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The environmental significance of heavy metal pollution in surface sediments of Maryout lagoon, Egypt

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Abstract

Sediment quality of Lake Maryout (one of the four Nile Delta shallow brackish water lakes) was concerned since this lake were used for land reclamation, aquaculture in addition to its importance as a fishing source. Meanwhile, sediments served as one of the main ultimate sinks for large amount of pollutants especially heavy metals discharged through two wastewater treatment plants, also from several agricultural drains. Total concentrations of heavy metal, such as Cd, Ni, Pb, Cr, Cu and Zn were investigated, as well as the ecological relevance of metal pollution was investigated by applying different sediment quality assessment approaches: (1) comparisons of concentrations with regional reference data, and (2) comparisons with consensus-based sediment quality guidelines (SQGs).