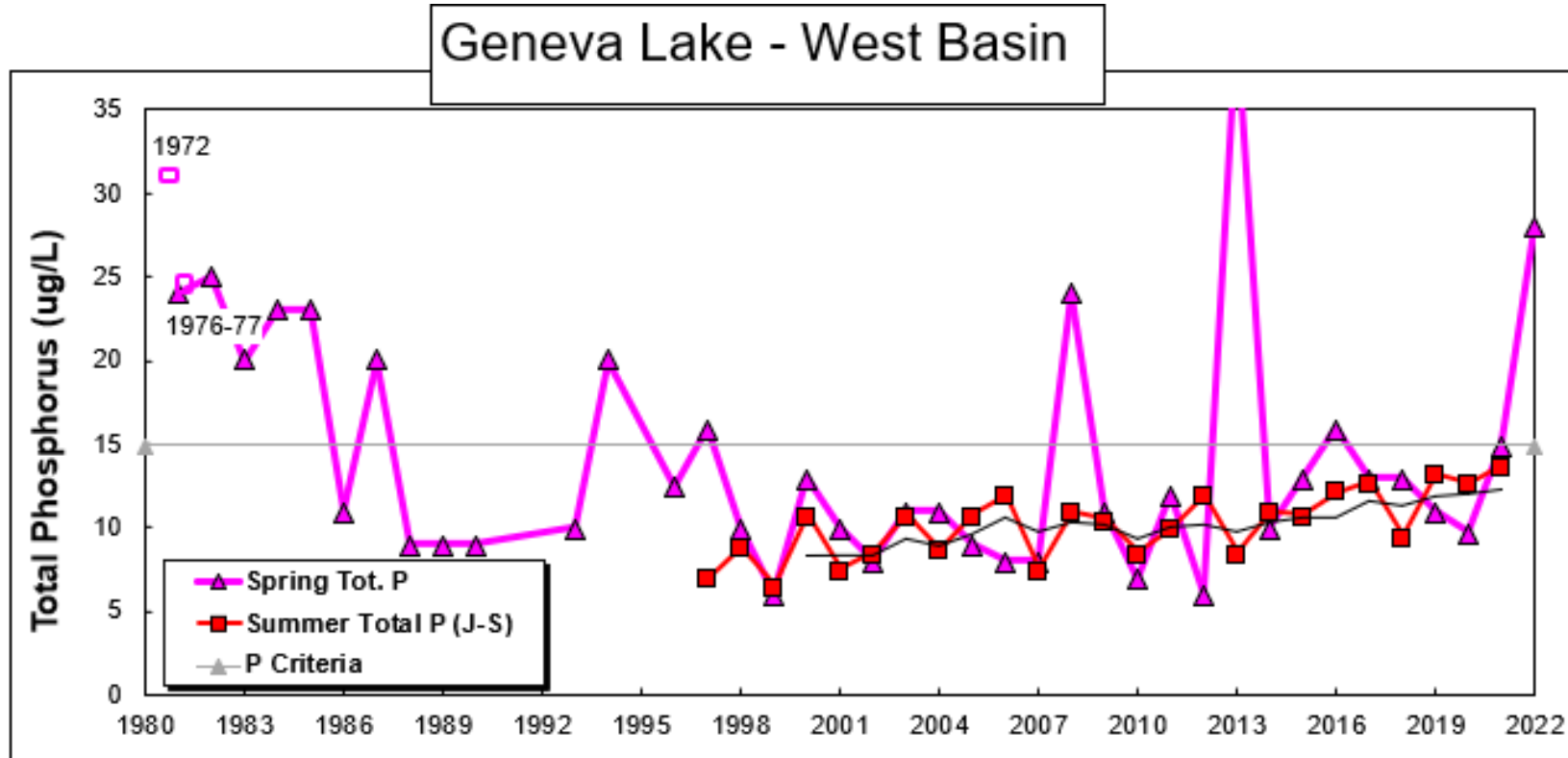


Phosphorus and Tributary Studies

Geneva Lake Conservancy and
Water Alliance for Preserving Geneva Lake

Spring Phosphorus Levels in Geneva Lake



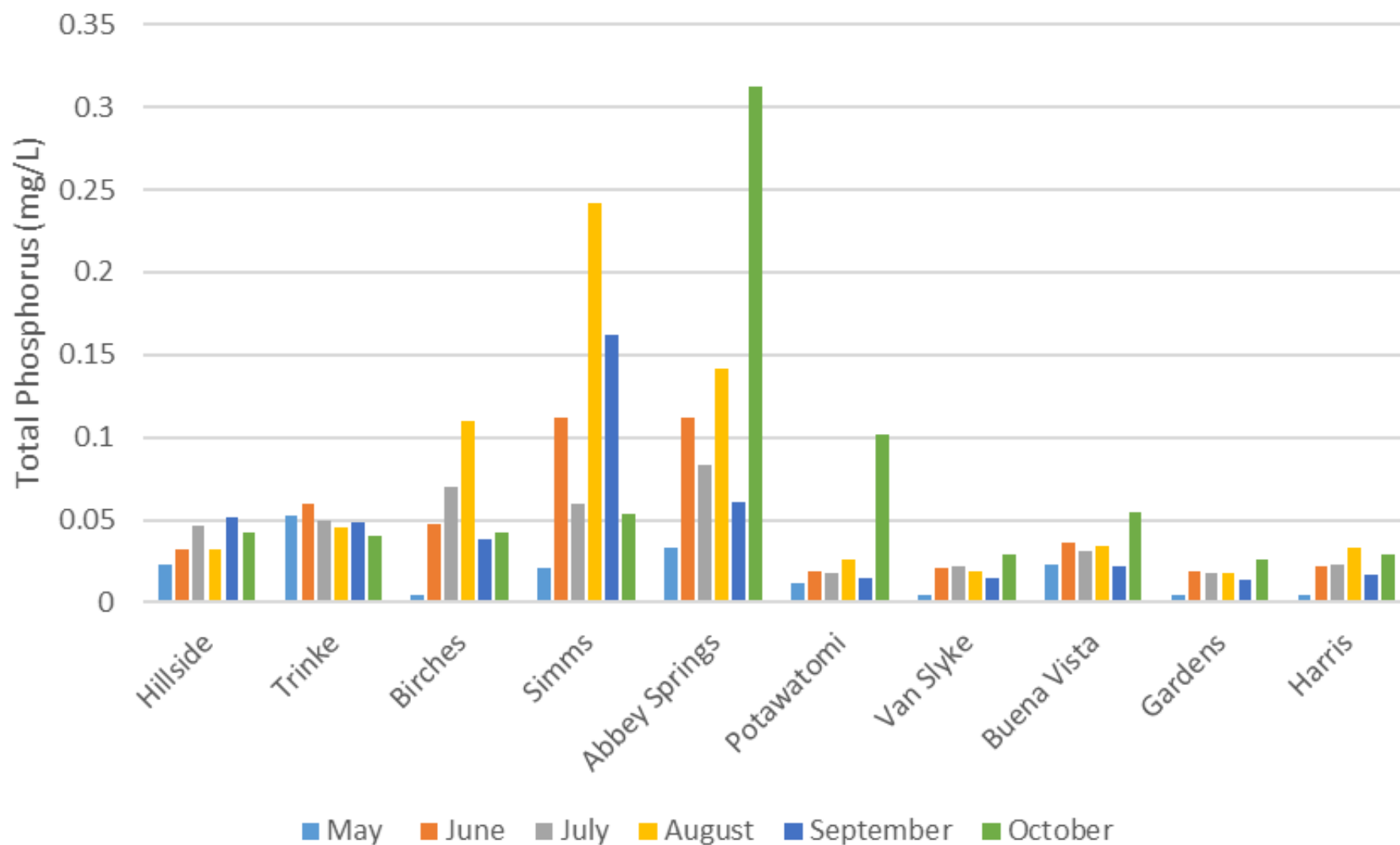
Sources of phosphorus

- Leaves and lawn waste
- Agricultural runoff
- Lawn fertilizers
- Septic systems
- Soil and sediment
- Pet, livestock and wildlife waste
- Soaps and shampoos

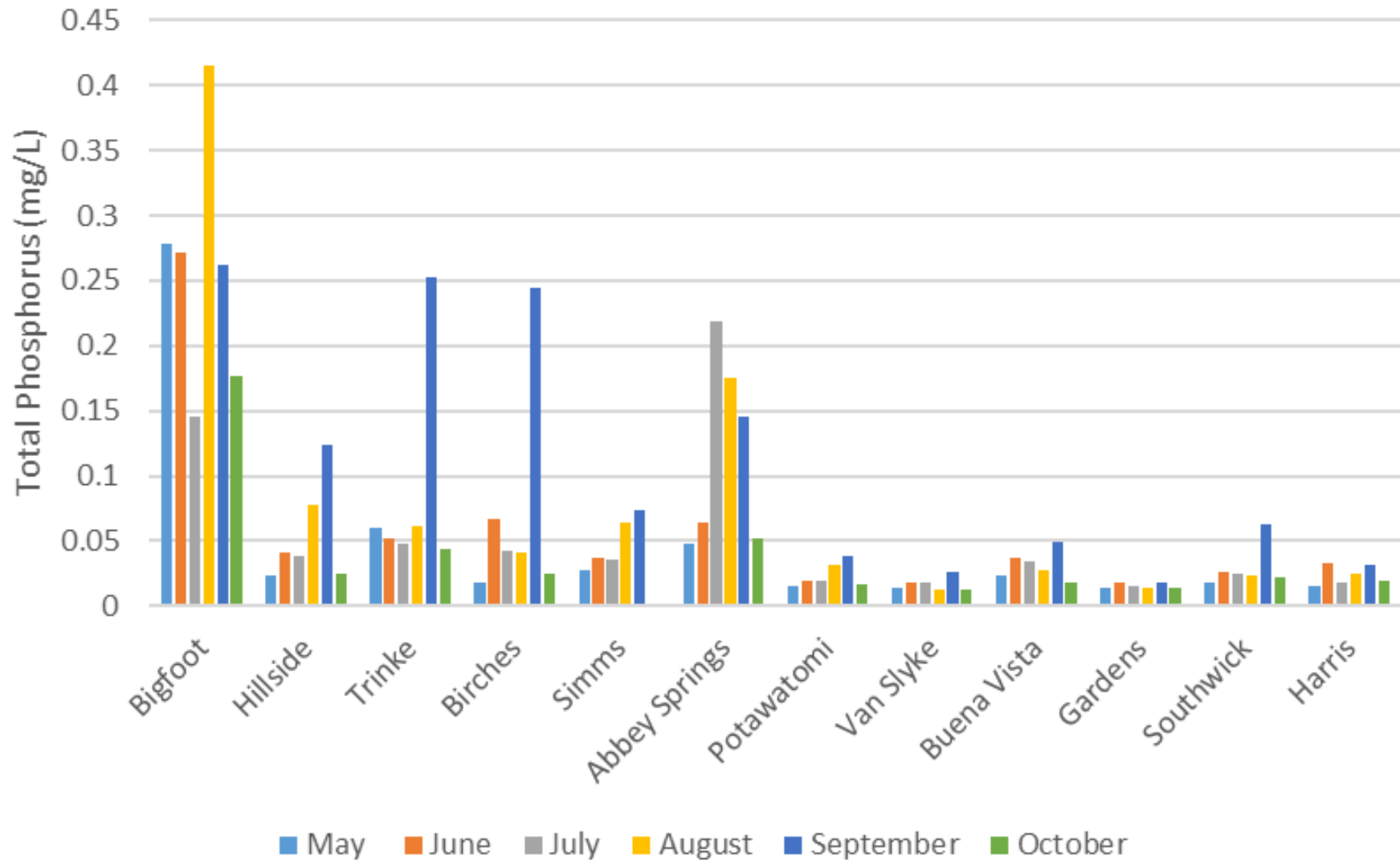
Wisconsin Lakes and Waterways

- Phosphorus is the pollutant responsible for the highest percentage of impaired waterways in Wisconsin. Small increases in phosphorus can fuel substantial increases in aquatic plant and algae growth, which in turn can reduce recreational uses, property values and public health.
- The number of polluted waterways in Wisconsin is up 70 percent since 2008, increasing from 738 to 1,258 under the draft list.

Total Phosphorus: Late Spring-to-Early Fall 2021



Total Phosphorus: Late Spring-to-Early Fall 2022



Tributaries bringing excess phosphorus to GL*

- 2021: Simms and Abbey Springs
- 2022: Big Foot, Hillside, Trinke, Birches and Abbey Springs
- Big Foot Creek is focal point of separate water testing by GLC and SEWRPC in 2023 and 2024 to determine source.
- *Of 16 streams tested

Water Alliance projects to reduce phosphorus

- GLC worked with DNR Healthy Lakes grant to plant more than 30 buffer strips and rain gardens along the shoreline from 2020-2023 to absorb polluted runoff.
- DNR and Walworth County worked with Odling Gravel Pit to take remedial action to reduce gravel and silt from flowing into lake after rain event.
- Water Alliance raised money for cover crops that was distributed to several farmers in the watershed to reduce runoff and soil erosion.
- Town of Linn Sanitary District and Walworth County succeeded in having several private septic systems that were not in compliance replaced.
- “Keep It Blue” educational program launched by GLC to educate landowners around the lake on how to reduce phosphorus runoff.

Future efforts to reduce phosphorus

- Prevent dense developments in the surface watershed and ground watershed such as the Shodeen development at Big Foot Farms that would have added 420 septic systems that emptied into groundwater that feeds Geneva Lake.
- Determine causes of high phosphorus levels from tributaries and take remedial actions, which can be expensive.
- Recommendations will be made in the Geneva Lake Management Plan Update.