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IAPMO's Water Demand Calculator® Included in AWWA M22 Manual

Ontario, Calif. (July 24, 2024) — The International Association of Plumbing and Mechanical Officials (IAPMO) is pleased to announce that its Water Demand Calculator® has been included in the fourth edition of the American Water Works Association (AWWA) *M22 Sizing Water Service Lines and Meters* manual.

AWWA M22 is a manual of water supply practices that covers the basic principles and methods of water distribution system design and operation. It provides guidance on selecting the appropriate size of service lines and meters for various types of water users, such as residential, commercial, industrial, and institutional. It also covers topics such as water pressure, water quality, water metering, and water service connections.

The American Water Works Association (AWWA) is the largest nonprofit, scientific, and educational association dedicated to managing and treating water. AWWA has more than 50,000 members worldwide, including water utilities, regulators, engineers, consultants, manufacturers, educators, and students. AWWA works to advance public health, safety, and welfare by uniting the efforts of the full spectrum of the water community.

"By incorporating the Water Demand Calculator in AWWA M22, AWWA is providing water utilities and engineers with a more accurate and reliable way of sizing water service lines and meters, which can result in water and energy savings, lower capital and operating costs, and improved customer satisfaction," said Christoph Lohr, P.E., CPD, LEED AP BD+C, ASSE 12080, vice president of Technical Services and Research at IAPMO.

The Water Demand Calculator reduces water aging, delivers hot water faster, generates significant construction cost savings, reduces the carbon footprint of the structure, and subsequently saves on water- and water heating-related utility bills for the entire life of the plumbing system. Instead of using flow rates and flush volumes from the 1940s, and assuming that homes water systems operated like sports stadium at halftime, the Water Demand Calculator allows the user to "right-size" the cold and hot water distribution systems in homes and apartment buildings using modern information about flow rates and simultaneous use.

The Water Demand Calculator represents the most impactful innovation in pipe sizing in nearly a century. It is the result of a multiyear effort to develop a new statistically based pipe-sizing method stemming from a need to address profound water safety and wasted water and energy concerns resulting from oversized water supply pipes in homes and buildings.

AWWA is the second engineering organization to recommend the use of the Water Demand Calculator for sizing pipes in residential homes. The American Society of Plumbing Engineers (ASPE) included the Water Demand Calculator as a recommended engineering method for all residential occupancies in its *Plumbing Engineering Design Handbook: Plumbing Systems*.

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Sponsor of the Uniform Codes, IAPMO® – The International Association of Plumbing and Mechanical Officials – works in concert with government and industry for safe, sanitary plumbing and mechanical systems. Learn more about IAPMO at www.iapmo.org.