

# Biofiltration Media Optimization

## Project Team:

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In 2019 we collected data and samples from 14 simulated “design-storm” (i.e., 1.1-inch equivalent) events and 11 natural rainfall events. For these events we measured flow rate, vegetation growth, and change in phosphate concentration. Compared to the Tank Inflow concentration (~250 ug/L phosphate), we could the following:

- Some media mixes **increase** phosphate concentration:
  - 10% food compost,
  - 10% leaf compost,
  - 20% food compost,
  - 20% leaf compost,
  - 15% biochar w/ 20% leaf compost,
  - 5% spent lime w/ 20% leaf compost
- Some media mixes **reduce** phosphate concentration:
  - 5% iron w/ 20% leaf compost,
  - 20% reed sedge peat,
  - 20% sphagnum peat
- 100% Sand ~ Minimal Change

These data and additional data were included in an interim final report that was submitted on June 30, 2020. We intend to submit the final report with all data results, conclusions, and recommendations in Fall 2020.