

Exhibit No.:
Issues: Expense/Maintenance
Witness: Jonathan Dallas
Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: WU-2017-0296
Date Testimony Prepared: August 23, 2017

MISSOURI PUBLIC SERVICE COMMISSION

**COMMISSION STAFF DIVISION
WATER & SEWER DEPARTMENT**

REBUTTAL TESTIMONY

OF

JONATHAN DALLAS

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WU-2017-0296

*Jefferson City, Missouri
August 2017*

REBUTTAL TESTIMONY
OF
JONATHAN DALLAS
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WU-2017-0296

Q. Please state your name and business address.

A. Jonathan Dallas, P.O. Box 360, Jefferson City, MO 65102.

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

A. I work for the Missouri Public Service Commission (Commission) as a Utility Operations Technical Specialist in the Water & Sewer Department (W/S Dept.) in the Utility Operations Division

Q. Please briefly describe your job responsibilities.

A. One of my primary responsibilities is the inspection of large and small privately owned water and sewer facilities around the state. I prepare a detailed report and memorandum. If the inspection is due to a small company rate request, the memorandum is filed with the Commission as a part of a Disposition Agreement. As part of my inspections, I am also responsible for determining if company projects are prudent and necessary. I am also responsible for responding to customer complaints and working with the customers and companies to resolve issues.

Q. What is your educational background?

A. I have a Bachelor of Science Degree: Major Construction Management from the University of Central Missouri.

1 Q. What is your previous work experience?

2 A. Before coming to work at the Commission, I worked for the City of Columbia,
3 specifically the Columbia Water & Light Department (Water & Light) where I was employed
4 as an Engineering Aide II. My primary job was a water main inspector. As a water main
5 inspector, I was responsible for making sure contractor crews who were constructing new
6 water mains did so in a manner which met the city's codes and specifications. Prior to
7 working for Water & Light, I worked for Twehous Excavating Company (Twehous) in Taos,
8 Missouri as a labor/operator. At Twehous, I primarily worked on a utility crew which was
9 responsible for replacing old water mains in Jefferson City.

10 Q. Do you have a summary of your education and work experience?

11 A. Yes, please refer to Schedule JD-r1 attached to this testimony for a summary
12 of my education and work experience backgrounds.

13 Q. Have you previously testified before this Commission?

14 A. Yes, I have testified in Case No. WO-2017-0236.

15 Q. What is the purpose of your rebuttal testimony?

16 A. To respond to the testimony of the Office of the Public Counsel (OPC) witness
17 Geoff Marke.

18 Q. Will anyone else from Staff be filing testimony?

19 A. Yes, James Merciel will file testimony addressing MAWC's proposal and
20 OPC's pilot program and Amanda McMellen will address the accounting issues.

21 Q. What is a water service line?

22 A. A water service line is a pipeline through which water flows into a customer's
23 premise whether the premise is a house, a commercial building, or a series of connected

1 living units. The water service line connects a utility-owned water main that is part of a
2 water distribution pipeline system throughout the water utility's service area to a customer's
3 premise. For most customers, the water main is near or under a street.

4 Q. Who owns and controls water service lines?

5 A. In most cases, the water utility owns the portion of the water service line
6 between the water main and a point at or near the property line. At this location, there is
7 often an utility-owned water meter. The remaining portion of the water service line is owned
8 by the customer. However, specific to MAWC's customers in St. Louis County, customers
9 own the entire water service line between the water main and the premise. There are, of
10 course, variations on water main location and meter location. Service lines and water mains
11 are defined in MAWC's tariff, and the tariff includes rules detailing customer and MAWC
12 responsibilities for ownership and maintenance of service lines and portions of service lines.

13 Q. Are water service lines made of any specific material??

14 A. No. The most common material used today is copper. However poly vinyl
15 chloride (PVC) is also rather common, as are a couple of other types of plastic. In past years,
16 galvanized iron was used extensively, as was lead.

17 Q. Do you have any prior experience with Lead Service Lines (LSL)?

18 A. Yes, in my previous job with Twehous, I worked on a utility crew where we
19 frequently performed water main replacements in Jefferson City for Missouri American Water
20 Company ("MAWC" or "Company"). As part of the main replacements, we were responsible
21 for connecting the existing service lines to the new main. Usually the service lines were
22 copper but occasionally we would encounter a LSL.

1 Q. What did you do when you discovered a LSL?

2 A. When a LSL was discovered, during a main replacement project MAWC
3 would insure the LSL was replaced with copper from the meter to the new water main.

4 Q. Why did you only replace the LSL from the main to the meter?

5 A. In the Jefferson City service area, MAWC only owns the service line from the
6 main to the meter or property line. Further, addressing the issue of the potential for lead in
7 drinking water was not as prominent as it is today.

8 Q. Why were LSLs not as big of a concern then?

9 A. Before the Flint Michigan incident, LSLs were not as much of a concern
10 because properly treated noncorrosive water will not leach lead out of customer service lines
11 or other fixtures in the water system. After Flint, Michigan, there was a spotlight on the
12 danger of failures in chemically treating water, which in turn increased conversations
13 nationwide about removing lead pipes to proactively remove risks. This is addressed in the
14 EPA's "Lead and Copper Rule Revisions White Paper" dated October 2016 the first
15 key principle for LCR revisions cited is "Focus on Minimizing Exposure to Lead in
16 Drinking Water."¹

17 Q. Has the Company's policy on LSLs changed?

18 A. Yes, the Company is currently replacing all LSLs it encounters, whether the
19 LSL's are on main replacement projects, main breaks, or service line repairs. The Company is
20 now replacing the full length of the lead service line, both Company and customer portions.

21 Q. Do you agree with this practice?

22 A. Yes, I do.

¹ The EPA White Paper is included with the rebuttal testimony of Staff witness James A. Merciel, Jr.

1 Q. In your opinion, is this a good practice?

2 A. Yes. Based on recent articles and studies from organizations such as the
3 Environmental Protection Agency (EPA), it is suggested that only replacing a portion of a
4 LSL can increase the chance of lead leaching into the water because cutting a LSL can
5 dislodge the scale inside the service line allowing the water to come directly into contact
6 with lead.

7 Q. Are there any specific articles which point this out?

8 A. Yes, in the EPA's "Lead and Copper Rule Revisions White Paper" dated
9 October 2016 the first key principle for LCR revisions cited is "Focus on Minimizing
10 Exposure to Lead in Drinking Water: Improve public health protection by reducing exposure
11 to lead in drinking water to the maximum amount possible through proactive measures to
12 remove sources of lead and educating consumers about the health effects of lead and actions
13 to reduce exposure." EPA goes on to state, in summary, that partial lead service line
14 replacement is not the best way to achieve this goal, as partial lead service line replacement
15 often results in elevated lead readings due to the leaching mechanism, discussed above.

16 Q. What other experience have you had with MAWC and LSLs?

17 A. On August 4, 2017, Mr. Merciel and I visited a MAWC main replacement
18 project in St. Louis County, specifically on Summit Avenue and Eunice Avenue in Webster
19 Groves.

20 Q. Please describe what you witnessed there.

21 A. First, we observed yard and street patches where several LSLs had been
22 replaced. Second, we witnessed a MAWC-hired plumbing contractor installing a new one-
23 inch copper service into place to replace an old LSL.

1 Q. What else did you see?

2 A. Next, we observed a LSL still connected to the old four-inch cast iron water
3 main, which MAWC was replacing with a new eight-inch PVC main. We also saw where
4 MAWC had dug up a service line in a customer's yard to verify it was a LSL. Attached as
5 Schedules JD-r2, JD-r3, and JD-r4 are three pictures depicting this.

6 Q. Can you explain MAWC's process for replacing water mains?

7 A. Yes. Each year, MAWC reviews its records, which show a history of main
8 breaks on a given main, the age of a water main, the frequency of main breaks, any upcoming
9 road improvements such as resurfacing or sidewalk replacement, and the economic impact of
10 replacing a main versus repair. MAWC also looks at where there might be a high probability
11 of LSLs located by looking at "tap cards", which have been integrated into their GIS
12 mapping system.

13 Q. What is a tap card?

14 A. A tap card is piece of paper a utility worker fills out when they connect a
15 customer's service line to a water main. The tap card typically contains a variety of
16 information such as size of the service line, size of the main the service is connected to, type
17 of material the main is constructed of, type of material the service is constructed of, and
18 various other facts like location, approximate depth, the date installed and so on.

19 Q. What is a GIS map?

20 A. GIS stands for Geographic Information System. GIS allows MAWC to view
21 its entire infrastructure with the click of a mouse. The data available to MAWC includes
22 main size, type of main, approximate location, main breaks, location of fittings such as valves,

1 fire hydrants and, elbows. It also allows MAWC to view tap cards, which may or may not
2 have information on the material used to construct the water service.

3 Q. How is MAWC verifying if LSLs are present on a main replacement project?

4 A. During Staff's visit to MAWC's office, MAWC explained before a project
5 begins, it reviews its records and GIS map to identify possible LSLs. During the project
6 MAWC inspects customer service lines at three locations to verify there is no lead present.

7 Q. What is one of the locations MAWC is inspecting to check for a LSL?

8 A. At the site visit, MAWC stated it digs the service line up at the meter pit or
9 curb stop in the customer's yard to verify what material the service line is constructed of.
10 This would be approximately near the middle of the service line. Staff observed one such
11 hole MAWC had excavated. A picture is attached as Schedule JD-r3.

12 Q. What method is MAWC using to expose the service line?

13 A. On the site visit, MAWC stated to Staff that they are using a soft dig method to
14 expose the water service line.

15 Q. Please explain what you mean by "soft dig"?

16 A. Soft dig is an excavation method that utilizes high-pressure water to soften up
17 dirt, which is then vacuumed up by a large vacuum. This method exposes the service line
18 without the potential of breaking them or other buried utilities.

19 Q. What other locations of the service line is MAWC looking at to identify
20 whether or not there is lead present?

21 A. The Company is also meeting with customers to gain entry to their basements
22 to verify what type of water service line is entering their home.

1 Q. What is the last location on the service line the Company is examining?

2 A. When the Company prepares to tie the water service over from the old water
3 main to the new water main, the Company will expose the service line at the old main if it
4 was not previously exposed as the Company installs the new water main.

5 Q. When do you believe it makes the most sense to replace LSLs?

6 A. In my opinion the best time to replace a LSL is during a main replacement
7 project.

8 Q. Why do you believe that is the best time?

9 A. To me it makes the most sense because MAWC will already have both the new
10 water main dug up and the service line so it can be connected to the new main. MAWC is
11 essentially doing half the work during a main replacement. Also as stated above it is believed
12 that if a LSL is disturbed at all, it is the best practice to undertake a full LSL replacement.

13 Q. Does this conclude your testimony?

14 A. Yes, it does.

Jonathan Dallas

EMPLOYMENT:

7/15-Present State of Missouri, Public Service Commission

Utility Operations- Technical Specialist, Water and Sewer Department

- Inspected large and small water and sewer facilities around the state.
- Prepared detailed reports and memorandums to be filed with the Commission.
- Responded to customer complaints and worked with the customer and company to resolve them.
- Determined if company expenditures were prudent.

8/13-07/15 City of Columbia, Water & Light

Associate Engineering Technician

- Inspected construction of new water mains; public and private.
- Completed accurate as-builts and final inspection reports.
- Performed chlorination, dechlorination, bacteria tests, and pressure tests.
- Used AutoCAD to draw as-builts of completed jobs.
- Used Excel for a chlorination spread sheet.

06/04-08/13 Twehous Excavating Co.

Laborer, Operator

- Installed water main, sewer main, and storm drain.
- Installed sewage treatment facilities.
- Repaired water main breaks.

EDUCATION/TRAINING:

8/04-12/08 **University of Central Missouri**

Bachelor of Science Degree, Major: Construction Management

4/2016 **Missouri Department of Natural Resources**

Water Distribution Level I (DSI)

Previously Filed Testimony:

Case No.	Company	Type of Filing	Issue
WO-2017-0236	Ridge Creek Water Company, LLC	Oral	Safe and Adequate Service



An example of a LSL replacement where the water main is on the opposite side of the street from the customer's home. This photograph is in the St. Louis County service area where the customer owns the entire service line.



This picture shows a customer's service line that MAWC has exposed during a water main replacement. MAWC exposed the customer's service line to verify if it is lead. On the left is a short piece of copper which is then connected to a lead service line.



Pictured here is a lead service line connected to an old four-inch cast iron water main, appearing near the top of the picture. The old main is being replaced with a new eight-inch PVC water main, appearing at the bottom of the picture, and the lead pipe portion of the service line will be replaced with new copper pipe.