

P 34. HYDRAULIC MODELING OF POTABLE WATER INFRASTRUCTURE SYSTEMS

Enes Arabacı^{1*}, Şürkrü Dursun²

¹*Konya Technical University, Graduate Education Institute, Konya, Turkey*

²*Konya Technical University, Faculty of Engineering and Natural Sciences, Department of
Environmental Engineering, Konya, Turkey*

E-Mail: enes_arabaci@hotmail.com sdursun@selcuk.edu.tr

ABSTRACT: Hydraulic modeling is a mathematical model of the system by analyzing the hydraulic behavior of the infrastructure systems (water, sewage, drainage and flood). Mainly with hydraulic modeling in potable water lines; analysis of hydraulic behavior of lines, traceability and sustainability of the system, leak-leak detection and pressure management. In order to create hydraulic modeling, it is very important to digitize existing facilities in the field and to verify the numerical data. Simulation of potable water lines by hydraulic modeling and developing software technologies have become easier today. The location of the measuring points and the measurement equipment in potable water systems are extremely important. By revising the data in the field with the mathematical data, the calibration of the model plays a very important role in terms of close hydraulic behavior analysis. The system management is ensured to be economical, stable and sustainable as a result of the analysis of the production and operating costs of the system with the hydraulic modeling, leak-leakage and pressure management, the traceability of the system and the early warning systems and the sustainability of the system with more linear and rapid data. In this article, the aim of hydraulic modeling in potable water infrastructure systems, the necessary measurement, data and software to be performed, the adequacy of the Konya Province scale and the determination of the current situation, the benefits and the evaluation of the results are included.

Keywords: Hydraulic modeling, potable water management, hydraulic analysis