Introduction

One of the six themes emerging from the 2018 Montana Wildlife and Transportation Summit was Priorities, Data Collection, and Information Sharing. The objective of this theme is to establish collective priorities (e.g., information needs, projects, geographic areas) and address challenges with data collection, management, use, and sharing. Guided by the Montana Wildlife and Transportation Steering Committee 2020 Work Plan, the Steering Committee appointed a Data and Information (D&I) work group in May 2020. The D&I work group is comprised of appointed representatives from MDT, FWP, and MSWP with expertise in data production and management, research and analysis, and geographic information systems.

Mission

The D&I work group will assemble data and supporting information to define and identify areas of greatest need for wildlife accommodations based on wildlife-vehicle conflict and important areas for wildlife movement and conservation. In addition, the group will identify areas with a need for further data collection and research efforts to fill information gaps. By focusing on the specific needs assessment criteria and their relative importance, the work group will identify available data, key data gaps, strengths and limitations in available data, and new data collection or analysis needs. The work group will develop an adaptive process and schedule to keep the needs assessment and supporting data updated to include new information as it becomes available. They support the development of collective priorities and seek ways to address challenges with data collection, management, use, and information sharing.

The work group will recommend to the Wildlife and Transportation Steering Committee how to share needs assessment results and supporting data among partners and the general public in a manner that navigates data limitations and sensitivities, and then build an interactive map to facilitate such communication.

Targeted product

The D&I work group plans to produce an interactive map that shows the areas of greatest need for wildlife accommodations associated with Montana highways as well as areas with specific data shortcomings. Important areas for wildlife accommodations on highways will be supported by map layers represented by the following needs assessment criteria:

1) Human safety and property damage
2) Wildlife and habitat connectivity for large mammals
3) Struggling or at-risk wildlife populations
4) Multi-species benefits

The D&I work group will devise and clearly define an approach to construct maps of performance measures representing each criterion, and score them appropriately based on data quality and availability, scientific products, and/or expert opinion. In some cases, the performance measures and maps will need to consider and appropriately account for future projections to account for possible changes that might influence the needs assessment of highway stretches for wildlife accommodations,

e.g. traffic volume, growth and development, climate change. We envision that the resulting interactive map can be used to identify specific information needs and direct new data collection or research efforts and to help identify locations for wildlife accommodations. Additional considerations will also be needed for locating wildlife accommodations, such as landowner and community interest and engineering realities. The primary audience for our product will be the Wildlife-Transportation Steering Committee. However, given the wide interest among Montanans in this topic, the D&I work group will also consider how to convey the product and the supporting data layers to the general public.