



Environment and Natural Resources Trust Fund

M.L. 2020 Approved Work Plan

General Information

ID Number: 2020-099

Staff Lead: Noah Fribley

Date this document submitted to LCCMR: March 12, 2024

Project Title: Emerging Issues Reducing Turtle Mortality

Project Budget: \$249,000

Project Manager Information

Name: Christopher Smith

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Project Reporting

Date Work Plan Approved by LCCMR: March 20, 2024

Reporting Schedule: April 1 / October 1 of each year.

Project Completion: June 30, 2024

Final Report Due Date: August 14, 2024

Legal Information

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 5, Sec. 2, Subd. 20c-1

Appropriation Language: The following amounts, estimated to be \$284,000, are transferred to an emerging issues account authorized in Minnesota Statutes, section 116P.08, subdivision 4, paragraph (d):

- (1) the unencumbered amount, estimated to be \$100,000, in Laws 2015, chapter 76, section 2, subdivision 8, paragraph (b), Propagating Native Plants and Restoring Diverse Habitats;
- (2) the unencumbered amount, estimated to be \$50,000, in Laws 2016, chapter 186, section 2, subdivision 6, paragraph (c), Advancing Microbial Invasive Species Monitoring from Ballast Discharge;
- (3) the unencumbered amount, estimated to be \$11,000, in Laws 2017, chapter 96, section 2, subdivision 5, paragraph

- (a), Connecting Youth to Minnesota Waterways through Outdoor Classrooms;
- (4) the unencumbered amount, estimated to be \$43,000, in Laws 2017, chapter 96, section 2, subdivision 5, paragraph (e), Local Planning and Implementation Efforts for Bird Habitat;
- (5) the unencumbered amount, estimated to be \$30,000, in Laws 2017, chapter 96, section 2, subdivision 8, paragraph (a), Optimizing the Nutrition of Roadside Plants for Pollinators;
- (6) the unencumbered amount, estimated to be \$10,000, in Laws 2017, chapter 96, section 2, subdivision 8, paragraph (f), Prescribed-Fire Management for Roadside Prairies;
- (7) the unencumbered amount, estimated to be \$20,000, in Laws 2018, chapter 214, article 4, section 2, subdivision 4, paragraph (a), Pilot Program to Optimize Local Mechanical and Pond Wastewater-Treatment Plants; and
- (8) the unencumbered amount, estimated to be \$20,000, in Laws 2018, chapter 214, article 4, section 2, subdivision 6, paragraph (e), Install and Evaluate an Invasive Carp Deterrent for Mississippi River Locks and Dams.

(d) Transfers and Availability

The transfers under this subdivision are effective June 30, 2021, and the transferred amounts are available until June 30, 2023.

M.L. 2022, Chp. 94, Sec. 2, Subd. 19 Carryforward; Extensions, (b) The availability of the transfers for the following projects is extended to June 30, 2024: (7) Laws of 2021 First Special Session, chapter 6, article 5, section 2, subdivision 20, paragraph (c), clauses (1) through (8), Emerging Issues Account

Appropriation End Date: June 30, 2024

Narrative

Project Summary: Build small animal exclusionary fencing on MnDOT Right of Way to reduce turtle mortality caused by animal-vehicle collisions where Highway 61 crosses the Cannon River near Red Wing, MN.

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Timely construction of this small animal exclusionary fencing will immediately start reducing turtle roadkill this spring and summer as turtles move between nesting and foraging areas. Using a standardized design, and off-the-shelf materials already tested, turtles can be redirected to existing under-bridge areas for safer passage. This is especially important for the wood turtle. The wood turtle is one of nine Minnesota native turtle species and is classified as "threatened." In 2023 staff from the Minnesota Biological Survey concluded a statewide study and found disturbing results; even in counties like Goodhue, which is home to the 910-acre Cannon River Turtle Preserve and Scientific Natural area, wood turtles are rare, and apparently declining. In fact, wildlife staff found just two adult wood turtles in the county, and they are the first known records for the county since 1999. With so few numbers, this species is particularly vulnerable as the loss of any individuals from their population this spring and summer could have a devastating effect. In addition, the wood turtle is under review for federal listing, with a federal listing decision expected in federal fiscal year 2024.

What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.

Build approximately 6,160 feet of small animal exclusionary fencing on MnDOT in each direction between bridges 25018/25021 and 25017/25023. The fencing would be built from readily available, low-cost materials using an already approved design, thus eliminating the need for design work or expensive retrofits. Chain link fence would be installed with posts set at a minimum of 4 feet into the ground. Additionally, hardware cloth would be attached and buried 12 inches below the fence, and extend at least 2 feet above ground, which will prevent the small hatchlings and juveniles from fitting through the chain link fencing. Wrap-around "j-hook" end treatments at a minimum of 10' in length will be installed to redirect turtles toward the under-bridge safer passage routes.

Specialized signs attached at regular intervals indicating the specialized nature of this fencing and indicating repairs and replacement must be overseen by the MnDOT wildlife ecologist are included in this proposal. Additionally, educational signage may be placed at a designated parking area along the Cannon River Trail and a DNR public water access (both within the project area) -- educational signage may be installed outside the scope of the LCCMR appropriation.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

Studies between 2019 and 2021 showed this configuration of fencing reduced roadside turtle mortality by 91%. We expect similar results in this location. In addition to reducing turtle mortality, this fencing will prevent other small wildlife from entering the roadway. This serves wildlife conservation efforts, and improves human safety as animal presence in the roadway creates dangers for motorists, bicyclists and pedestrians.

Project Location

What is the best scale for describing where your work will take place?

City(s): Red Wing

What is the best scale to describe the area impacted by your work?

Watershed(s): Cannon River

When will the work impact occur?

During the Project and In the Future

Activities and Milestones

Activity 1: Construct Fence

Activity Budget: \$249,000

Activity Description:

This activity will construct the proposed fencing in accordance with the construction contract and MnDOT specifications.

Activity Milestones:

Description	Approximate Completion Date
Execute Construction Contract	April 30, 2024
Update budget upon contract award, itemize materials costs and labor costs.	April 30, 2024
Construct Fencing	June 30, 2024
Complete project inspections	June 30, 2024
Habitat Modifications (vegetation planting and nesting site creation)	June 30, 2024
Install ENRTF signage.	June 30, 2024
Install specialized signage	June 30, 2024

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Shawna Gibson	MnDOT Highway Sponsorship Program	Collaborator	No

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

Upon completion of the project. MnDOT will work with MnDNR, ENRTF, and others to highlight the project on social media and via other venues to raise awareness of the conservation challenges Minnesota's turtles face. MnDOT will install at least one ENRTF signage in a prominent location at the project site.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?

Longterm maintenance will be achieved using MnDOT District funds. The Highway Sponsorship Program will seek sponsors who will have licenses to work in the MnDOT right of way to further improve the environmental sustainability in the immediate area through installing native plant species, improving habitat for pollinators and other wildlife and removing invasive plant species.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
TBD	Professional or Technical Service Contract	The contractor will install fencing per MnDOT specifications. Vegetation planting and any habitat modifications (sand/gravel placement) will be provided and installed by the contractor.				0.48		\$100,000
							Sub Total	\$100,000
Equipment, Tools, and Supplies								
	Tools and Supplies	ENRTF Signage	Signage per communications requirements					\$100
	Equipment	Specialized signage	Signage to denote the fence is "Small Animal Fencing" (i.e., special fencing)					\$150
							Sub Total	\$250
Capital Expenditures								
		Fencing materials	Materials used to construct fencing.	X				\$148,750
							Sub Total	\$148,750
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								

							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
							Sub Total	-
							Grand Total	\$249,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Capital Expenditures		Fencing materials	<p>Having MnDOT provide fencing materials will expediate project delivery and reduce overall project costs.</p> <p>Additional Explanation : Fencing to protect rare wildlife will remain in place as part of this project. Materials will be obtained by MnDOT and provided to contractor.</p>

Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount
State				
In-Kind	MnDOT operating funds	MnDOT staff time is provided in kind.	Secured	\$56,250
			State Sub Total	\$56,250
Non-State				
			Non State Sub Total	-
			Funds Total	\$56,250

Attachments

Required Attachments

Visual Component

File: [101d606d-574.pdf](#)

Alternate Text for Visual Component

Chain link fence with "J-turn" end treatments....

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

No changes intended.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

Yes

Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

N/A

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No