**PROJECT TITLE:** **Management Strategies to Benefit Minnesota’s Forests and Birds**

**I. PROJECT STATEMENT**

* 6.5 million acres of private family forestlands in Minnesota.
* 81% of private landowners identify wildlife as a primary reason for owning forest lands.
* 62% of landowners would like to use forest management to improve wildlife habitat; however, only 21% of forestland owners have undertaken forest management in the past 20 years.
* There is an important need to synthesize the existing research on how forest management can benefit wildlife and provide this information to professional forest managers and private land owners to maximize the benefits of sustainable forest management in Minnesota.

For this project, the Forest Stewards Guild (FSG), American Bird Conservancy (ABC), and Natural Resources Research Institute (NRRI) will synthesize data to develop and promote a suite of data-driven forest management techniques and communication tools that: 1) Enhance forest bird habitat, 2) Engage woodland owners in forest stewardship, and 3) Help ensure a sustainable future for Minnesota’s forests and associated forest products.

Forest management focuses increasingly on the maintenance of biodiversity, compared to a historic emphasis on timber production alone. This is especially true for many of the state’s non-industrial private forestland owners, who decide what happens on roughly 37% of Minnesota’s forests. Many of these landowners view their forestlands primarily as habitat for game and non-game wildlife. A variety of management recommendations exist for enhancing game species habitat, but there is an enormous opportunity to increase non-game species habitat through forest management. Currently, there is a lack of data-driven management methodology and tools to communicate with the growing audience of landowners focused on birds and other non-game wildlife. Because Minnesota’s forests provide critical habitat for over 100 species of migratory and resident birds, the development of science-based forest stewardship guidelines is essential to ensuring these species’ long-term viability.

**II. PROJECT ACTIVITIES AND OUTCOMES**

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| **Activity 1:** **Synthesize existing data to develop forest management techniques that improve forest bird habitat.** | **BUDGET: $41,098** |
| **Description:** *The project team will analyze large-scale datasets collected over many years by NRRI, including the Breeding Bird Atlas and a 24-year monitoring program on Minnesota’s forest bird habitat using classification and regression trees to assess the influence of cover type, succession, and forest management on bird species and communities.*  |
| **Outcome** | **Completion Date** |
| *1. Existing forest bird data leads to the identification of science-based forest management recommendations that can improve habitat for Minnesota’s forest birds.* | *Fall 2021* |

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| **Activity 2:** **Develop tools to effectively communicate information.**  | **BUDGET: $101,328** |
| **Description:** *Based on the data analyzed in Activity 1, the project team will develop tools that will aid in the visualization of outcomes and allow for easy exploration and comparison of multiple management options. Two primary tools will help disseminate information:* 1. *Web Application: We will develop a web application to make the classification and regression tree model outputs useable and interactive. This tool will serve as a digital forest bird habitat assessment and scenario generator. Specifically, the application will allow users to input the current and potential future primary cover type and size class to see the predicted bird species point-count abundance under each scenario. This web application will help users visualize and communicate the impacts of changing cover and succession. It will also allow for easy exploration and comparison of multiple management options.*
2. *Field Guides: Field guides will be developed and printed to articulate how these forest management techniques can be implemented in Minnesota’s major forest types.*

*The web application and printed guides will be issued free of charge to users.* |
| **Outcome** | **Completion Date** |
| *1. Develop and host web application.* | *Summer 2022* |
| *2. Develop and print field guides.* | *Summer 2022* |

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| **Activity 3:** **Train practitioners at workshops and demonstration sites.** | **BUDGET: $54,092** |
| **Description:** *The project team will host 6 full-day training workshops using classroom and field-based learning to educate at least 80 practitioners in forest management methods that enhance forest bird habitat. We plan to work directly with some private land owners, but view training professional forestry practitioners who will then interact with hundreds of private landowners through outreach and client relationships as the best way to amplify the impact of this project. We will follow the “Forestry for Birds” model of outreach that has been highly effective in other states at promoting forest stewardship and enhancing bird habitat while adding to the production of local forest products. We will establish 6 demonstration sites to support the field-based learning component and conduct bird surveys to ground-truth avian response to the silvicultural treatments.* |
| **Outcome** | **Completion Date** |
| *1. Identify 6 forest management demonstration sites to be used for outreach training.*  | *Fall 2020* |
| *2. Conduct bird surveys at silvicultural treatment demonstration sites.* | *Spring 2023* |
| *3. Conduct a minimum of four training workshops targeted at land managers and two workshops aimed at private woodland owners.*  | *Summer 2023* |

**III. PROJECT PARTNERS AND COLLABORATORS:**

**A. Partners receiving ENRTF funding**

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| **Name** | **Title** | **Affiliation** | **Role** |
| Michael Lynch | Lake States Projects Coordinator | Forest Stewards Guild | Project Co-coordinator |
| Shawn Graff | Great Lakes Region Director | American Bird Conservancy | Project Co-coordinator |
| Alexis Grinde | Wildlife Ecologist | Natural Resouces Research Institute | Project Co-coordinator |

**IV. LONG-TERM IMPLEMENTATION AND FUNDING:** The American Bird Conservancy (ABC) has made a commitment to the Great Lakes Region and has successfully secured multi-year grants from the Natural Resources Conservation Service, Minnesota Outdoor Heritage Fund, and National Fish & Wildlife Foundation to undertake forest management activities that support the habitat needs of threatened and endangered birds. These grants are not directly related to the proposed project but laid a strong foundation for the proposed work. This project also builds off the collaborative work the Forest Stewards Guild (FSG) has undertaken in developing “Forestry for the Birds” programs in several other states using a variety of funding sources over the past decade. It also builds off the Natural Resources Research Institute’s long-standing reputation as a resource for bird expertise and natural resource management-driven research. The printed materials and trained practitioners resulting from this project will not require continued funding to have a long-lasting impact after the grant period. However, ABC and FSG are developing a fundraising strategy that identifies additional partners and potential funders to promote implementation of the information developed in this project. Additionally, FSG has made a commitment to the ongoing maintenance and web hosting of the online application.