



Montana Department of Transportation  
PO Box 201001  
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## **Memorandum**

To: RRC Members  
Steve Albert/WTI  
Debbie Alke, Administrator/ Aeronautics Division  
Mike Bousliman, Administrator/Information Services Division  
Jeffery M. Ebert, P.E./District Administrator-Butte  
Larry Flynn, Administrator/ Administration Division  
Dwane Kailey, Administrator/Highways and Engineering Division  
Bob Seliskar/FHWA  
Jon Swartz, Administrator/Maintenance Division  
Mike Tooley/Director  
Duane Williams, Administrator/Motor Carrier Services Division  
Pat Wise/Deputy Director  
Lynn Zanto, Administrator/Rail, Transit, and Planning Division

From: Susan C. Sillick, Manager  
Research Programs

Date: February 11, 2015

Subject: December 17, 2014 RRC Meeting Notes

**RRC Members Present:** Steve Albert, Debbie Alke, Mike Bousliman, Dwane Kailey, Sue Sillick, Jon Swartz, and Duane Williams.

**Others Present:** Wade Cebulski, Kris Christensen, Chris Dorrington, Steve Keller, Bill Semmens, and Matt Strizich.

1. **Budget Report:** Attached

No discussion.

2. **Research Projects – current listing:** Attached

- a. Evaluation of Jump-out Designs in a Controlled Setting and Along US Highway 93 N - Project Cancellation

Bill Semmens was present to discuss this topic on behalf of the technical panel, which, for a number of reasons, recommends cancelling this project. It was proposed that WTI catch deer and put them in an enclosure at their Lewistown facility to evaluate jump-outs of different heights and designs. Bill stated the technical panel reviewed the literature,

queried other states, and visited the US 93 N jump-outs, documenting the current condition of the jump-outs prior to coming to the conclusion that this project needs to be cancelled. He indicated there is a lot of information in the literature on this topic and it is ever evolving. Bill added that the condition of many of the jump-outs is not conducive to animal use and that many of these issues can simply be fixed and don't need a research solution. A number of issues were identified. In some areas, there is no room for animals to jump out. The heights of the jump-outs range from 5.5' to 9'. Bill indicated 9' is too high to be used by animals and this is the main issue. Other states construct jump-outs about 5-6' high. Also, FWP told the panel that deer cannot be captured and transferred to a holding facility, especially with concerns related to chronic wasting disease. Also, releasing them back to the wild could cause problems.

Steve Albert asked if the issue was with inconsistent designs. Bill responded that there needed to be more common sense in the construction of these jump-outs, such as creating level landing pads and not placing jump-outs within 3' of a tree. Also, there were several designers on this project, which led to some of the differences and there wasn't as much known about it as there is now.

Bill told the group he would document the findings and present the information they found on the field visit to the US 93 N technical panel at a future meeting. It was added that in Marcel's last annual report, he reported that deer were in the mitigated areas which is troublesome because it is unknown how they are getting in there and getting out-if not using the jump outs. Information will be provided to MSU for continued monitoring based on the documented findings. Dwane ask for a copy of Bill's notes when complete because US 93 usually comes up during the legislative session with requests for information on the mitigation efforts.

Dwane made a motion to cancel this project; Duane seconded the motion. All RRC members present voted in favor of the motion. The motion passed and the project is cancelled.

b. MDT Wildlife Accommodations Process Scope of Work (14-031)

Bill was present on behalf of the technical panel to request SOW approval so that an RFP can be issued. Bill stated MDT has accommodated a variety of wildlife species in the last two decades in a number of different ways. However, the processes, justification, and criteria used for recommending and implementing accommodations have varied just as the technology and practices in this field have rapidly evolved. MDT needs to standardize how these features are incorporated into construction projects by developing a documented justification process to determine the appropriateness of including wildlife accommodation in project development and design.

This document will be a living document that can be revised and adapted to new needs and requirements. It will need to encompass procedures that fit into MDT's current business processes. It will define a decision making process that considers the need and feasibility of wildlife accommodations based on justifications, criteria, and design considerations on a project level basis.

Having a well-defined process will assist MDT personnel and consultants in a multitude of ways. Not only will it aid in determining the appropriateness of including wildlife accommodations within proposed MDT projects, it will improve consistency and communication that in turn creates an internal process based on trust and buy-in throughout the Department. Lastly, it will document the rationale for wildlife accommodations with a transparent and understandable process.

Bill added that two parts of the process will be need and feasibility. Once a need for a wildlife accommodation is identified, the feasibility will be determined by the design team, considering such items as design constraints and cost.

Chris added that if done at the corridor level, it could be added to the corridor study.

Dwane indicated we need to identify the criteria to be used in the determination of need for wildlife accommodations; it should involve others beyond Environmental staff, and the need and feasibility should be determined by the alignment and grade stage. Dwane also stated he struggles with the lack of a process as there is no consistency.

Steve Albert indicated this is a great project and should stem politics.

Bill indicated the product needs to be a process; it is not a list of checkboxes. There are a lot of factors, such as grade, topography, and water level, that need to enter in the decision making process.

Dwane made a motion to approve this scope of work and the issuance of an RFP. Jon seconded the motion. All RRC members present voted in favor of the motion; the motion passed.

c. Montana Economic Impact of Airports Study Update Scope of Work (14-008)

Debbie and Wade were present on behalf of the technical panel to obtain approval for the scope of work and issuance of an RFP. The 2007/2008 Economic Impact of Airports Study was initiated to measure the economic benefits and quantify the value of all public use airports in Montana. The study followed FAA guidelines and methodology, while examining all activities associated with aviation statewide and at individual airport locations. Economic benefits in the study were expressed in terms of jobs, payroll, and annual economic activity or output. In addition to the economic benefits, qualitative benefits were investigated such as health, welfare, and safety. The purpose of this project is to update the original study. The information has drastically changed since the first study, due to such events as nationwide economic downturn, regional changes in areas of Northeast Montana due to the Bakken Oil Field Development, and commercial air service in Montana.

Chris asked if the results of this study will update TranPlan21. The answer was yes.

Mike asked if the study would include the West Yellowstone airport. The answer was yes; it was noted there are 120 public use airports, but not all would be included as some are just for recreational purposes.

Mike made a motion to approve the scope of work and issuance of an RFP. Steve seconded the motion. All RRC members present voted in favor of the motion. The motion passed.

3. **Reports:** Available on Research [website](#)

a. **Speed Limits Set Lower than Engineering Recommendations (13-008)-** Task 1 report

No discussion.

4. **Proposals:** Attached

a. **Development of a 3/4-inch Minus Base Course Type A Specification**

Matt was present to request funding for this project on behalf of the technical panel, which has approved this proposal. Matt stated that currently MDT specifies 1.5" to 2" crushed base course (CBC); however, a need was identified to use a smaller aggregate due to the limited supply of gravel, especially in eastern Montana. The purpose of this project is to develop a standard specification for a new gravel base course with nominal maximum aggregate size of 3/4". This objective will be met by a thorough review of other state base course specifications, formulation of a preliminary specification for Montana based on this information, and a suite of laboratory tests to characterize multiple sources of aggregate throughout the state of Montana to quantify their material properties and to make comparisons to existing data from similar tests run on traditional base course mixes from Montana.

Matt believes implementation of the results of this project will result in cost savings. Dwane added that we are currently trucking gravel up to 100 miles.

Dwane said there is a need now, but asked if there would still be a need when the project is done. Matt indicated they are already implementing the 3/4" CBC, but this project will verify the current implementation is accurate.

Dwane made a motion to fully fund this project at \$95,155. Debbie seconded the motion. All RRC members present voted in favor of the motion. The motion passed.

b. **An In-Depth Assessment of Montana Road Weather Information System**

Steve Keller was present to request funding for this project on behalf of the technical panel, which approved this proposal. The purpose of this project is to perform an in-depth assessment of Montana's RWIS program and ultimately produce means to improve and guide future RWIS efforts. Specifically, this project will document the state of the art and practice related to RWIS, MDT's data and software needs and options, benefits and costs of existing and alternative RWIS solutions for Montana, and implementation recommendations and guidelines for future installations and efforts by MDT related to road weather data.

Steve Albert asked if the project included gathering data from a number of different sources to leverage efforts. Steve Keller indicated this effort would include data from other sources.

Debbie asked if the cameras would view the sky as well, as to be of use to pilots. Steve Keller responded they mostly view the horizon.

Mike indicated the current software is not very good, but there are only a few vendors. He also stated this is part of a larger project in ISD related to road weather information.

Chris asked if the implementation could include real-time reporting and include traffic data. Steve indicated the focus of this project is RWIS, but traffic data may be included in the larger road weather information project.

Steve Albert stated there is a similar project being conducted through the Northwest Passage pooled fund study.

Mike made a motion to fully fund this project at \$152,006. Jon seconded the motion. All RRC members present voted in favor of the motion. The motion passed.

## 5. Implementation/Performance Measures/Technology Transfer

### a. ICED- Phase 2

This research study is Phase 2 of a broader study initiated in 2009 on the Impacts of Increased Canadian Economic Development (ICED) on Northern Montana Highways. The primary objective was to determine whether highway infrastructure in Montana was capable of supporting additional traffic resulting from 16-hour, 7-days-a-week ports at Wild Horse and Morgan. Secondary objectives included the production of traffic forecasts along the S-232 corridor (between US 2 at Havre and Wild Horse) and along the US 191 corridor (between US 2 at Malta and Morgan), while considering the effects of:

- Canadian economic development, in particular from energy investments in Alberta and Saskatchewan;
- The potential harmonization of Truck Size and Weight (TS&W) regulations;
- Reorganization of the Canadian Wheat Board; and
- Planned infrastructure improvements in the region.

While Phase 2 focused on the highway corridors connecting the ports of Wild Horse and Morgan, trends in cross-border commodity flows and commercial traffic were assessed at all ports between Sweetgrass and Raymond.

This study found that highway infrastructure on the S-232 and US 191 corridors is capable of supporting the additional traffic that would result in the short and medium terms from: extending service hours at the ports of Wild Horse and Morgan; Canadian economic development; restructuring of the Canadian wheat industry; and harmonization of truck size and weight (TS&W) regulations.

Chris stated this was a good economic analysis, all the metrics used were good, and it will serve the Department in terms of determining capacity, safety, etc. The study showed that

even with increased usage, the infrastructure can handle increased capacity. The study also showed that safety is not an issue for these corridors. He added that the Hwy 2 Association is still active and requesting improvements.

## 6. Department/Division Hot Topics – RRC Members Roundtable Discussion

Mike asked who was attending the TRB Annual Meeting. Sue responded that Jon Axline, Ed Ereth, Mary Gayle Padmos, Carol Strizich, and Sue are attending this meeting.

Copies: Craig Abernathy/Research Section  
Audrey Allums/Grants Bureau  
Kent M. Barnes, P.E./Bridge Bureau  
Katy Callon/Research Section  
Kevin Christensen/Highways and Engineering Division  
Kris Christensen/Research Section  
Ryan Dahlke, P.E./Consultant Design Bureau  
Chris Dorrington/Multimodal Programs Bureau  
Lisa Durbin/Construction Administration Bureau  
Mike Dyrdahl/Engineering Operations Bureau  
Ed Ereth/Data and Statistics Bureau  
Paul R. Ferry, P.E./Highways Bureau  
Dave Hand/District Administrator-Great Falls  
Paul Jagoda, P.E./Construction Engineering Services Bureau  
Tom Martin, P.E./Environmental Services Bureau  
Shane Mintz/District Administrator-Glendive  
Ed Toavs/District Administrator-Missoula  
Roy Peterson, P.E./Traffic & Safety Bureau  
Suzy Price/Contract Plans Bureau  
Jim Skinner/Planning and Policy Analysis Bureau  
Rob Stapley/Right of Way Bureau  
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