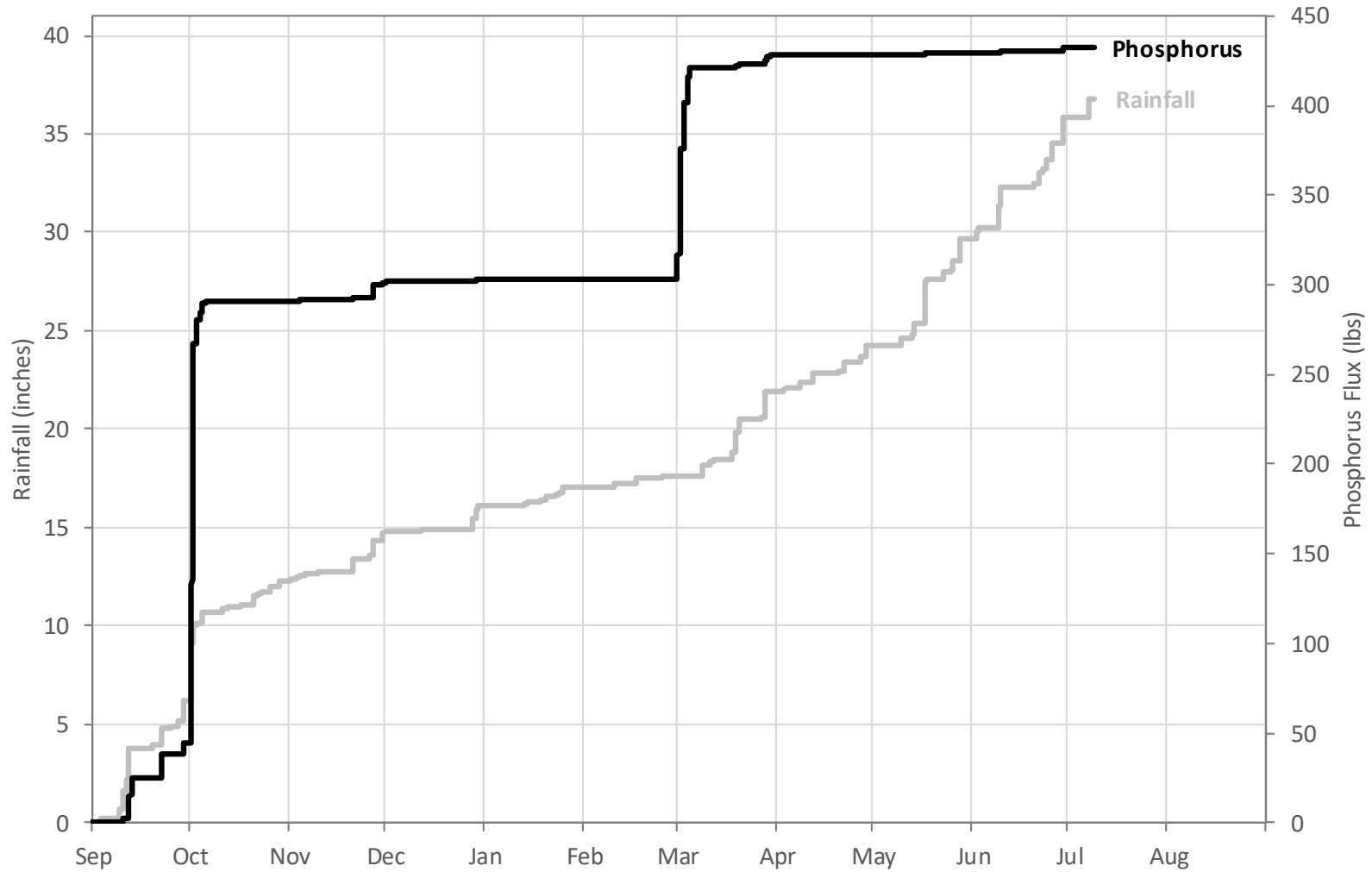


Monitoring Water Quality Response of a Pheasant Branch Creek Tributary to Restoration of the Acker Farm

Pheasant Branch Tributary Site 3 - Southern Boundary of Acker Farm



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Pheasant Branch Conservancy Water Quality Monitoring

Main findings as of July 2020

1. Phosphorus concentrations are very high in runoff from the former Acker farm, and most of the phosphorus is in the dissolved form. This means that minimizing total runoff volume, rather than just focusing on erosion control, will most benefit downstream water quality.
2. From September 2019 to July 2020, most runoff and phosphorus flux occurred in two events:
 - a. 2.4 inch rain storm on October 2, 2019
 - b. Snow melt runoff on March 1-7, 2020
3. 19 inches of rain fell from March 9 to July 9, 2020, but mostly in small events, which led to very little runoff and phosphorus flux.
4. Retaining runoff from large rainfall events in the wetland basins will be key to reducing phosphorus flux from the property.
5. The plans for this property are a good demonstration of the synergy between flood mitigation and water quality improvement.