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Guide for Estimating Riverbed Degradation

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Journal of Hydraulic Engineering, Vol. 115, No. 3, March 1989, pp. 356-366

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Document type: Journal Paper

Abstract: The rate and extent of riverbed degradation resulting from sediment int means of computer-based numerical experiments. Momentum and cont and sediment flows in a wide prismatic channel are solved numerically t model for the bed-armoring process. The bed profiles for different times are coalesced to a single normalized curve. The changes in bed levels a the length of degradation, determined from the numerical experiments, regression analysis to the independent dimensionless variables. The dep on the Froude number, the geometric standard deviation, and the norm bed material. The proposed relationship for bed degradation is verified v Missouri River. The computation procedure is illustrated by an example.

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