- 1. Refer to the Direct Testimony of Krista Citron and Shelley Porter (Stafford/Citron Direct Testimony), Exhibit 1, Project List, and Case No. 2018-00358, the Direct Testimony of Brent O'Neill (O'Neill Direct Testimony) Exhibit 2.² For each project listed in QIP Year 2 in this proceeding, identify which of the projects is represented by the QIP Year 3 projects listed in O'Neill Direct Testimony, Exhibit 2.
 - a. Explain whether the proposed QIP Year 3 project is less than, the same, or greater than the scope proposed in O'Neill Direct Testimony, Exhibit 2.
 - b. If the project is not identified in O'Neill Direct Testimony, Exhibit 2, for QIP Year 3 explain why the project is proposed in this proceeding instead of the projects in O'Neill Direct Testimony, Exhibit 2.

Response:

Please refer to the Citron/Porter Direct Testimony, Exhibit 1, Project List, column titled "O'Neill Exhibit 2." If a QIP Year 3 project proposed in this proceeding was identified in the O'Neill Exhibit 2, that corresponding project year/number is listed in that Exhibit 1 to the Citron/Porter testimony. For example, Exhibit 1 Project 13 is Stephen Foster Drive, Versie Court, and Jannelle Court. The O'Neill Exhibit 2, Year 4, Project 21 is Versie Court and Jannelle Court. For that example, see the table below for the statement that the QIP Year 3 project is greater than the O'Neill Exhibit 2 project because it includes Stephen Foster Drive along with Versie Court and Jannelle Court.

Exhibit 2 Year 4 Project #21	QIP Year 3 Exhibit 1 Project List #13	Greater than Exhibit 2	Exhibit 2 project includes 2 streets, QIP Year 3 project contains these 2 streets plus the connected road

² Case No. 2018-00358, *Electronic Application of Kentucky-American Water Company for an Adjustment of Rates* (filed Nov. 28, 2018), Direct Testimony of Brent O'Neill, Exhibit 2.

a. See below.

O'NEILL EXHIBIT 2 PROJECT YEAR AND NUMBER	QIP YEAR 3 EXHIBIT 1 PROJECT LIST	LESS THAN, SAME, OR GREATER THAN	COMMENTS
Exhibit 2 Year 4 Project #10	QIP Year 3 Exhibit 1 Project List #3	Partially the same	Exhibit 2 project includes 4 streets, QIP Year 3 project contains 2 of these streets
Exhibit 2 Year 4 Project #31	QIP Year 3 Exhibit 1 Project List #12	Same as Exhibit 2	
Exhibit 2 Year 4 Project #21	QIP Year 3 Exhibit 1 Project List #13	Greater than Exhibit 2	Exhibit 2 project includes 2 streets, QIP Year 3 project contains these 2 streets plus the connected road
Exhibit 2 Year 4 Project #32	QIP Year 3 Exhibit 1 Project List #15-19	Same as Exhibit 2	These 5 projects match up with Exhibit 2 Year 4 Project #32
Exhibit 2 Year 1 Project #13	QIP Year 3 Exhibit 1 Project List #3	Same as Exhibit 2	
Exhibit 2 Year 2 Project #7	QIP Year 3 Exhibit 1 Project List #27	Same as Exhibit 2	
Exhibit 2 Year 5 Project #23	QIP Year 3 Exhibit 1 Project List #28	Same as Exhibit 2	
Exhibit 2 Year 5 Project #8	QIP Year 3 Exhibit 1 Project List #29	Same as Exhibit 2	
Exhibit 2 Year 3 Project #5	QIP Year 3 Exhibit 1 Project List #36	Less than Exhibit 2	Exhibit 2 project includes 4 streets, QIP Year 3 project is one of these streets
Exhibit 2 Year 4 Project #8	QIP Year 3 Exhibit 1 Project List #37-40	Less than Exhibit 2	Exhibit 2 project includes 6 streets, QIP Year 3 project includes 5 of these streets
Exhibit 2 Year 4 Project #34	QIP Year 3 Exhibit 1 Project List #41	Less than Exhibit 2	Exhibit 2 project includes 4 streets, QIP Year 3 project includes 3 of these streets
Exhibit 2 Year 4 Project #18	QIP Year 3 Exhibit 1 Project List #42	Same as Exhibit 2	

O'NEILL EXHIBIT 2 PROJECT YEAR AND NUMBER	QIP YEAR 3 EXHIBIT 1 PROJECT LIST	LESS THAN, SAME, OR GREATER THAN	COMMENTS
Exhibit 2 Year 4 Project #15	QIP Year 3 Exhibit 1 Project List #43	Same as Exhibit 2	
Exhibit 2 Year 2 Project #8	QIP Year 3 Exhibit 1 Project List #44	Less than Exhibit 2	Exhibit 2 project includes 3 streets, QIP Year 3 project includes 1 of these streets
Exhibit 2 Year 5 Project #6	QIP Year 3 Exhibit 1 Project List #47, 49	Less than Exhibit 2	Exhibit 2 project includes 4 streets, QIP Year 3 project includes 3 of these streets

b. For QIP Year 3 projects proposed in this proceeding, the pipeline prioritization model was updated with new information (such as changes in number of breaks) and the list was reprioritized based on the resulting scores. The main replacement criteria used for the prioritization model are identified in Exhibit 3 to the Citron/Porter testimony and the updated prioritization model itself is at Exhibit 4 to the Citron/Porter testimony. This prudent updating means that some projects may have risen in the list. Additionally, as discussed in the Citron/Porter Direct Testimony at 7, pavement ratings were included in the assessment for the QIP Year 3 list. Pavement condition was not a factor in the O'Neill Exhibit 2 listing.

It is important to understand that O'Neill Exhibit 2 was prepared for KAW's 2018 rate case QIP proposal and that it was a snapshot of a point in time close to four years ago of KAW's main replacement rankings. It was never intended to be a static list of rankings. Prudent planning requires KAW to continuously reassess and reprioritize, if necessary, the rankings of mains to be replaced. For example, one of the main replacement criteria is the number of breaks on a main (see Exhibit 3 to the Citron/Porter testimony). If that number increases, that line would and should move up in the rankings. Additionally, as mentioned above, repavement obligations have become a more important issue than originally thought, so prudence requires KAW to factor that issue into which projects are proposed for QIP Year 3.

- 2. Refer to Stafford/Citron Direct Testimony at 7 and Exhibit 1. Kentucky-American explains that by using a Geographical Information Systems (GIS), the project prioritization model ranking and the pavement condition rating were overlaid on a map of Kentucky-American's infrastructure, and projects were selected from among the streets that both ranked higher on the prioritization model and were rated as having poor pavement conditions.
 - a. Identify the projects on Exhibit 1 that were chosen as QIP Year 3 projects because of its pavement condition rating.
 - b. Identify the projects that were eliminated as QIP Year 3 projects due to the inclusion pavement condition rating.
 - c. Include a schedule containing the same information for each project identified in Kentucky-American's response to Item 2.b as contained in Exhibit 1.

Response:

a. Projects 1 through 9 were selected using the pipeline prioritization model score. Project 10 is located in Owenton and it was selected based on its characteristics of small diameter and galvanized metal pipe. Projects 11 through 58 were selected for QIP Year 3 projects using the joint method of the pipeline prioritization model score and the LFUCG pavement rating.

b. Projects were not necessarily eliminated on the basis of the pavement condition rating; the rating was used as another factor in conjunction with the prioritization model ranking to determine the "most eligible" projects. Projects that were considered for QIP Year 3 but ultimately not chosen because of relatively new pavement included Hart Road, Dudley Road, Preston Avenue, and Lincoln Avenue. These streets were all paved within the last few years and, as such, were not eligible candidates for street cut work. LFUCG Ordinance 17C-19¹ addresses street cuts. Specifically, LFUCG Ordinance 17C-19(e)(5) states that no cuts may be made to newly paved surfaces within the first 12 months after paving, with the exception of emergency repair work. Additionally, since the LFUCG ordinance and restoration practices are condition-based, disturbing any roadway surface that has been paved within the last several years for a water main replacement will generally mean that full curb-to-curb restoration is required. KAW's goal in using the pavement condition as a rating criterion was to avoid surfaces that have been paved within the past several years and thereby reduce the scope and cost of pavement restoration required.

¹ <u>https://library.municode.com/ky/lexington-</u>

fayette_county/codes/code_of_ordinances?nodeId=COOR_CH17CPURI-W_S17C-19INREREFA

c. The schedule for the four projects mentioned above is shown in KAW_R_PSCDR1_NUM002_040822_Attachment A.

			PROJECT	DRIORITIZATION	LFUCG PAVEMENT			< 4" Main			6" Main		# BREAKS
#	NAME	LOCATION		MODEL RANKING		O'NEILL EXHIBIT 2	Est. Linear	Est. Age of	Material	Est. Linear	Est. Age of Main	Material	(PAST 10
					DAIL		Feet Retired	Main Retired	Туре	Feet Retired	Retired	Туре	YEARS)
1	Hart Rd	FAYETTE	883	270	2014					883	1927, 1935	CI	0
2	Dudley Rd	FAYETTE	1448	270	2020					1448	1927	CI	1
3	Preston Ave	FAYETTE	2874	295	2019	Year 1 Project 17	1221	1936	CI	1653	1936	CI	4
4	Lincoln Ave	FAYETTE	3371	325	2014	Year 1 Project 16	1964	1936	CI	1407	1936	CI	10

3. For each QIP project that is the subject of this proceeding, state how much of each size and material of pipe will be retired, and the age for all pipe to be replaced.

Response:

Please refer to Citron/Porter Direct Testimony, Exhibit 1 Project List, columns titled "<4" main, 4" main, 6" main, 8" main." The size, material, age, and estimated linear footage of pipe for each project can be found there. For example:

			< 4" Main		4" Main			
#	NAME	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	Est. Linear Feet Retired	Est. Age of Main Retired	Material Type	
24	Southern Ave				650	1935	CI	
25	Camden Ave	550	1935	CI				

The Southern Avenue project will retire 650 feet of 4" diameter, 1935 installation cast iron main. The Camden Avenue project will retire 550 feet of <4" diameter, 1935 installation cast iron main. Some projects may include more than one size or type of main which is shown in these columns in the Exhibit 1 Project List.

4. Refer to Strafford/Citron Direct Testimony at 9. Kentucky-American estimates that the cost per foot for its proposed QIP Year 3 projects is \$265 per linear foot. For QIP Year 1 and QIP Year 2 provide comparison for each year the estimated linear cost per foot for the main replacements to the actual cost per linear foot.

Response:

The estimated and actual costs per linear foot for QIP Year 1, and the estimated cost per linear foot for QIP Year 2, are shown in the table below. The final actual cost per linear foot for QIP Year 2 can not yet be determined as all projects are not complete at this time. Based on known design fees, material costs, and contractor bids for QIP Year 2 projects, however, the cost per linear foot for QIP Year 2 projects is tracking at approximately \$265 as of the end of February 2022. This figure is subject to change as more projects are placed in service and completed over the next three months. Additionally, some amount of post-in-service spend is expected similar to the QIP Year 1 projects.

	Estimated Cost per Linear Foot	Actual Cost per Linear Foot
QIP Year 1	\$230	\$265
QIP Year 2	$$250^{1}$	\$265 ²

¹See p. 15 of the Commission's June 21, 2021 Order in Case No. 2021-00090.

² Estimated based on known design fees, material costs, and contractor bids for QIP Year 2 projects to date.

- 5. Refer to Stafford/Citron Direct Testimony at 9-10. Kentucky-American explains that it expanded the list of bidders for QIP projects and that bid packages for QIP Year 3 projects was sent to an expanded group of 7-8 contractors compared to 3-4 as in QIP Years 1 and 2.
 - a. Provide the impact the expanded contractor group had on Kentucky-American's forecasted cost of QIP Year 3 projects.
 - b. Include documentation to support Kentucky-American's response to Item 5.a.

Response:

To clarify, that portion of the Citron/Porter Direct Testimony indicated that the list of bidders for *QIP Year 2* jobs had been expanded beyond the list of the QIP Year 1 jobs in accordance with the Commission's June 21, 2021 Order in Case No. 2021-00090 (see pp. 17-18) and the statements the Commission made at the June 2, 2021 hearing in that case.¹ This expanded list of contractors will also be utilized for the QIP Year 3 jobs, although those have not yet been bid.

a. QIP Year 3 jobs have not yet been bid to contractors, so a quantifiable financial impact for QIP Year 3 is not yet known. However, one of the newer contractors was the successful bidder on two of the QIP Year 2 projects. KAW continues to work to expand the qualified bidders list, including contacting firms that are performing similar work for Louisville Water Company and other nearby American Water states. While it is possible that expanding contractor capacity can reduce costs (all else being equal) because of increased competition, quantifying that reduction is not possible. KAW cannot know what bids would have been absent using an expanded contractor list. Having said that, the contractor cost per linear foot at the time of bid openings in QIP Year 1 was \$198 per linear foot. The contractor cost per linear foot at the time of bid openings in QIP Year 2 was \$193 per linear foot. While this is not a significant decrease, the fact that KAW's contractor prices have remained steady, despite inflation and other disruptions, is noteworthy.

¹ Case No. 2021-00090 was KAW's QIP Year 2 case.

b. See below.

QIP YEAR 1						
Linear Feet	Contractor Bid	Cost/Foot				
3,100	\$ 643,162.00	\$ 207.47				
3,320	\$ 924,898.20	\$ 278.58				
3,400	\$ 1,087,396.90	\$ 319.82				
3,720	\$ 620,781.20	\$ 166.88				
4,370	\$ 516,916.24	\$ 118.29				
5,006	\$ 1,076,185.00	\$ 214.98				
8,217	\$ 668,610.00	\$ 81.37				

\$ 198.20 average

QIP YEAR 2						
Linear Feet	Cost/Foot					
3,500	\$ 718,511.66	\$ 205.29				
6,720	\$ 1,657,146.15	\$ 246.60				
6,300	\$ 947,143.00	\$ 150.34				
2,200	\$ 462,550.00	\$ 210.25				
2,900	\$ 705,687.00	\$ 243.34				
5,400	\$ 880,640.50	\$ 163.08				
1,100	\$ 170,601.00	\$ 155.09				
5,650	\$ 738,737.64	\$ 130.75				
5,500	\$ 1,032,144.51	\$ 187.66				
3,800	\$ 408,000.00	\$ 107.37				
3,000	\$ 977,500.00	\$ 325.83				

\$ 193.24 average

Witness: Tricia Sinopole

- 6. Refer to Direct Testimony of Tricia Sinopole at 7-8. Kentucky-American explains that in a general rate case using a forecasted test year it is required to file a base period rate base that reflects six months of actual and six months of forecasted financials. Kentucky-American adds that within 45 days of the close of the base year it is required to update its base year rate base to reflect a full 12 months of actual financials.
 - a. Provide the impact the base year update to actual information has on Kentucky-American's requested revenue requirement in a general rate case using a forecasted test period.
 - b. Describe the relationship the base year filed in a general rate case using a forecasted test year has to the 12-month forecasted period used in a QIP case.
 - c. Explain is the QIP tariff rider contained in Kentucky-American's tariff includes the proposed true-up proposed by Kentucky-American.

Response:

- a. The base year update to actual information in a KAW general rate case using a forecasted test period does not have an impact on KAW's requested revenue requirement in that case. Since it is a base year update and not part of the forecasted test year, the revenue requirement is not updated based on the base year actual update. While the revenue requirement is not updated for the base year update, any rate base included in the base year of the original filing is recovered using terminal values because it is a historical spend, just as the QIP Year 2 spend will be historical as of June 30, 2022. This is precisely why KAW's request in this case includes the 2.47% addition to the QIP charge set forth in the "QIP 2" column in Exhibit 1 to Ms. Sinopole's testimony based on recalculated QIP Year 2 rate base using "end of period" or historic values for QIP Year 2 investments.
- b. The relationship that the base year filed in a general rate case using a forecasted test year has to the 12-month forecasted period used in a QIP case is that they are both originally filed using projections and then updated using actuals after a certain period of time. The base year in a general rate case is updated using actuals within 45 days of the close of the base period and QIP actuals are trued up within 90 days of the close of the QIP period. Ms. Sinopole's testimony on this point merely

demonstrates that forecasted projections can be and are revised to reflect actuals in Commission proceedings.

As of June 30, 2022, all of QIP 2 project assets will be used and useful and they will be historic values. Thus, KAW should be able to recover the "end of period" amounts in QIP rate base for QIP 2 investments. The amount of the investment is known, used, and useful, so the 2.47% QIP 2 addition in Exhibit 1 to Ms. Sinopole's testimony is appropriate and consistent with sound ratemaking principles.

As explained in Ms. Sinopole's testimony at pp. 6-7, the Commission directed KAW to use a 13-month average for rate base in any *forecasted* QIP period.¹ Thus, KAW has used a 13-month average for the forecasted investment for QIP 3. But the converse – that for any calculation of rate base using a historic period should use end-of-period values – is also true. This is why KAW has used end-of-period values to recalculate rate base for QIP 2 as of June 30, 2022 in calculating the 2.47% addition. The same will be true for QIP Year 3 spend at the end of the QIP Year 3 test year, which is the period ending June 30, 2023. Please see Ms. Sinopole's testimony at pp. 6-9 explaining this issue.

c. The QIP tariff rider contained in KAW's tariff states: "The Company will submit a balancing adjustment annually no later than 90 days after the end of each 12-month QIP period to true-up the projected program costs and revenues, with the actuals for the same period." KAW will true-up QIP Year 2 spend to actuals in September 2022 in exact accordance with that tariff language. Thus, it will true up the projected program costs and revenues for the same period.

The September 2022 true-up is *different* than the recalculation of QIP 2 rate base based on end-of-period values discussed at lines 1-3 on p. 9 of Ms. Sinopole's testimony and shown as a 2.47% addition to the QIP charge in Exhibit 1 to her testimony for QIP 2 rate base. As stated above, it is consistent with sound ratemaking principles as to when a 13-month average should be used when *forecasting* rate base vs. using end-of-period values when calculating *historic* rate base.

As also explained in Ms. Sinopole's testimony at p. 8, there will be two pieces to the QIP Year 2 Annual Balancing Adjustment in September 2022. First, KAW will true-up the QIP Year 2 actual rate base for the period of July 2021 to June 2022 using 13-month average rate base, just as it was done in the QIP Year 1 Annual Balancing Adjustment (Case No. 2021-00376). Both rate base and the associated revenue requirement will be calculated using a 13-month average of actuals and compared to the forecasted amounts. Any resulting over or under collection of

¹ Case No. 2021-00090, June 21, 2021 Order, Ordering Paragraph 5, p. 22.

authorized revenue using 13-month average rate base will be made to the QIP rate for the QIP Year 2 rate that was effective July 1, 2021 to June 30, 2022.

In addition, the Annual Balancing Adjustment for the period of July 2021 to June 2022 will reconcile the authorized "end of period" rate base in QIP Year 2 to the actual "end of period" rate base. Any resulting differences to the revenue requirement using "end of period" rate base will also be made to the QIP rate that became effective July 1, 2022. This ensures actual investment will be trued-up in a timely manner and KAW will not over or under collect based on "end of period" rate base.

KENTUCKY-AMERICAN WATER COMPANY CASE NO. 2022-00032 COMMISSION STAFF'S FIRST REQUEST FOR INFORMATION

Witness: Tricia Sinopole

7. Refer to Kentucky-American's Application, Excel Workbook: KAW_DT_TS_WP_030122.xlsx; Tab 2022_QIP Spend Jan 22-June 23 and Tab: QIP 1 Recon – Data. Provide in an Excel Spreadsheet format with all formulas, columns, and rows unprotected and fully accessible the QIP Year 3 forecasted main replacements information by individual project using the form contained in QIP 1 Recon – Data. The last column in the spreadsheet shall be the calculation of the 13-month averages.

Response:

Please see KAW_R_PSCDR1_NUM007_040822_Attachment in Excel.