

عنوان مقاله:

River Channel Change Simulation of Khoshke Rud Farsan River and Bank Erosion Process Using a Numerical Depth Averaged Model, CCHE2D

محل انتشار:

فصلنامه انرژی و محیط زیست ایران، دوره 3، شماره 4 (سال: 1391)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

Bank erosion in populated areas could cause fatalities and property damage if banks collapse abruptly, compromising the integrity of residential buildings and civil facilities. Bank erosion study is in general a very complex problem because of it involves multi-processes such as bank surface erosion, bank toe erosion and bank material mechanic failure, etc. Each of these processes is related to several parameters: sediment size distribution, bank material cohesion, slope, homogeneity, consolidation, soil moisture and ground water level, as well as bank height. The bank erosion rate is also related to the strength of the flow in the river indicated by the flow shear stress, water depth and channel curvature, etc. In this study, the numerical model CCHE2D has been applied to study real-world bank erosion cases in a mountain river, Khoske Rud Farsan River, Iran, which is a braided river with high sediment loads and channel mobility; the bank erosion of this river is dominated by floods during rainy seasons.

کلمات کلیدی:

River/ Bank Erosion /Numerical Model/ Simulation /Sediment

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