



An Investigation of Water Compounds Behavior in Drinking Water Treatment Technology for Environmental Impact Assessment (EIA) Strategy: A Case Study on Surabaya

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Abstract : Surabaya has several rivers in some locations are used as the source of raw water. Ensuring the water quality for drinking usage is one of the most important parameters that the producer must aware in order to provide a good water for citizens of Surabaya. Furthermore, the entire locations use a similar type of drinking water treatment plant. This study aims to investigate the water compound behavior in the drinking treatment plant in order to describe the characteristic of the drinking water. Three parameters, namely biochemical oxygen demand (BOD), chemical oxygen demand (COD) and total suspended solids (TSS) will be measured. A structural equation modeling (SEM) technique will be used to show the correlation patterns of BOD, COD and TSS on the debit water. A technology selection that can produce a good drinking water meeting the standard qualifications set by the Surabaya's government is highly suggested as the preferred strategy.

Keywords : Surabaya, River, Water Compounds, Drinking Treatment Plant.

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