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## Soil Pollution along Kalwa Bridge at Thane Creek of Maharashtra, India

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### ABSTRACT

The present investigation deals with the assessment of pollution status along the wetland of Thane Creek, which has been subjected to a lot of pollution from the Asia's biggest Thane—Belapur Industrial Complex located at the south of Mumbai harbor along the west coast of India. This paper advocates habitat conservation and ecological studies with special reference to the physico-chemical characteristics and heavy metal pollution in the soil along the creek area. In the present investigation, the pH, electrical conductivity, bulk density, alkalinity and chlorinity values recorded were observed to be high during dry seasons and low during rainy season. The soil samples were also analyzed for their heavy metal contents like nickel, zinc, cadmium, copper, iron, arsenic and mercury. It was observed that, the concentration of these heavy metals increases gradually in dry seasons, followed by sharp decrease during rainy season. These heavy metals have a marked effect on the aquatic flora and fauna which through bio magnification enter the food chain and ultimately affect the human beings as well. The present experimental data on heavy metal pollution in soil samples collected along Kalwa bridge of Thane Creek points out to the need of regular monitoring of water resources and further improvement in the industrial waste water treatment methods. If the present conditions continue for a long period, the creek may soon become ecologically inactive.

### KEYWORDS

Soil Pollution, Heavy Metal Content, Physico-Chemical Characteristics, Metallic Contaminants, Flame Atomic Absorption Spectrophotometer, Bioaccumulation, Food Chain

### Cite this paper

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