



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2015 Work Plan

Date of Report: 18 December 2014

Date of Next Status Update Report: 30 December 2015

Date of Work Plan Approval:

Project Completion Date: 30 June 2018

Does this submission include an amendment request? NO

PROJECT TITLE: Creating a Statewide Wetland Bird Monitoring Program

Project Manager: Kristin Hall

Organization: Audubon Minnesota

Mailing Address: 1 Water Street West, Suite 200

City/State/Zip Code: Saint Paul, MN 55107

Telephone Number: (651)739-9332, ext 116

Email Address: khall@audubon.org

Web Address: mn.audubon.org

Location: Statewide

Total ENRTF Project Budget:

ENRTF Appropriation: \$146,000

Amount Spent: \$0

Balance: \$146,000

Legal Citation: M.L. 2015, Chp. 76, Sec. 2, Subd. 03f

Appropriation Language:

\$146,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Audubon Minnesota to develop a statewide wetland bird monitoring program in order to enable long-term monitoring of the status of wetland birds and the health of their wetland habitats. This appropriation is available until June 30, 2018, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Creating a Statewide Wetland Bird Monitoring Program

II. PROJECT STATEMENT: We will develop a statewide wetland bird monitoring program, which will include rails, bitterns, and waterbirds, utilizing a combination of volunteer citizen scientists and paid surveyors. Our objective is to establish a long-term statewide wetland bird monitoring system to provide state agencies and others with a method to monitor the status of these birds and the health of their wetland habitats now and into the future. Many wetland birds are difficult to survey, in large part because of their inconspicuous nature and the difficulty of accessing their habitats. Thus, effective conservation planning and habitat management for wetland birds is challenging and information regarding abundance, distribution, population trends, habitat relationships, and management needs for these species is limited. Systematic and coordinated wetland bird monitoring has been recognized as a high priority in state, regional and national conservation plans. Because of this, more effort is being put into wetland bird monitoring across the Midwest using standardized protocols and data collection.

Minnesota is fortunate to have some baseline data on this group of birds from the County Biological Survey and the recently completed Breeding Bird Atlas; this project is neither a repeat nor an extension of either of these surveys. However, it does build on these efforts, using what we have learned to date to monitor these species into the future. Because these birds are dependent on wetlands they can serve as valuable indicators of habitat quality and are useful monitoring tools for wetland quality as well as restoration efforts.

Methodologies to monitor wetland birds are constantly being improved and refined. We will begin the project by reviewing and referencing already established standardized protocols used to conduct the monitoring and will consult with researchers in Minnesota and other states to incorporate any modifications developed prior to the start of our field work to ensure we are using the most up to date and effective methods available. This will include a recently established secretive marsh bird survey protocol that has been developed to address research questions while providing a regional measure of population status and trends. Working with biologists to incorporate current efforts will allow our statewide survey to be compatible with larger-scale regional monitoring. Survey sites will be chosen based on a sub-sample of wetlands currently being monitored by the MN DNR located within the Audubon Minnesota Important Bird Area network. Using a combination of volunteers and paid staff proved extremely effective in completing the Breeding Bird Atlas and we propose to follow that model in this project. Such a combination allows for volunteer involvement and its reduced costs while ensuring that hard to access sites are also covered. We will use a website for data entry allowing for easy and immediate data collection and review if necessary.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of: 30 December 2015

Project Status as of: 30 September 2016

Project Status as of: 30 March 2017

Project Status as of: 30 September 2017

Project Status as of: 30 March 2018

Overall Project Outcomes and Results: 30 June 2018

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Finalize Study Protocol and Monitoring Sites

Description: During the first 3 months of the project we will review and evaluate waterbird monitoring protocols used or tested in Minnesota and surrounding states, update them with the most current knowledge and incorporate them into a draft statewide protocol. This protocol will be submitted for review by biologists at the University of Minnesota and other academic institutions, the MN DNR and the U.S. Fish and Wildlife Service to ensure consistency and applicability of our protocols with other ongoing studies and current state of the art practices. Before the beginning of the first field season (by March 2016) we will work with the MN DNR to determine a subset of wetlands to be monitored within the Audubon Minnesota Important Bird Area network. These wetlands will be representative of wetland types across the state and be part of ongoing DNR wetland monitoring programs allowing for comparison between wetland bird numbers and wetland quality. Before the beginning of the first field season we will develop a website for data collection and display.

Summary Budget Information for Activity 1:

ENRTF Budget: \$ 15,830
Amount Spent: \$ 0
Balance: \$ 15,830

Outcome	Completion Date
1. Review current efforts from Minnesota and surrounding states	October 2015
2. Revise and finalize protocols	November 2015
3. Designate and map survey areas	March 2016
4. Create a data entry website	March 2016

Project Status as of: 30 December 2015

Project Status as of: 30 September 2016

Project Status as of: 30 March 2017

Project Status as of: 30 September 2017

Project Status as of: 30 March 2018

Overall Project Outcomes and Results: 30 June 2018

Activity 2: Statewide Wetland Bird Location Data Collection

Description: During the first 4 months of 2016 we will recruit volunteers and hire two surveyors for Season 1. All surveyors, both volunteers and hired, will be trained in our data collection and recording protocols. Season 1 data collection will occur from April – July 2016 at the sites chosen in Activity 1. Following the initial field season we will analyze data and modify our protocols as needed. We will produce an interim report with the initial data findings of Season 1 and outlining any modifications of protocols for Season 2. Hiring of surveyors for Season 2 will occur in the first 4 months of 2017 and we will bring back as many surveyors from Season 1 as possible. Again all surveys will be trained in our modified protocols and Season 2 data will be collected from April – July 2017.

Summary Budget Information for Activity 2:

ENRTF Budget: \$ 114,340
Amount Spent: \$ 0
Balance: \$ 114,340

Outcome	Completion Date
1. Recruit and train volunteers and hire surveyors for Season 1	April 2016
2. Conduct Season 1 field work statewide at sites determined in Activity 1	August 2016
3. Submit interim report with results of Season 1	September 2016
4. Analyze Season 1 field work and modify protocols as needed	December 2016
5. Recruit and train volunteers and hire surveyors for Season 2	April 2017
6. Conduct Season 2 field work at sites determined in Activity 1 and modified by results from Season 1.	August 2017
7. Analyze Season 2 field work and produce final survey protocols.	September 2017

Project Status as of: 30 December 2015

Project Status as of: 30 September 2016

Project Status as of: 30 March 2017

Project Status as of: 30 September 2017

Project Status as of: 30 March 2018

Overall Project Outcomes and Results: 30 June 2018

ACTIVITY 3: Final Analysis and Statewide Monitoring Design 12 Wetland Birds in MN

Description: The final analysis of methodology and data from both seasons of field work will be conducted and reviewed. We will develop a final protocol that will be used in future monitoring and develop a structure for continuing statewide wetland bird monitoring that will track populations of 12 wetland birds.

Summary Budget Information for Activity 3:

ENRTF Budget: \$ 15,830
Amount Spent: \$ 0
Balance: \$ 15,830

Outcome	Completion Date
1. Submit interim report with results of Season 2	September 2017
2. Do final data analysis of entire survey effort	June 2017
3. Develop plan for ongoing state wetland bird monitoring	June 2018

Project Status as of: 30 December 2015

Project Status as of: 30 September 2016

Project Status as of: 30 March 2017

Project Status as of: 30 September 2017

Project Status as of: 30 March 2018

Overall Project Outcomes and Results: 30 June 2018

Final Report Summary:

V. DISSEMINATION:

Description: Over the course of the project we will work closely with our partners in the MN DNR and USFWS and update them regularly with iterative reporting and copies of survey protocol document(s). We will develop an online data collection mechanism which may be a means for partners to access information. We will create a webpage featuring project overview and results hosted on the Audubon Minnesota website (mn.audubon.org).

Project Status as of: 30 December 2015

Project Status as of: 30 September 2016

Project Status as of: 30 March 2017

Project Status as of: 30 September 2017

Project Status as of: 30 March 2018

Overall Project Outcomes and Results: 30 June 2018

Final Report Summary:

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Overview Explanation
Personnel:	\$123,300	3 Audubon MN Staff- Mark Martell, Project Manager: \$48,000(.19 FTE each year for 3 years) Kristin Hall, GIS specialist and field supervisor: \$32,000, (.17 FTE each year for 3 years) Susan Swanson, Administrative support: \$7,500 (.06 FTE each year for 3 years) 2 Field Surveyors (to be hired)- \$35,800 (2 people for 10 weeks for 2 years) .19 FTE
Equipment/Tools/Supplies:	\$3,700	2 pair of waders, 3 callback machines, 2 spotting scopes w/ tripods.
Travel Expenses in MN:	\$19,000	Travel and lodging for surveyors and staff
TOTAL ENRTF BUDGET:		\$146,000

Explanation of Use of Classified Staff: N/A

Explanation of Capital Expenditures Greater Than \$5,000: N/A

Number of Full-time Equivalent (FTE) Directly Funded with this ENRTF Appropriation: 2.11

Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: N/A

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds

Non-state			
Audubon MN	\$31,500	\$0	Personnel
USFWS (in-kind)	\$2,500	\$0	Federal employee time in kind
State			
MN DNR (in-kind)	\$2,500	\$0	State wildlife non-game employee time
TOTAL OTHER FUNDS:	\$36,500	\$0	

VII. PROJECT STRATEGY:

A. Project Partners Receiving Funds:

Mark Martell, Audubon Minnesota – Project lead

Project Partners Not Receiving Funds

Katherine Koch, U.S. Fish and Wildlife Service - Connecting Project with other efforts throughout the Midwest, facilitating data management and sharing with our Midwest Avian Data Center’s marshbird database
 Carrol Henderson, MN DNR Nongame Program – Facilitating statewide effort within the DNR and other partners.

B. Project Impact and Long-term Strategy: The intent of this project is to create an ongoing, long-term wetland bird monitoring survey in Minnesota. This will provide natural resource managers information they need to effectively manage these birds, and their wetland habitats. For example, some of these birds are game species yet the dearth of information on their population numbers makes setting bag limits difficult. By using volunteers we expect the long-term cost of this survey to be minimal. This “citizen science” model is used effectively by Audubon for our Christmas Bird Count, now in its 115th year, and by the MN DNR in its Common Loon and amphibian surveys.

C. Funding History: The ENRTF and various partners have provided funding for the Minnesota Breeding Bird Atlas which will provide critical information to the Wetland Bird Survey Project. However, this project is not a continuation or repeat of the Breeding Bird Survey but builds on the information obtained from that effort. The ENRTF part of the funding is shown below:

- M.L. 2008 – Audubon Minnesota - \$169,000; NRRI - \$101,000
- M.L. 2010 – Audubon Minnesota - \$211,000; NRRI - \$161,000
- M.L. 211-12 – Audubon Minnesota - \$250,000
- M.L. 2014 – Audubon Minnesota - \$300,000

VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS:

A. Parcel List: Not Applicable

B. Acquisition/Restoration Information: Not Applicable

IX. VISUAL COMPONENT or MAP(S): See Figure 1

XI. REPORTING REQUIREMENTS:

Periodic work plan status update reports will be submitted no later than [12/30/2015], [9/30/2016], [3/30/2017], and [9/30/2017 and 3/30/2018]. A final report and associated products will be submitted by June30, 2018.

Waterbird Survey Areas of Interest

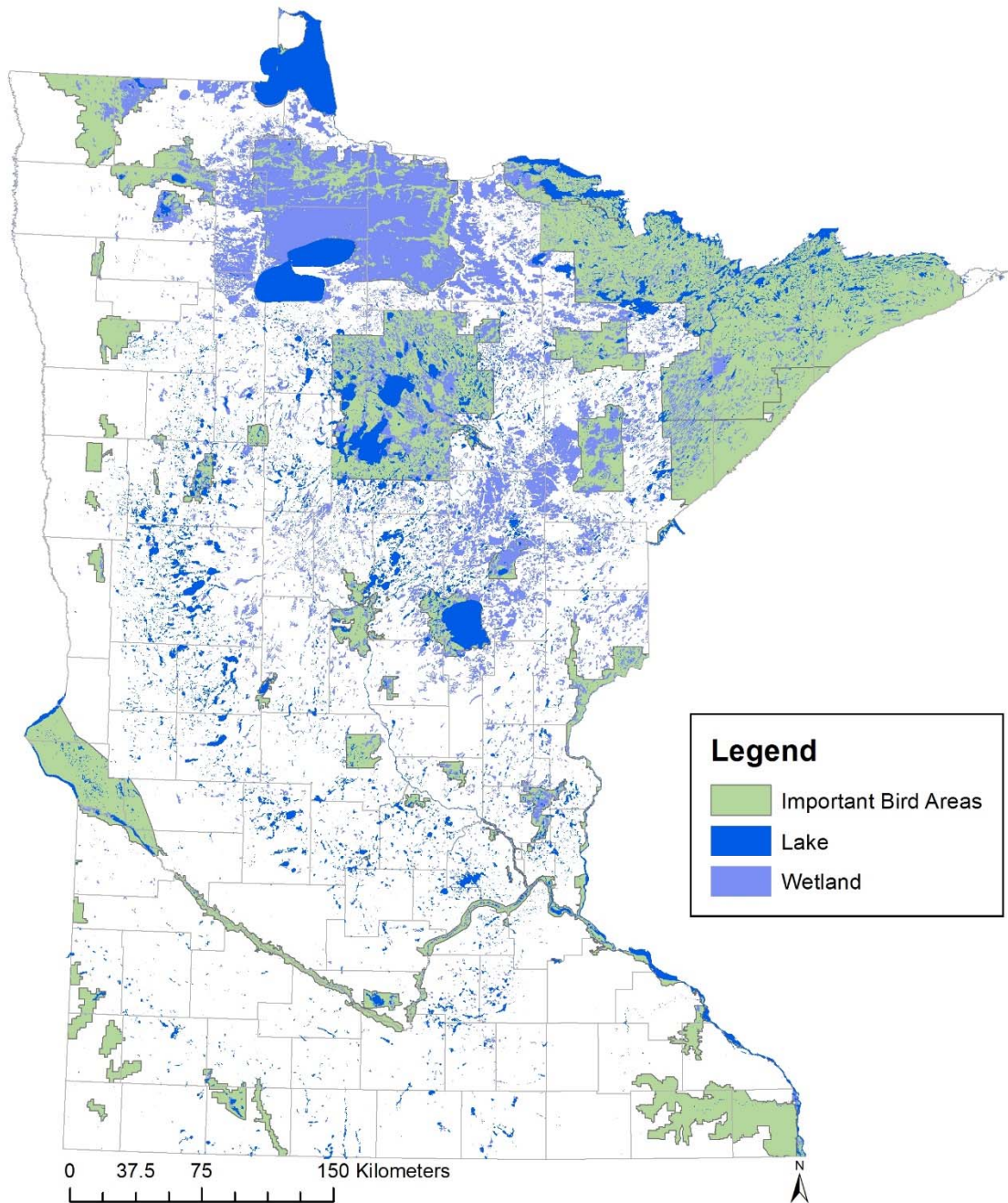


Figure 1 Waterbird Survey Area of Interest



**Environment and Natural Resources Trust Fund
M.L. 2015 Project Budget**

Project Title: Creating a Statewide Wetland Bird Monitoring Program
Legal Citation: M.L. 2015, Chp. 76, Sec. 2, Subd. 03f
Project Manager: Kristin Hall
Organization: Audubon Minnesota
M.L. 2015 ENRTF Appropriation: \$ 146,000
Project Length and Completion Date: 3 Years, June 30, 2018
Date of Report: 18 December 2014

ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Activity 1 Budget	Amount Spent	Activity 1 Balance	Activity 2 Budget	Amount Spent	Activity 2 Balance	Activity 3 Budget	Amount Spent	Activity 3 Balance	TOTAL BUDGET	TOTAL BALANCE
BUDGET ITEM	<i>Finalize Study Protocols</i>			<i>Data Collection</i>			<i>Final Analysis and Monitoring Design</i>				
Personnel (Wages and Benefits)	\$15,830	\$0	\$15,830	\$91,640	\$0	\$91,640	\$15,830	\$0	\$15,830	\$123,300	\$123,300
Mark Martell, Project Manager: \$48,000 (75% salary, 25% benefits); .19 FTE each year for 3 years											
Kristin Hall, GIS specialist and field supervisor: \$32,000, (75% salary, 25% benefits), .17 FTE each year for 3 years											
Susan Swanson, Administrative support: \$7,500, (75% salary, 25% benefits); .06 FTE each year for 3 years											
2 Temporary Field Surveyors: \$35,800, (93% Salary and 7% benefits); .19FTE for 2 people for 2 years (10 wks/yr)											
Equipment/Tools/Supplies - Overall				\$3,700	\$0	\$3,700				\$3,700	\$3,700
2 Spotting Scopes with Tripods (\$1,000 each)											
3 Call playback machines (\$500 each)											
2 sets of waders (\$90) each											
Travel expenses in Minnesota				\$19,000	\$0	\$19,000				\$19,000	\$19,000
Temp Employees mileage and lodging for travel to survey sites (2 years) - est \$13000											
Audubon Staff travel to survey sites (2 years) - ext \$6000											
COLUMN TOTAL	\$15,830	\$0	\$15,830	\$114,340	\$0	\$114,340	\$15,830	\$0	\$15,830	\$146,000	\$146,000

Map of Yellow Rail Sightings from 5 years of the MN Breeding Bird Survey showing the dearth of information available for some wetland species.

