

Chapter 32

Effect of Inflow and Infiltration in Sewerage System of Residential Area, Kuantan, Pahang



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Abstract Inflow and infiltration is a phenomenon in sewerage systems that give negative effects on the environment and human health if not addressed properly. Collaboration has been made between Universiti Malaysia Pahang and Indah Water Konsortium Sdn. Bhd., where the purpose is to evaluate the amount of inflow infiltration happening in sewerage systems of residential areas in Kuantan. For this part of the study, one sewer pipeline was selected at the residential area of Bandar Putra, having a population equivalent of 1694. The method used in this research was the Flowrate method to tabulate data. ISCO 2150 and 4250 Area Velocity Flowmeters were used to measure flow rate data in the sewer pipeline, whereas ISCO 674 Rain Gauge was used to collect rainfall intensity data. The data were collected for 41 days with each measurement separated by an interval of five minutes. The result shows that the average percentage infiltration rate of Q_{peak} and Q_{ave} in this residential catchment were 6.0 and 19.4%, respectively. Inflow and

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333