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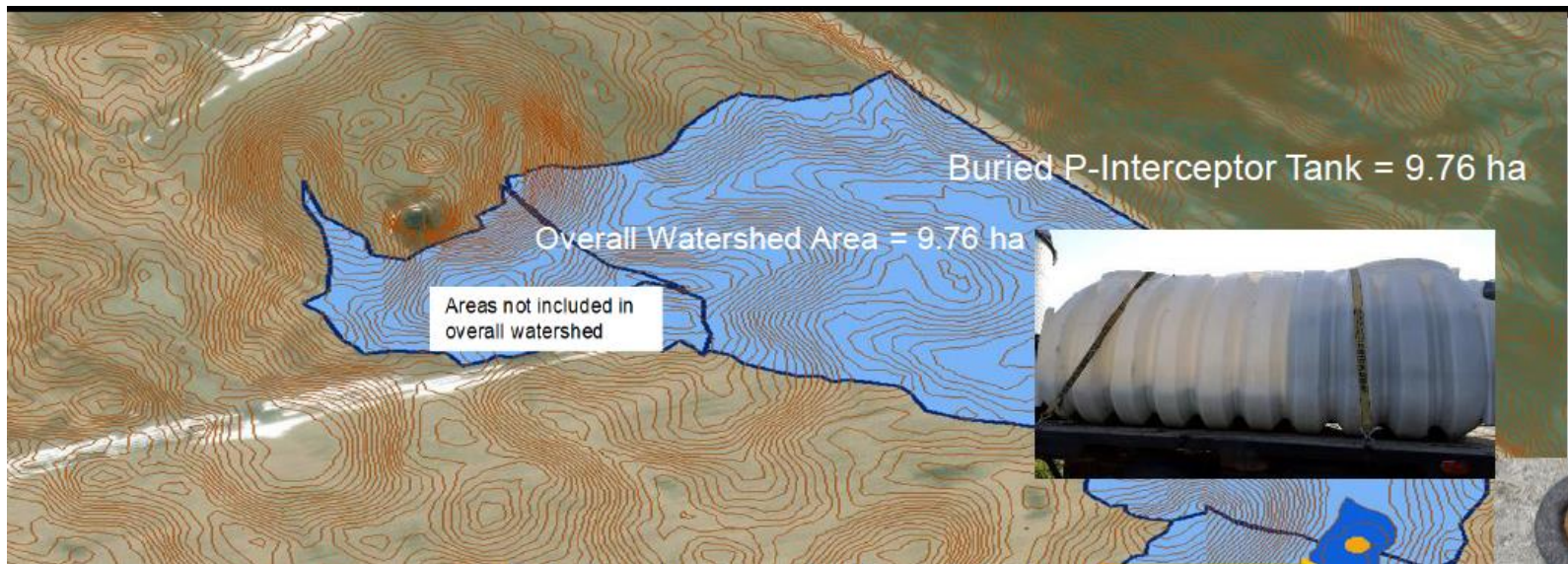
Chippewa First Nations Site: Packed Bed MagPe Demonstration

Project Team



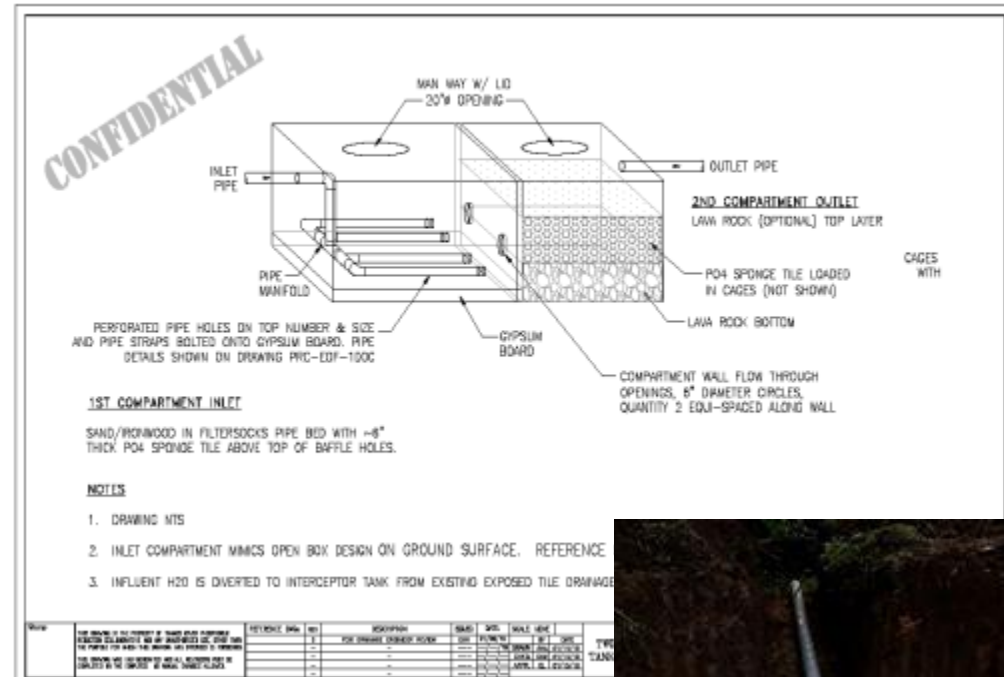
Background: Site information

- Test site from the previous PRC project (PRC, GA phosphorous solutions and ESSRE consulting)
- Site situated on a grain farm operated by a local farmer
- The fields receive commercial fertilizers and the testing will be on dissolved phosphorus removal at the edge of the field (tile drainage)
- A municipal drain outlet that services about 70 acres farm provides a flow of tile water



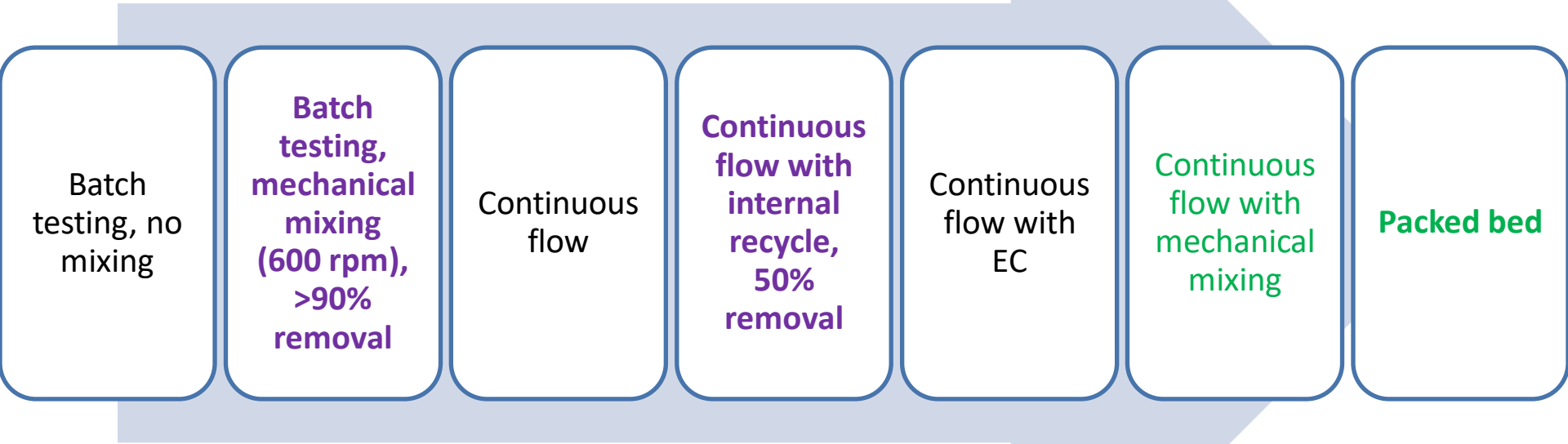
Background: Existing P interceptor tank

- Two compartment plastic septage tank
- Provision for inlet water to the bottom for up-flow through the media
- Highest flow measured: 25 GPM, 16 minutes retention time
- Design: 5 minutes retention(contact) time



Packed Bed MagPe: Rationale and project status

Target SRP removal: From 0.1 mg/L to < 0.02 mg/L



- Bench-scale testing (April 2022)
 - Identify material mixing ratio and packing density
 - Design contact time
- Field Installation (May)

- Instrumentation (Sept): Autosampler, online sensors
- Project funding



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