

MONTANA WILDLIFE AND TRANSPORTATION

DATA AND INFORMATION WORKGROUP

9:00am – 1:00pm, Thursday, March 25, 2021

Meeting Notes

Purpose: Continue to work through the process of ranking and weighting data layers, one criterion at a time

Objectives:

- Finalize the scoring for data inputs
- Review the human safety and property damage analysis and determine next steps
- Complete the ranking and weighting process for wildlife and habitat connectivity for large mammals
- Plan for the next work group meeting on April 22

Attendees:

- D&I Work Group: Liz Fairbank (MSWP), Andrew Jakes (MSWP), Gabe Priebe (MDT), Paul Sturm (MDT), Brian Andersen (MDT), Justin Gude (FWP), Adam Messer (FWP)
- Planning and Implementation Team (PIT Crew): Renee Lemon (FWP), Nick Clarke (MSWP), Deb Wambach (MDT)
- Additional Staff: Tyler Creech (MSWP)

Agenda:

1. Introduction
2. Scoring for Data Inputs (e.g., spatial coverage, spatial accuracy)
 - a. Andrew presented the most recent draft
 - b. The group changed spatial coverage to relate to the “expected area of the state/road miles” instead of the entire state.
 - c. The group removed percentages of correlation under data quality.
 - d. The group agreed to the scoring mechanism with these two changes.
3. Criterion: Human safety and property damage
 - a. Brian Anderson and Brian Klapstein presented the analysis product, which combines the values of crash data, roadkill data, and traffic volume to create once score by 1/10 of a mile stretches of highway.
 - b. Deb noted this effort only applies to state highways so other routes can be removed.
 - c. Paul wondered if traffic volume skews the results because the relationship between traffic volume and wildlife-vehicle conflicts is a bell curve. Lower traffic volume is conducive to wildlife passage, medium to medium high-volume results in more collisions, and higher traffic volume creates barriers to wildlife passage reducing collisions. Brian A. said he can incorporate the bell curve into the analysis. Paul offered to research potential thresholds for the bell curve. Gabe offered to help normalize these thresholds using Montana-specific data.
 - d. Next steps
 - i. Paul will research thresholds for the bell curve representing the relationship between traffic volume and wildlife vehicle conflicts.

- ii. Brian Anderson will make the following changes to the analysis:
 1. Remove non-state highways
 2. Update the scoring made during the meeting
 3. Modify the way traffic volume is included in the analysis to reflect the bell curve
4. Short break
5. Criterion: Wildlife and habitat connectivity for large mammals
 - a. Adam and Justin walked through distribution layers for large mammals and carnivores and the group scored the layers.
 - b. The group decided seasonal ranges will not be ranked differently because many areas do not have delineated seasonal ranges. Deb suggested that even if the seasonal ranges are not differentiated in the analysis, these should be shown in the interactive mapping tool.
 - c. The group decided to use occupancy layers even where density layers are available for consistency.
 - d. Some of the data is discrete and some is continuous so they will need address this difference in the analysis.
 - e. Adam walked the group through scoring several connectivity models (grizzly bear and lynx)
 - f. Liz and Tyler noted they compiled a variety of connectivity models that may be useful for this criterion. They walked the group through scoring the black bear model, but then ran out of time.
 - g. Andrew provided scoring for habitat intactness layer from FWP.
 - h. Next steps:
 - i. Justin and Adam will discuss how to deal with continuous data within the distribution layers.
 - ii. Tyler will send everyone the papers for connectivity models. Liz and Tyler will schedule a meeting to determine which models to include and how to score them. Liz will send Adam the chosen models and update the scoring spreadsheet.
 - iii. Adam will build an initial exploratory model for the group to review at the next meeting.
6. Next steps – See action items
7. Review and Close

ACTION ITEMS:

- Human safety and property damage analysis:
 - Paul will research thresholds for the bell curve representing the relationship between traffic volume and wildlife vehicle conflicts.
 - Brian Anderson will make the following changes to the analysis:
 - Remove non-state highways
 - Update the scoring made during the meeting

- Modify the way traffic volume is included in the analysis to reflect the bell curve
- Wildlife and habitat connectivity for large mammals analysis
 - Justin and Adam will discuss how to deal with continuous data within the distribution layers.
 - Tyler will send everyone the papers for connectivity models. Liz and Tyler will schedule a meeting to determine which models to include and how to score them. Liz will send Adam the chosen models and update the scoring spreadsheet.
 - Adam will build an initial exploratory model for the group to review at the next meeting.
- Struggling or at-risk wildlife populations analysis
 - Liz, Tyler, and Andrew will compile models for this criterion and be prepared to present at next meeting.
 - Adam will invite MTNHP to talk about their data.
- At the April 22nd meeting, the group will review the wildlife and habitat connectivity analysis, plan for the steering committee meeting on May 12, and start on the third criterion (struggling or at-risk wildlife populations).