**PROJECT TITLE: Expanding the Interactive Natural Resource Atlas for Minnesota**

**I. PROJECT STATEMENT**

Sound decisions require ready access to appropriate data and information. This is especially true when it comes to decisions that impact our natural resources. Minnesota is fortunate to have a wealth of spatial data about the built and natural environments. Unfortunately, it isn’t accessible to most people. Barriers include a lack of awareness that it exists, a lack of time to become familiar with what is available, and a lack of technical skills required to use specialized mapping software. The Minnesota Natural Resource Atlas - Northeast Region (mnnaturalresourceatlas.org) has removed those barriers in 26 counties in Northeast and North Central Minnesota by providing access to over 275 multi-disciplinary spatial data layers through an intuitive, easy to use online mapping tool. The tool was developed hand-in-hand with end users (identified as the general public or small organizations with limited in-house technical capacity), who helped to identify relevant data and prioritize development of the most relevant analytical tools. The first phase of the Atlas focused on delivery of data relevant to mining regions of NE Minnesota, with an emphasis on geology and water-based resources. **We propose to** **leverage the existing infrastructure to expand the Atlas to the entire state and broaden the data offerings to include more detailed forestry, agriculture, water, and social science data. Specifically, we propose to:**

1. assess data and functionality needs across geographic regions and economic sectors not currently covered by the Atlas
2. expand the data sources and analysis functions to reflect the resources distributed across the entire state, and the varying needs of end users,
3. expand the extent of the Atlas to the entire State of Minnesota,
4. develop outreach and training materials to build and support the user base.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1: Assess statewide needs ENRTF BUDGET: $129,861**

We will identify target end-users throughout the state of Minnesota based on organization size, technical capacity, and the natural resource decision scope and economic/cultural sector of their work. We will conduct sector-specific, regional focus groups with potential end users and technical experts to learn more about their decision making processes and the types of data and analytical functionality they require or desire for making better decisions. Data considered for inclusion in the Atlas will be prioritized based user demand and integrity of available data.

|  |  |
| --- | --- |
| **Outcome** | **Completion Date** |
| *1. Assess user needs through interviews with agency, non-profit, and industry representatives* | *10/31/2020* |

**Activity 2: Develop and acquire data and increase analytical functionality ENRTF BUDGET: $451,272**

Using the information gained from the assessment, we will broaden the data available within the Atlas and expand the analytical functionality to better align with the needs of end-users throughout the state. With a focus on forestry, agricultural, water, and social data, we will identify and acquire existing data sets that have been developed by Non-Government Organizations, academic institutions, and government agencies. Emphasis will be given to identifying and distributing high-value data sets that characterize Minnesota's forest and cultural resources. This emphasis will allow resource managers and industry to more accurately assess the types and volumes of forest resources available for economic use and provide a better understanding of the types and distribution of cultural resources throughout the state.

|  |  |
| --- | --- |
| **Outcome** | **Completion Date** |
| *1. Identify, acquire, and deliver forestry, agricultural, water and social/cultural data products*  | *2/31/2022* |
| *2. Identify, acquire, and deliver additional data to meet needs identified in assessments* | *2/31/2022* |
| *3. Develop additional analytical functionality to meet needs identified in assessments* | *2/31/2022* |

**Activity 3: Expand existing Atlas statewide and develop outreach program ENRTF BUDGET: $218,858**

We will expand the Atlas from 26 to all 87 counties in Minnesota. To increase access to an even broader set of information on Minnesota natural resources, we will improve the interoperability with other online tools (e.g., MnDNR, EPA, NRRI, UMn). An outreach and training program will be developed to broaden and support the Atlas user base. Outreach will be conducted through multiple media forms and in-person events. Training will be conducted regionally around the state of Minnesota and online.

|  |  |
| --- | --- |
| **Outcome** | **Completion Date** |
| *1. Expand the extent of the interactive mapping tool to the entire state of Minnesota* | *3/31/2022* |
| *2. Increase interoperability with the existing online state natural resource tools, including the MN Lake Browser, MN Lake Trends, Restorable Wetland Prioritization Tool, EPA’s EnviroAtlas, and others.* | *3/31/2022* |
| *3. Develop and implement an outreach and training program* | *6/30/2022* |

**III. PROJECT PARTNERS AND COLLABORATORS:**

Mae Davenport - Professor, U. of MN Twin Cities; Director, Center for Changing Landscapes - UMN

Cindy Hagley - Environmental Quality Extension Educator, MN Sea Grant

**IV. LONG-TERM IMPLEMENTATION AND FUNDING:**

Currently, ongoing maintenance of the Minnesota Natural Resource Atlas - Northeast Region is being supported by funding from the Department of Iron Range Resources and Rehabilitation and the Natural Resources Research Institute. A long-term funding model is also being investigated, based on a model used by Minnesota Compass, an online database that delivers economic/demographic information. We envision larger organizational users and groups of smaller organizations will be recruited to become Atlas Sponsors who will provide annual funding to the Atlas via a subscription. In return, they will be invited to join a steering committee that gives them influence over future data acquisition and functionality development decisions. The tool will continue to provide open access to all users, regardless of subscription status.

**V. Timeline Requirements:**

Two years, from July 1, 2020 through June 30, 2022.