عنوان مقاله:

Hydrodynamic and Sediment Transport Studies of Gorgan Bay (Case Study: Khozeini Channel and Investigation of (Jetty's Role in Reducing Active Sedimentation After Channel Dredging

محل انتشار:

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خلاصه مقاله:

Gorgan Bay is one of the great economic and ecological areas in our country and is used as a recreational and fishery center by the region's residents. This bay connects to the Caspian Sea through two channels, Ashuradeh and Chapoqli. The hydraulic connection of Gorgan Bay with the Caspian Sea greatly impacts water recirculation and aquatic life in this region. As a result, the decrease in the water level of the Caspian Sea and the hydraulic connection disruption between them has caused problems in the water quality in the bay in recent years. Several solutions have been proposed to solve these problems, including improving and dredging the Ashuradeh and Chapoqli channels, reopening the Khozeini channel, and transferring water by a pipeline to the west of the bay. Although the mentioned actions can increase the volume of water exchanges and reduce water retention time, each action requires careful consideration to estimate the long-term effectiveness. Considering the possibility of re-sedimentation in each of the above channels, studying sedimentation and erosion patterns in this area can help determine the shape, depth, and duration of dredging and the economic justification of jetty construction. For this purpose, the amount of sediment load and the patterns of erosion and sedimentation after dredging the Khozeini channel and implying the jetty's effects have been determined using Mike ۲۱. Based on the simulation results, the area has an active sedimentary pattern that can affect the bed level within the channel. These effects can be reduced in the mouth and channel by constructing .two jetties on the sides of the channel

کلمات کلیدی:

Khozeini Channel, Sediment Transport Modeling, Gorgan Bay, Mike-۲۱