LCCMR Emerging Issue Proposal
Reducing Turtle Mortality through Exclusionary Fencing on MnDOT Right of Way
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DEPARTMENT OF TRANSPORTATION

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- Two of the nine Minnesota native turtle species are on the state's threatened species list – Blanding's Turtle and the wood turtle

- The wood turtle is under review for federal threated species listing

- Threats include habitat loss, illegal harvest, road construction and road fatalities

- Compounding problems

- The DNR recently completed the Minnesota Wood Turtle Conservation Plan which lists road mortality as a concern and suggests fencing as a mitigation strategy

Alarming decrease of wood turtles

- A survey of eight different study sites in Northeastern MN conducted 2016 – 2018

  - In 2016 the estimated wood turtle population at the sites was **247**

  - In 2018 the estimated population dwindled to **88** at the same sites (Berkeland et al. 2019, Crozier 2020)

- In May 2023, the MN Biological Survey team surveyed Goodhue County and found only two wood turtles – and those are the first on record since 1999

- **With so few numbers, this species is particularly vulnerable as <u>the loss of any individuals from their population in spring and summer 2024 could have a devastating effect</u>**

Goodhue County and the Cannon River Turtle Preserve

- Cannon River Turtle Preserve Scientific and Natural Area

- This 910-acre SNA protects a stretch of the Cannon River

- The area is high risk for roadside turtle mortality as wood turtles tend to forage and nest within 500' of rivers

Project area along Hwy 61
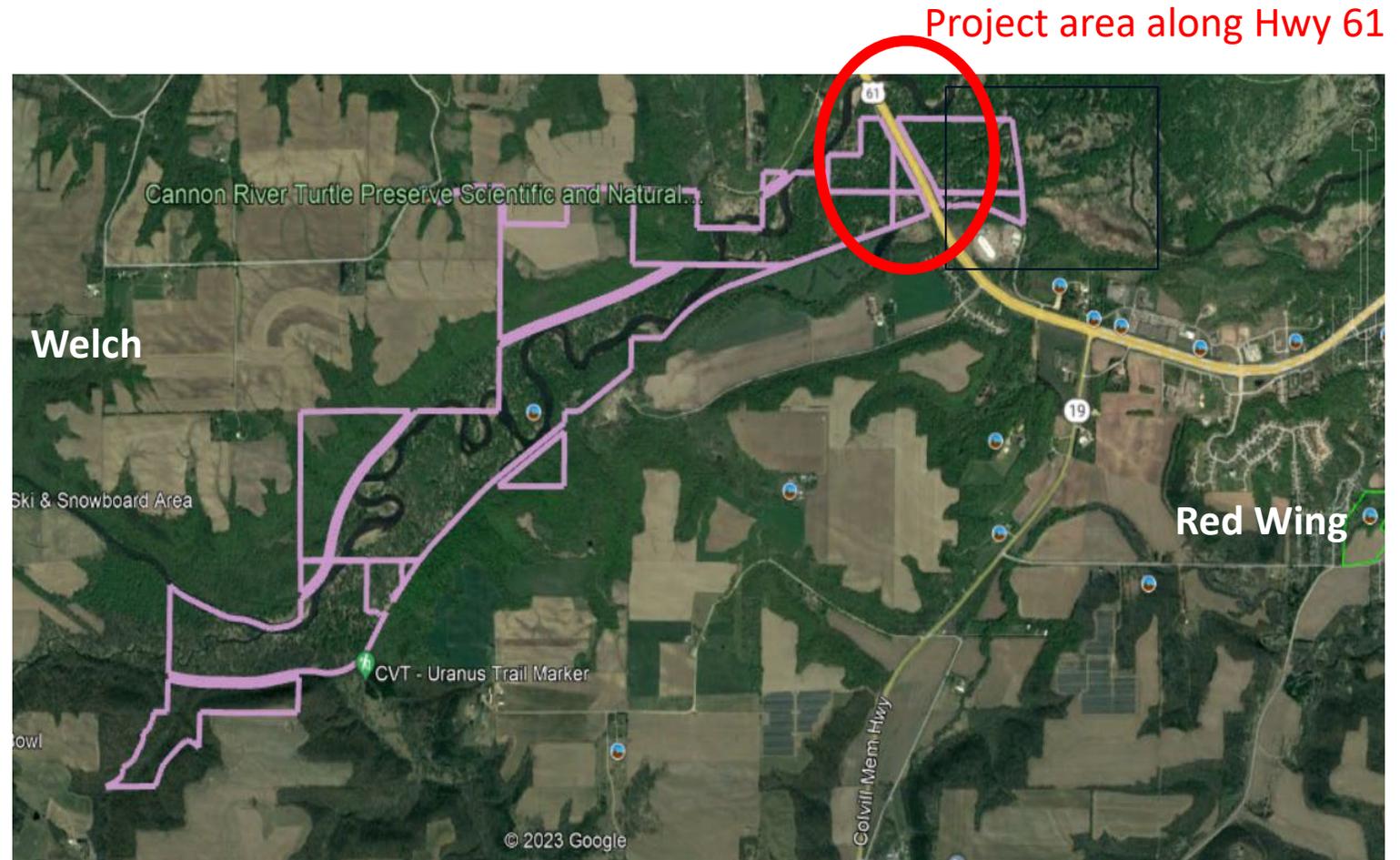
- Immediate construction is necessary to reduce turtle roadkill this spring and summer as turtles move between nesting and foraging areas

- Fencing would be approximately three quarters of a mile, between two MnDOT bridges

- Turtles and other small animals will be redirected to safe passage underneath the existing bridges, meaning no culverts or other infrastructure need be built for safe crossing

- Preliminary review, DNR staff from SNA and Region 3 Nongame support MnDOT's fencing proposal

- The Prairie Island Indian Community is working on a proposal for turtle eco-passages in a nearby-area and initial conversations with them indicate an interest in this project

Demonstrated efficacy of proposed fencing

- The Minnesota Zoo and MnDOT studied small animal exclusionary fencing with "J-Hook" end treatments which turn turtles back towards an area of safe passage

- Installation and monitoring between 2019-2021 showed a reduction of adult turtle mortality by 83%

- Additional "hardware cloth" added to prevent hatchlings and juveniles from entering the road

- Resulted in a 91% reduction of mortality for all turtles

- With the design proven effective, MnDOT can now use this low-cost, off-the-shelf fencing with confidence

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Opportunities

- This proposal has been created with involvement of the MnDOT Highway Sponsorship Program which leverages private-public partnerships to install landscape enhancement projects in our existing right of way

- Securing funds and installing this exclusionary fencing will demonstrate to potential private sponsors our level of investment and encourage their partnership

- Additional private investment within this project area could increase the impact of LCCMR's investment

Approximately 6,160 feet of small animal exclusionary fencing: $238, 823

Specialized signs indicating the specialized nature of this fencing: $1,500

Installation of native vegetation for foraging and nesting for turtles
and other species: $6,500

Installation of trail cameras to monitor success: $2,000

TOTAL   **$248,823**

Thank you for your time and consideration!

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Fencing to be constructed along Hwy 61

Low cost, off-the-shelf fencing materials

"J-Hook" configuration end treatments turn turtles back towards an area of safe passage

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