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TO: Chairperson Vered Meltzer and Members of the Utilities Committee

FROM: Public Works Director Paula Vandehey
DPW Deputy Director Nathan Loper
Utilities Director Chris Shaw

DATE: November 18, 2020

RE: *General Information Regarding the Main Break Report*

Background:

This memo is intended to bring information and context to main break water loss and expenses. The Department of Public Works produces a monthly report on water main breaks. The report identifies breaks by location, pipe type, size, construction year, and type of break. The report also estimates the duration of each break and the water loss in gallons. Based on the estimates for volume and duration, a revenue loss is determined and reported out. The revenue loss reported out is a fully burdened cost that is calculated from the residential water rate schedule.

Different Perspectives:

There are three different perspectives on how the value of the main break water loss could be reported out. These perspectives rely on assumptions regarding costs about the main break water. Listed below is a table that provides these different perspectives as it relates to the September data that was already presented to the Committee on November 10, 2020. These differing perspectives include a scrap rate, a residential rate, and a production rate.

September 2020 Main Break Value Table			
Value Assumption	Scrap Rate	Residential Rate	Production Rate
September Projected Value	\$0	\$20,691	\$2,796
Percent of September Revenues*	0.0%	1.29%	0.175%

*September Utility Revenues = \$1,598,000

Perspective Definitions:

- **Scrap Rate:** This perspective argues that the main break water was not metered or sold and therefore has no value. This is similar to water used in hydrant flushing and tower maintenance. In manufacturing the main break water loss would be analogous to scrap.
- **Residential Rate:** This perspective argues that the main break water should be valued as if it were metered and purchased. This is a fully burdened cost that includes all treatment, maintenance, distribution, debt service, and administration costs. This is the value currently being reported out.
- **Production Cost:** This perspective argues that each gallon of main break water has a production cost. The utility's production costs include natural gas, electrical, and chemical expenses. Other expenses that are not direct costs from the main break are not included. Examples of overhead expenses include depreciation, debt service and administrative costs. This argument states that these overhead costs would occur regardless of a main break and the accompanying water loss.

Revenue Context:

The September water sales resulted in revenues of \$1,598,000. From the table above, the water loss value from the September main breaks accounts for 0.0% to 1.29% of total revenue (depending on either the scrap, revenue, or production rate applied).

If you would like additional information, please feel free to contact any of the memo authors.