Evaluating WVC and Habitat Connectivity in the Madison Valley

Working Group – Meeting #1, September 13, 2012

Convened: 2PM, adjourned: 4:25 PM

Attending:
April Craighead - CI
Lance Craighead - CI
Doris Fischer - FWP
Julie Cunningham - FWP
John Lounsbury – Madison County Planning Board
Frank VanManen – IGBST
Mark Haroldson – IGBST
Tiffany Allen – WTI
Deb Wambach – MDT
Kraig McLeod – MDT Safety
Kyle DeMars – MDT Maintenance, Bozeman
Brent Brock – CI
Ken Harris --USFS

The group exchanged introductions and described their interest in the project and what they hoped to get out of the meeting. Most expressed a desire to help support the project in whatever way they can.

Lance presented a shortened version of the kick-off presentation. There was much discussion about each of the tasks.

Task 1 (Literature review) was discussed. WTI is preparing a bibliography of literature related to highways and wildlife. It was noted that Marcel Huijser’s report on Best Practices for highway mitigations has been recently revised with newer information. Craighead Institute is preparing a review of materials related to land use, wildlife, and highways, with emphasis on the Madison Valley.

Task 2 (data collection and reconnaissance) was discussed.
Highway data from MDT will be requested from Engineering to include As-builts and other design data compatible with ArcGIS. Kraig noted that sections of the study area were built at different times and there will be different specifications for each of those sections.
Road kill data are collected by Tiffany, the WTI technician, primarily but with voluntary reports from other individuals. Primary contributors to this point include FWP game wardens, MT Highway patrol, MDT maintenance crews. In answer to a question Kyle reported that carcasses removed from the highway are taken to the Ennis landfill. Other carcasses are dragged to the fence at the edge of the ROW to remove any hazard.
Successful crossing data were discussed. These are much more difficult to record, but will include telemetry locations from GPS collars (a few from grizzly bears). Conventional VHF transmitters are not
frequent enough to determine exact crossing locations. Julie noted however that there are 800-1000 elk that cross the highway at least twice to move from summer locations near Yellowstone to the Wall Creek Game Management Area where they spend much of the winter. Voluntary reports may provide useful data on crossing points particularly if they can be validated with photographs. Pronghorn crossings are of particular interest and FWP would like to collar them; but no funds are available. John discussed possibility of getting outside funds. Julie noted that GPS collars will cost about $2,000-$2,500 and a helicopter for capture is about $700 per animal. Battery life is short because locations need to be transmitted every half hour or less. Some crossing location data can be found from FWP aerial surveys. Snow tracking possibilities? Anecdotal interviews of adjacent landowners, MDT Maintenance, MFWP personnel, etc.? Other possibilities? This is an important aspect of wildlife-highway interaction and can lead to good information regarding highway design parameters relative to wildlife permeability.

The types of data needed for this project were discussed. Deb noted that MDT wants to develop a template for data layers and types of analyses so that standard protocols can be developed to address wildlife-highway issues anywhere in the state. From this point of view the data collected should be prioritized with most emphasis being on data that are found throughout the state and that are consistent. Unique, localized data may be useful for this project but will have limited applicability elsewhere.

Protocols for sharing data were discussed.
FWP: The current protocol for data requests from Fish, Wildlife, and Parks requires that forms be filled out and submitted; these are then reviewed in Helena before data can be released. Brent has already begun this process. It was noted that since the data are for use by MDT it might be possible to transfer data directly to another state agency. There may also be some existing MDT-FWP data sharing agreements. Data of interest include elk GPS collars, flight survey data on deer, elk, antelope, and sheep, and possibly some non-game data. Claire Gower is the contact person at FWP for non-game and Brent has contacted her.

WCS: The Wildlife Conservation Society has wolverine GPS data and a predictive connectivity model that we may be able to share. No WCS representatives were present. Brent has talked with Bob Inman about this but nothing had been decided. There are also habitat models that WCS developed for the Madison Valley Wildlife Assessment (in partnership with the Craighead Institute) but the availability of these models is uncertain.

IGBST: The Interagency Grizzly Bear Study Team has a small sample of grizzly bear highway crossing locations from GPS collars. There are also data on road kill of grizzly bears on US Highways 287 and 87 in past years that may be of interest. In particular, a tanker truck spilled formic acid near Grayling Creek along US 287 which attracted many bears; some of which were killed by vehicles. Sharing of this data needs to be agreed upon by the members of the IGBST, which include biologists from the Park Service, Forest Service, USGS, state fish and game agencies, etc. The protocol consists of submitting a request letter to Frank VanManen who will request agreement from the other members.

USFS: Ken Harris, the new District Ranger, represented the US Forest Service. Since Ken is new on the job, he was uncertain what data were available that might be of use to this project, but that the FS would be willing to share whatever we need. Brent noted that in 5 previous years of collaboration with
the FS in Madison County there were no data that we needed to request: most land use and management data layers are freely available online. Jenna Casey is the new wildlife biologist whom we will contact regarding any possible wildlife data.

**MDT maintenance:** Kyle explained the road kill data collection procedures of MDT. Data sheets are filled out for any road kill that are moved or disposed of; all carcasses of larger animals are reported. Copies of these data forms can be requested through Kris Christensen, MDT Research Section. MDT also obtains copies of MHP crash data, which is updated twice a year. These data will be used in the project to augment the data collected by WTI. MDT data will be compared with WTI data and any animals missed by WTI will be included in the project database. We tentatively decided to request this data on a quarterly basis to incorporate it into the GIS. MDT collects road kill data during routine road inspections; during winter road inspections which are done on a daily basis (snowplows are unable to stop but sometimes can report observations), and debris removal operations. Deb suggested that we could interview the maintenance crews to get information or areas where they frequently find road kill, which may be hotspots, and areas where they have more frequently observed animals adjacent to the highway or successfully crossing the highway.

**MDT reports:** We discussed sharing the data collected by this project. These will be available as various reports are completed and posted on the web site. 


**Project database:** There were some questions about whether data layers collected and derived for the project would be available. It was discussed that data layers freely available can be obtained from original sources and that we could point people to those data if requested. Restricted data will need to be requested from the data owners directly. Data layers derived from the project will be the property of MDT. Requests for this data, after completion of the project, will need to contact the Environmental Services Bureau since they will maintain the information gathered from this project.

Other data discussions:

**Fence data:** Kyle clarified that none of the fences outside Interstate highways are maintained by MDT. All belong to local landowners or other entities such as BLM or FWP. Craighead Institute has on old data layer of fences that were surveyed in 2005 using a laser rangefinder. This data should be updated but it may be possible just to use a simple GPS device. Deb and others noted that information on the type and condition of existing fence would be important for this project.

The meeting was adjourned. Participants felt we had covered the most pressing topics. A subsequent meeting was suggested; to be held in the study area, probably Ennis. Craighead Institute will now proceed with requesting the available data, using the correct protocols, from the respective agencies.