



Advances and Challenges in Improving Water Quality with Phosphorus Removal Structures: Scaling Up to the Field

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Message from the Guest Editor

Dear Colleagues,

The aim of this Special Issue is to present recent advances and challenges in removing dissolved P at the field-scale with P removal structures. Field studies are preferred, but laboratory experiments are welcome if they specifically address challenges related to field implementation of P removal structures. Current challenges in scaling up to field-scale P removal structures include (but are not limited to):

- 1) achieving a high flow rate while maintaining sufficient P removal;
- 2) efficiently removing dissolved P from sources with relatively low dissolved P concentrations (i.e. < 0.2 mg/L);
- 3) re-generating PSMs in-situ;
- 4) constructing structures on sites with little to no hydraulic head;
- 5) clogging of media;
- 6) lack of trained professionals in design and construction of P removal structures;
- 7) maintaining low costs in construction and maintenance.

Keywords

phosphorus removal structures; nutrient losses; water quality; phosphorus removal; phosphorus treatment





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