

ABSTRACT

Study on Pressure Stability in the Transmission System of the Drinking Water Supply System SPAM Regional Jatiluhur 1 (Case Study of the Teluk Buyung Route)

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SPAM Jatiluhur Regional 1 is one of the National Strategic Projects aimed at improving the quantity and quality of drinking water. This project utilizes a Public-Private Partnership (PPP) scheme for the provision of drinking water infrastructure with a capacity of 4,750 liters per second. A pressure stability study of the transmission system is necessary to identify potential factors that could cause pressure loss in the system. Analyzing the transmission system also has a positive impact on public service. This study was conducted using the WaterCAD application to identify critical points or vulnerable areas where pressure loss could occur, allowing the management to address or even detect leaks more quickly. The use of WaterCAD was calibrated using as-built drawings to ensure that the simulations closely reflect actual field conditions. Additionally, this study contribute to the development and improvement of drinking water supply systems in the future.

Keyword: *Water Supply System, Drinking Water, Transmission System, WaterCAD, National Strategic Project, PPP, Pressure Loss*

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