**PROJECT TITLE: Morrison County Performance Drainage and Hydrology Management Phase II**

**PROJECT STATEMENT:**

This proposal, when funded, will enable Morrison SWCD to inventory an additional 4,000 culverts to complete the county wide culvert inventory started in 2016. This information will then be shared with local road authorities and resource professionals to help solve landowner conflicts and prioritize infrastructure maintenance all while protecting water quality and ensuring road safety.

Morrison SWCD historically has taken the lead in managing drainage, county wide, through the administration of the Wetland Conservation Act (WCA) guiding private landowners and the local road authorities through WCA laws and regulation relating to ditching and draining. This leadership role was taken a step further when in 2016, the district was awarded a LCCMR grant to hire a hydrology technician and conduct an initial culvert inventory along township roads. This previous grant supported the completion of two thirds of the counties township centerline and driveway culverts. Due to the sheer amount of culverts and the time necessary to inventory them the previous grant was not sufficient to complete the entire county. This phase two grant would complete the ten remaining townships and expand to include two additional areas of drainage infrastructure which were not previously considered in the 2016 grant but are critical to understand drainage hydrology at a county scale. The additional areas include select culverts in and around Camp Ripley, a 53,000 acre Army National Guard training facility located in Morrison County which contributes a large watershed and the second additional area is the 38 mile Soo Line Trail which bisects Morrison County.

Morrison County, like other agricultural counties, has experienced a vast increase in drainage. Thousands of acres are being tiled with no approval or oversight. The water moving across the landscape has altered drainage capacity of county and township roads, as well as created major conflict between neighbors and road authorities’ due to impacts of standing water on agricultural fields and topping of public roads. Morrison SWCD is committed to serving the public through a leadership role in managing drainage and sharing a more complete understanding of drainage infrastructure within the county. This information will assist local authorities in making decisions about upcoming project areas based on complete hydrology and storm water information. This work will not only save taxpayer money and reduce conflict between landowners but ultimately improve public safety and water quality.

**II. PROJECT ACTIVITIES AND OUTCOMES:**

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| **Activity 1 Title: Inventory culverts within Morrison County, specifically township road centerline and private driveways, culverts along the Soo Line Trail and select culverts in and around Camp Ripley.****Description:**Complete township centerline and driveway culverts in ten townships along withtwo additional (not previously considered in Phase I) areas need to be inventoried in order to comprehend the hydrology and storm water management for the county. The remaining townships include Parker, Ripley, Pulaski, Buh, Granite, Bellevue, Buckman, Morrill, Lakin and Swanville Townships. The additional areas include select culverts in and around Camp Ripley, a 53,000 acre Army National Guard training facility located in Morrison County which contributes a large watershed and the second is the 38 mile Soo Line Trail which bisects Morrison County. The hydrology technician afforded through this capacity funding would work with township and county road authorities as well as Camp Ripley to identify culvert locations so drainage infrastructure can be inventoried. Inventory data as well as watershed and safety prioritization rankings will be shared with the appropriate townships, Morrison County, DNR, Camp Ripley and FEMA. The dataset will then be published for public access on the Morrison County Beacon GIS map. **ENRTF BUDGET: $213,300** |

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| **Outcome** | **Completion Date** |
| *1. Conduct culvert inventories on approximately 4,000 culverts (~3,700 township’s centerline and private driveway culverts, ~100 Soo Line Trail culverts and ~200 culverts in and around the 53,000 acre Camp Ripley)* | *October 31, 2022* |
| *2. Create and maintain a database of all culvert elevations throughout the county* | *October 31, 2022* |
| *3. Provide updated culvert inventory data to Morrison County for publication on Morrison County Beacon GIS* | *June 30, 2023* |
| *4. Prioritize and rank inventory work based on watershed and safety considerations* | *June 30, 2023* |
| *5. Provide updated culvert inventory data and prioritization suggestions to road authorities at the Township and County level as well as Camp Ripley, DNR and FEMA* | *June 30, 2023* |

**III. PROJECT PARTNERS AND COLLABORATORS: Partners NOT receiving ENRTF funding**

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| Name | Title | Affiliation | Role |
| Morrison County | Public Works, Land Services & GIS Depts. | Partner | In Kind Support; Secondary |
| Parker, Ripley, Pulaski, Buh, Granite, Bellevue, Buckman, Morrill, Lakin and Swanville Townships | Township Road Authorities | Partner | In Kind Support; Secondary |
| Department of Military Affairs (DMA) | Camp Ripley Env. Services | Partner | In Kind Support; Secondary |

**IV. LONG-TERM IMPLEMENTATION AND FUNDING:** Once the drainage inventory is complete Morrison SWCD will continue to staff a hydrology technician in-house for assistance to township officials, Morrison County, landowners and Camp Ripley as requested and work with each of these entities to keep the inventory up to date. The hydrology technician would also offer technical assistance by helping to design control structures on drainage systems (both tiling and ditching), assist road authorities with drainage designs and oversee tiling designs to assure tile systems are more efficient and do not negatively impact roads, neighboring properties, or impact surface waters with nutrient loads. Ongoing culvert inventory data would be maintained by Morrison SWCD and would be accessible electronically through the Morrison County Beacon GIS system. This completed inventory will also allow other staff and partners to develop hydrology restoration priorities at the HUC 12 watershed level.

Long-term support for the position will come from SWCD Local Capacity funds currently sourced through the Clean Water Fund. This funding provides grants to Soil and Water Conservation Districts that focuses on increasing capacity to address four resource concern areas: Soil Erosion, Riparian Zone Management, Water Storage and Treatment, and Excess Nutrients.

**V. SEE ADDITIONAL PROPOSAL COMPONENTS:**

**A. Proposal Budget Spreadsheet**

**B. Visual Component or Map**

**C. Project Manager Qualifications and Organization Description**

**D. Resolution**

**E. Letters of Support**