

Computerized depositions and erosion zones modeling in a mouth by a model

The sediment dynamics for El Harrach wadi mouth are a complex issue from a perspective of the ecosystem and biodiversity which are very degraded therein. The discharges of this watercourse are particularly affected by the conditions of water turbidity and silts deposits. The “silt plugs” is the seat of an area with maximum concentration of suspended matter, thus resulting in a deposition of particles and fine pollutants that may involve anoxia conditions during low flow periods. The work presented in this thesis is meant to be a contribution to the understanding of this process by a study through a simulation of digital hydrosedimentary coupling according to two modes of modeling: two-dimensional (2D) and three-dimensional (3D) for the study area of El Harrach wadi mouth. To do this, we recommend the digital hydrosedimentary simulation model: MIKE_21 (2D) and MIKE_3 (3D).

Key words: mouthpiece ; wave ; SSC ; turbidity maximum ; MIKE21 ; flood ; flow of rejection ; salinity.