Influence of Backwater on Headcut Advance

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Abstract:
A study was performed to examine the influence of backwater level downstream of an overfall on headcut advance. The discharge, overfall height, and soil type were held constant while varying tailwater level. The intermediate tailwater levels with a backwater to overfall height ratio of approximately 0.8 produced the largest headcut advance rates. The tailwater level downstream of the overfall was observed to vary the advance rate by a factor of 2.6 to 7.5 over the range of soil conditions tested.

Subject Headings: Backwater | Rivers and streams | Tailwater | Spillways | Soil classification | Soil analysis | Earth fills | Earthfill dams

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