



Rock County Land Conservation Department

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YAHARA RIVER WATERSHED ADAPTIVE MANAGEMENT ROCK COUNTY – 2019 ANNUAL REPORT

- **Best Management Practices Implemented in 2019:**

- **5 harvestable buffers totaling 17.6 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. Modeling (Snap-Plus) determined **273.3 pounds of phosphorus was reduced from entering the river annually.**
- **16.8 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 Badfish Creek Watershed. Modeling (Snap-Plus) determined **129.3 pounds of phosphorus was reduced from entering the river annually.**
- **1 Upland Water Basin** to collect storm water runoff with **1,200 feet long Underground Outlet** to deliver the collected water to a 60 feet wide by 600 feet harvestable buffer for the purpose of infiltrating the water into the soil. The project **prevented 2,000 feet of gully erosion.** A 30 feet wide harvestable buffer (.2 acre) will surround the Upland Water Basin to filter storm water as it enters the Upland Water Basin. The project will **annually prevent 183.3 pounds of phosphorus** from entering a tributary of the Yahara River.

- **Educational Activities in 2019**

- Personal visits to 4 landowners were made to landowners located in the Rock County Yahara River Watershed to inform them about the Adaptive Management Program. A presentation about water quality and best management practices used in the Adaptive Management Program was made to 16 students at Edgerton High School which is located within the Yahara River Watershed.

- **2020 Planning and Design Activities:**
 - 2 harvestable buffers totaling 9.6 acres were planned and designed to be planted in 2020 to perennial forage mixes consisting of introduced grasses and legumes. The legume amount will not exceed 50% of the mix. Modeling (Snap-Plus) has estimated **83.6 pounds of phosphorus will be annually prevented from entering the Yahara River.**
 - 3.1 acres of cropland and a 10.4 acre pasture were planned and designed to be planted in 2020 to perennial forage mix consisting of grasses and legumes (not to exceed 50% legumes). The cropland field is located in the Badfish Creek Watershed while the pasture is located in the Yahara River. Modeling (Snap-Plus) estimated **1,177.5 pounds of phosphorus will be annually reduced** from entering the river system.

 - **Summary of Program Activities to Date (2017-2019)**
 - 44.2 acres of harvestable buffers installed.
 - 27.9 acres of cropland seeded to perennial forages.
 - 321 feet of streambank restoration.
 - .55 acres water upland basin with 1,200 feet underground pipeline
 - 1,600.2 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
 - $1,507.4 \text{ pounds P per year} \times 15 \text{ years} = 22,611 \text{ pounds}$
 - Total cost of projects = \$526,025.00
 - $\$526,025.00 / 22,611 \text{ pounds} = \mathbf{\$23.26^* \text{ per pound of P reduced}}$
- *includes staff costs