



Rock County Land Conservation Department

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YAHARA RIVER WATERSHED ADAPTIVE MANAGEMENT ROCK COUNTY – 2020 ANNUAL REPORT

- **Best Management Practices Implemented in 2020:**

- **2 harvestable buffers totaling 2.96 acres** were planted to a perennial forage mix consisting of grasses and legumes (not to exceed 50% legumes). The buffers are located along the Yahara River and Badfish Creek. Modeling (Snap-Plus) determined **193.2 pounds of phosphorus was reduced from entering the river system annually.**
- **12.85 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 Gibbs Creek and Yahara River Watersheds. Modeling (Snap-Plus) determined **1,177.5 pounds of phosphorus was reduced from entering the river system annually.**
- **1 grassed waterway** approximately 40 feet wide by 660 feet long was installed to **prevent gully erosion.** The project will **annually prevent 32.1 pounds of phosphorus** from entering the Yahara River.
- A .5 acre **wetland development**, was created in cropland. The wetland is associated with one of the previously mentioned harvestable buffers and the phosphorus reduction was credited with the buffer.
- An approximately 20 feet wide by 380 feet **rock-lined waterway** was installed to **prevent gully erosion.** The project will **annually prevent 266.2 pounds of phosphorus** from entering the Yahara River.

- **Educational Activities in 2020**

- Personal visits to 5 landowners were made to landowners located in the Rock County 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 Board and Rock County Administrative staff.

- **2020 Planning and Design Activities:**

- 4 harvestable buffers approximately 15.2 acres were planned and designed to be planted in 2021 to perennial forage mixes consisting of introduced grasses and legumes. The legume amount will not exceed 50% of the mix.
- 5.2 acres of cropland are planned to be developed into wetland in 2021. The cropland field is located near the Yahara River. The wetland will be bordered by a harvestable buffer and will receive water conveyed by a grassed waterway.

- **Summary of Program Activities to Date (2017-2020)**

- 47.2 acres of harvestable buffers installed.
- 40.8 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
- 660 feet grassed waterway
- **3,247.2 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
 - $3,247.2 \text{ pounds P per year} \times 15 \text{ years} = 48,708 \text{ pounds}$
 - Total cost of projects = \$670,488
 - $\$670,488 / 48,708 \text{ pounds} = \mathbf{\$13.77^* \text{ per pound of P reduced}}$

*includes staff costs