Exhibit No. _____
Issue: Operations
Witness: Todd Thomas
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Osage Utility Operating Company, Inc.
File Nos.: WA-2019-0185 and SA-2019-0186
Date: September 4, 2019

Missouri Public Service Commission

Surrebuttal Testimony

of

Todd Thomas

On Behalf of

Osage Utility Operating Company, Inc.

September 4, 2019

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SURREBUTTAL TESTIMONY OF
TODD THOMAS
OSAGE UTILITY OPERATING COMPANY, INC.

WITNESS INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Todd Thomas. My business address is 500 Northwest Plaza Drive, Suite 500, St. Ann, Missouri, 63074.

Q. ARE YOU THE SAME TODD THOMAS WHO PREVIOUSLY FILED DIRECT TESTIMONY IN THIS CASE ON BEHALF OF OSAGE UTILITY OPERATING COMPANY, INC. (OUOC)?

A. Yes.

PURPOSE

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of my surrebuttal testimony is to respond to portions of the rebuttal testimonies filed by of the Office of the Public Counsel (OPC), Cedar Glen Condominium Owners Association, Inc. (Cedar Glen Association), Public Water Supply District No. 5 of Camden County, Missouri (PWSD #5), and Reflections Subdivision Master Association, Inc. (Reflections Association).

Testimony of OPC witness Keri Roth

Q. HAVE YOU READ THE REBUTTAL TESTIMONY OF OPC WITNESS KERI ROTH?

A. Yes.

Q. AT PAGE 14, LINES 8 THROUGH 12, MS. ROTH DISCUSSES THE JOINT OFFER OF PWSD #5, MISSOURI WATER ASSOCIATION, INC. (MWA), AND

THE LAKE AREA WASTEWATER ASSOCIATION, INC. (LAWWA) TO PURCHASE THE OSAGE WATER COMPANY SYSTEMS. DOES MS. ROTH STATE A POSITION AS TO WHETHER SHE BELIEVES OUOC'S PURCHASE IS DETRIMENTAL TO THE PUBLIC INTEREST?

A. No, she does not. Ms. Roth only states at lines 10 through 11, that "OPC urges the Commission to not ignore other available, and potentially cheaper, options."

Q. DO YOU AGREE WITH MS. ROTH THAT THE COMMISSION SHOULD CONSIDER COMPETING OFFERS WHEN EVALUATING WHETHER IT SHOULD APPROVE OUOC'S APPLICATION TO ACQUIRE THE OSAGE WATER COMPANY SYSTEMS?

A. No, I do not agree with Ms. Roth's premise. Other offers for purchase have no relevance to what I understand the standard to be for the Commission's decision in this case—that is, whether OUOC is qualified to acquire, own, and operate the systems at issue in this case and whether the sale of those utility systems by the Chapter 11 Bankruptcy Trustee to OUOC would be detrimental to the public.

Q. IF THE COMMISSION WERE TO CONSIDER THE COMPETING OFFERS OF PWSD #5, MWA, AND LAWWA IN THIS CASE, WHAT ELSE SHOULD THE COMMISSION CONSIDER ABOUT THESE PROVIDERS OTHER THAN THEIR CLAIMS THAT THEY ARE "POTENTIALLY CHEAPER OPTIONS"?

A. The Commission should also evaluate whether PWSD5, MWA, and LAWWA can provide safe and adequate service at a level comparable to OUOC. Providing safe and adequate service includes complying with environmental regulations designed to protect the health and welfare of customers and the environment.

Review of PWSD #5 Non-Compliance with MDNR

Q. HOW MANY SYSTEMS DOES PWSD #5 OPERATE?

A. PWSD # 5 operates two water and wastewater systems: Clearwater Condominiums (Clearwater) and Cedar Heights.

Q. **HAS THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) SENT COMMUNICATION TO PWSD #5 REGARDING THE COMPLIANCE, OR NON-COMPLIANCE, OF THE CLEARWATER AND CEDAR HEIGHTS SYSTEMS WITH THE MISSOURI SAFE DRINKING WATER LAW AND MISSOURI CLEAN WATER LAW?**

A. Yes. In just the last four years, PSWD # 5 has received communication from MDNR no less than 13 times for notices of violation, findings of non-compliance, or letters of warning related to the compliance of Clearwater and Cedar Heights with Missouri's Safe Drinking Water Law, Missouri Clean Water Law, and their respective implementing regulations. I have included copies of the MDNR communications as **Schedule TT-S1**. For ease of reference, I have also included a table summarizing these issues as **Schedule TT-S2**.

Q. HAVE YOU OPERATED SYSTEMS SIMILAR TO THE PWSD #5 CLEARWATER AND CEDAR HEIGHTS SYSTEMS?

A. Yes, I have. As explained in my direct testimony, at one time I had responsibility for operating water and wastewater systems serving approximately 64,000 residential connections. These systems included a variety of small and medium sized water and wastewater plants. In addition, CSWR currently owns and operates three similar sized plants within Raccoon Creek Utility Operating

Company; a similar sized water and waste water system in Hillcrest Utility Operating Company; one water and 4 waste water systems that are similar sized within Elm Hills Utility Operating Company; a water system in Indian Hills Utility Operating Company; a similar sized water and wastewater system in Sebastian Lake Utility Operating Company in Arkansas; 7 other similar sized wastewater treatment plants in Arkansas; and 8 other similar sized waste water systems in Kentucky that will be closed on in the next thirty days.

Q. FROM YOUR EXPERIENCE AS AN OPERATOR, SHOULD PWSD #5'S COMPLIANCE ISSUES BE A CONCERN?

A. Yes. The number of violations these relatively small systems have incurred seems to suggest a lack of basic operational capability by PWSD #5. Normal reporting deadlines were missed several times. PWSD #5 failed to pay yearly fees for both systems. Most concerning is that it took PWSD #5 over three years to correct a simple compliance issue and install a sample tap prior to treatment to allow the system to both collect and test source water samples as required by MDNR Safe Drinking Water regulations. This issue of non-compliance was cited by MDNR in its February 2, 2016, Report of Inspection for Clearwater, stating: "A sample tap is needed to collect samples directly from the well prior to treatment so that distribution and source problems can be distinguished from each other. Samples collected before treatment and storage reveals the condition of the raw source water." MDNR's January 15, 2019, Report of Inspection for Clearwater found the facility not in compliance again for the same issue. It took until February 13, 2019, after two findings of non-compliance by MDNR, for PSWD #5

to install a sample tap and report to MDNR its completions of the required compliance action.

Q. HAS THERE BEEN MORE RECENT COMMUNICATIONS FROM MDNR TO PWSD #5 REGARDING COMPLIANCE?

A. Yes. On May 14, 2019, MDNR sent a Report of Inspection to PWSD #5 regarding its Clearwater wastewater treatment facility. The Report stated the facility was in Enforcement for delinquent permit fees. Included with the Report was a Letter of Warning requiring PWSD #5 to pay its delinquent 2018 and 2019 delinquent fees by June 13, 2019.

Review of MWA Non-Compliance with MDNR

Q. HOW MANY SYSTEMS DOES MWA OPERATE?

A. MWA owns and/or operates 21 systems. I have included a table with the systems names as **Schedule TT-S3**.

Q. HAS THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) SENT COMMUNICATION TO MWA REGARDING THE COMPLIANCE, OR NON-COMPLIANCE, OF THE SYSTEMS WITH THE MISSOURI SAFE DRINKING WATER LAW?

A. Yes. In just the last five years, MWA has received communication from MDNR regarding no less than 10 violations of Missouri's Safe Drinking Water Law and implementing regulations. I have included copies of the MDNR communications as **Schedule TT-S4**. For ease of reference, I have also included a table summarizing these issues as **Schedule TT-S5**.

Q. HOW DID OUOC OBTAIN THE INFORMATION IN SCHEDULES TT-S4?

A. OUOC received the information from MWA in response to DRs 1.17 and 1.18.

Q. HAS MWA'S SYSTEMS EXPERIENCED INSTANCES OF NONCOMPLIANCE WITH MDNR THAT WERE NOT INCLUDED IN RESPONSE TO DRS 1.17 AND 1.18?

A. Yes. OUOC requested the same information from MDNR through a Sunshine Records Request as it requested from MWA in DRs 1.17 and 1.18. However, it has become clear in our review of the Sunshine records that MWA failed to produce all documents related to findings of non-compliance and violations in systems owned and/or operated by MWA as required by the DRs. MDNR provided the Sunshine records to OUOC on August 27, 2019. Due to the large volume of Sunshine records provided by MDNR, OUOC could only review a sample of the records prior to this surrebuttal filing. Specifically, OUOC looked for documents on systems that MWA had provided documents for and in the same time frame as the systems' other violations. These limitations were applied to the review to avoid inappropriately linking violations to MWA that could have occurred prior to MWA acquisition of the systems. The MDNR records supporting the violations undisclosed by MWA are included in **Schedule TT-S6**. A summary of the undisclosed violations identified to date is provided in **Schedule TT-S7**. It is likely that with more time OUOC's review of the Sunshine records will reveal additional violations that MWA failed to disclose.

Q. HAVE YOU OPERATED SYSTEMS SIMILAR TO MWA'S SYSTEMS?

A. Yes. As I explained above in the PWSD # 5 discussion, I have been responsible for the operations of small and medium sized water systems. Additionally, CSWR currently owns 4 similarly sized water systems to those of MWA in Missouri, and several similarly sized systems in other states.

FROM YOUR EXPERIENCE AS AN OPERATOR, SHOULD MWA'S COMPLIANCE ISSUES BE A CONCERN?

A. Yes. MWA's compliance issues should be of concern to the Commission and call into question whether MWA can provide safe and adequate service to the customers of the systems it seeks to serve in this case.

Q. PLEASE EXPLAIN.

A. As an example, MDNR cited MWA twice in 2017, and again in 2019, for failure to establish cross connection control programs on multiple drinking water systems MWA operates. Repeated violations of similar type suggest MWA operators do not complete a comprehensive review of all systems when it receives a violation from MDNR. A comprehensive system review allows operators to identify similar compliance issues and proactively implement the corrective measures system wide.

Q. WHY IS A CROSS CONNECTION CONTROL PROGRAM IMPORTANT FOR A DRINKING WATER SYSTEM?

A. MDNR regulation 10 CSR 60-11.010 requires that a public water system be designed and maintained to prevent contamination from being introduced into the drinking water system from back-pressure or back-siphonage at customer connections.

Q. AS AN OPERATOR, DO YOU HAVE ANY OTHER CONCERNS ABOUT THE TYPES OF VIOLATIONS CITED BY MDNR ON SYSTEMS OPERATED BY MWA?

A. Yes I do. Over the last five years, MWA has received violations on systems it operates for:

- failure of drinking water system to have a permit to dispense;
- drinking water system construction without approval by MDNR;
- failure to send the annual Consumer Confidence Report to customers;
- failure to install backflow prevention devices at customer connections and maintain test records;
- failure to maintain a well house free of rodent activity and possible contaminants; and
- failure to plug abandoned wells.

The first three types of violations are basic operational bookkeeping, permitting and reporting requirements. The last three types of violations are types of operational deficiencies that have the capability of introducing contaminants into customers' drinking water. Both types of deficiencies suggest MWA lacks the basic operational capability to operate the systems it now has, let alone, take on additional non-viable systems that require improvements.

Q. WAS MR. GOSS AWARE OF THESE VIOLATIONS AT MWA SYSTEMS?

A. MDNR addressed its communications regarding the violations at both Seven Trails West and Lakeside at Cross Creek systems to Mr. Goss. MDNR also

identified Mr. Goss as the co-owner on its communications regarding the violations at Park Place on the Lake system.

Q. HAS THERE BEEN MORE RECENT COMMUNICATION FROM MDNR TO MWA REGARDING COMPLIANCE?

A. Yes. In May 2019, MWA's Brentwood system had a loss of pressure due to a well pump failure. See **Schedule TT-S8**. Then in June 2019, the system had repeat samples test Total Coliform Positive with zero chlorine residual disinfectant in the drinking water. See **Schedule TT-S9**.

Review of LAWWA Non-Compliance with MDNR

Q. HOW MANY SYSTEMS DOES LAWWA OPERATE?

A. LAWWA owns and/or operates 57 systems. I have included a table with the systems names as **Schedule TT-S10**.

Q. HAS THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) SENT COMMUNICATION TO LAWWA REGARDING THE COMPLIANCE, OR NON-COMPLIANCE, OF THE SYSTEMS WITH THE MISSOURI CLEAN WATER LAW?

A. Yes. In just the last five years, LAWWA has received communication from MDNR regarding no less than 86 violations of Missouri's Clean Water Law and implementing regulations. I have included copies of the MDNR communications as **Schedule TT-S11**. For ease of reference, I have also included a table summarizing these issues as **Schedule TT-S12**.

Q. HOW DID OUOC OBTAIN THE INFORMATION IN SCHEDULES TT-S11?

A. OUOC received the information from LAWWA in response to DRs 1.17 and 1.18.

Q. HAS LAWWA'S SYSTEMS EXPERIENCED INSTANCES OF NONCOMPLIANCE WITH MDNR THAT WERE NOT INCLUDED IN RESPONSE TO DRS 1.17 AND 1.18?

A. Yes. OUOC requested the same information from MDNR through a Sunshine Records Request as it requested from LAWWA in DRs 1.17 and 1.18. However, it has become clear in our review of the Sunshine records that LAWWA also failed to produce all documents related to findings of non-compliance and violations in systems owned and/or operated by LAWWA as required by the DRs. MDNR provided the Sunshine records to OUOC on August 27, 2019. Due to the large volume of Sunshine records provided by MDNR, OUOC could only review a sample of the records prior to this surrebuttal filing. Specifically, OUOC looked for documents on systems that LAWWA had provided documents for and in the same time frame as the systems' other violations. These limitations were applied to the review to avoid inappropriately linking violations to LAWWA that could have occurred prior to LAWWA's acquisition of the systems. The MDNR records supporting the undisclosed violations identified to date is provided in **Schedule TT-S6**. A summary of the undisclosed violations identified to date is provided in **Schedule TT-S7**. It is likely that with more time OUOC's review of the Sunshine records will reveal additional violations that LAWWA failed to disclose.

Q. HAVE YOU OPERATED SYSTEMS SIMILAR TO LAWWA'S SYSTEMS?

A. Yes. As I explained above in the PWSD # 5 discussion, I have been responsible for the operations of small and medium sized wastewater systems. Additionally,

CSWR currently owns similarly sized wastewater systems to those of MWA in Missouri, and several similarly sized systems in other states.

FROM YOUR EXPERIENCE AS AN OPERATOR, SHOULD LAWWA'S COMPLIANCE ISSUES BE A CONCERN?

B. Yes. LAWWA's compliance issues should be of concern to the Commission and call into question whether LAWWA can provide safe and adequate service to the customers of the systems it seeks to serve in this case.

Q. AS AN OPERATOR, DO YOU HAVE ANY OTHER CONCERNS ABOUT THE TYPES OF VIOLATIONS CITED BY MDNR ON SYSTEMS OPERATED BY LAWWA?

A. Yes I do. LAWWA's violations span nearly every category of MDNR violation, ranging from failure to submit basic testing results, failure to maintain facilities, and failure to meet MDNR permitted effluent limits at many of their plants. Many of these violations are recurring issues. For example, LAWWA has 8 MDNR cited violations over the course of 5 years at 5 different wastewater facilities for failing to use required signage for marking outfall locations and warning the public away from wastewater facilities. Ignoring these simple compliance requirements should not happen at all. But after receiving a violation for failing to post this basic, inexpensive and easy to install signage this should have become standard practice and resolved at all their facilities rather than requiring additional violations at 4 other facilities to fix the issue system-wide. This speaks to LAWWA's failure to implement even basic requirements in operating practices throughout its organization.

Q. OTHER THAN SIGNAGE VIOLATIONS, WHAT OTHER VIOLATIONS HAS MDNR CITED FOR SYSTEMS OPERATED BY LAWWA?

A. There are many violations for failure to submit required Discharge Monitoring Reports (DMR). As an operator, this reporting failure does not inspire confidence in operations, as DMRs are the most basic regulatory requirement for wastewater facilities. Repeated and ongoing failures to submit these reports points to either organizational incompetence, or intentional disregard for completing effluent sampling to avoid reporting effluent exceedances. Either explanation would represent poor operational standards. LAWWA facilities have numerous violations for exceedances of permitted effluent limits, both on samples submitted for DMRs and on samples taken by MDNR employees during facility inspections. LAWWA's systems are not consistently meeting minimum treatments standards. Also included in violations discovered during inspections on LAWWA facilities are several violations for failure to maintain facilities to minimum standards for safety and operation, and at least two instances of sanitary sewage overflows allowing raw or partially treated sewage to enter the environment.

Testimony of Cedar Glen Association Witness Kenneth Hulett

Q. HAVE YOU READ THE TESTIMONY OF CEDAR GLEN ASSOCIATION WITNESS KENNETH HULETT?

A. Yes, I have.

Q. AT PAGE 6, LINES 22-23, THROUGH PAGE 7, LINES 1-2, MR. HULETT CITES PWSD #5 WITNESS STONE'S ESTIMATE OF $39,000 TO UPDATE CEDAR GLEN AND CONCLUDES PWSD #5 CAN IMPROVE CEDAR GLEN

WATER AND WASTEWATER FACILITIES TO ACHIEVE COMPLIANCE STANDARDS AT A MUCH LOWER COST THAN OUOC. DO YOU AGREE WITH THIS ESTIMATE?

A. No, I do not. One only needs to review the testimony of Mr. Krehbiel, PWSD #5's engineer, to see that even Mr. Krehbiel discusses improvements that will far exceed $39,000.

Q. PLEASE EXPLAIN.

A. At page 3, lines 1-14 of Mr. Krehbiel's rebuttal testimony, he quotes paragraph 7.1.2.b of DNR's Minimum Design Standards for Missouri Community Water Systems ("Design Standards") that states:

> Provide ground level finished water storage with nominal capacity equal to or greater than one day's average demand. Duplex or variable speed high service pumps shall be provided with this option. The high service pumps shall have a capacity capable of meeting design instantaneous peak flow and of maintaining a minimum pressure of 35 PSIG throughout the service area with the largest pump out of service. Emergency power generation facilities shall be provided to assure that water outages or low water pressures do not occur. Note the volume above low level withdrawal pump shut down is counted as nominal capacity.

This minimum design standard references the need for ground water storage and high capacity redundant pumps, both of which the Cedar Glen system currently lacks. Additionally, on page 2, lines 17-19, Mr. Krehbiel estimates 800 people are being served by the Cedar Glen system. Per Section 3.2.1.2, Part b of the Design Standards, "all public water systems that require continuous service and serve 500 or more people shall have more than one well and shall be capable of meeting design average day demand with the largest producing well out of

service or an alternate approved source of water capable of meeting the design or actual average day demand." Additionally, Paragraph 7.1.2.b states that booster stations provided without elevated storage and serving more than 100 connections shall have permanent power generation installed to serve the pumping station. The Cedar Glen system lacks a second well, a ground storage tank, a duplex pumping station, and onsite permanent power generation. The estimated cost for drilling a new well and associated piping is an unknown. All of these deficiencies cannot be addressed for $39,000.

Q. ARE THERE OTHER ISSUES WITH THE CEDAR GLEN SYSTEM RAISED BY THE DESIGN STANDARDS?

A. Yes. The Design Standards also specify that "Hydropneumatic storage (conventional tanks or bladder tanks) shall not be used as the only storage facilities for community public water systems serving more than 50 connections or living units." The current system's sole source of storage is hydropneumatic storage that serves 216 living units, which exceeds this guideline. The referenced Design Standards also indicate that ground storage is necessary, and no such ground storage is provided at the site.

Q. WHAT WOULD BE NECESSARY TO PROVIDE GROUND STORAGE?

A. In order to provide ground storage, a booster station will also be necessary. This station will include at least two pumps to meet the response above and also consistent with an additional guideline that "Each booster pumping station shall contain not less than two pumps with capabilities such that peak demand and fire flow, if provided, can be satisfied with the largest pump out of service."

Q. ARE THERE ANY FURTHER ISSUES?

A. Yes. The Design Standards also specify that "Emergency power generation" is also required, which the system does not currently provide. This generator will need to be able to supply power to the mentioned booster station pumps and the lone system deep well. Costs of such a generator can range anywhere from $40,000 to $50,000.

Q. AT PAGE 5, LINES 2-4 OF MR. KREHBIEL'S REBUTTAL TESTIMONY, HE STATES THAT INTERCONNECTION OF PWSD #5'S SYSTEM WITH CEDAR GLEN'S SYSTEM MAY TAKE MORE THAN 24 MONTHS TO COMPLETE. DOES MR. KREHBIEL PROVIDE AN ESTIMATE FOR THE COST OF THE INTERCONNECTION?

A. No, Mr. Krehbiel does not provide an estimate for the cost of the interconnection. It does not appear that Mr. Hulett takes these costs into consideration either.

Q. WHAT STEPS WOULD BE REQUIRED TO MAKE THAT CONNECTION?

A. A number of steps are necessary to complete this task. The first step being the acquisition of easements. This can be a lengthy process. There will likely be costs incurred to pay a firm to negotiate those easements, as well as an unknown cost to pay the owners for the easements. Meeting with the Missouri Department of Transportation ("MoDOT") would also occur during this time to evaluate the location to cross the highway. MoDOT will commonly require a bore and encasement to cross the highway, as they typically do not allow open cutting of their pavement for utilities. After the route for the water main is chosen, an

engineer will need to work through topographic surveying, water system design, hydraulic analysis, permitting, and construction.

Q. GENERALLY, IS THERE SIGNIFICANT EXPENSE ASSOCIATED WITH INTERCONNECTIONS OF THE TYPE YOU JUST DESCRIBED?

A. There can be. The expense is tied to the number of easements required, the length of the main, any solid rock excavation, and boring and encasement necessary. After the connection, the system would have to deal with cost of decommissioning the existing well site and components. I feel this would be a significant expense for the system. The expense including engineering, permits, easements and construction could easily exceed $150,000.00.

Q. DO YOU AGREE WITH MR. HULETT'S RECOMMENDATION ON PAGE 7, LINES 4-8 THAT, IF APPLICATION WERE MADE, THE COMMISSION SHOULD APPROVE A SALE OF OSAGE WATER COMPANY'S SYSTEMS TO PWSD #5, MWA, AND LAWWA?

A. No, I do not. As discussed above, the systems owned and operated by PWSD #5, MWA, and LAWWA have long histories of non-compliance with MDNR's safe drinking water and clean water regulations, including the most basic of compliance requirements. A sale of Osage Water Company's systems to such entities cannot be in the public interest.

<u>Testimony of PWSD #5 and Cedar Glen Witness David G. Krehbiel</u>

Q. ON PAGE 3, LINES 25-27, MR. KREHBIEL CONCLUDES THAT "HIGH QUALITY MAINTENANCE IS BEING PERFORMED ON THE [CEDAR GLEN

WASTEWATER TREATMENT FACILITY].” DO YOU AGREE WITH MR. KREHBIEL’S CONCLUSION?

A. No, I do not. Samples were taken by a third party as a part of the CSWR due diligence process to confirm current the quality of maintenance of wastewater facilities.

Q. WHEN WERE SAMPLES TAKEN?

A. An effluent sample was taken by a third party on April 23, 2019 and tested by Ozark Testing. The chain of custody forms and testing reports are contained in **Schedule TT-S13**.

Q. WHAT WAS DETERMINED BY THE TESTING?

A. This sample had a discharge result of 5.90 mg/L for Ammonia and 63.2 mg/L for Total Suspended Solids. The MDNR operating permit lists the “Final Effluent Limitations” for both Ammonia and Total Suspended Solids (TSS). The permitted Ammonia limit has a monthly average of 1.3 mg/L and a daily maximum of 5.0 mg/L. Thus, the sample collected on April 23, 2019, violated the facility’s operating permit. Additionally, the permitted TSS limit has a monthly average of 20 mg/L and weekly average of 30 mg/L. The sample collected on April 23, 2019, violated both these standards as well.

Q. WHAT CONCERNS ARE RAISED BY THESE RESULTS?

A. These results raise concerns that current demands exceed capabilities of the facility, the facility is poorly managed, or both.

Q. WAS THERE ALSO AN OPPORTUNITY TO VISUALLY INSPECT THE FACILITIES ON APRIL 23, 2019?

A. Yes.

Q. WHAT CAN YOU TELL FROM A VISUAL INSPECTION OF WATER AND SEWER FACILITIES?

A. Our experience has shown that if the level of cleanliness of a facility is poor, the level of operational control and monitoring is very often also poor, which is consistent with the failed sample on April 23, 2019. Signs of poor system maintenance include debris being scattered across the site, among other deficiencies.

Q. AS TO THE CEDAR GLEN WASTEWATER SYSTEM, DO YOU HAVE ANY PICTURES OF WHAT WAS OBSERVED THROUGH THE COURSE OF THE DUE DILIGENCE PROCESS?

A. Yes. The following pictures and descriptions show some of the maintenance issues that were observed.

Empty chemical supply containers left behind that should be hauled to trash disposal. The edges of the bed are caked with leaf debris and a bush is growing out of the center of the far bed pictured. Also, note the leaves and rocks that are getting into the contact chamber contaminating effluent, which should be maintained and better protected for maintenance purposes. Leaves and construction repair material left on the bed can lead to premature failure of sand media.

Construction and repair materials were left behind that should be removed from the site. The wire grate is not properly fitted. Note the leaves and rocks that are getting into the contact chamber and contaminating effluent, which should be

maintained and better protected for maintenance purposes.

Unorthodox lid with rock holding it in place. This makeshift lid should be replaced with a proper lid. Also, construction and repair materials were left onsite that should be removed.

Trees are falling over the exterior fencing. All trees should be removed to maintain security of the wastewater facility.

Piping is exposed and should be buried. Exposed piping leaves the system vulnerable to freezing and a sewage discharge and/or sanitary sewer overflow that a system is required to report to DNR. With the lake body so close,

discharged sewage could make it into the lake water and be a concern for a fish kill.

Failed dosing pumps and construction debris are left scattered over the site. Minimal maintenance and effort is being made at this facility.

The operator informed us during our visit that a number of the dosing pumps that send sewage to the sand beds have failed and therefore, are not capable of loading all the sand bed zones.

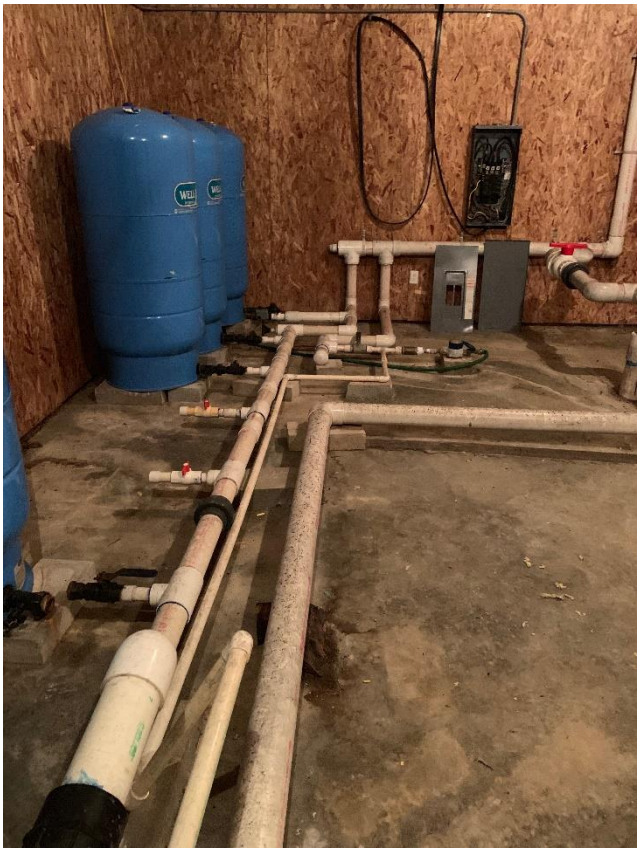
Q. WHAT IS THE IMPACT FAILURE OF THESE PUMPS?

A. From this occurring, some of the sand zones can be overloaded by the extra sewage sent for treatment. This will lead to premature failure of the sand media, increased cost for repairs, and the plant will exhibit reduced treatment capabilities if portions of the treatment process are overloaded. Measures should be taken immediately to remedy this action including replacing the failed pumps. The operators should be taking these steps necessary to protect the environment and health of the people that utilize the Lake of the Ozarks.

Q. AS TO THE CEDAR GLEN WATER SYSTEM, DO YOU HAVE ANY PICTURES OF WHAT WAS OBSERVED THROUGH THE COURSE OF THE DUE DILIGENCE PROCESS?

A. Yes. Those pictures follow:

The well house has excessive clutter. Boxes, buckets, and repair materials should be removed from the well house.



Electrical control panels should always be closed when not being serviced. Panels are sitting on the ground below the electrical box and should be installed.

Q. WHY IS THE CONDITION OF THE WELL HOUSE SIGNIFICANT?

A. This is dangerous for anyone entering the well house for inspection or maintenance work. Wiring is stapled to the walls and ceiling. Wiring should be enclosed in electrical grade conduit to protect the system and public from electrocution.

Q. ARE THESE ALL MATTERS THAT WOULD BE CORRECTED BY OUOC IF IT WERE TO PURCHASE THE OSAGE WATER COMPANY ASSETS?

A. Yes.

Q. ON PAGE 4, LINES 5-7, MR. KREHBIEL STATES THAT HE IS "OF THE OPINION THAT THE CEDAR GLEN RECIRCULATING SAND FILTER WASTEWATER TREATMENT FACILITY HAS THE CAPABILITY TO MEET THE PERMIT LIMITS WITHOUT THE INSTALLATION OF A MBBR." DO YOU AGREE WITH MR. KREHBIEL?

A. Not with what is known today. As previously mentioned, the most recent effluent sample taken on April 23, 2019, shows that discharged effluent exceeded operating permit limits for Ammonia and for Total Suspended Solids. Mr. Krehbiel's response above suggests the facility has the capabilities to meet these limits, but he provided no testing data or facility analysis to confirm his opinion.

Q. WHAT IS YOUR EXPERIENCE WITH SAND FILTERS IN REGARD TO AMMONIA LIMITS?

A. Sand filters historically do not meet ammonia limits consistently. Thus, the fact that this facility was violating the permit limits did not surprise me.

Q. WHAT DO THE RESULTS AS TO TSS INDICATE?

A. A TSS result of this level on a sand filter typically indicates that the sand bed is being overloaded with solids. When this occurs, the system is not being maintained well and will lead to premature failure of the sand media. This would require removal and replacement of the sand media, which often requires replacement of all the piping in the upper 12" of media due to low cost piping often used.

Q. IS THERE A BETTER SOLUTION?

A. In our experience, we have found it to be a more economical, robust, and long-term solution to utilize a Moving Bed Bio Reactor ("MBBR") process as a cost-effective solution to facilities of this type. Not only will it reduce ammonia levels and be able to treat ammonia more consistently, it will decrease the contaminant levels discharging to the sand bed and extend the life of the entire facility.

CONCLUSION

Q. WHAT DOES OUOC NEED FROM THE COMMISSION TO PROVIDE SERVICE TO WATER AND SEWER SYSTEMS OF OSAGE WATER COMPANY?

A. As requested in the Amended Application, OUOC asks the Commission to allow it to acquire the CCNs of Osage Water Company, or grant OUOC new CCNs to provide water and sewer service in the area now served by Osage Water Company, and cancel the certificates of Osage Water Company. OUOC also requests the Commission authorize Osage Water Company and OUOC to execute and perform in accordance with the terms described in the *Agreement For Sale of Utility System between OUOC and the Trustee of Osage Water Company* attached to the direct testimony of Mr. Cox and to take any and all

other actions which may be reasonably necessary and incidental to the performance of the acquisitions.

Q. **WHAT DOES OUOC NEED FROM THE COMMISSION TO PROVIDE SERVICE TO THE WATER AND SEWER SYSTEMS OF REFLECTIONS?**

A. As requested in the Amended Application, OUOC asks the Commission to grant it Certificates of Convenience and Necessity authorizing it to install, acquire, build, construct, own, operate, control, manage and maintain a water and sewer system for the public within the area currently served by Reflections, as set forth on the legal description attached to Mr. Cox's direct testimony. OUOC also requests the Commission authorize Great Southern Bank, Reflections Subdivision Master Association, Inc., and Reflections Condominium Owners Association, Inc. and OUOC to execute and perform in accordance with the terms described in the *Amended and Restated Agreement For Sale of Utility System* attached to the Direct Testimony of Mr. Cox and to take any and all other actions which may be reasonably necessary and incidental to the performance of the acquisitions.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes, it does.