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SAND SEDIMENTS IN A MICHIGAN TROUT STREAM
PART I. IN-STREAM SEDIMENT BASINS: A TECHNIQUE FOR
REMOVING SAND BEDLOAD FROM STREAMS¹

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Abstract

Erosion control techniques such as streambank stabilization and revegetation of eroding upland areas reduce only part of a stream's sediment load. This study demonstrated that an in-stream sediment basin can trap and remove almost all sand bedload sediments. Other advantages of sediment basins are that they can: 1) produce streambed downcutting to create deeper pools and improve streambed composition, and 2) keep critical spawning areas relatively free of sediment. Sediment basins should be used with caution in erodible bed streams that have no areas of erosion-resistant streambed to prevent possible excessive downcutting. Sediment basins can be added to the variety of techniques used to improve fish habitat, or they can be used alone to renovate sand-choked streams not amenable to the usual erosion control treatments.

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