

Exhibit No.:
Issue(s): *Water Loss and
Main Break
Reporting*
Witness: *Andrew Harris*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Direct / Rebuttal
Testimony*
Case No.: *WR-2024-0320*
Date Testimony Prepared: *December 6, 2024*

MISSOURI PUBLIC SERVICE COMMISSION

**INDUSTRIAL ANALYSIS DIVISION
WATER, SEWER, GAS, AND STEAM DEPARTMENT**

DIRECT / REBUTTAL TESTIMONY

OF

ANDREW HARRIS, P.E.

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2024-0320

*Jefferson City, Missouri
December 2024*

1 Q. What is the recent history of MAWC Main Breaks and Water Loss reporting to
2 the Commission?

3 A. In case WR-2020-0344 MAWC agreed to conduct an annual review regarding water
4 main breaks and water loss by district, and, for systems in those districts in which water loss is
5 greater than 20% in a service area, MAWC agreed to provide detail for items believed to be
6 major contributors to that water loss.

7 Q. Why is this effort a good idea?

8 A. Where major contributors to water loss can be identified, options such as replacing
9 aging equipment or optimizing existing processes are possibilities that can result in water
10 loss reduction.

11 Q. What are the service areas that were identified with greater than 20% water loss that
12 would receive review with an annual report filed?

13 A. There were five service areas identified: Joplin, St. Louis County, Mexico,
14 Jefferson City and St. Joseph. For three of those service areas (Joplin, St. Louis County, and
15 Mexico), reports were filed in each of the last three years.

16 Q. Can you discuss any examples of major contributors to water loss that were
17 identified and discussed in the filed reports for these three service areas?

18 A. At Joplin and St. Louis County, among other major contributors that include main
19 breaks, system delivery flow meters at the water treatment plants were no longer providing
20 accurate data, potentially resulting in water loss being over reported. These meters have been
21 replaced and data is being gathered to determine whether the reported water loss was accurate.
22 Additionally, MAWC was in the process of upgrading meters in Joplin and Mexico to advanced

1 metering infrastructure (“AMI”) at the time those reports were filed. It is anticipated that the
2 expansion of the AMI rollouts will contribute to lower percentages of reported water loss.

3 Q. What are the two service areas that MAWC has yet to study?

4 A. Jefferson City and St. Joseph are the two service areas that remain to be studied,
5 with a report to be filed.

6 Q. What is your recommendation to the Commission regarding continuing this effort
7 and reporting for the Jefferson City and St. Joseph service areas?

8 A. I recommend the Commission order Missouri American to continue the study and
9 reporting effort for the Jefferson City and St. Joseph service areas, with a report due for each,
10 in either order, with a report filed for one in 2025 and the other in 2026.

11 Q. Does this conclude your direct / rebuttal testimony?

12 A. Yes it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's)
Request for Authority to Implement a General Rate) Case No. WR-2024-0320
Increase for Water and Sewer Service Provided in)
Missouri Service Areas)

AFFIDAVIT OF ANDREW HARRIS, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

COMES NOW ANDREW HARRIS, PE and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing *Direct / Rebuttal Testimony of Andrew Harris, PE*; and that the same is true and correct according to his best knowledge and belief.

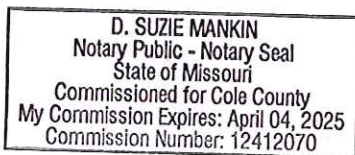
Further the Affiant sayeth not.



ANDREW HARRIS, PE

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 25th day of November 2024.



Notary Public

ANDREW HARRIS

CREDENTIALS AND CASE PARTICIPATION

I am employed by the Missouri Public Service Commission as a Senior Professional Engineer, in the Water, Sewer & Steam Department. My duties include the review, inspection, and investigation of water and sewer systems and the development and preparation of recommendations and testimony regarding those systems. Specifically included are technical issues associated with water and sewer utility rate and acquisition 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, and informally assist water and sewer utility companies with respect to day-to-day operations, planning, and customer service issues.

Educational Background and Work Experience

I graduated from University of Missouri – Rolla in 1997 with a Bachelor of Science degree in Chemical Engineering. I am a Registered Professional Engineer in the State of Missouri and have been continuously licensed in Missouri since 2003. Previous employment includes experience in water and sewer operations and engineering with municipal, industrial, and consulting organizations. I hold certificates of competency at the highest level available from Missouri Department of Natural Resources for water and wastewater treatment as well as distribution system operations.

Case Participation

| <u>Company</u> | <u>Case No.</u> |
|--|-----------------------------|
| Missouri American Water Company (MAWC) | SA-2019-0334 |
| Timber Creek | SA-2020-0013 |
| Liberty Utilities | SA-2020-0067 |
| MAWC | SA-2020-0132 |
| Elm Hills | SA-2020-0152 |
| Liberty Utilities | SA-2020-0216 |
| Liberty Utilities | SA-2020-0398 |
| MAWC | SA-2021-0017 |
| MAWC | SA-2021-0074 |
| Mid-Mo Sanitation | SA-2022-0029 |
| MAWC | SA-2022-0294 |
| Confluence | SA-2023-0187 |
| Elm Hills | SM-2020-0146 |
| TUK, LLC | SM-2022-0131 |
| MAWC | SR-2020-0345 |
| Mid-Mo Sanitation | SR-2021-0372 |
| MAWC | WA-2019-0259 |
| MAWC | WA-2021-0376 |
| Liberty Utilities | WA-2020-0397 |
| MAWC | WA-2022-0293 |
| MAWC | WA-2022-0361 |
| I-70 Mobile City | WC-2022-0295 |
| Liberty Utilities | WM-2022-0156 |
| Middlefork | WM-2021-0003 |
| Liberty Utilities / MAWC | WO-2022-0253 / WO-2024-0195 |
| Raytown Water Company | WR-2020-0264 |
| Elm Hills | WR-2020-0275 |
| MAWC | WR-2020-0344 |
| MAWC / Confluence | WR-2022-0303 / WR-2023-0006 |
| Liberty | WR-2024-0104 |
| MAWC | WT-2020-0353 |