

Origin, Causes, And Modeling Approach For Parasitic Water Intrusion In Main Sewers.

Fouzia DERNOUNI, Boualem SALAH, Ahmed KETTAB

Abstract: Through the bibliography, it was noticed that parasitic water intrusion is generally disregarded in the dimensioning of main sewers (combined or separated). This intrusion is dependent on several factors: Soil characteristics, groundwater and the state of sewers. These parasitic waters are of a major concern for sanitation managers, and more particularly in sewage plants. The random quantitative aspect of this water often modifies the characteristics of the flows and obliges researchers to re-examine the simplifying assumptions of the mechanist models governing sewage flows. In this context, our work consists initially to present the causes and origins of this water and to propose thereafter a mathematical approach for the quantitative determination of intrusion flow.

Key words: parasitic water; sewer; sewerage.