

## **Variations of electrical conductivity between upstream and downstream of Langat River, Malaysia : its significance as a single indicator of water quality deterioration**

### **Abstract**

This paper investigated the potential of using a single chemical parameter namely electrical conductivity (EC) as an indicator of water quality pollution in relation to dissolved oxygen (DO) and suspended solids (SS) which are two of the parameters included in the calculation of Water Quality Index (WQI) in Malaysia based on current scenario. In this study, nine periodic samplings at eight sampling sites along a tropical river which included the polluted downstream and the unpolluted upstream of the Langat River, were conducted between March 1998 and January 1999. The consistent results for the nine month samples (negative and significant correlation between EC vs. DO, and positive and significant correlation between EC vs. SS), indicated that EC could be potentially used as a single chemical parameter to indicate the water quality of tropical rivers such as the Langat River of Malaysia. It is also recommended that EC should be included in the revised WQI in Malaysia in future, in order to better reflect the mineral-related pollution/composition and of the water samples.

**Keyword:** Electrical conductivity; Langat River; Malaysia.