0045; Elm Hills Utility Operating Company, Inc., Case No. WM-2017-0151.

[4] From DNR's website at https://dnr mo.gov/env/wpp/cap-dev htm, and as stated in DNR's Public Drinking Water Branch's 2017 *Report to the Governor on Missouri's Capacity Development Strategy* at https://dnr mo.gov/env/wpp/pub/docs/capacity-development-2017.pdf

situations involving transfers of assets or new CCNs involving water and/or sewer systems, whether the systems are new or existing.

Q. How did Staff apply the TMF test to CRU?

A. Staff looked at CRU's TMF capacities generally, in the context of CRU as the potential owner and operator of all of the involved water and sewer systems. To a great extent, Staff's analysis relies upon its experience in working with CRU's regulated Affiliates that provide water and sewer service.

Q. Does CRU have adequate technical capacity?

A. Yes. The president of CRU, who is also the president of the Affiliates, has technical experience with water and sewer systems. CRU also retains consultants and contractors to undertake engineering, operations and customer service tasks.

Q. Can you please describe Staff's experience with the Affiliates regarding technical capacity?

A. Yes. Over the past several years, Staff has observed the technical abilities of CRU's regulated Affiliates through interactions with their officers, employees and contractors, in the course of their work with their utility systems and their customers. This includes not only ordinary day-to-day events but also handling emergencies, unusual situations, customer inquiries and service issues.

Q. Does CRU have adequate management capacity?

A. Yes. This is based upon CRU's Affiliates having demonstrated the ability to manage system operations, as described in the context of technical capacity.

Q. What is Staff's experience with the Affiliates with respect to management capacity?

A. Similar to technical capacity, the Affiliates have demonstrated adequate management abilities regarding business and reporting matters. CRU's Affiliates initiate discussions with Staff when necessary, and Staff is able to easily contact and work with them, as necessary if questions pertaining to operations, business or customer service matters arise.

Q. Have the Affiliates promptly undertaken actions to improve operations and compliance, as had been outlined in those CCN and transfer cases?

A. Yes, the Affiliates all have proceeded with the planned work promptly. In addition to that, some of the Affiliates had undertaken pre-approval and pre-sale operations/management tasks of the water or sewer systems, by the terms of agreements with the current owners, in order to resolve service and compliance issues. Notably, for this current case CRU or a non-regulated affiliate has similarly entered into contract operations and/or contract management agreements with some of the sellers, in order to assist in keeping some of these systems operating as best as practical when the current owners were unable or unwilling to resolve the issues. This type of action demonstrates management capacity, as well as a willingness to resolve difficult issues.

Q. Does CRU have adequate financial capacity?

A. Yes. Again, CRU's affiliates, over the past several years have demonstrated the ability to undertake planned capital improvements, properly fund operations of the utility systems and address emergencies requiring expenditures for repairs. This includes having expended the capital funding that was necessary to upgrade and rehabilitate utility plant components as necessary to be able to consistently meet environmental/drinking water regulations and customer service regulations, where such had not been the case because of aging and failing performance of some of the systems prior to acquisition by the Affiliates.

TARTAN ENERGY CRITERIA

Q. What are the Tartan Energy Criteria?

A. The Tartan Energy Criteria apply to evaluations of new CCNs. The criteria contemplate:

1) The need for service;
2) The utility's qualifications;
3) The utility's financial ability;
4) The feasibility of the proposal; and,
5) Promotion of the public interest.

For its reviews in CCN cases involving water or sewer systems, Staff adds one more criterion, that being whether or not any other utility entities are available to provide similar service.

Q. How do the Tartan Criteria apply to CRU?

A. Since the Tartan Criteria are for evaluation of new CCNs, Staff applied the Tartan Criteria to three of CRU's requested service areas, which are not presently served by regulated utilities. Some of the Tartan Criteria points must be focused upon CRU generally, and others must be focused upon CRU's proposed ownership of each of the individual existing water and/or sewer systems it is purchasing from the three unregulated entities.

Q. Which three selling entities are included in CRU's application and for which CRU seeks new CCNs?

A. Those three sellers are: 1) Majestic Lakes Homeowners Association, Inc., which owns a water and a sewer system; 2) Forest Ridge, LLC, which owns a water and a sewer system presently controlled by a homeowners association; and 3) Cole County, whose water system was formerly owned by a municipality until it disincorporated.

Q. For the first Tartan Criteria point related to these systems, is there a need for the water and/or sewer service?

A. Yes. For all of these, there are existing customers, and for two of the systems a substantial number of additional customers could connect in the future. The customers will need continued water or water/sewer service in order to utilize residential properties.

Q. For the second Tartan Criteria point, does CRU have the qualifications to provide the service?

A. Yes. CRU has plans to undertake proper plant operations and correct handling of customer service. CRU has also identified issues associated with each system and capital cost estimates of possible resolutions and CRU's plans for the continued operations of each of the systems which would result in safe and adequate service. To support Staff's statements that CRU has the qualifications, it should be noted the Affiliates have successfully demonstrated the ability to identify operational issues and undertake improvements. Such resolutions include rehabilitations of obsolete plant components, enhanced plant components to improve quality of service along with drinking water and environmental compliance, and safety/security measures.

Q. For the third Tartan Criteria point, does CRU have financial resources that make it able to undertake its capital improvements?

A. Yes, a history of CRU's financing arrangements is included in Schedule ND-d2, attached to the Direct Testimony of Staff witness, Natelle Dietrich.

Q. For the fourth Tartan Criteria point, are CRU's plans for ownership and operation of the systems for which it seeks new CCNs feasible?

A. Yes. It is feasible for CRU to own and operate those water and sewer systems. Along with its plan to provide day-to-day operations, CRU has identified desired or needed

capital improvements along with preliminary estimates of capital expense. Each system is different, from the standpoint of feasibility, as follows:

- Auburn Lake Estates - feasibility ultimately depends upon customers actually connecting to the systems. There is only one water customer at present, and five additional homes were under construction at the time of Staff's investigation, presumably to be water and sewer customers. However no additional capital investment will be required on CRU's part initially. As additional future customers connect, CRU would be in a position to earn a return on rate base and add/replace plant as necessary.
- Majestic Lakes – the sewage treatment facility in this subdivision is in need of a relatively expensive structural rehabilitation or replacement. The water storage tank also requires rehabilitation. Significant capital cost is required. The existing 60 customers are dependent upon these utility plant conditions and must deal with it somehow. CRU is able to provide a workable solution to the problem. Resolution to the sewage treatment facility condition also would allow the opportunity for additional homebuilding on vacant subdivision lots, and more future customers. Staff considers CRU's proposal to be a feasible solution to this unique situation.
- Eugene – as an older community the customer level is somewhat stable, but the Cole County government administration found itself responsible for this water system by "default" after the disincorporation of its owner, the City of Eugene, in the late 1990s. The capital needs of this aging water system are similar to most other aging systems. CRU is a viable alternative to ownership by Cole County, which has been a capable owner-operator for two decades but does not wish to continue to expend its resources on small local water systems.

Q. For the fifth Tartan Criteria point, do CRU's proposals regarding its requests for these new CCNs promote the public interest?

A. Yes. As the Commission stated in its Report and Order in the Tartan Energy Company case, and as Staff has re-stated numerous times in past CCN cases, positive findings with respect to the other four standards will in most instances support a finding that an application for a CCN will promote the public interest. This means that there is a need for water and/or sewer service that CRU can provide, CRU has the qualifications to provide the service, CRU has financial resources necessary to provide the service, and CRU can feasibly provide the service. Further, there are existing system owners which do not wish to continue with the

ownership and operations tasks related to these water and sewer systems, and there are no other readily-available entities to provide the service. In Staff's view it is in the public interest for the Commission to authorize CRU to provide the service to the existing customers and to future customers who will connect to these systems.

SYSTEM CONDITIONS

Q. Can you briefly describe the conditions of the involved systems?

A. Yes. All of the systems have various operations issues that need to be addressed, and all of the current system owners, to varying degrees, are unable or unwilling to maintain the water and sewer systems indefinitely into the future. Details for each system were discussed in Staff's two recommendation memorandums that were filed in this case, and are summarized in Schedule DCR-d1 included with Staff witness David Roos' Direct Testimony. To illustrate the types of issues that were described in Staff's previous filings:

- Three of the regulated utilities are in court-appointed receivership, initiated by action of the Commission.
- Seven of the sellers' sewer systems presently have either current issues regarding permits and compliance with DNR, or will be required to upgrade treatment to meet scheduled new permit requirements. Staff has observed some of these operations issues during its investigations of these utilities related to this case, in prior rate cases, and during inspections.
- One of the regulated utilities is the subject of a pending formal complaint filed by Staff because of compliance issues involving the Commission's regulations.
- Three of the sellers are associated with subdivision developers where ownership viability and/or operating authority are questionable.
- Two of the sellers obtained ownership of the systems following disincorporation of original owner-entities.
- All of the sellers except one have aging utility plant facilities that require repairs or replacement of certain components.

Q. Do you personally have knowledge of the systems CRU plans to purchase?

A. Yes, I have some knowledge of all of them. Staff witness Roos is describing some of the systems in his Direct Testimony, and I will be briefly describing some of the systems herein.

Q. For which systems are you offering commentary in this Direct Testimony?

A. I will briefly describe and comment on:

- Smithview H2O Company – water system
- Calvey Brook Water, Inc. – water system
- Calvey Brook Sewer, Inc. – sewer system
- Gladlo Water & Sewer Co., Inc. – water and sewer system
- Auburn Lake Estates – water and sewer system
- Roy-L Utilities, Inc. – water and sewer system
- Eugene – water system

The remainder of the systems are discussed by Staff witness Roos in his Direct Testimony.

Q. Can you please briefly describe Smithview H2O Company ("Smithview"), and its water system?

A. Yes. Smithview has been a regulated water utility since 1973, and serves approximately 105 residential and apartment customers in Bon-Gor Lake Estates subdivision north of Columbia in Boone County. The water system is approximately 45 years old and is degraded due to age. The wellhouse needs structural and electrical repairs, or replacement. Meter testing or replacement to comply with Commission regulations is also an issue. Smithview is currently administratively dissolved as a corporation. The current owner of Smithview has effectively walked away, and CRU is presently providing contract operations and management. Because of Smithview's failure to file annual reports, failure to pay annual assessments, and failure to provided adequate day-to-day operations resulting in boil-water advisories placed upon

customers, Staff filed Case No. WC-2016-0141, which is a pending case before the Commission. ** _____ _____ _____ **

Q. What would you anticipate would happen if CRU does not or cannot accomplish a transfer of assets of the Smithview system?

A. I would expect that Staff would resume activity with its current pending formal complaint against Smithview. Absent the current CRU contract management and operations arrangement, I would consider Smithview to be a candidate for receivership. I am unaware of any other possible owners of this system.

Q. Can you briefly describe Calvey Brook Water, Inc., Calvey Brook Sewer, Inc. ("Calvey Regulated Utilities"), and the water and sewer systems?

A. Yes. The Calvey Regulated Utilities obtained CCNs in 2004. They were formed by the developer of Calvey Brook Estates, a 36-lot subdivision in Franklin County near Robertsville, MO. However, the Calvey Regulated Utilities never provided service to any customers because the subdivision was not successful in its early years, and the two corporations are Administratively Dissolved. At some point, probably in unison with the foreclosure on the land developer's subdivision assets by the Bank of Washington (of Washington, MO), the water and sewer utility assets were transferred to the Calvey Brook Estates Homeowners Association, Inc. ("Association") without Commission approval. The Association currently operates the water and sewer systems and provides service to approximately nine (9) residential customers. In addition to the transfer of assets issue, Staff, having reviewed some of documents pertaining to the Associations and the subdivision, does not agree that the Association meets the criteria for

legitimate control by the homeowners, and thus, presently is subject to Commission jurisdiction.[5] Several years ago, Staff attempted to work with this Association to resolve the transfer of assets and jurisdiction regulatory issues, to no avail. The water and sewer utilities are in reasonably good condition beyond the fact they are approximately fifteen (15) years of age. CRU stated to Staff that water system improvements it intends to undertake include: ** _____ _____ _____ _____ . ** Improvements for the sewage treatment facility CRU intends to undertake include: ** _____ _____ _____ . **

Q. What would you anticipate would happen if CRU does not or cannot accomplish a transfer of assets of the Calvey Regulated Utilities systems?

A. I expect Staff would resume its attempt to work with the Association with two goals, first to accomplish approval by the Commission for the transfer of assets, and second for the Association to either become a regulated utility or amend its documents to meet criteria for control by the homeowners such that the Commission could approve the transfer to the Association as an entity that is not subject to jurisdiction.

Q. Can you briefly describe Gladlo Water & Sewer Co., Inc., ("Gladlo") and the water and sewer systems?

A. Yes. Gladlo is a regulated utility that has been in court-appointed receivership since March 5, 2009. Gladlo and its water and sewer systems in the Whispering Pines

[5] As per the Rocky Ridge Ranch points from Case No. WD-93-307, and State Statutes for nonprofit water corporations beginning at §393.900 RSMo, and nonprofit sewer corporations beginning at §393.825 RSMo.

subdivision in Phelps County near Rolla, Missouri date to 1972. It currently provides service to approximately 69 residential water customers and 65 residential sewer customers. A concrete water storage tank, which utilized electric pumps to pressurize the water distribution system, is degraded and is no longer in service. CRU's proposed improvements for the water system, ** _____ _____ _____. ** Gladlo's wastewater treatment facility failed to comply with effluent limitations for Total Residual Chlorine in 2017. This facility will need to meet new permit requirements for ammonia beginning January 1, 2020. CRU's proposed improvements for the waste water system, ** _____ _____ _____ __ . **

Q. What would you anticipate would happen if CRU does not or cannot accomplish a transfer of assets of the Gladlo systems?

A. Gladlo of course would remain in receivership unless and until another potential owner emerges. The receiver would need to attempt to obtain capital financing as necessary to meet the operations issues and comply with DNR wastewater permit requirements as best as possible.

Q. Can you briefly describe the Auburn Lake Estates water and sewer systems?

A. Yes. The Auburn Lake Estates systems are owned by an entity named Forest Ridge, LLC, and according to CRU a homeowners association entity is currently

responsible for utility service. The Auburn Lake Estates subdivision was begun approximately ten (10) years ago, but home construction is just now getting started. At present there is one water customer and no sewer customers. Approximately five (5) homes were under construction at the time of Staff's visit to the service area in August. The subdivision presently consists of 180 platted lots according to CRU, with additional available undeveloped land, but the water and sewer systems appear to have adequate capacity for up to approximately 400 residential customers. A water storage tank and possibly a replacement larger well pump would be needed if substantial subdivision growth occurs in the future. These facilities are in like-new condition and no substantial improvements are needed. The current low customer level is a concern for viable operations.

Q. What would you anticipate would happen if CRU does not or cannot accomplish a transfer of assets of the Auburn Lake Estates systems?

A. Staff has not studied the homeowner's association entity, nor whether or not it is set up correctly. It may not be viable yet with so few existing customers. I have no knowledge of any alternatives available to Forest Ridge, LLC, and/or the association, nor whether the operation would be subject to Commission jurisdiction, if CRU does not buy these systems.

Q. Can you briefly describe Roy-L Utilities, Inc., ("Roy-L") and the water and sewer systems?

A. Yes. Roy-L is a regulated utility and the water and sewer systems date to 1968. Roy-L currently provides utility service to approximately 59 water customers and 56 sewer customers, 21 of which are full-time residents, in the Golden Eagle Reserve subdivision near the city of High Hill in Montgomery County. There are no drinking water compliance issues, but CRU proposes improvements ** _____

_____

_____

_____ . ** Roy-L's wastewater system failed to comply with effluent limitations for Total Residual Chlorine in 2017, and the facility will be required to meet new Ammonia limits by August 1, 2020. Roy-L is also under a directive from the Commission, by the terms of a stipulation from its last rate case, to inspect and repair collecting sewers to reduce storm water inflow and infiltration. CRU has assisted Roy-L with this project. This issue, and an associated rates and revenue issue, is being addressed by Staff witness Kimberly K. Bolin. CRU's proposed improvements for the waste water system are estimated ** _____

_____

_____. **

Q. What would you anticipate would happen if CRU does not or cannot accomplish a transfer of assets of the Roy-L systems?

A. Presumably Roy-L would continue with its operations, unless and until it can find another owner.

Q. Can you briefly describe the Eugene water system?

A. Yes. The City of Eugene was the owner of this small municipal system, but it disincorporated as a city in the late 1990s. The community is located in southwestern Cole County approximately 20 miles from Jefferson City. The water system dates to 1962 according to information on file with DNR. There currently are 41 customers, according to CRU. The Cole County government has owned and managed this system since the Eugene city disincorporation. There are no drinking water compliance issues but as an aged system, CRU

plans improvements that include ** _____
_____
_____
_____
_____ . **

Q. What would you anticipate would happen if CRU does not or cannot buy the Eugene system?

A. Presumably Cole County would continue with its operations, unless and until it can find another owner.

RATE BASE

Q. Did Staff study rate base for all of the systems involved with this case?

A. Yes. Information on the rate base amounts and how those amounts were determined is included in the Direct Testimony of Staff witness Kimberly K. Bolin. The work was done by several Staff members including myself. My personal work involved estimating rate base levels for plant where records of construction do not exist, and calculating capacity adjustments for two of the water systems and two of the sewer systems.

Q. How does Staff estimate rate base?

A. Generally, estimating the "original cost" is done by first making our best determination of the age of each plant component and for most assets the size or capacity. Staff makes its best judgement on the likely cost of each asset when new. In some cases, a comparison could be made to known costs of newer similar assets owned by other entities, with an index called "Handy-Whitman" applied to determine the cost of similar plant assets in any past year. After adding original cost values for all of the assets together, depreciation reserve for

each asset must be subtracted, to arrive at a current rate base amount. Some plant items are considered as "contributed plant" and are ignored for the rate base calculation, and other unusual circumstances could alter estimates for rate base.

Q. For which systems did you estimate rate base?

A. Rate base estimates were made for:

- Majestic Lakes water and sewer systems
- Auburn Lake Estates water and sewer systems
- Eugene water system
- Calvey Brook water and sewer systems

Q. Were estimates for all of these systems made in the same manner?

A. No. For Majestic Lakes, Staff took into consideration the need for what will likely be major structural repair or a complete rebuild of the sewage treatment facility, and simply ignored whatever original cost might be. Staff's rate base estimate essentially applied the sale price to the land value of the well location and sewage treatment facility location. The Auburn Lake Estates systems were estimated largely as described in the paragraph above for individual components. For the Eugene water system, Staff estimated rate base as described above but most of the assets are quite old and likely depreciated to zero. For the Calvey Brook water and sewer systems, even as (separate) regulated water and sewer utilities there are no plant records due to the fact that the regulated utilities never became operational. To estimate current rate base, Staff updated pro-forma information from the Calvey Brook CCN cases filed in 2004.

CAPACITY ADJUSTMENTS

Q. What is a capacity adjustment?

A. A capacity adjustment is an adjustment of the cost of capital investment and rate base level of utility plant that is made for ratemaking purposes. Such an adjustment is made

when the total available in-service capacity of plant is significantly under-utilized by the actual capacity needs of existing customers.

Q. Does a capacity adjustment change the capital investment of the utility or the true rate base of the utility?

A. No, the adjustment is not any actual change to a utility's "plant-in-service" recorded in its plant account records, nor does not actually adjust rate base. It only makes an adjustment to the utility's plant records and the rate base for the purpose of calculating rates that customers will be required to pay. A capacity adjustment to a utility's plant investment that is made in one rate case could be changed or deleted in another rate case, depending upon changing customer levels or perhaps other factors deemed relevant.

Q. What is the purpose of a capacity adjustment?

A. The purpose is, stated very simply, to prevent a small number of customers from having to pay the entire cost of plant that is intended for a large number of customers. The capacity adjustment would reduce the capital cost to be included in rates of either all of the plant, or perhaps the capital cost only of certain components, based on capacity utilized by existing customers.

Q. How are capacity adjustments accomplished by Staff?

A. There is not any one way to reasonably calculate a capacity adjustment for any given system, because there are several factors to consider and careful judgment must be exercised, depending upon individual circumstances. Among the factors are:

- Whether or not a developer constructed a water or sewer system in conjunction with taking a risk on financial gains related to subdivision development, versus a utility company that is required to prudently construct plant for present and future needs of a growing service area;
- Whether or not the utility could have taken reasonable steps to avoid a capacity adjustment, and how such steps might affect future viability;

- The actual effect upon the financial health and viability of a utility operation if a capacity adjustment is imposed.

Q. For which systems did Staff apply a capacity adjustment for this CRU case?

A. Staff applied a capacity adjustment to the Auburn Lake Estates water and sewer systems, and the Calvey Brook water and sewer systems. For Auburn Lake Estates, the adjustments were based upon a customer level of 6 water customers and 5 sewer customers on these systems that have sufficient capacity to serve approximately 400 customers. For Calvey Brook, the adjustments were made based upon 10 water and sewer customers and 36 subdivision lots in the service area. Staff also noted that these capacity adjustments should only be applied to the estimated current rate base; future investment by CRU to serve existing customers should not be adjusted, and adjusted rate base should not be less than purchase price. This was discussed in Staff's supplemental recommendation memorandum filed on September 17, 2018, filed in response to CRU's Amended Application. The adjustments are shown on a schedule in the direct testimony of Staff witness Bolin, on Staff's Attachment to the memorandum, and on workpapers that were distributed to the parties after Staff filed its memorandum.

OTHER ISSUES

Q. Are there other issues regarding Staff's recommendations for this case that you wish to discuss in this Direct Testimony?

A. CRU has proposed to adopt existing tariffs for all of the regulated utilities involved with this proposal. CRU has also proposed to adopt existing approved rates of these regulated utilities initially, and also for its requested new CCNs, CRU has proposed to adopt

rates presently charged to the customers of the unregulated entities. Staff agrees this is reasonable.

Additionally, Staff recommends depreciation rates for water and sewer assets that are either similar to existing depreciation rates previously prescribed for some of the sellers, or based upon Staff's depreciation rates typically recommended for small water and sewer systems. Those depreciation schedules are included with this Direct Testimony as Schedules JAM-d2 and Schedule JAM-d3.

Finally, Staff worked with CRU to create a modified map and metes and bounds description for the Majestic Lakes proposed service area, which were included as attachments to Staff's first recommendation memorandum. Those are included with this Direct Testimony as Schedules JAM-d4 and JAM-d5.

Q. Does this conclude your direct testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Application of Confluence Rivers Utility Operating Company, Inc. to Acquire Certain Water and Sewer Assets, For a Certificate of Convenience and Necessity, and, in Connection Therewith, To Issue Indebtedness and Encumber Assets	)	Case No. WM-2018-0116
		and
In the Matter of the Application of Confluence Rivers Utility Operating Company, Inc. to Acquire Certain Water and Sewer Assets, For a Certificate of Convenience and Necessity, and, in Connection Therewith, To Issue Indebtedness and Encumber Assets	)	Case No. SM-2018-0117

AFFIDAVIT OF JAMES A. MERCIEL, JR.

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW JAMES A. MERCIEL, JR. and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Direct Testimony*; and that the same is true and correct according to his best knowledge and belief.

Further the Affiant sayeth not.

JAMES A. MERCIEL, JR.

JURAT

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 19th day of November 2018.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2020
Commission Number: 12412070

Notary Public

Qualifications of
James A. Merciel, Jr., PE

My name is James A. Merciel, Jr. I am employed by the Missouri Public Service Commission as a Utility Regulatory Engineering Supervisor, in the Water and Sewer Department. My duties include reviewing and making recommendations with regard to certification of new water and sewer utilities including development of rates and rules, sales of utility systems to other utilities, formal complaint cases, and technical issues associated with water and sewer utility rate cases including quality of service matters, utility plant utilization, costs incurred for providing utility service, and tariff rules. In addition to formal case work, I handle informal customer complaints that are of a technical nature, conduct inspections and evaluations of water and sewer utility systems, and informally assist water and sewer utility companies with respect to day-to-day operations, planning, and customer service issues. In the past, I have supervised engineers and technicians in the water and sewer department working on the above-described type of case work and informal matters. I frequently participate in workshop and rulemaking sessions at the Missouri Department of Natural Resources, I served on the American Water Works Association Small Systems Committee for three years, and have served on the National Association of Regulatory Utility Commissioners Staff Subcommittee on Water since 1994.

I graduated from the University of Missouri at Rolla, now named the Missouri University of Science and Technology, in 1976 with a Bachelor of Science degree in Civil Engineering. I am a Registered Professional Engineer in the State of Missouri. I worked for a construction company in 1976 as an engineer and surveyor, began employment with the Commission in the Water and Sewer Department in 1977, and have held my current position since approximately 1979.

Case Participation of
James A. Merciel, Jr., PE

The following is a partial list of cases in which I have provided written and/or live testimony (excludes cases with filed reports or affidavit recommendations):

Algonquin Water Resources - WR-2006-0425

Aqua Missouri, Inc. -
SC-2007-0044 – Lake Carmel expansion complaint by a land developer

Big Island – Folsom Ridge
WO-2007-0277 – Developer-owned utility

Bill Gold Investments, Inc.
WC-93-276 (11/5/93) – Receivership case

Blue Lagoon, LLC
SO-2008-0358 – Developer–owned utility

Camelot Utility Co.
WA-89-1 – contested certificate case

Capital City Water Co.
WR-94-297
WR-90-118
WO-89-76 – plant capacity study
WR-88-215
WR-83-165

Central Rivers Wastewater Utility, Inc.
SR-2014-0247

Davis Water Company
WC-87-125 and WC-88-288 - quality of service, lack of needed upgrades
Along with a proceeding in the Circuit Court in Wayne County approx 1988

The Empire District Electric Company and Liberty Utilities
EM-2016-0213 – merger/stock acquisition

Environmental Utilities, LLC
WA-2002-65 (11/2001) Certificate case

Finley Valley Water Company / Public Funding Corporation, City of Ozark
WM-95-423 – sale case

Gascony Water Company, Inc.
WA-97-510

House Springs Sewer Co.
SC-2008-0409 – customer formal complaint

Lake Region Water and Sewer Co.
SR-2010-0110 and WR-2010-0111, WR-2014-0461

Continued Case Participation of
James A. Merciel, JR. PE

Lake Saint Louis Sewer Co.
SR-78-142
SA-78-147 - expansion of service area
SC-78-257 - The Nine-Twelve Investment Co., et al Oak Bluff Preserve vs. Lake Saint Louis Sewer co, regarding method of providing service.
SO-81-55 and Circuit Court in St. Charles County-alleged improper discontinuance of service along with injunction, approx 1980 or 1981

Lincoln County Sewer & Water, LLC
SR-2013-0321 and WR-2013-0322

Merriam Woods Water Company
WC-91-18 and WC-91-268 – quality of service

Mill Creek Sewer System, Inc.
Proceeding by MO Attorney General in Circuit court in St. Louis County, Cause No. 611261, 1998 DNR water pollution violations

Receivership proceeding with Commission General Counsel, Circuit Court in Cole County, Case No. 10AC-CC00186, December 2017

Miller County Water Authority
WC-95-252 and Circuit Court in Camden County approx 1995 - Complaint by Staff regarding operating without a certificate

Missouri American Water Company
WU-2017-0296 – Lead Service Line replacements
WR-2017-0285
WR-2015-0301
SA-2012-0066 - Certificate case, Saddlebrooke
WR-2011-0337
WR-2008-0311 and SR-2008-0312
WR-2007-0216
WC-2006-0345 - Dione C. Joyner, Complainant
WR-2003-0500
WR-2000-281
WR-97-237/SR-97-206
WT-97-227 / WA-97-45 / WC-96-441 - Complaint by Water District 2 regarding customers outside of the service area, and service area expansion
WA-97-46 – certificate case for St. Joseph wellfield
WR-95-205
WR-95-174
WR-93-212
WR-91-211
WR-89-265
WR-87-177
WR-85-16

Continued Case Participation of
James A. Merciel, JR. PE

Missouri Cities Water Company
WR-95-172/SR-95-173
WR-92-207
Proceeding in Circuit Court in Audrain County, CV192-40SCC approx 1992, city of Mexico attempted acquire by condemnation of water system
WR-91-172/SR-91-174
WR-90-236
WR-89-178/SR-89-179
WC-88-280 – William J. Fox d/b/a Fox Plumbing vs MO Cities, service line/main extension matter
WR-86-111/SR-86-112
WC-86-20 – Mexico Doctor's park, main extension
WR-85-157
WR-84-51
WR-83-15/SR-83-14

North Oak Sewer District, Inc.
SR-2004-0306

Osage Water Co.
WA-99-256 (8/5/99) - Lakeview Beach certificate case
WC-2003-0134 (10/31/02) - Receivership case

Raytown Water Company
WR-92-85 / WR-92-88
WR-94-211

Saline Sewer Co.
SR-79-187
SR-81-192
SR-82-206/SR-82-262

Southwest Village Water Company
WO-89-187 – quality of service
WC-89-138 (included testimony in Circuit Court in Greene County 1989)

St. Louis County Sewer Co.
SC-83-255 – complaints about stormwater inflow/infiltration

St. Louis County Water Company
WR-97-382
WR-96-263
WR-95-145
WR-94-166
WR-93-204
WR-91-361
WR-88-5

Continued Case Participation of
James A. Merciel, JR. PE

WR-87-2
WR-85-243
WC-84-29 – Dewey Eberhardt vs St. Louis County Water Co., fire protection
WR-83-264
WR-82-249
WC-79-251-Natural Bridge Development Corp vs. St. Louis County Water Co., - meter accuracy/testing

Stoddard County Sewer Co.
SO-2008-0289 – receivership, transfer, etc.

Suburban Water and Sewer Co.
Injunction hearing, Circuit Court in Boone County 07BA-CV02632, June 2007
WC-2007-0452
WC-84-19 – service issues

United Water Missouri
WR-99-326

Villa Park Heights Water Co.
WA-86-58

Warren County Water and Sewer Co. -
Circuit court case in Warren County CV597-134CC, September1997 dispute with homeowners over a lot proposed to be a tank site

WC-2002-155 / SC-2002-260 - March 2002 Receivership case filed by the Office of the Public Counsel

West Elm Place Corporation
Circuit court lawsuit case in Jefferson County, approx 1988 Customer's lawsuit for damage from sewage backup

Confluence Rivers Utility Operating Company
SCHEDULE of DEPRECIATION RATES
(WATER Class C & D)
WM-2018-0116

NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	Evergreen Depreciation Rate	Gladlo Depreciation Rate	Port Perry Depreciation Rate	Roy-L Depreciation Rate	Willows Depreciation Rate	Smithview Depreciation Rate	Majestic Lakes Depreciation Rate
	Source of Supply							
311	Structures & Improvements	2.5%*	10.0%	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*
314	Wells & Springs	2.0%	0.0%	2%*	2.0%	2%*	2.0%	2%*
	Pumping Plant							
321	Structures & Improvements	0.0%	2.5%*	2.5%*	2.5%	2.5%*	2.5%	2.5%*
325/325.1	Elec. Submersible Pumping Equipment	10.0%	10.0%	10.0%*	10.0%	10.0%	10.0%	10.0%*
325.2	High Service or Booster Pumping Equip.	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*
	WaterTreatment Plant							
331	Structures & Improvements	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*
332	Water Treatment Equipment	2.9%*	2.9%*	2.9%*	10.0%	2.9%*	2.9%	2.9%*
	Transmission and Distribution							
341	Structures & Improvements	2.5%*	2.5%*	2.5%*	2.5%	2.5%*	2.5%*	2.5%*
342	Distribution Reservoirs & Standpipes	2.5%	2.5%	2.5%*	2.5%	2.5%*	2.5%	2.5%*
343	Transmission & Distribution Mains	2.0%	2.0%	2.0%	2.0%	2.0%*	2.0%	2.0%*
345	Customer Services	2.5%*	2.5%*	2.5%*	2.5%	2.5%*	2.5%*	2.5%*
346	Customer Meters, Bronze (Calibrate)	0.0%	3.3%	3.3%*	5.0%	5.0%	3.3%	3.3%*
346.1	Customer Meters, Plastic (Throw Aways)	10.0%*	10.0%*	10.0%*	10.0%	10.0%*	10.0%*	10.0%*
347	Customer Meter Pits & Installation	2.5%*	2.5%*	2.5%*	2.5%	5.0%	2.5%	2.5%*
348	Hydrants	2.0%*	2.0%*	2.0%*	2.0%*	2.0%*	2.0%*	2.0%*
	General Plant CLASS D							
371	Structures & Improvements	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*
372	Office Furniture & Equipment	5.0%*	5.0%*	5.0%*	5.0%	5.0%*	5.0%*	5.0%*
372.1	Office Electronic & Computer Equip.	20.0%*	20.0%*	20.0%*	20.0%	20.0%*	20.0%*	20.0%*
373	Transportation Equipment	13.0%*	13.0%*	13.0%*	13.0%*	13.0%*	13.0%*	13.0%*
379	Other General Equipment (tools, shop equip., backhoes, trenchers, etc.)	6.7%*	10.0%	6.7%*	10.0%	6.7%*	6.7%*	6.7%*

*Designates a rate proposed in this case, rather than a rate ordered by the Commission in a previous case.

WM-2018-0116 and SM-2018-0117
Metes and Bounds Description for Majestic Lakes

0240-16 Majestic Lakes Service Area
Lincoln County, Missouri

The area served consists of part of Sections 10, 11 and 15, Township 48 North, Range 1 East of the 5th P.M., Lincoln County, Missouri and being more particularly described as follows:

Beginning at the northeast corner of said Section 15; thence along the east line of said Section 15 S00°59'42"W 1332.37 feet; thence leaving said east line N88°15'24"W 197.30 feet; thence S01°41'03"W 376.36 feet; thence N89°14'34"W 1015.49 feet; thence N01°28'05"E 942.30 feet; thence N79°30'42"W 370.02 feet; thence S01°27'38"W 916.99 feet; thence N87°30'56"W 355.33 feet; thence N89°19'54"W 396.80 feet; thence S58°59'48"W 162.25 feet to the east right-of-way line of Missouri Route "MM"; thence along said east right-of-way line N29°55'58"W 514.00 feet; thence leaving said east right-of-way line N01°33'16"E 440.76 feet; thence N00°38'06"E 837.38 feet; thence N00°38'06"E 1393.35 feet; thence N00°52'17"E 717.14 feet; thence N69°22'02"W 334.89 feet; thence N00°53'53"E 454.40 feet; thence N45°08'32"W 1087.11 feet to the right-of-way line of Rolling Meadows Drive; thence along said right-of-way line along a curve deflecting to the left having a radius of 60.00 feet, an arc length of 32.06 feet, a chord course of N29°33'10"E 31.68 feet; thence leaving said right-of-way line S75°45'08"E 1119.78 feet; thence N01°15'48"E 637.83 feet to the centerline of the Cuivre River; thence along the centerline of the Cuivre River the following courses: S67°31'44"E 770.62 feet, S65°37'42"E 1066.16 feet, S67°23'37"E 490.95 feet, S67°23'40"E 716.99 feet, S54°25'47"E 644.56 feet, S61°43'00"E 986.96 feet, S82°17'04"E 325.80 feet, S73°13'04"E 407.39 feet, N73°48'28"E 423.55 feet; thence leaving said centerline S00°04'18"W 1127.42 feet; thence N89°11'12"W 1882.05 feet; thence S00°06'19"W 364.02 feet; thence S64°57'24"W 834.48 feet to the point of beginning.

Confluence Rivers Utility Operating Company

SCHEDULE of DEPRECIATION RATES

(SEWER Class B/C & D)

SM-2018-0117

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	MPB Depreciation Rates	Mill Creek Depreciation Rates	Gladlo Depreciation Rates	Port Perry Depreciation Rates	Roy-L Depreciation Rates	Willows Depreciation Rates	Majestic Lakes Depreciation Rates
	COLLECTION PLANT							
311/351	Structures & Improvements	4.0%	2.5%	4.0%*	4.0%*	4.0%	4.0%*	4.0%*
352.1	Collection Sewers (Force)	2.0%	2.0%*	2.0%*	2.0%	2.0%*	2.0%*	2.0%*
352.2	Collection Sewers (Gravity)	2.0%	2.0%*	2.0%	2.0%*	2.0%	2.0%*	2.0%*
354	Services	2.0%	2.0%*	2.0%*	2.0%*	2.0%	2.0%*	2.0%*
355	Flow Measurement Devices	3.3%	3.3%*	3.3%*	3.3%*	3.3%*	3.3%*	3.3%*
	PUMPING PLANT							
361	Structures and Improvements	4.0%	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*
362	Receiving Wells	4.0%	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*
363	Electric Pumping Equipment	10.0%	10.0%*	10.0%*	10.0%*	10.0%*	10.0%*	10.0%*
	TREATMENT & DISPOSAL PLANT							
371	Structures and Improvements	4.0%	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*
372	Oxidation Lagoons	4.0%	4.0%*	4.0%	4.0%*	4.0%	4.0%*	4.0%*
373	Treatment & Disposal Facilities	4.5%	5.0%	5.0%	5.0%*	4.5%	5.0%*	5.0%*
374	Plant Sewers	2.5%	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*	2.5%*
375	Outfall Sewer Lines	2.0%	2.0%*	2.0%*	2.0%*	2.0%	2.0%*	2.0%*
	GENERAL PLANT							
390	Structures and Improvements	2.5%	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*	4.0%*
391	Office Furniture & Equipment	5.0%	5.0%*	5.0%*	5.0%*	5.0%	5.0%*	5.0%*
391.1	Office Electronic & Computer Equip.	14.3%	14.3%*	14.3%*	14.3%*	20.0%	14.3%*	14.3%*
392	Transportation Equipment	13.0%	13.0%*	13.0%*	13.0%*	13.0%*	13.0%*	13.0%*
393	Stores Equipment/Other General Equipment	4.0%	10.0%*	10.0%	10.0%*	14.3%	10.0%*	10.0%*
394	Tools/Shop/Garage Equip.	5.0%	5.0%*	5.0%*	5.0%*	5.0%*	5.0%*	5.0%*
395	Lab Equipment	5.0%	5.0%*	5.0%*	5.0%*	5.0%*	5.0%*	5.0%*
396	Power Operated Equipment	6.7%	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*
397	Communication Equipment	6.7%	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*	6.7%*

*Designates a rate proposed in this case, rather than a rate ordered by the Commission in a previous case.

Confluence Rivers Utility Operating Company

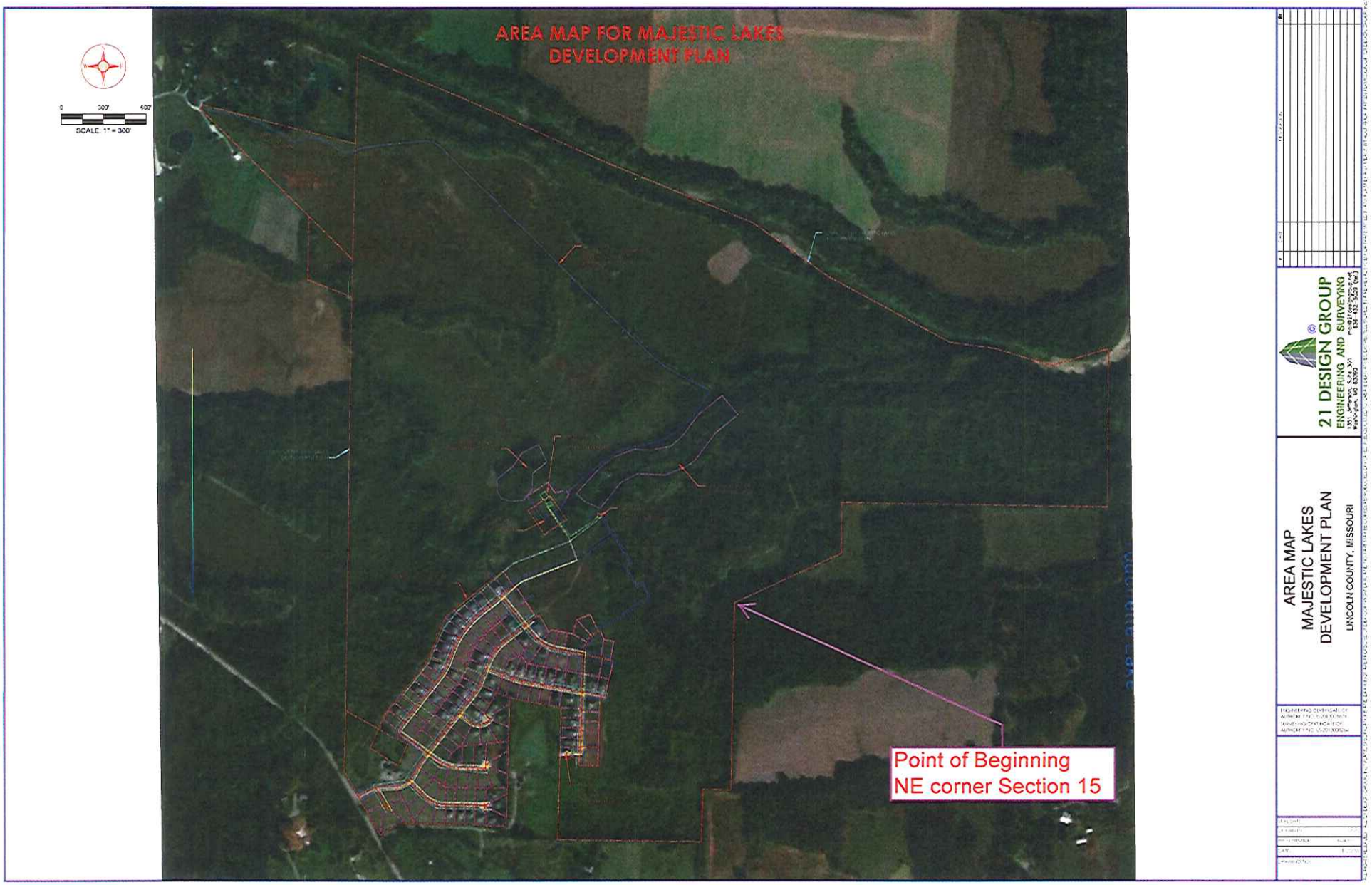
SCHEDULE of DEPRECIATION RATES
(SEWER Class C & D)

SM-2018-0117

ACCOUNT NUMBER	ACCOUNT DESCRIPTION	Calvey Brook Depreciation Rates	Auburn Lakes Depreciation Rates
	COLLECTION PLANT		
311/351	Structures & Improvements	2.5%	4.0%*
352.1	Collection Sewers (Force)	2.0%	2.0%*
352.2	Collection Sewers (Gravity)	2.0%	2.0%*
354	Services	2.0%	2.0%*
355	Flow Measurement Devices	3.3%	3.3%*
	PUMPING PLANT		
361	Structures and Improvements	4.0%*	4.0%*
362	Receiving Wells	4.0%	4.0%*
363	Electric Pumping Equipment	10.0%	10.0%*
	TREATMENT & DISPOSAL PLANT		
371	Structures and Improvements	4.0%*	4.0%*
372	Oxidation Lagoons	4.0%*	4.0%*
373	Treatment & Disposal Facilities	5.0%	5.0%*
374	Plant Sewers	2.5%	2.5%*
375	Outfall Sewer Lines	2.0%	2.0%*
	GENERAL PLANT		
390	Structures and Improvements	4.0%*	4.0%*
391	Office Furniture & Equipment	5.0%	5.0%*
391.1	Office Electronic & Computer Equip.	14.3%	14.3%*
392	Transportation Equipment	12.5%	13.0%*
393	Other General Equipment/Stores Equipment	4.0%	10.0%*
394	Tools/Shop/Garage Equip.	5.0%	5.0%*
395	Lab Equipment	5.0%	5.0%*
396	Power Operated Equipment	6.7%	6.7%*
397	Communication Equipment	6.7%	6.7%*

*Designates a rate proposed in this case, rather than a rate ordered by the

WM-2018-0016 and SM-2018-0017
Map for Majestic Lakes



Schedule JAM-d4

Confluence Rivers Utility Operating Company
SCHEDULE of DEPRECIATION RATES
(WATER Class D)
WM-2018-0116

NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	Calvey Brook Depreciation Rates	Auburn Lakes Depreciation Rates	Eugene Depreciation Rates
	Source of Supply			
311	Structures & Improvements	2.5%	2.5%*	2.5%*
314	Wells & Springs	2.0%	2%*	2%*
	Pumping Plant			
321	Structures & Improvements	2.5%	2.5%*	2.5%*
325/325.1	Elec. Submersible Pumping Equipment	10.0%	10.0%*	10.0%*
325.2	High Service or Booster Pumping Equip.	6.7%*	6.7%*	6.7%*
	WaterTreatment Plant			
331	Structures & Improvements	2.5%*	2.5%*	2.5%*
332	Water Treatment Equipment	2.9%*	2.9%*	2.9%*
	Transmission and Distribution			
341	Structures & Improvements	2.5%	2.5%*	2.5%*
342	Distribution Reservoirs & Standpipes	2.5%	2.5%*	2.5%*
343	Transmission & Distribution Mains	2.0%	2.0%*	2.0%*
345	Customer Services	2.5%	2.5%*	2.5%*
346	Customer Meters, Bronze (Calibrate)	3.3%*	3.3%*	3.3%*
346.1	Customer Meters, Plastic (Throw Aways)	10.0%	10.0%*	10.0%*
347	Customer Meter Pits & Installation	2.5%	2.5%*	2.5%*
348	Hydrants	2.0%*	2.0%*	2.0%*
	General Plant CLASS D			
371	Structures & Improvements	2.5%	2.5%*	2.5%*
372	Office Furniture & Equipment	5.0%	5.0%*	5.0%*
372.1	Office Electronic & Computer Equip.	14.3%	20.0%*	20.0%*
373	Transportation Equipment	13.0%*	13.0%*	13.0%*
379	Other General Equipment (tools, shop equip., backhoes, trenchers, etc.)	6.7%*	6.7%*	6.7%*

*Designates a rate proposed in this case, rather than a rate ordered by the