Via Electronic Filing

August 29, 2022

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17105

Re: **Policy Statement on Public and Private Fire Protection**
PUC Docket No: M-2022-3033054

Dear Secretary Chiavetta:

Enclosed please find Aqua Pennsylvania, Inc.'s Comments to the Pennsylvania Public Commission's Policy Statement in the above docket.

Sincerely,

Mary McFall Hopper
Regulatory Counsel
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Enclosure

cc: Stephanie Wilson – Assistant Counsel – Law Bureau
Clinton McKinley- Fixed Utility Engineer – Bureau of Technical Utility Services
Patrick Cicero – Office of Consumer Advocate
Teresa Wagner – Office of Small Business Advocate
Richard Kanaskie, Bureau of Investigation and Enforcement

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Policy Statement on Public and Private Fire Protection	:	Docket No. M-2022-3033054

Comments of

Aqua Pennsylvania, Inc.

August 29, 2022

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Policy Statement on Public and Private Fire Protection	:	Docket No. M-2022-3033054

COMMENTS OF AQUA PENNSYLVANIA, INC.
TO THE
JUNE 29, 2022 MOTION ON PUBLIC AND PRIVATE FIRE PROTECTION

I. INTRODUCTION

Aqua Pennsylvania, Inc. ("Aqua" or the "Company") appreciates the opportunity to comment on the Pennsylvania Public Utility Commission's ("PUC or the "Commission") Bureau of Technical Utility Services ("TUS"), questions to Class A water public utility companies (Class A water companies) on a proposed policy statement for fire protection services subject to Commission oversight.

On June 16, 2022, the PUC adopted the motion of Commissioner Ralph V. Yanora ("Motion") at this docket and directed TUS and the Law Bureau to develop questions for Class A water companies on a proposed policy statement. On June 29, 2022, and published in the Pennsylvania Bulletin on July 16, 2022, 52 Pa.B. 4064, the Commission provided TUS's directed questions and required comments to be submitted within 60 days. TUS requested input on the use of hydraulic distribution system modeling required for fire protection and fire protection service afforded by current system design requirements. Aqua provides the following comments to the directed questions.

II. COMMENTS TO TUS DIRECTED QUESTIONS

A. Hydraulic Distribution System Modeling Required for Fire Protection

1. **What are the most effective methodologies/computerized hydraulic models that are currently utilized by utilities to implement a computerized hydraulic model of water distributions systems? Which are most effective for the modeling of system requirements related to fire protection service?**

Aqua believes most utilities currently utilize one of two available hydraulic modeling programs to build, calibrate and maintain a hydraulic model of the water distribution system. Both available programs utilize EPA.Net and have similar functionality. Hydraulic models are built and calibrated using best available data including but not limited to, GIS, SCADA, as-builts, pump curves, field flow tests, pressure loggers, etc. Once calibrated, the hydraulic model can be used as one tool to help utilities predict available fire protection; however, hydraulic models should not be the only tool, and should be used in conjunction with field flow tests and pressure monitoring. Model predicted fire flows are heavily dependent on set boundary conditions including storage levels, pump availability and customer demand. Because boundary conditions are dynamic and constantly changing, hydraulic models should only be used to give an order of magnitude of available flow for planning purposes and should not be used to guarantee available flow.

2. **Based upon a concerted effort, what is a reasonable timeframe and the estimated incremental one-time and ongoing expenditures for a utility to identify all the system facilities and water main data required to develop such a computerized hydraulic model?**

Aqua currently maintains 20 hydraulic models out of 114 systems. In order to collect data, build and calibrate the remaining models Aqua would need five years. Additional resources would be needed to shorten this time frame. In addition, the utility would need an additional full time employee going forward to maintain the hydraulic models so that they may be a useful tool. The remaining systems that do not have a hydraulic model only make up approximately 5% of the total customer base of Aqua. The resources required to build, calibrate and maintain the models for these small systems would provide limited benefit beyond a field flow test.

3. What are the expected ongoing maintenance requirements for existing models? Are these models a one-and-done investment or are they subject to ongoing incremental costs owing to updates?

Models require routine maintenance and calibration. Aqua would require a minimum of one full-time employee in addition to the current two-person team to be responsible for calibrating and maintaining the remaining 94 hydraulic models.

B. Fire Protection Service Afforded by Current System Design Requirements.

1. What standards should public water utilities attain for the provision of regulated public fire protection service including, but not limited to flow, pressure, and duration of flow and pressure?

The Company submits that public water utilities should adhere to standards listed below:

a. The removal, replacement or marking of those hydrants not providing 500 gallons per minute ("gpm") at 20 pounds per square inch ("psi") for 20 minutes..

b. Application of applied design standards of the Pennsylvania Department of Environmental Protection ("DEP") or the State Insurance Services Office as required by the Commission.

c. Utilization of the American Water Works Association ("AWWA"), National Fire Association, and International Fire Code by the International Code Council for design points and data references. The Company does not believe public fire hydrant pressures should be included in its tariff.

The Company recommends the appropriate state fire and governmental agencies lead on standards. Fire protection accountability should not be on one entity but rather is a collaboration with the water utility, the municipality, and the municipal fire official. The potential passage of Senate Bill 597 - Water Accountability Act will require all water systems with at least 751

connections to complete activities that investor-owned utilities ("IOUs") are currently subject to, such as:

a. Identify and mapping hydrants.

b. Annually inspect at least 33% of their hydrants to ensure each hydrant is tested over the course of four years.

c. Formulate a plan for flushing hydrants.

d. Keep a record of each inspection, test, and flushing for at least six years.

e. Clearly mark easily identifiable ownership information on hydrants.

2. What costs and timeframes might the public expect to improve or upgrade facilities not now providing public fire protection service in accordance with DEP or State Insurance Services Office requirements?

The costs and timeframes associated with improvements or upgrades to public water systems not currently providing public fire protection service in accordance with DEP or State Insurance Services Office requirements is not something that can be easily quantified. For example, in the Company's Greater Pennsylvania service areas, less than 50% of the Company-owned public water systems have the required infrastructure to offer fire protection services. Given this, extensive infrastructure upgrades may not be economically feasible in certain areas, resulting in the costs outweighing the benefits and ultimately these costs are passed on to all customers. In addition, older developments were not required to have fire protection services when constructed. Reviewing past developments and budgeting for water system upgrades would prove a costly process in addition to the hydraulic modeling previously discussed. Ultimately, the Company asserts that the provision of fire protection should not be the sole responsibility of the water utility.

3. **What procedures should a public fire service provider employ should a fire protection connection not meet minimum requirements? For example, what customer notifications or public/private fire hydrant markings would be effective to denote expected levels of service from any fire protection facility?**

The Company is opposed to mandated fire hydrant markings such as color-coding to denote expected levels of service. There are various factors which can change the status of the expected level of service of any one hydrant at any time. As previously stated, Aqua believes water utilities should adhere to the standard of 500 gpm at 20 psi for 20 minutes for every hydrant in service, which would eliminate the need of a costly and complicated process of color-coding all hydrants.

4. **Whether new policies concerning minimum expectations would be implemented differently for new as compared to existing fire protection facilities, public and/or private fire hydrants, private fire protection connections other than private fire hydrants (i.e., sprinkler systems), etc.?**

The Company submits that implementation of any new policies concerning minimum expectations for fire protection facilities should reside with developers and municipalities.

5. **What potential adjustments to revenue requirement, cost allocation, and rate design would fire service providers require to accurately and reasonably reflect proposed changes in service conditions and management performance?**

Under the existing rate structure, there is a portion of fire protection included in the rates of customers without fire service as these are spread across the entire customer base. If significant changes related to fire protection were to be implemented, then all customers would bear a portion of those costs as, in the case of public hydrants, Section 1328 of the Public Utility Code limits the amount charged to a municipality for hydrants to 25% of the cost of service, while, in the case of private hydrants, the specific customers where those private hydrants serve would bear those costs.

III. CONCLUSION

Aqua appreciates the opportunity to comment and asks that the Commission consider its comments. Aqua looks forward to continuing to work with the Commission on these issues. Please direct any questions with regard to these comments to the undersigned.

Respectfully submitted,

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Dated: August 29, 2022