



Rock County Land Conservation Department

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YAHARA RIVER WATERSHED ADAPTIVE MANAGEMENT ROCK COUNTY – 2021 ANNUAL REPORT

- **Best Management Practices Implemented in 2021:**

- **2 harvestable buffers totaling 3.7 acres** were planted to a perennial forage mix consisting of grasses and legumes (not to exceed 50% legumes). The buffers are located along a tributary of the Badfish Creek. Modeling (Snap-Plus) determined **111.09 pounds of phosphorus was reduced from entering the river system annually.**
- **5.68 acres** of cropland was planted to **perennial forage** mix consisting of grasses and legumes (not to exceed 50% legumes). The fields are located in the Yahara River Watershed. Modeling (Snap-Plus) determined **37.21 pounds of phosphorus was reduced from entering the river system annually.**
- **1 grassed waterway** approximately 16 feet wide by 660 feet long was installed to **prevent gully erosion.** The project will **annually prevent 89.3 pounds of phosphorus** from entering the Yahara River.

- **2021 Planning and Design Activities:**

- A barnyard runoff system was planned and the design started in 2021 with the 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.
- 2.1 acres of cropland are planned to be planted to perennial vegetation (grass/legume) in 2022. The cropland field is located adjacent to a waterway that contributes storm water runoff to the Yahara River.

- **Educational Activities in 2021**

- Rock County Land Conservation Department conducted personal visits to 3 landowners located in the Yahara River Watershed to inform them about the Adaptive Management Program. Information about the best management practices used in the Adaptive Management Program was provided to the Rock County Land Conservation Committee.

- **Summary of Program Activities to Date (2017-2021)**

- 50.9 acres of harvestable buffers installed.
- 46.5 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
- **3,484.8 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
 - $3,484.8 \text{ pounds P per year} \times 15 \text{ years} = 52,272 \text{ pounds}$
 - Total cost of projects = \$741,443
 - $\$741,443 / 52,272 \text{ pounds} = \$14.18^* \text{ per pound of P reduced}$

*includes staff costs