

Effect of Change in Angle of Slope and Height of an Embankment on Safety Factor during Rapid Drawdown

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Abstract : Reduction of water level at which a slope is submerged with it is called drawdown. Draw down can take place rapidly or slowly and in both situations, it can affect slope stability. Using coupled analysis (seepage and stability analysis) causes more accurate results. In this study, the stability of homogeneous embankment is investigated numerically. Slope safety factor changes due to changes in three factors of height, slope and drawdown rate have been investigated and compared. It was found that with increasing height and slope, the safety factor decreases, and with increasing the discharge rate, the safety factor increases.

Keywords : drawdown, slope stability, coupled seepage and stability analysis

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