

KENTUCKY-AMERICAN WATER COMPANY
CASE NO. 2022-00328
COMMISSION STAFF'S SECOND REQUEST FOR INFORMATION

Witness: Krista E. Citron

1. Refer to Kentucky-American's response to Commission Staff's First Request for Information (Staff's First Request), Item 1, Excel Workbook: KAW_R_PSCDR1_NUM001_110722_Attachment_A.xlsx. Using the same table format, provide the removals and retirement amounts that Kentucky-American did not identify in its original response.

Response:

Refer to KAW_R_PSCDR2_NUM001_120522_Attachment A, Worksheet "NUM001". This attachment shows the system mileages/percentages from the original 2018 table and the October 2022 update. This attachment also includes the additions and retirements/removals for each QIP year to date, and the additions for non-QIP scheduled main replacements during the QIP time period as outlined on the attachment.

At the time of each QIP application filing, KAW provides a list of proposed projects that includes the estimated linear feet of mains that will be replaced, in addition to their diameter, material type, and age (if known). This detailed information can be found in Case No. 2020-00027, Direct Testimony of Kurt Stafford, Pages 8-9 (QIP Year 1); Case No. 2021-00090, Direct Testimony of Kurt Stafford, Pages 9-11, and KAW_R_PSCDR1_NUM009_041621 (QIP Year 2); and Case No. 2022-00032, Direct Testimony of Krista Citron and Shelley Porter, Page 8, and Project List Exhibit (QIP Year 3). A summary of total QIP replacements by year is below and shows the focus on replacing cast iron mains.

- QIP Year 1: Replaced 5.9 miles of primarily cast iron mains with 5.9 miles of ductile iron mains. All seven QIP year 1 projects addressed streets with cast iron mains.
- QIP Year 2: Replaced 15.8 miles of primarily cast iron mains with 14.4 miles of primarily ductile iron mains. All twenty-four QIP year 2 projects addressed streets with cast iron mains.
- QIP Year 3 (proposed): Replacing 14.0 miles of primarily cast iron and galvanized mains with 12.1 miles of ductile iron mains. All fifty-eight QIP year 3 projects will address streets with cast iron mains, and one project also addresses a section of galvanized steel.

In QIP years 2 and 3, KAW had project areas with two parallel cast iron mains on a single street, which is why the cast iron "mileage replaced" is greater than the ductile iron "mileage installed".

KAW's Geographical Information System (GIS) is the mapping software that maintains KAW's infrastructure maps including KAW's pipes. It is a dynamic system that is updated constantly as new information or map edits become available. When a new main is installed or an old main is retired, the database is updated accordingly. When KAW acquires a new system, the information

associated with that system is added to the GIS database. When contractors or KAW operations crews note changes in the distribution system—such as an incorrect pipe material type—those changes are updated in the GIS database. Because of the living nature of this database, extracting historical “snapshot”-style information about the system on a particular past date or during a particular past time period is difficult and not necessarily the most accurate. Therefore, the requested information for each QIP time period is provided to the best of KAW’s ability.

The 14.0 miles of non-QIP additions during the QIP time periods of July 1, 2020 through June 30, 2021 (QIP year 1) and July 1, 2021 through June 30, 2022 (QIP year 2) include project types such as: water main relocations in conjunction with LFUCG or KYTC projects; new main extensions or new development projects; larger IP-level projects such as the Clark County main extension/replacement project which was placed in-service in November 2020; and routine main replacements of non-cast iron material types. In order to compare replacement projects only, columns have been added to the table for Non-QIP Additions (scheduled Replacements Only) and Non-QIP Removals/Retirements (scheduled Replacements Only).

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2. Refer to Kentucky-American's response to Commission Staff's First Request, Item 2. The information provided is unresponsive. Provide the information comparatively with the original 2018 table, after QIP Year 1, after QIP Year 2, and an updated total including Non-QIP amounts.

Response:

Please see the response to Question 1 and please also refer to KAW_R_PSCDR1_NUM001_120522_Attachment A, Worksheet "NUM002" for the comparative tables. For Non-QIP removals/retirements, the vintages of the mains removed/retired are unknown.

KAW's Geographical Information System (GIS) is the mapping software that maintains KAW's infrastructure maps including KAW's pipes. It is a dynamic system that is updated constantly as new information or map edits become available. When a new main is installed or an old main is retired, the database is updated accordingly. When KAW acquires a utility, the information associated with that utility's water distribution system is added to the GIS database. However, water mains are frequently identified with a material type of "unknown" due to the inadequate distribution system mapping of the utility being acquired. When contractors or KAW operations crews note changes in the distribution system—such as an incorrect pipe material type—those changes are updated in the GIS database. Because of the living nature of this database, extracting historical "snapshot"-style information about the system on a particular past date or during a particular past time period is difficult and not necessarily the most accurate.

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3. Refer to Kentucky-American's response to Staff's First Request, Item 2.
 - a. Provide the information produced in the original table for the North Middletown service territory.
 - b. Provide the information produced in the original table for the Eastern Rockcastle service territory.
 - c. In Case No. 2018-00358, Kentucky-American stated that it would prioritize the replacement of cast iron and galvanized steel mains, which represented 15 percent of its distribution system but accounted for 64.2 percent of the annual main breaks.² Provide a detailed explanation as to why cast iron and galvanized steel mains only accounted for 15.86³ percent of the miles of mains replaced through October 2022 while ductile iron mains accounted for 41.73 percent⁴ of the mains replaced.
 - d. Provide a detailed explanation as to why galvanized steel mains only accounted for 0.14 percent⁵ of the mains replaced through October 2022.

Response:

- a. Refer to KAW_R_PSCDR2_NUM001_120522_Attachment A, Worksheet "NUM003", Table 3A.
- b. Refer to KAW_R_PSCDR2_NUM001_120522_Attachment A, Worksheet "NUM003", Table 3B.
- c. KAW would like to clarify that the percentages described in the PSC's question and accompanying footnotes show the total percentage of KAW's existing distribution system that is comprised of cast iron, galvanized, and ductile iron, **not** the percentage of those materials **replaced**.

² Case No. 2018-00358, *Electronic Application of Kentucky-American Water Company for an Adjustment of Rates* (filed June 27, 2019), Direct Testimony of Elaine K. Chambers at 6:11-14 and Exhibit 1.

³ 360.9 (Cast Iron Mains) + 326.9 (Asbestos Cement Mains) + 564.8 (PVC/Plastic Mains) + 958.3 (Ductile Iron Mains) + 3.3 (Galvanized Steel Mains) + 17.1 (Concrete/Cement Mains) + 65.3 (Other Mains) = $2,296.6$ (Total Mains Replaced); 360.9 (Cast Iron Mains) + 3.3 (Galvanized Steel Mains) = 364.2 (Cast Iron and Galvanized Steel Mains) ÷ $2,296.6$ (Total Mains Replaced) = 15.86%.

⁴ 958.3 (Ductile Iron Mains) ÷ $2,296.6$ (Total Mains Replaced) = 41.73%.

⁵ 3.3 (Galvanized Steel Mains) ÷ $2,296.6$ (Total Mains Replaced) = 0.14%.

During the QIP years 1 and 2 time periods of July 1, 2020 through June 30, 2022, approximately 21.2 miles of mains have been replaced through KAW's QIP and non-QIP capital programs. The miles of each material type replaced during this same period were outlined in the responses to PSCDR2_NUM001_120522 and PSCDR2_NUM002_120522, and indicates that during QIP years 1 and 2, 20.7 miles of cast iron have been replaced, accounting for 97.5% of the total main replacements during that time period. Ductile iron main replacements account for 0.04 miles or 0.2% of the total mains replaced.

- d. See response to c. above. During QIP years 1 and 2, galvanized steel main replacements account for 0.3 miles or 1.5% of the total mains replaced. So far, the focus has been on replacing cast iron mains since they account for a relatively larger percentage of the system compared to ductile iron. Only 3.3 miles of known galvanized steel exist in KAW's distribution system, accounting for a very small percentage of existing mains, and a 0.4-mile section of galvanized main is scheduled for replacement as part of QIP year 3.