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Transport of Suspended Solids in Dammam (Saudi Arabia) Coastal Areas: Fish Market Works

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ABSTRACT

Some new projects are considered in the eastern coasts of Dammam city, Saudi Arabia Dredging operations would significantly alter coast hydrological and sediment transport processes. It is important that the project areas must keep flushing the fresh sea water in and out with good water quality parameters, which are currently facing increased pressure from urbanization and navigation requirements in conjunction with industrial developments. A suspended solids or sediments are expected to affect the flora and fauna in that area. A numerical modeling study is needed to study the effect of dredging and in particular the suspended sediments concentrations (mg/L) changed in the region. The results were obtained using finite element method and Newton-Raphson iterations.

KEYWORDS

Numerical Modeling, TSS, Arabian Gulf, Sediment Transport

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