

عنوان مقاله:

Study hydraulic properties and design criteria for the river subsurface intake with a porous medium without cut off

محل انتشار:

نهمین سمینار بین المللی مهندسی رودخانه (سال: 1391)

تعداد صفحات اصل مقاله: 9

نویسندگان:

R Mansouri - MSc. Student, Water Eng. Dep., Ferdowsi University of Mashhad

AN. Ziaei - Assist. Prof., Water Eng. Dep., Ferdowsi University of Mashhad, Iran

K Esmaili - Assist. Prof., Water Eng. Dep., Ferdowsi University of Mashhad, Iran

H Ansari

خلاصه مقاله:

Collection of surface and subsurface waters in small seasonal rivers is very crucial, particularly in dry seasons. In this study a kind of intakes introduced, the system acts as a river drainage network. In this study an experimental model of the subsurface intake was constructed and the effective parameters such as upstream discharge, installation depth, and drains interval were evaluated. The results showed that the water diversion mostly influenced by the upstream flow rate. The very small drain interval caused the discharge of each drain to be reduced. It was also revealed that the total drained discharge in the very transmitting media was mostly controlled with the number of drain and drain interval did have a marginal effect. Finally the regression equations were established to estimate the discharge of each drain based on dimensional analysis, which facilitate the design of this structure.

کلمات کلیدی:

subsurface intake, porous media, drainage system, design criteria

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<https://civilica.com/doc/186638>

