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ArticleTitle	Determining design parameters for recovery for aquaculture wastewater using sand beds.
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Design information for the use of sand beds to remove suspended solids from wastewater discharged from recirculating aquaculture systems (RAS) was developed. Wastewater from a commercial RAS tilapia farm with 2% total solids and 1.6% total suspended solids (TSS) was applied to sand columns to determine infiltration rates and phosphorus capture. Various hydraulic loading rates and drying periods between application events were evaluated. Infiltration rates stabilized after five application events to 3.5 cm/day (S.D. = 1.7). Practically, all suspended solids were captured at the top of the columns, creating the primary resistance to infiltration. Concrete sand removed approximately 93% of the soluble phosphorous in the wastewater and wollastonite, an economical aggregate alternative to sand, removed at least 98%. A modified Darcy equation is presented to predict infiltration based upon TSS and the number of sequential applications.

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