Exhibit No.:	
Issues:	Meter Operations, Customer Service Support
Witness:	Paul Ebbeler
Exhibit Type:	Direct Testimony
Sponsoring Party:	Missouri-American Water Company
Case No.:	WC-2026-0372
Date:	November 20, 2026

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WC-2026-0372

DIRECT TESTIMONY

OF

PAUL EBBELER

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

Denotes Confidential Information

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AFFIDAVIT

I, Paul Ebbeler, under penalty of perjury, and pursuant to Section 509.030, RSMo, state that I am the Senior Manager, Operations Services of Missouri American Water Company, Inc., that the accompanying testimony has been prepared by me or under my direction and supervision; that if inquiries were made as to the facts in said testimony, I would respond as therein set forth; and that the aforesaid testimony is true and correct to the best of my knowledge and belief.

Paul Ebbeler

Nov 18th, 2026

Dated

DIRECT TESTIMONY
PAUL EBBELER
MISSOURI-AMERICAN WATER COMPANY
CASE NO.: WC-2026-0372

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DIRECT TESTIMONY

PAUL EBBELER

INTRODUCTION

Q. Please state your name and business address.

A. My name is Paul Ebbeler, and my business address is 727 Craig Road, St. Louis, MO, 63141.

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

A. I am employed by Missouri-American Water Company ("MAWC" or the "Company") within the Operations Group as Senior Manager, Operations Services. I am appearing on behalf of the Company in this proceeding.

Q. Please summarize your educational background and business experience.

A. In 2006, I graduated with a Bachelor of Science from Southern Illinois University. In 2015, I obtained my Masters in Business Administration from Lindenwood University. In addition to my formal educational background, I hold a variety of professional certifications such as project management, and certificated professional in management. I also hold a Class D Distribution Operator License from the Missouri Department of Natural Resources.

I started working at American Water Service Company ("Service Company") in 2001 and have spent over 25 years working throughout various sectors in the business, including customer service and operations. I began my career in the customer service organization as a representative before transitioning into a leadership role, where I supervised billing and collections teams. In that role, I provided support across all states in

the American Water footprint. Later, I moved into a regional role focused on the western U.S., where I continued supporting similar operational functions, including ensuring smooth operations, overseeing team training, managing meter configuration and functionality, and interpreting meter usage data. I transitioned to the MAWC team in 2017.

Q. What are your current employment responsibilities?

A. As Senior Manager, Operations, I am responsible for the management of several areas of operations including oversight of our fleet management group, device management for operations personnel, employee training, revenue protection, customer experience, nonrevenue water, meter operations, including meter health and data management, ensuring data integrity. This ensures a seamless integration of meter technology from our vendor systems into our systems, preventing consecutive estimates, zero reads, and inactive with consumption. I also handle new service inquiries when a customer would like to connect to our system.

Q. Have you previously testified before the Missouri Public Service Commission?

A. Yes, I previously provided testimony before the Missouri Public Service Commission ("Commission") in Case No. WC-2025-0204.

PURPOSE

Q. What is the purpose of your Direct Testimony in this proceeding?

A. On June 24, 2026, Andrew Norris ("Mr. Norris" or "Complainant") filed a Complaint against MAWC for a service address of ** [redacted] ** ("the premises"). My Direct Testimony responds to the operational allegations concerning the December 2024 meter and valve work, the ownership and function of the interior stop-and-

waste valve and exterior curb stop, the property's AMI usage history, MAWC's 2025 high-bill investigation, and the Company's response to the concerns raised in the Complaint.

Q. Are you including any Schedules/Appendices with your Direct Testimony?

A. Yes. I am attaching the following Schedules:

Schedule PE-1-C, which contains the confidential meter-replacement notice;

Schedule PE-2-C, which contains the confidential service orders for the customer premises;

Schedule PE-3-C, which contains the confidential AMI usage data for the customer premises;

Schedule PE-4 contains property management records provided by the Complainant.

Schedule PE-5, which includes Mr. Norris' response to data request 16.

Three of my Schedules are designated Confidential. "C", in accordance with Commission Rule 20 CSR 4240-2.135(2)(A). 1 as they include customer-specific information.

METER OPERATIONS AND VALVE INSTALLATION

Q. You mentioned that you are responsible for overseeing aspects of meter health. Please explain this responsibility in greater detail?

A. From a meter-operations perspective, I help ensure that MAWC deploys and installs meters that have been approved for use and certified by the manufacturer. Before installation, meters must meet applicable performance standards so that the consumption data collected at the meter is accurate and reliable. I also oversee meter-health and data-management activities and help ensure that meters are replaced at appropriate intervals.

Q. When did MAWC most recently replace the meter at the premises associated with Mr. Norris's account?

A. MAWC, through its contractor, replaced the meter at the premises on December 26, 2024.

Q. How do you communicate with customers when a meter is replaced?

A. When a meter is located inside the customer's premises, MAWC sends advance communication advising that access is required to complete the meter change and directing the customer or account holder to coordinate an appointment with MAWC[1]. When a meter is outside the customer's premises, MAWC does not provide the same communication because we have access to the meter.

Q. Can you explain MAWC's general process for replacing a meter?

A. When a meter is located inside, after an appointment is scheduled, a work order (service order) is created. If the inside valve is located before the meter, that valve will be turned OFF while the old meter is removed and the new meter is replaced. At this time, a meter transmitter (AMI endpoint) is also installed on the meter, which is wired from the meter. After completion of the meter replacement, the valve is returned to the ON position. An inspection occurs to make sure the new meter is not registering usage after the valve is turned ON. The work order is updated once all work is complete.

Q. How does that process differ when the meter is located outside the customer's premises?

A. When a meter is located outside of a premises, MAWC does not send a letter to the customer to schedule an appointment because it has access to the meter. Otherwise, the

[1] When MAWC asserts that it performs the work, it is either done by MAWC employees or a contractor hired by MAWC to perform the work.

process to replace a meter is the same as described above for an inside meter and outside meter.

Q. Did MAWC provide communication about a meter replacement for the Norris premises?

A. Yes. On November 12, 2024, MAWC sent a notice to the account holder for the premises, Complete Property Management Solutions, stating that a meter change was required and directing the account holder to coordinate with MAWC's contractor, Loellke Plumbing, Inc. A copy of that communication is attached as Schedule PE-1-C.

Q. Was the meter at that premises replaced after that notice was sent?

A. Yes. MAWC's service order records show that the meter replacement occurred on December 26, 2024. The relevant service orders from 2024 through 2026 are attached as Schedule PE-2-C.

Q. Are those service orders kept in the normal course of business?

A. Yes.

Q. Based on your review of the December 2024 service order, was the work performed at the premises limited to a meter replacement?

A. No. The service-order notes state that the existing gate valve was in poor condition and that there was a leak at a reducing bushing. While at the premises changing the meter, the contractor replaced the interior stop-and-waste valve and reworked adjacent piping. The contractor used the exterior curb stop to isolate service, completed the meter replacement and piping work, restored water service, and documented that water was back on at full pressure with no leaks.

Q. What is a stop-and-waste valve?

A. A stop-and-waste valve is an interior plumbing valve that allows the customer to stop water from entering the customer's plumbing downstream of that valve. This valve is usually the first valve after the service line comes into the premises.

Q. Does a Customer own the interior stop-and-waste valve at this premises?

A. Yes. The interior stop-and-waste valve is located on the customer-owned portion of the service line and is customer-owned plumbing.

Q. Under what circumstances might MAWC or its contractor replace a customer-owned stop-and-waste valve while replacing a meter?

A. Each situation depends on the conditions encountered in the field. Here, the existing valve and adjacent piping condition interfered with completion of the meter work. The contractor determined that replacing the valve and reworking the piping during the scheduled visit was the most efficient way to complete the meter replacement and avoid an additional visit to the premises.

Q. Does MAWC's performance of work on customer-owned plumbing transfer ownership or continuing maintenance responsibility to MAWC?

A. No. MAWC may agree to make a physical connection or address a condition encountered while completing Company work, but while I am not an attorney, my understanding is that performing that work does not transfer ownership or responsibility of the customer's service line or interior plumbing to MAWC or create continuing maintenance responsibility for those customer-owned components.

Q. Must the customer's interior stop-and-waste valve always be operational before a meter can be replaced?

A. No. MAWC utilizes the closest valve preceding the area where we are performing work. In this case, the closest valve preceding the area for the meter replacement was the stop-and-waste valve. In other locations, the closest valve would be the outside curb stop, which would be used to stop the water flow to both the interior meter and interior stop-and-waste valve. This method requires the worker to move in and out of the home and allows more water drainage while the work is being performed.

Q. You mentioned a curb stop. What is a curb stop and what is its purpose?

A. A curb stop is an exterior valve on the service line that allows water service to the premises to be turned on or off from outside the building. Closing the curb stop prevents water from passing from MAWC's main service line.

Q. Who is responsible for the curb stop?

A. MAWC is responsible for the curb stop. Under MAWC's tariff, the Company is responsible for the Company water service line between the main and the meter setting, stop box, property line, or curb line, as applicable. The customer is responsible for the customer water service line and plumbing between that point and the premises.[2]

Q. Where is a curb stop typically located?

A. The exact location depends on the placement of the premises and the adjacent right-of-way. It is typically located near the property or curb line and housed in a curb-stop box that provides access from grade to the valve.

[2] P.S.C. MO NO.13 4th Revised Sheet No. R.6.

Q. Is access to a curb stop restricted to MAWC employees?

A. No. Generally, curb stops are not locked and may be physically accessible to customers, licensed plumbers, contractors, or others who know the valve's location and how to operate it. MAWC may secure a curb stop in circumstances such as repeated unauthorized use or water theft, but routine locking is not standard practice.

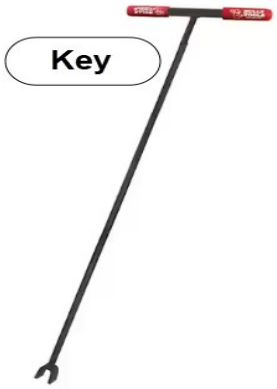
Q. Why does MAWC routinely not lock curb stops?

A. Customers and their contractors may need access to the curb stop when performing work on customer-owned service lines or plumbing systems, including repairs, renovations, or winterization. A person operating the curb stop is expected to return it to the position that existed before the work unless MAWC has directed otherwise. On occasion, if the curb stop is difficult to see or during a locating procedure, the location of the curb stop is often marked with blue paint to make its location easier to find later.

Q. How is a curb stop operated?

A. A diagram of curb stop and key is provided below:





A curb stop is essentially a valve located a few feet below grade. A "key" is used to reach the valve from grade level. A curb key (a long T-handled operating tool) is inserted down to the curb box to engage the valve. The curb key is then turned:

- Clockwise (right) to close the valve and shut off water service.
- Counterclockwise (left) to open the valve and restore service.
- Most curb stops are designed to be either fully open or fully closed.

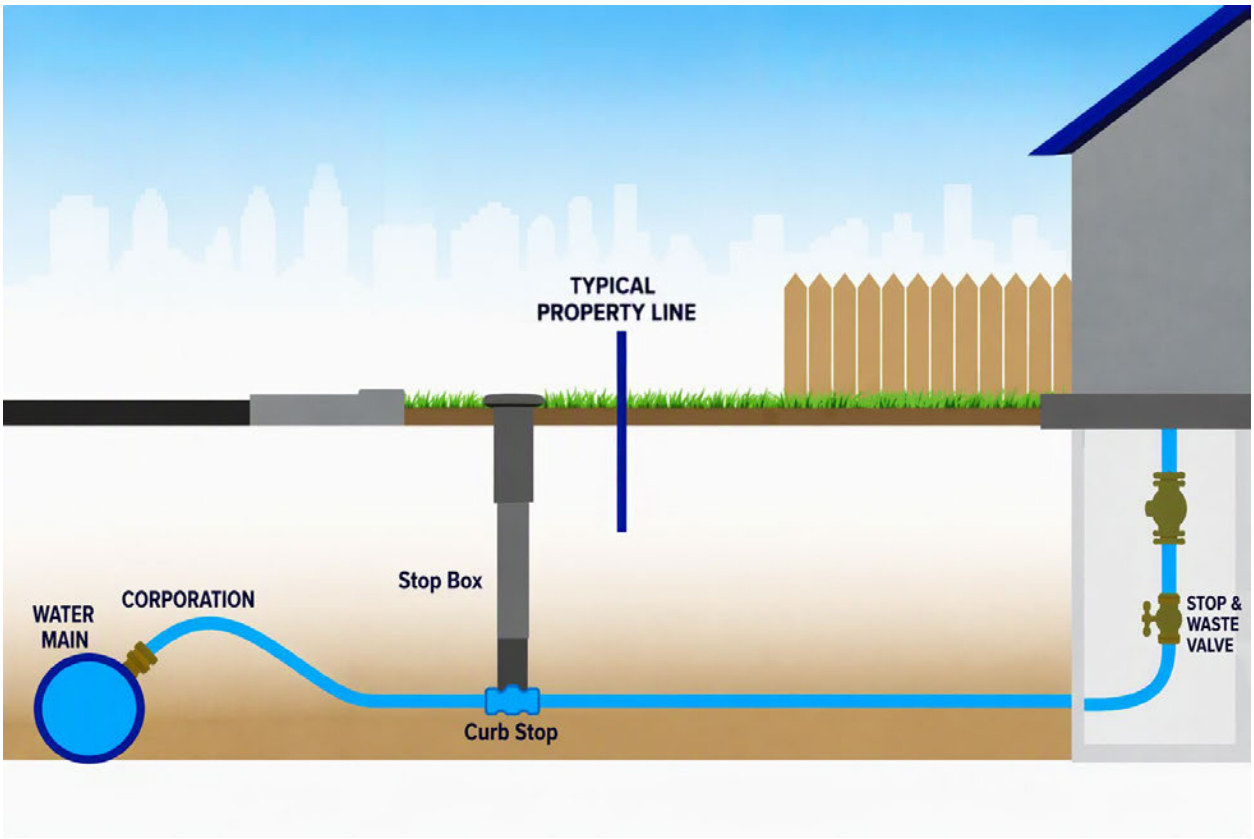
Q. How does MAWC determine whether a curb stop is operating as intended?

A. The Company observes the valve's position and response when operated and those items are documented in service orders. Field conditions may also provide indications that it is not operating as intended. For example, unexplained pooling or continuous water around the curb-stop location could indicate leakage. Downstream fixtures (everything after the

curb stop away from the main) should not allow water to flow when valve is in the OFF position. Advanced Metering Infrastructure (AMI) usage information and downstream observations may also be reviewed. The Company notes that zero AMI usage by itself does not establish whether the curb stop, an interior valve, or a lack of downstream demand caused the zero usage.

Q. How does the water flow from the curb stop to a customer's premises?

A. The water flows from the Company's water main through the curb stop (sometimes referred to as stop box) to the Customer's premises. If there is an outdoor meter the water will flow through that into that then into the Customer's premises. If there is an indoor meter, the water typically flows through the stop-and-waste valve, as it is normally the first valve within the premises. Finally, the water flows through the meter located close to that. Below is a diagram of a typical indoor meter set for a residential area, such as the one involved in this case.



RESPONSE TO THE COMPLAINT

Q. Generally, what concerns does Mr. Norris raise in his Complaint?

A. Mr. Norris alleges that the stop-and-waste valve installed during the December 2024 meter replacement was defective and caused water usage and property damage. He also contends that MAWC's exterior curb stop did not function properly.

Q. In your expert opinion, did the interior stop-and-waste valve fail?

A. No. Based on the information available to me and my work history, the records do not show that the interior stop-and-waste valve failed. Instead, the records indicate that the valve operated as intended during the period it remained installed.

Q. Please describe how you reached that conclusion.

A. I reviewed the December 2024 installation record, the Advanced Metering Infrastructure

("AMI") usage data, the service orders, the 2025 high-bill investigation, the customer-interaction records, and the materials developed during this proceeding. The December 2024 service order states that water was restored at full pressure with no leaks. The AMI data then shows intervals of usage followed by intervals of no usage, which is consistent with water being turned on and off at the property. Most importantly, during MAWC's June 27, 2025, high-bill investigation, the field service representative found the interior stop-and-waste valve in the off position. When the representative opened the valve, the meter registered usage and the representative immediately observed a running toilet. The representative then closed the interior valve, and usage stopped. Those observations show that the valve was capable of controlling flow at that time. – when it was on, water flowed, when it was off, water did not flow. If the valve was not working properly you would expect to see continuous usage, rather than intermittent usage demonstrated in the AMI data. This intermittent usage is more consistent with the valve being turned on and off. The usage chart shown below shows indications of several intermit flow occurrences.

**

[redacted]

**

Q. Mr. Norris also contends that the curb stop did not operate as intended. In your expert opinion, did the interior stop-and-waste valve fail

A. No. The available service-order history indicates that the curb stop was capable of being operated and was functioning as intended when MAWC operated it.

Q. Please describe how you reached that conclusion.

A. I reviewed the records related to this Complaint. The December 26, 2024, service order records that the contractor used the curb stop to isolate service during the meter and valve work and then restored service. On February 9, 2026, the field service representative found the curb stop on, operated it, and left it off in response to the emergency request. The March 4 and 5, 2026 follow-up work orders indicate that the curb stop was off upon arrival and it was left off position. When the Company returned on September 2, 2026, MAWC found the curb stop in the on position. Because the curb stop was not locked or otherwise secured, MAWC cannot determine who changed its position after March except that there is no

record supporting that MAWC changed the position of the curb stop during this period from March 2026 to September 2026. On October 16, 2026, MAWC again closed the curb stop and documented it in the off position. The available records do not identify a documented failure of the curb stop to operate mechanically. The usage chart above also supports this conclusion because it demonstrates both zero usage and intermittent usage.

WATER USAGE HISTORY AND BILLING

Q. What is AMI data, and why is it relevant here?

A. The AMI endpoint transmits recorded meter-consumption data at regular intervals. That interval data allows MAWC to identify when consumption occurred, when it stopped, and whether the pattern was continuous or intermittent. The AMI records for this premises are attached as Schedule PE-3-C.

Q. Mr. Norris contends that the property was winterized in December 2025. Does the AMI data show that no water was used after the reported winterization?

A. No. The AMI data show periods of consumption after the reported winterization. Consumption began again on or about December 16, 2025, after earlier intervals of no recorded use. The data also shows recurring usage beginning around November 21, 2025. Those patterns indicate that water was available and used at the premises after the reported winterization. If the property was winterized, and no one was living there or working there, I would expect the usage would remain at no recorded usage.

Q. Can the AMI data alone establish who used the water or why it was used?

A. No. AMI data establishes when and how much water passed through the meter; it does not identify the person who opened a valve or fixture or the purpose of the use.

Q. When did the large consumption event begin in January 2026?

A. The significant, sustained increase began on January 28, 2026, including average usage of more than 14,000 gallons per day through approximately noon on February 3, 2026.

Q. When did the large-volume consumption stop?

A. The sustained high-volume consumption stopped around noon on February 3, 2026. Small amounts of consumption were recorded after that time, but the large continuous flow had ended.

Q. When was MAWC first contacted about this consumption event?

A. On February 9, 2026, MAWC received an emergency request about the premises reporting interior flooding and asking that the Company close the curb stop. MAWC dispatched a field service representative, who found the curb stop on, operated it, and left it off.

Q. What is significant about the fact that the high-volume usage stopped before MAWC closed the curb stop?

A. It indicates that the water flow into the premises had already been stopped by another condition or point of control before MAWC operated the curb stop on February 9th. The AMI data does not identify whether an interior valve was closed, a downstream condition changed, or demand otherwise stopped, but the timing is inconsistent with the curb-stop closure on February 9 being the event that ended the high-volume usage on February 3.

Q. Did you identify any other significant usage patterns before the January 2026 event?

A. Yes. The AMI data shows another period of substantial, sustained consumption from approximately February 21, 2025 through March 14, 2025. The billing records also reflect approximately 85,000 gallons for the March 2025 billing cycle and 108,100 gallons for the following billing cycle. That earlier usage predates the February 2026 loss.

Q. Did MAWC receive a report during that February–March 2025 period that the stop-and-waste valve was not operating?

A. No. MAWC's records do not reflect a contemporaneous report during that event that the stop-and-waste valve had failed or could not control flow.

Q. Was MAWC contacted about the high usage during 2025?

A. Yes. In June 2025, MAWC investigated a high-bill concern. On June 27, 2025, the field service representative found the interior stop-and-waste valve off. The representative opened the valve, observed the meter begin registering usage, and immediately identified a running toilet. The representative showed the condition to the contractor and then closed the valve, after which usage stopped. No property damage was reported or observed during that visit.

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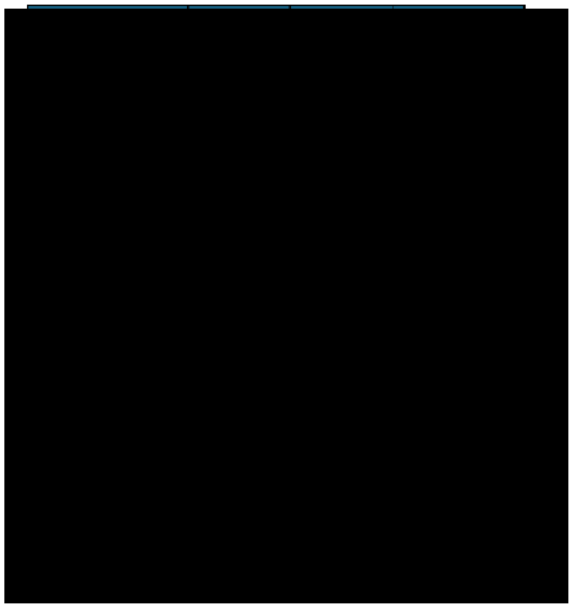

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Q. How did MAWC address the 2025 high bill?

A. MAWC later applied a leak adjustment for the March 4 through April 1, 2025 billing period. The high usage was ** [redacted], ** the comparison usage was ** [redacted] ** gallons, MAWC credited ** [redacted], ** and the resulting billing credit was ** [redacted].** The adjustment was provided under the Company's leak-adjustment guidelines and was not a determination that the meter or valve was defective.

Q. Did you review any other documentation in connection with the Complaint?

A. Yes. I reviewed several of the discovery responses Mr. Norris provided to the Company, including information and records concerning the condition and occupancy of the property. In addition, I assisted and responded to discovery requests Mr. Norris sent the Company.

Q. What did you learn from your review of those discovery responses?

A. Based on the property management records provided by Mr. Norris, the water usage from February 2025 through March 2025 was attributed to a pipe that burst during the winter. The records indicate that water from the burst pipe was coming through the tile in the kitchen and bathroom floors.

Q. Is the discovery response containing this information attached to your testimony?

A. Yes. The relevant discovery response is attached to my testimony as Schedule PE-4.

Q. Did the discovery responses provide any other information concerning the condition of the property?

A. Yes. The information provided indicated that the property did not pass occupancy inspections on several occasions, including inspections in 2025, January 2026, and April 2026.

Q. Why was this information relevant to your review of Mr. Norris's Complaint?

A. It provided additional context regarding the condition of the premises during the period at issue, including documentation identifying a burst pipe as the cause of water usage during February and March 2025.

Q. Did the information you reviewed indicate that the February and March 2025 usage was caused by an issue with the Company's meter or billing system?

A. No. The property management records provided in discovery attributed that usage to the burst pipe at the premises in 2025.

Q. Did the property management records contain any other information regarding potential water leaks or repairs at the premises?

A. Yes. The records included a November 2025 line item indicating that a bid was needed for water leak repairs at the premises.

Q. Why was that information relevant to your review of the Complaint?

A. It provided additional context regarding the condition of the property and indicated that water leak repairs were being considered in November 2025.

Q. You mentioned you also reviewed and responded to data requests from Mr. Norris. Did you review and provide responses to any of the operational-related questions in this matter?

A. Yes. I reviewed and provided information responsive to the operational-related questions, including requests concerning the water pressure measured at the property, which was reported to be approximately 120 psi. See PE-Schedule 5.

Q. Why was the water pressure information pertinent to your review?

A. The water pressure was pertinent because, under the Company's tariff, the customer is

responsible for managing the water pressure within the home. If the incoming pressure exceeds 80 psi, the customer is responsible for installing and maintaining a pressure-regulating valve ("PRV") to reduce the pressure entering the home. MAWC's tariff states,

> Unless otherwise specified by local codes or ordinance, when street main pressure exceeds eighty (80) p.s.i., Customer shall install, at their expense, an approved pressure reducing valve in the Customer Water + Service Line near its entrance to the building to reduce the water pressure to eighty (80) p.s.i. or lower, except where the Customer Water Service Line supplies water directly to a water pressure booster system, an elevated water gravity tank, or pumps provided in connection with a hydropneumatic or elevated gravity water supply tank system. *See* PSC MO No. 13, 1st Revised Sheet No. R 16-17.

Q. Why is a pressure-regulating valve important?

A. A pressure-regulating valve ("PRV") helps protect the customer's internal plumbing by reducing elevated water pressure to an appropriate level. If the incoming pressure exceeds 80 psi and a properly functioning PRV is not installed, the elevated pressure could adversely affect the home's internal plumbing and related infrastructure.

Q. **In your expert opinion, did MAWC violate a tariff, rule, statute or Commission order in its handling of circumstances surrounding Mr. Norris's Complaint?**

A. No.

Q. Does this conclude your Direct Testimony?

A. Yes.