

**Environment and Natural Resources Trust Fund
2020 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 214-F

Marsh Bird Conservation Planning in St.Louis River Estuary

Category: F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

Sub-Category:

Total Project Budget: \$ 284,068

Proposed Project Time Period for the Funding Requested: June 30, 2023 (3 yrs)

Summary:

Audubon and partners will develop a landscape scale conservation action plan for the most critical marshes of the St. Louis River Estuary in Northeast Minnesota.

Name: Nathaniel Miller

Sponsoring Organization: National Audubon Society

Job Title: Director of Conservation

Department: Audubon Minnesota

Address: 1 W Water Street
St. Paul MN 55107

Telephone Number: (651) 739-9332

Email nmliller@audubon.org

Web Address: http://mn.audubon.org/

Location:

Region: Northeast

County Name: St. Louis

City / Township: Duluth

Alternate Text for Visual:

Marsh bird conservation planning in the St. Louis River Estuary: Focal sites for critical assessment

<input type="checkbox"/>	Funding Priorities	<input type="checkbox"/>	Multiple Benefits	<input type="checkbox"/>	Outcomes	<input type="checkbox"/>	Knowledge Base	
<input type="checkbox"/>	Extent of Impact	<input type="checkbox"/>	Innovation	<input type="checkbox"/>	Scientific/Tech Basis	<input type="checkbox"/>	Urgency	
<input type="checkbox"/>	Capacity Readiness	<input type="checkbox"/>	Leverage	<input type="checkbox"/>		TOTAL	<input type="checkbox"/>	%



PROJECT TITLE: Marsh Bird Conservation Planning in St. Louis River Estuary

I. PROJECT STATEMENT

Audubon Minnesota, the Natural Resources Research Institute (NRRI) of University of Minnesota Duluth and Minnesota Land Trust (MLT) will develop a **landscape scale conservation action plan** for the **most critical marshes of the St. Louis River Estuary (SLRE)** in Northeast Minnesota. The project team will work with several land owners and other conservation partners to **document baseline numbers** of quality emergent marsh and breeding marsh birds across the SLRE and then **establish acreage and bird population goals** that will inform management and can be tracked over time.

This science-based planning and restoration actions are aimed at reversing the declining population trends of species of high conservation concern such as Common Gallinule, Least Bittern, and Virginia Rail, which have suffered region-wide declines in parallel with the degradation of deep marshes and large wetland complexes in Minnesota and across the Midwest. While setting population-based goals is challenging, once established, they provide a **tangible metric** for conservation, **improve leverage** for restoration, and allow **broad partnerships** to form around landscape-level objectives. Through aerial surveys, the project team will map at least 3,000 acres of emergent marsh along an 11-mile stretch of the SLRE. During the summer months over three years, the project team will survey for 10-14 focal marsh bird species using the North American Secretive Marsh Bird Survey protocol.

This proposed project integrates with and targets objectives of Minnesota DNR's St. Louis River Restoration Initiative (SLRRI), which aims to restore and protect the largest and most biologically-rich wetland complex in Western Lake Superior. The ecological integrity and habitat quality of the SLRE has been impacted by several historical and ongoing threats including habitat loss, increased sedimentation, development, invasive species, and contaminant exposure from industrial activity. These threats have caused significant impairments, including the loss of rich mosaics of open water and emergent native plants such as cattail, reeds, and rushes. These "emergent marshes" have been replaced by open water "ponds" or closed monocultures of invasive plants severely impacting wildlife and water quality.

The SLRRI partnership has successfully cleaned up legacy impairments and greatly improved fish habitat, with a number of restoration projects ongoing. To date however, this work has yet to incorporate avian objectives. With significant overlap between quality emergent marsh, breeding habitat for marsh birds of conservation concern, and water quality, this project is a critical next step in the partnership to sustain long-term conservation with demonstrable outcomes of success that can be replicated across the state.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1 Title: Establish baseline numbers of emergent marsh (acres) and marsh birds (breeding density)

Description: Through remote sensing via drones and satellite imagery, the project team will map current conditions of emergent marsh. Additionally the project team will review historical data and consult with local experts in order to map areas where the potential to recreate native emergent marsh is the greatest. The project team will implement the North American Standardized Marsh Bird Survey, which utilizes playbacks during summer, to document the density of the following marsh bird species: American Bittern, American Coot, Black Rail, Common Gallinule, King Rail, Least Bittern, Marsh Wren, Pied-billed Grebe, Sora, Swamp Sparrow, Virginia Rail and Yellow-headed Blackbird.



**Environment and Natural Resources Trust Fund (ENRTF)
2020 Main Proposal Template**

ENRTF BUDGET: \$ \$176,320

Outcome	Completion Date
<i>1. Baseline of quality marsh documented across the SLRE</i>	<i>November 2020</i>
<i>2. Map of highest priority marshes of SLRE established</i>	<i>November 2021</i>
<i>3. Baseline of breeding marsh birds established</i>	<i>November 2021</i>

Activity 2 Title: Set regional goals and recommend restoration actions.

Description: The project team will facilitate a regional planning process that sets acreage goals of emergent marsh and population goals of at least three breeding marsh birds that provide an indicator of overall marsh functionality (i.e. quality hemi-marsh habitat). The partnership of conservation organizations will work in tandem with agency partners of the SLRRI to identify and develop avian restoration projects with specific plans to improve hydrology and vegetation and that are complimentary to Area of Concern objectives. While the primary conservation target will be framed around breeding marsh birds, there will be significant potential to benefit a wider range of natural resources, including water quality.

ENRTF BUDGET: \$107,748

Outcome	Completion Date
<i>1. Acres and population goals established and supported by SLRRI</i>	<i>January 2022</i>
<i>2. Conservation Action Plan for the Critical Marshes of SLRE published</i>	<i>January 2023</i>
<i>3. Breeding marsh bird populations increased from baselines</i>	<i>June 2023</i>

III. PROJECT PARTNERS AND COLLABORATORS:

The Natural Resources Research Institute, University of Minnesota Duluth (funded)
Minnesota Land Trust (unfunded)
Minnesota Department of Natural Resources (unfunded)
The City of Duluth and other SLRRI partners (unfunded)

IV. LONG-TERM IMPLEMENTATION AND FUNDING:

This project specifically targets objectives established by partners of the SLRRI and within beneficial use impairment goals of the SLRE’s listing as a Great Lakes Area of Concern. The project team and additional partners will utilize the outputs of this science-based planning process to secure funding directly from the Great Lakes Restoration Initiative, MN Land & Legacy Outdoor Heritage Fund as well as charitable foundations with whom Audubon is already working. This funding will facilitate the future protection and restoration of up to 3,000 acres of coastal wetlands and shoreline along nearly 11 miles of the SLRE. This critical project will allow the project team to incorporate bird related data and plans into the long-term plans of the SLRRI, which is taking a coordinated, holistic, and landscape-scale approach to long-term conservation and management of the SLRE’s natural resources. This project will also be used as a model for landscape scale conservation plans that can be implemented throughout the state.

V. SEE ADDITIONAL PROPOSAL COMPONENTS:

Attachment A: Project Budget Spreadsheet
 Environment and Natural Resources Trust Fund
 M.L. 2020 Budget Spreadsheet



Legal Citation:
 Project Manager: Nat Miller
 Project Title: Marsh bird conservation planning in the St. Louis River Estuary
 Organization: Audubon Minnesota
 Project Budget: \$284,068
 Project Length and Completion Date: Three years, November 2023
 Today's Date: 3/14/2019

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits)	\$ 203,940	\$ -	\$ 203,940
Director of Conservation Great Lakes, 1 person, 15% FTE x 3 years, 76% salary, 24% fringe (\$59,400)			
Marsh Bird Coordinator, 1 person, 50% FTE x 3 years, 76% salary, 24% fringe (\$99,000)			
Office Administrator, 1 person, 10% FTE x 3 years, 76% salary, 24% fringe (\$13,860)			
Engagement Director, 1 person, 10% FTE x 3 years, 76% salary, 24% fringe (\$31,680)			
Professional/Technical/Service Contracts			
Natural Resources Research Institute - monitor marsh birds and map aerial imagery over two years.	\$ 75,000	\$ -	\$ 75,000
Equipment/Tools/Supplies			
Speakers for playback (10 @ \$50)	\$ 500	\$ -	\$ 500
Waders (4 @ \$150)	\$ 150		\$ 150
Binoculars (4 @ \$200)	\$ 200		\$ 200
Capital Expenditures Over \$5,000			
	\$ -	\$ -	\$ -
Fee Title Acquisition			
	\$ -	\$ -	\$ -
Easement Acquisition			
	\$ -	\$ -	\$ -
Professional Services for Acquisition			
	\$ -	\$ -	\$ -
Printing			
Reports and flyers	\$ 750	\$ -	\$ 750
Travel expenses in Minnesota			
Site-based travel within St. Louis River Estuary @ 500 miles per years @56 cents per mile	\$ 2,520	\$ -	\$ 2,520
Travel from St. Paul to St. Louis River Estuary 2 round trips per year @ 300 miles @56 cents per mile	\$ 1,008		\$ 1,008
Other			
	\$ -	\$ -	\$ -
COLUMN TOTAL	\$ 284,068	\$ -	\$ 284,068

SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT	Status (secured or pending)	Budget	Spent	Balance
Non-State:				
Crown Family Philanthropies	Pending	\$ 150,000		
Audubon	Secured	\$ 40,000		
Great Lakes Restoration Initiative	Pending	\$ 300,000		
State:				
Outdoor Heritage Council	Pending	\$ 350,000		
In kind:				
Audubon indirect charges (24.66%)		\$ 57,267		
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS	Amount legally obligated but not yet spent	Budget	Spent	Balance
Maximize Value of Water Impoundments to Wildlife. Legal Citation: M.L. 2017, Chp. 96, Sec. 2, Subd. 06f	\$86,696	\$195,000	\$108,304	\$86,696
Create a Statewide Waterbird Monitoring Program. Legal Citation: M.L. 2015, Chp. 76, Sec. 2, Subd. 03f	\$900	\$146,000	\$145,100	\$900
Local planning and implementation efforts for bird habitat. Legal Citation: M.L. 2017, Chp. 96, Sec. 2, Subd. 05e	\$194,262	\$280,000	\$85,738	\$194,262
Controlling Reed Canary Grass to Regenerate Floodplain Forest Legal Citation: M.L. 2016, Chp. 186, Sec. 02, Subd. 08e	\$55,559	\$218,000	\$162,441	\$55,559

Marsh bird conservation planning in the St. Louis River Estuary:
Focal sites for critical assessment



Polygons in red represent assessment and planning sites.

Project Manager

Nat Miller is the Director of Conservation for National Audubon's Upper Mississippi Flyway and Great Lakes Region. Nat holds a M.A. in International Environmental Policy from the Middlebury Institute of International Studies at Monterey. After earning his degree, he spent seven years working in the Caribbean and Central America managing parks and establishing protected area policy before joining Audubon in 2014. Nat now leads a conservation and science team that looks to birds to inform ecosystem management. Audubon's Great Lakes Initiative launched in 2016, has ambitious goals to restore and protect the waters of the Great Lakes and thousands of acres of coastal areas that provide important habitat for hundreds of species of migratory land birds and breeding marsh birds, both of which have experienced significant declines in population over the past several decades. Monitoring efforts and landscape planning projects led by Nat in Illinois, Indiana, and Michigan over the past two years have garnered over \$2 million and hundreds of acres in Audubon restoration projects.

Organization Description

Audubon protects birds and the places they need, today and tomorrow. For more than a century, Audubon has built a legacy of conservation success by mobilizing the strength of its network to connect people with nature and empower them to protect it. A potent combination of science, education, and policy expertise merges in efforts ranging from protection and restoration of local habitats to the implementation of policies that safeguard birds, other wildlife, and the resources that sustain us all.

Our work, guided by our 2016-2020 strategic plan, is organized by 5 key conservation priorities:

- **Coasts** – Protect the most important breeding, stopover, and wintering sites for birds. Protect San Francisco Bay, Delaware River Basin, Arctic and Gulf of Mexico. Implement and influence adaptation strategies for 300,000 acres of coastal wetlands and marshes.
- **Working Lands** – Collaborate with landowners, land managers, government agencies, and private industry to increase the quality of habitat on privately managed lands. Protect Greater Sage-Grouse conservation plans, California's Central Valley and Eastern Forests, and make one billion acres of working lands do double duty as bird habitat.
- **Water** – Engage the public on issues surrounding water rights and water quality; restore habitats along rivers, wetlands, and deltas. Restore Salton Sea, Colorado River Basin, Great Lakes and the Everglades, and activate 40,000 advocates on water conservation measures.
- **Climate** – Protect the places that birds need by encouraging efforts at the local, state and federal levels that mitigate impacts of a changing climate on bird habitat and migratory patterns. Engage 100,000 Americans to plant 1 million native plants to benefit climate-threatened birds.
- **Bird-Friendly Communities** – Utilize our network across thousands of communities to make them healthy and safe for birds including planting 10 million native plants for birds.

Audubon's national, state, and local work is coordinated and mutually reinforcing. Field offices serve as local organizing points for conservation objectives, policy goals, and activation of our 1 million members and 463 chapters, allowing Audubon to be local everywhere.