



Rock County Land Conservation Department

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YAHARA RIVER WATERSHED ADAPTIVE MANAGEMENT ROCK COUNTY – 2022 ANNUAL REPORT

- **Best Management Practices Implemented in 2022:**

- **2.8 acres** of cropland was planted to **perennial forage** mix consisting of grasses and legumes (not to exceed 50% legumes). The field is located in the Yahara River Watershed. Modeling (Snap-Plus) determined **10.91 pounds of phosphorus was reduced from entering the river system annually.**

- **2022 Planning and Design Activities:**

- A barnyard runoff system was planned and the design started in 2021 with the goal of final design to be completed by March 2022. The barnyard resides within 300 feet of the Yahara River and houses on average 200 steers annually. Storm water runoff from the barnyard not only contributes high level of phosphorus but also is creating gully erosion that deposits sediments in the Yahara River. The design was not completed by March 2022 due to delays in engineering assistance. The design did get completed by December 31, 2022 with a goal to install the system in 2023.
- Plans were developed to plant a 22.0, and 2.1, acres cropland fields to perennial vegetation (grass/legume) in 2023. The cropland fields are located adjacent to a waterways that contribute storm water runoff to the Yahara River.

- **Educational Activities in 2022**

- Rock County Land Conservation Department provided information about the best management practices used in the Adaptive Management Program to the Rock County Land Conservation Committee.

- **Summary of Program Activities to Date (2017-2022)**
 - 50.9 acres of harvestable buffers installed.
 - 49.3 acres of cropland seeded to perennial forages.
 - 321 feet of streambank restoration.
 - .55 acres water upland basin with 1,200 feet underground pipeline
 - 380 feet rock-lined waterway
 - .5 acre wetland development
 - 1,320 feet grassed waterway

 - **3,495.71 pounds of phosphorus prevented** from entering Yahara River **annually.**

 - Calculated Cost Per Pound of Phosphorus (P) for 15 Year Period for Projects Installed to Date
 - $3,495.71 \text{ pounds P per year} \times 15 \text{ years} = 52,435.65 \text{ pounds}$
 - Total cost of projects = \$754,081
 - $\$754,081 / 52,435.65 \text{ pounds} = \mathbf{\$14.38^* \text{ per pound of P reduced}}$
- *includes staff costs