

Unsettling Sediment: How Sedimentation and Other Water Quality Issues can be Combated with Stakeholder Help

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Photo by Mary Marsh



Photo by Kristin Vinduska



Photo by Mary Marsh

Marion County Lake is a public water resource widely used for recreation and is surrounded by both agricultural and some residential property. One purpose of this study was to evaluate the erosion rate, source and how it impacts the lake. The other purpose was to evaluate landowner perception of the lake and their opinions of conservation methods. The end goal of this study was to identify causes and begin to offer solutions to sedimentation to neighboring landowners and to lake managers to ensure long term success for the lake.

Marion County Lake Land Use

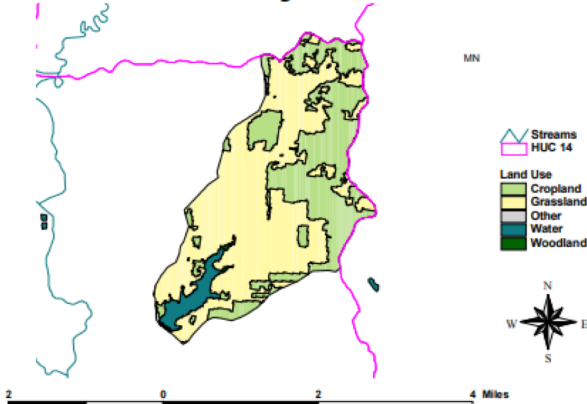


Figure 1. This is Marion County Lake and how it functions in the watershed (KDHE, 2002).

NORTHERN STREAM 1

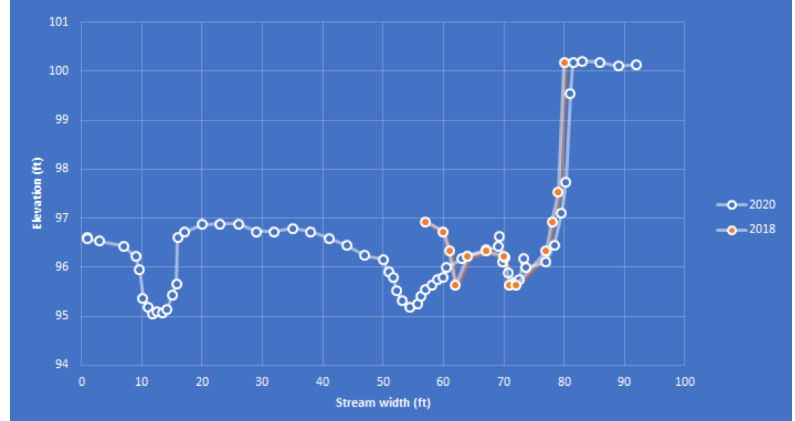


Figure 2. This is a comparison between streambank cross section measurements from 2020 and 2018 from roughly the same site. The estimated retreat rate of the streambank was 0.61 feet per year.

In the full report, problems within the watershed were addressed and conservation practices were suggested that could help reduce these issues. Methods on getting stakeholders involved in conservation practices were discussed including surveying for values, identifying preferences, and engaging stakeholders on different levels. Managers at Marion County Lake can use these methods to help create their lake management plan.

