APPENDIX F

Agency Correspondence

From: Potts.Stephen@epamail.epa.gov [mailto:Potts.Stephen@epamail.epa.gov]
Sent: Thursday, November 19, 2009 2:35 PM

This is to let you know, that I will be unable to attend the Boulder - South Agency Coordination Meeting at the MDT Auditorium tomorrow (November 20th). Also, with limited resources and a heavy workload EPA has not had adequate time to fully review the Boulder - South Alternatives Analysis report dated October 2009, and conduct appropriate internal discussions/coordination to provide agency comments. However, I have skimmed the report, and want to share some preliminary perspectives.

Preliminarily it appears to me that adequate information and analysis has been provided in the October 2009 Alternatives Analysis Report to eliminate the alternatives involving potential new eastern and western realignments of Highway 69 from consideration. Potential additional stream crossing impacts; additional impacts to wildlife habitat and wildlife movement; local opposition; land acquisition problems; difficult terrain; high costs; etc.; are among the reasons identified in this report that appear to adequately support eliminating these new alignments from consideration.

This leaves the alternatives of "rehabilitation/reconstruction and widening of the existing 69 alignment" and "spot improvements" as remaining possible action alternatives. The alternative of "spot improvements" appears to be rejected because "it would not reduce the number of single vehicle crashes resulting in overturn, which is of primary concern on MT 69" (page 59). Preliminarily, it appears that this alternative has been rejected rather quickly.

It was stated in our earlier EPA comments, dated December 18, 2008, that public comments and public meeting transcripts evidenced that many members of the public in the project area questioned the need for the project, and/or thought only speed limit reductions, speed limit enforcement, and minor improvements needed to be made to the highway. While we have not fully reviewed this latest Alternatives Analysis Report (dated October 2009) and not had time for adequate internal agency dialogue, preliminarily it appears that the report does not show that MDT has given full consideration to these public concerns, and/or has not adequately explained its response to these public concerns, or fully justified rejection of the "spot improvement" alternative.

In regard to speed limit enforcement it is stated that "narrow paved width and lack of shoulders in the corridor make speed limit enforcement difficult." (page 6)." It is our understanding that the spot improvement alternative would provide some additional pullouts to facilitate improved speed limit enforcement, and would also include resurfacing and perhaps other improvements (e.g., widening in areas of high accident rates (?). It is not clear to us why appropriate spot improvements would not reduce single vehicle crashes (i.e., if improvements would promote reduced speeds, better road surfaces, and address high accident probability areas). It would appear that reduction of driving speeds alone would likely reduce single vehicle crashes, since it is our understanding that excess speed is a major cause of single vehicle crashes. We would expect that any additional improvements would further reduce risk of single vehicle accidents.

The existing corridor of MT Highway 69 encroaches on the Boulder River and adjacent wetlands and riparian areas. Reconstruction and widening of this roadway has potential to aggravate these stream and wetland encroachments. While we do not oppose rehabilitation/reconstruction and widening of the roadway along the existing 69 alignment to enhance transportation safety, we recommend widening in areas that avoid additional impacts to aquatic resources, and/or shifting alignments to reduce aquatic encroachments as much as possible. We believe it is appropriate to carefully evaluate all options that minimize encroachment upon aquatic resources.

It appears to us that an alternative that includes some spot improvements and some rehabilitation/reconstruction and widening of the roadway along the existing 69 alignment in a manner that minimizes impacts on aquatic resources, and that also addresses public concerns about excessive speed and about transportation safety should be considered. The various environmental impacts and

public concerns need to be evaluated, and the trade-offs appropriately balanced to provide a more optimal solution.

Thank you for the opportunity to provide some input prior to the meeting. Please feel free to call me in Missoula at 406-329-3313 if you have questions.

Stephen Potts, NEPA Coordinator
EPA Region 8 Montana Office
10 West 15th St., Suite 3200
Helena, Montana 59626
Phone: 406-457-5022; FAX: 406-457-5055
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Montana Fish, Wildlife & Parks

Fisheries Bureau
P.O. Box 200701
Helena, MT 59620-07
(406) 444-5334
Fax: 406-444-4952
November 25, 2009

Environmental Services

Act	Info	Chrono	Date 11/25 / Routing	Attach	Initial
	✓		Bureau Chief		
			Engineering Supervisor		
	✓		Resources Supervisor		
			Haz/Waste Supervisor		
			EGCF Supervisor		
	✓		Deb W		
	✓		Bnacy		
	✓		Gabe P.		
	✓		Jeff E.		
			File		

Tom S. Martin, Chief
Environmental Services Bureau
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 200701
Helena, Montana 59620-1001

Boulder - South
STPP 69-1(9)22
CN: 2019
Alternatives Analysis Review

Consultant Design

Action	Info	Date 12/2/09 / Routing	Attach	Initial
		Bureau Chief		
		Consultant plans Eng		
		Design Supervisor		
		CHIEF Engineer		
	✓	Nicole		✓
		Graham Wells		
✓	✓	VIETH, JAMIEN		
		SARAH HEILMAN		
		DOWL HKM HELENA		
	✓	File Project		

Dear Mr. Martin:

Thank you for the opportunity to review the revised Alternatives Analysis (AA) and to participate in the third Agency Coordination Meeting for the Boulder-South project. I appreciate your revising the original AA to more fully explore the physical, fiscal, and legal constraints of the proposed project and to identify practicable alternatives.

After reviewing the revised analysis and discussing it at the November 20 meeting, I agree that upgrading the existing alignment is the most practicable alternative, given the safety considerations. I will be very interested in your proposed consideration of the "Future Avoidance and Minimization Considerations" as presented at the meeting, including:

- Reduced roadway width
- Design exceptions for non-standardized fill slope
- Reduction in Bridge width
- Use of retaining walls or bioengineered stabilization in appropriate locations
- Alignment shifts to minimize impacts to wetlands and the Boulder River

Fisheries Biologist Ron Spoon expressed particular concern about the reach of highway immediately adjacent to the Boulder River (south of the Little Boulder River). If the highway increases in width within this reach, we would appreciate early review of preliminary options before designs progress too far. We would also appreciate participating in discussions of mitigation options where impacts cannot be avoided.

Please contact me at (406) 444-5334 or jdarling@mt.gov with any questions.

Sincerely,

Jim Darling, Supervisor
Fisheries Habitat Section

Cc: Ron Spoon
Jeff Ryan, DEQ

November 30, 2009

Tom Martin, P.E.
Environmental Services Bureau Chief
MDT Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001

Attn.: Boulder South Alternative Review STPP 69-1(9)22

Dear Mr. Martin:

The Department of Environmental Quality (DEQ) appreciates being a cooperating agency in the SAFETEA-LU process in scoping alternative alignments for the proposed Boulder-South highway project, located south of Boulder, MT in Jefferson County. This letter is to provide official agency comments on the Agency Review Draft of the Alternatives Analysis for this project (October 2009). Our review of this draft alternatives analysis includes support for the details of this analysis, general agreement with the analysis' conclusions, and some suggested analysis revisions.

The five proposed alternatives appear to be well developed and to provide a variety of choices in developing a reasonable range of alternatives to achieve this project's goals of travel safety and minimizing environmental effects. The alternatives are clear and fully comparable, with sufficient details to evaluate their advantages and disadvantages. The three-part evaluative screening process is helpful to identify these differences, although the fatal flaws method has some inexactness and limitations. The Forest Service's decision by advantages' transportation evaluation method may offer a more inclusive evaluation method for this type of preliminary route analysis (see Fred Bower for details).

The alternatives analysis concludes that the no build alternative would be unsuitable for full development, because it allows continued deterioration of the roadway and increases in future roadway crashes. Despite these flaws, this alternative will be carried forward into the detailed environmental analysis. The spot improvements alternative would not decrease the incidence of crashes, so is not recommended to be carried forward into the environmental analysis. The alternative of widening the roadway on roughly the existing right-of-way (ROW) is carried forward, because there are no identified flaws. The eastern

alignment has strong social opposition, difficulties in perpetuating access and a large amount of new ROW acquisition. The western alignment has several flaws including increased travel delays and topographic challenges.

While DEQ generally supports the conclusions of this screening process (that the eastern and western alignments do not need to be carried forward), we have concerns that the analysis comparisons are less than fully consistent and accurate. The first concern is that these alternatives are fairly simplified and do not include the normal engineering and environmental mitigations (which will be developed later as part of the detailed design work, the environmental analysis, and the permitting process). Thus, several of the so-called fatal flaws are merely difficulties that can be resolved in the design, environmental analysis and permitting processes.

Secondly, while the alternative analysis includes an excellent inventory of wetland resources (screen 2), this analysis does not include feed back from permitting agencies on the range of design-level requirements that future permits would carry and the probable scope of environmental mitigations for each of the alternatives (see item 4 below for some examples). DEQ is interested in the preliminary assessment including indications of the stream channel, riparian, and floodplain differences between the alternatives, in addition to this inventory/mapping of the acres of affected wetlands. Providing this wider suite of riparian ecological functions will give decision makers a more complete assessment of the range of critical resource items to be addressed in the design and permitting activities.

Third, the fatal flaw summary conclusions are occasionally less than persuasive. The incidence of crashes is likely to increase under all of the alternatives as traffic increases (screen 1), but the crucial difference between the alternatives probably is in the severity of the crashes (not only in their relative numbers). Likewise, in the relative costs of construction (screen 3), the incremental cost increase between the spot improvements alternative compared to the existing alignment alternative of $18 million is judged as acceptable, while the $6.5 million increment difference between the existing route and the western route is judged as unacceptable. This judgment of this moderate increment change is inconsistent and less than persuasive.

Fourth, this section of the Boulder River is listed as water quality impaired (TMDL will be developed by 2012), thus any route will have to reduce this highway's load delivery to the Boulder River. These sediment/pollutant reductions will require extensive design work to reduce loads reaching the river and these measures (BMPs) will expand the range of design work and probable expanse of project effects. For example, the highway river and creek crossings will need to be upgraded to avoid contributing any sediment to the channel, thus leading to full floodplain and channel-spanning bridge and culvert designs. Extended highway improvements regarding stream channel encroachment, riparian vegetation, wetlands, and floodplain effects will also be part of the design and permitting processes.

Fifth, the regular practices of sidecasting snow and other road debris will likely require sufficient berms or catchment areas along the proposed roadway improvements to insure that road sanding, bridge runoff and petroleum spills do not reach any waters or wetlands. These design considerations may also increase project design work and project areas.

We appreciate this alternatives analysis and support going forward to the public. We continue to support this SAFETEA-LU process and look forward to participating in the upcoming environmental and design processes. Thank you for this opportunity to comment. If you have any questions, please contact Jeff Ryan, Water Protection Bureau (406-444-4626) or Mark Kelley, Water Quality Planning Bureau (406-444-3508).

Sincerely,

[Signed]

Tom Ellerhoff
Science Program Manager

cc: J. Ryan
M. Kelley
R. Ray
M. Bostrom
G. Mathieus
J. Hanson
J. Chambers
J. Darling, FWP
S. Potts, EPA
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REPLY TO
ATTENTION OF

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November 30, 2009

Consultant Design

Act	Info	Routing	Date 12/4/09	Attach	Initial
		Bureau Chief			
		Consultant plans Eng			
		Design Supervisor			
		CTEP Engineer			
		Prieb	✓		
V		Emailed to Doug Hkm, Gallatin Area Affairs 12/7/09			
		File Project			

Environmental Services

Act	Info	Chkmpl	Routing	Date 12/3	Attach	Initial
	✓		Bureau Chief			
	✓		Engineering Supervisor			
	✓		Resources Supervisor			
			Haz-Waste Supervisor			
			ECCP Supervisor			
	✓		Bonny B			
	✓		Deb W			
	✓		Jeff Ebert			
	✓		Brian Miller			
	✓		on Gabe Priebe			
			File			

Regulatory Branch
Montana State Program
Corps No. **NWO-2008-01276-MTH**

Subject: Boulder South Alternative Review STPP 69-1(9)22 - Boulder River

Tom Martin
Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

Dear Mr. Martin:

This letter is in reference to the Agency Review Draft of the Alternatives Analysis (AA) for Boulder South Alternative Review STPP 69-1(9)22 (October 2009) as part of the SAFETEA-LU process in scoping alternative alignments for the proposed Boulder-South highway project, located south of Boulder, Montana in Jefferson County.

We were only allowed 4 business days during a major holiday week to provide comments after the agency meeting on November 20, 2009 and after receiving the document only 9 business days beforehand. This has not been enough time to adequately review the AA; however, we would like to submit the following comments regarding the AA.

While we understand the Eastern and Western Alignments may not be the least environmentally practicable alternative (LEDPA) due to the reasons explained in the AA, it does not appear that impacts to waters of the U.S. were fully addressed for the Existing Alignment alternative. Specifically, in-stream work in the Boulder River and other perennial fish bearing streams was alluded to, but never quantified. Bank stabilization, increased culvert size and length, bridge replacements and other activities will impact streams beyond just wetlands. Riprap was not mentioned in any of the economic analyses.

Also not analyzed was removing the pavement from the existing alignment, turning it into a gravel road and allowing that road to become the "back road". There would be no additional maintenance since presumably the county is already maintaining the current gravel "back road" (the eastern alignment). Impacts to wildlife and fisheries might then be far different that the scenarios analyzed so far.

Also, the statement was made that "27 culverts would be required along an eastern alignment"; however, no mention was made if these were completely new crossings as there is an existing road that is already in place. Presumably, if any portion of the existing road would not be used for the eastern alignment, the culverts would be removed and the streambanks restored. These crossings would not be additional road crossings, and therefore not be "additional" barriers to aquatic life movements.

It also appears the "Spot Improvements" alternative was held to such stringent standards that it was thrown out without full consideration. As was expressed in the meeting, there was inadequate explanation of how this alternative would not meet the purpose and need for the project. Therefore, we

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request that the Existing Alignment alternative analysis within the future environmental assessment contain a design alternative that combines the elements of the spot improvement with road reconstruction and widening. Reading through all the public comments, the rural nature of the road was highly prized; and they requested that speeds be reduced, truck traffic diverted around the roadway, a permanent weigh station be installed, and improvements be minimized. The overwhelming majority appeared to see no need to upgrade the road, especially to such a large degree. This design alternative could help avoid and minimize impacts to waters of the U.S. to the maximum extent practicable.

Thank you for the opportunity to comment. We look forward to more participation as the Environmental Assessment and proposed design continues. Please contact me if you have any questions at the address above or at (406) 441-1375 and refer to Corps File Number NWO-2008-01276-MTH

Sincerely,

Deborah L. Blank
Project Manager

Gabe Priebe

Consultant Design

Action	Info		Attach
		Date 9/16/10	
		Routing	
		Bureau Chief	
		Consultant plans Eng	
		Design Supervisor	
		CTEP Engineer	
		Gabe	
		EMAILED TO SARAH NICOLAI C. POWLITSKI	

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Ref: 8MO

September 8, 2010

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Mr. Tom Martin, P.E.
Environmental Services Bureau
Montana Dept. of Transportation
2701 Prospect Avenue, P.O. Box 201001
Helena, MT 59620-1001

Re: MDT Project No. STPP 69-1(9)22; MDT Control No. 2019; Boulder–South Project

Dear Mr. Martin:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Administrative Draft Environmental Assessment for the above referenced Boulder–South highway improvement project on Montana Primary Route 69, in Jefferson County, south of Boulder, Montana.

The proposed project involves rehabilitation/reconstruction, widening and some realignment of existing Montana Route 69 along a 5.7 mile segment of road south of Boulder, Montana. Roadway top width is proposed to be widened from the existing 26 feet to 34 feet, and shoulder widths and side slopes would be updated to improve safety for the traveling public. Much of the road segment is adjacent to wetlands and/or the Boulder River. The bridge over the Little Boulder River would be replaced.

The EPA supports efforts of the Montana Dept. of Transportation (MDT) to improve public traveling safety on Montana Highway 69. We appreciate the efforts of the MDT to consider design adjustments to better avoid and/or minimize impacts to the Boulder River and adjacent wetlands. While we appreciate consideration of these design adjustments, we encourage MDT to consider additional adjustments that may further reduce potential road encroachment on the river and wetlands, as well as to improve safety and wildlife passage and connectivity. The EA states, although MDT initially considered a 32-foot top width in an effort to minimize impacts to natural resources, it was determined that the reduction in wetland impacts with a 32-foot top width would be less than one acre. MDT did not consider this to be a substantial enough reduction in wetland impacts to justify the loss in safety benefits from a narrower road, therefore, a 34 -foot top width was selected for the proposed project.

EPA is not certain about the magnitude of reduction in safety benefits that would result from a narrower road, but it is clear that a road width narrower than 34 feet would result in less impacts to aquatic resources. The proposed Build Alternative to construct a wider, straighter

roadway for MT 69 will likely facilitate increased speeds, contrary to the primary purpose of the project to improve safety, as well as increase adverse effects on aquatic resources. We support improvements to MT 69 to improve traveling safety as well as provide safe wildlife passage and reduced road encroachment upon the Boulder River and wetlands. We are concerned, however, that the proposed Build Alternative in the Administrative Draft EA may not provide for optimal balancing of these objectives. We believe it is important that all practicable efforts to avoid and minimize impacts to aquatic resources be adequately considered for the proposed project.

We note that many local residents expressed concerns about safety and excess speeds on MT 69, and offered recommendations that lowering of speed limits be considered, particularly for the many trucks that use MT 69 as a shortcut between I-15 and I-90. Public comments shown in the public meeting transcripts and appendices in the September 2006 Alternative Analysis Report identify concerns that highway improvements may encourage more traffic, more trucks, and higher speeds.

We believe the concerns of the local residents most familiar with the road corridor regarding excess speeds for the site-specific conditions on MT 69 in the Boulder River corridor should be given greater consideration. It appears to us that "excess speed" should be evaluated relative to road conditions and the surrounding and built environments as well as posted speed limits. One action MDT may want to reconsider is alternative speed limits, although the EA indicates that MDT does not have authority for setting speed limits. It is not clear to us if MDT has any role in making recommendations regarding speed limits to the legislature or to the Montana Transportation Commission in cases where road conditions and/or sensitive environments through which a road passes may justify slower speeds. It would be helpful if MDT's role in making speed limit recommendations were clarified.

In addition to lowering of speed limits, there may be other options that don't involve legislative action such as traffic calming measures that may promote reduced speed at site-specific, sensitive areas along the road. Such options do not appear to have been fully considered. It appears to us that perhaps incorporation of traffic calming measures in association with a narrower road may provide for reduced road encroachment upon the river and wetlands as well as enhanced safety benefits and wildlife passage. We note that the article on "Best Practices for Reducing Wildlife – Vehicle Collisions" in the Transportation Research Board newsletter, Transportation and the Environment: Mutual Enhancements. TR News #262: May-June 2009. p. 15, (http://onlinepubs.trb.org/onlinepubs/trnews/trnews262.pdf), included among its recommendations, "*reducing speed by traffic calming measures, reducing the posted speed limit, or reducing the design speed.*"

We believe MDT should at least evaluate and consider the potential for using a narrower road in association with traffic calming measures to reduce road encroachment upon the Boulder River and wetlands, as well as promote public safety and safer wildlife passage along this environmentally sensitive corridor.

We also note that the Boulder River and Little Boulder River in this area are listed as water quality impaired under Section 303(d) of the Clean Water Act by the Montana DEQ. It is important that the proposed project be consistent with development of Total Maximum Daily

Loads (TMDLs) and Water Quality Restoration Plans for these impaired waters. The listed sources of water quality impairment for the Boulder River include loss of riparian habitat. The EA indicates that direct impacts from the proposed MT 69 project would include removal of vegetation and loss of habitat due to road widening and straightening (page 38). Efforts to reduce road encroachment upon the Boulder River and adjacent riparian habitat, therefore, are also likely to lessen loss of riparian habitat which may better promote water quality restoration.

We are enclosing our more detailed comments with further discussion of these matters along with our additional comments and questions. We appreciate the opportunity to review and comment on the Administrative Draft EA.

If you have any questions regarding our comments and/or would like to discuss them further please contact Mr. Stephen Potts of my staff in Missoula at (406) 329-3313, or in Helena at (406) 457-5022, or via e-mail at potts.stephen@epa.gov. Thank you for your consideration.

Sincerely,

Julie A. DalSoglio
Director
Montana Office

cc: Larry Svoboda/Connie Collins, EPA, 8EPA-N, Denver
Jeff Ryan/Robert Ray/Mark Kelley, MDEQ, Helena
Jim Darling/Beau Downing, MDFWP, Helena
Anne Vandehey/Katrina Dixon, USFWS, Helena
Todd Tillinger/Deborah Blank, COE, Helena

Additional EPA Comments on Administrative Draft Environmental Assessment, Montana Highway 69, Boulder-South Project

Comments:

1) The EA states that the project corridor is bordered by wetlands for almost the entire length (page 36), with approximately 93 acres of wetlands in the corridor (page 38), and an estimated project wetland impact of 18 acres (Table 3.3, page 37). There are locations where the highway encroaches on the active channel of the Boulder River. Accordingly, we believe minimization of further road encroachment on the Boulder River and adjacent wetlands should be a high priority for the proposed project.

   MDT has identified environmental impact avoidance and minimization actions in Table 2.1 (page 10). These include use of steeper slopes to reduce roadway footprint; use of retaining walls in places to reduce river encroachment; shifting roadway alignment into the rock face and steepening of rock cuts in areas in order to avoid or minimize road encroachment into the Boulder River; use of bioengineered bank stabilization structures in appropriate locations; enhancement of wildlife crossing opportunities with structures, including a larger bridge over the Little Boulder River and sizing culverts to allow small animal movement.

   As stated in our the letter transmitting EA comments, while we appreciate these design adjustments to reduce impacts, we believe MDT should evaluate and consider the potential for using a narrower road width in association with traffic calming measures for proposed MT 69 highway improvements to reduce road encroachment upon the Boulder River and wetlands, promote public traveling safety and wildlife passage along this environmentally sensitive corridor.

   The MT 69 project appears to be the type of project where traffic calming measures at selected locations may offer benefits. Road circumstances where traffic calming measures may offer benefits include where there are narrow two-lane curvy roads; periodic icing; wildlife road crossings; and/or where there may be adverse environmental effects as a result of providing standard high speed road designs in a sensitive area such as a road adjacent to rivers/wetlands. The MT 69 Boulder River corridor includes many of these circumstances to varying degrees. Traffic calming measures that encourage speed reduction may not only reduce accidents and increase public safety, but may also promote safer wildlife passage and allow a roadway design with less encroachment upon the Boulder River and adjacent wetlands. It is not clear to us why a project espousing improvement in safety as a primary project purpose, and where speed is a factor in a third of rollover crashes and is a concern of local residents most familiar with the highway, would not consider traffic calming measures.

   For example, it appears to us that roughening of the road surface (i.e., (e.g., a series of very mild grooves cut into the road surface at intervals) to promote reduced vehicle speeds in sensitive areas may be a viable option that should be considered. Providing a roughened road surface in areas with high likelihood of wildlife crossings may reduce

potential for wildlife-vehicle collisions, and may be less expensive and/or more effective than constructing wildlife crossing structures, or may add to the effectiveness of wildlife crossing structures. A roughened road surface that promotes reduced speeds may also allow road designs with less river/wetland encroachment in a corridor with close road proximity to a river and wetlands such as the MT 69 Boulder River corridor.

Grooves in road surfaces need not be to the extent of a continuous rumble strip along the road surface, but just enough surface roughening for a driver to notice the extra vibration, and by sensing a change in road surface conditions may perhaps encourage the driver to go slower. For example, there are a series of grooves cut into the surface of Montana Highway 141 at intervals just before it intersects with Montana Highway 200 north of Helmville. These grooves promote slower travel speeds and warn the traveler to slow down before approaching the stop sign at the intersection of Highway 141 with Highway 200. It would appear to us that a series of such grooves could be used on MT 69 to promote slower travel speeds near important wildlife crossings, and in areas of potential road encroachment on the Boulder River, and thus, allow a slightly narrower road in river encroachment areas. Posting of roadway signs describing the purpose of the road grooves could also be used to promote slower speeds and inform/educate the public about the need to slow down in the Boulder River corridor and wildlife crossing areas. Of course slower speeds would also likely enhance public safety, which once again, is the stated purpose of the proposed project.

While the EA states that savings in wetland impacts with a 32-foot top width would only be one acre or less, we note that in addition to reducing wetland impacts by one acre, there would also likely be benefits in the form of accident reduction, increased public safety, and improved opportunities for safe wildlife passage. This would mean minor reduction of the proposed widened 5 foot shoulder instead to a 4 foot shoulder, which would still be considerably wider than the existing road. In fact, we don't know why an even narrower shoulder (e.g., 3 feet) could not even be considered in areas of river/wetland encroachment.

Also, the EA states that if reliable cost-effective technology become available an animal detection system with flashing lights and location specific signage to warn drivers of upcoming wildlife crossing zones will be considered under the Preferred Alternative, since they are relatively inexpensive measures (page 42). We don't know why including a series of road grooves with the signs and flashing lights should not also be considered under the Preferred Alternative. Road grooves would also be a relatively inexpensive measure, and a series of road grooves in association with an animal detection system may be more effective at influencing driver behavior (effecting speed reduction) than an animal detection system by itself.

It does not appear to us that potential safety benefits of traffic calming measures have been fully considered and evaluated for the proposed project. The primary purpose of the proposed project is to improve safety to users of the corridor while mitigating project impacts to the surrounding natural and built environments (page 3). We believe MDT should evaluate and consider the potential for incorporating traffic calming measures into

proposed MT 69 highway improvements to reduce road encroachment upon the Boulder River and wetlands, as well as reduce excess speed, promote public safety and safe wildlife passage along this environmentally sensitive corridor. We suggest that this is especially needed for a project espousing safety improvement as a primary project purpose.

2) The EA includes a statement identifying narrow to non-existent shoulders, insufficient sight distance, periodic icing, and steep fill slopes as the factors contributing to crashes on page 3. This statement fails to include speed among the factors contributing to crashes on MT 69, even though speed was an important concern identified by the local residents most familiar with the road. Wildlife crossings and wildlife-vehicle collisions are noted as a safety concern, although, wildlife crossings were also not included in the statement identifying factors contributing to crashes (e.g., 21 percent of crashes during the 1998 to 2007 timeframe involved collisions with animals). It is also stated that a 2009 speed study showed that 85 percent of vehicles traveled at or below the posted speed limit (page 18). However, it appears to us that "excess speed" should be evaluated relative to road conditions and the surrounding and built environments as well as posted speed limits. A third of rollover crashes during a 1998 to 2007 timeframe were associated with speed (page 3). It appears to us that speed and wildlife crossings should also be included among the factors contributing to crashes in the statement on page 3.

3) On page 5 it is stated that under the Build Alternative the new roadway would conform to Non-National Highway System Primary Minor Arterial standards where practicable, including 6:1 inslopes, 10 feet of 20:1 ditch and standard cut and fill slopes. Table 1 (page 10), however, indicates that non-standard fill slopes will be used where appropriate to reduce the footprint of the roadway. To avoid confusion, we recommend that the statement on page 5 be revised to indicate that Non-National Highway System Primary Minor Arterial standards would be evaluated relative to environmental impacts in sensitive areas along the Boulder River corridor, and deviations from some standards would be used where appropriate. We believe there is a need to consider the sensitivity of the environment through which a road is constructed and the extent of potential environmental impacts when determining road design standards.

4) At the bottom of page 18 in regard to safety it is stated that "no mitigation would be required." We assume this is intended to mean that no further mitigation is needed in regard to safety. As discussed in our comment letter, we recommend that MDT evaluate and consider the potential for incorporating traffic calming measures into proposed MT 69 highway improvements, since traffic calming measures may increase safety benefits as well as allow reduction in encroachment of the road into wetlands and the Boulder River.

5) On page 19 in regard to the discussion on Effects on Community, it is stated that some existing wetland areas would be converted to transportation uses, and immediately below that it is stated that "no mitigation would be required." While it is stated on EA page 38 that impacts to wetlands would need to be mitigated, we recommend modifying the " no mitigation" statement on page 19 to clarify that wetlands impacted by conversion to

transportation uses would be mitigated (i.e., compensated for). This may help avoid confusion to readers and make the EA more consistent.

6) The EA states that the Boulder River and Little Boulder River are listed as water quality impaired by the Montana Dept. of Environmental Quality (MDEQ) under Section 303(d) of the Clean Water Act (page 35, http://cwaic.mt.gov/). It is important that the proposed MT 69 highway improvement project be consistent with development of a Total Maximum Daily Loads (TMDLs) and Water Quality Restoration Plans for these impaired waters. Among the probable causes of water quality impairment for the Boulder River listed by MDEQ are sedimentation and siltation, elevated temperatures, and alteration in stream-side or littoral vegetative covers; and included among the probable sources of impairment are loss of riparian habitat. Among the probable causes of water quality impairment for the Little Boulder River are alteration in stream-side or littoral vegetative covers and physical substrate habitat alterations from probable sources that include road and bridge construction.

   It is important that appropriate efforts are made to avoid further degradation to these water quality impaired rivers and promote water quality restoration. This should include efforts to avoid delivery of sediment and additional loss of riparian habitat to the Boulder River, and avoid additional alteration of stream-side or littoral vegetative covers and physical substrate habitat alterations in the Little Boulder River. The EA predicts that that the proposed MT 69 project will result in removal of vegetation and loss of habitat is during road widening and straightening, including substantial impacts to larger cottonwood and aspen trees, with loss of numerous trees (page 38). This has potential to affect water quality through surface water runoff and removal of vegetation (page 35). The EA indicates that actions to reduce water quality impacts include: MDT's Environmental Standards and Specifications; requirements of the Montana Stream Protection Act; sediment control BMPs; requirements of the Storm Water Pollution Prevention Plan (SWPPP) (page 36); minimization of ground disturbance through consideration of changes in side slopes, non-standard ditches, and alignment shifts; and revegetation following construction (page 38).

   We support such efforts to mitigate water quality impacts, and recommend that the MDT coordinate with Montana DEQ TMDL program staff to assure that MDEQ considers the proposed MT 69 highway project to be consistent with TMDLs and water quality improvement in the water quality impaired listed streams (contact MDEQ staff such as Mr. Mark Kelley at 406-444-3508, Mr. Dean Yashan at 406-444-5317, and/or Mr. Robert Ray at 406-444-5319). We have concerns regarding the potential loss of many larger trees that may provide shade to the Boulder River, since elevated temperatures are among the listed causes of water quality impairment to the river. It would be of interest if a narrower road in association with traffic calming measures could result in loss of fewer larger trees, and thus, less loss of shade and reduced impacts on river temperature.

7) The EA estimates approximately 18 acres of wetland impacts from the proposed project (Table 3.3, page 37). It is important that all practicable efforts be made to avoid and minimize impacts to waters of the U.S., including wetlands, in accordance with the Clean

Water Act 404(b)(1) Guidelines (40 CFR Part 230). The term practicable means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes. As noted in our comment letter, we believe it should be a high priority to minimize road encroachment on the Boulder River and adjacent wetlands, and recommend that a narrower road width in association with traffic calming measures be considered for incorporation into the Build Alternative as a means to better avoid and minimize impacts to aquatic resources.

It is also important that mitigation be provided for the unavoidable impacts to aquatic resources that occur, and such mitigation must be consistent with the April 10, 2008 joint Army Corps of Engineers/EPA Rule on Compensatory Mitigation for Losses of Aquatic Resources (see final rule at, http://www.epa.gov/owow/wetlands/pdf/wetlands_mitigation_final_rule_4_10_08.pdf). We are pleased that MDT will consult with the U.S. Army Corps of Engineers regarding determination of acceptable mitigation for impacts to aquatic resources (page 38).

8) The discussion of impacts to wildlife (pages 39 to 42) identifies a high use wildlife crossing area just north of milepost (MP) 33, and it is stated that Wetland 4 is a wildlife crossing zone, although the milepost in association with Wetland 4 is not clear (page 40). Areas of higher levels of wildlife-vehicle collisions are also stated to occur between MP 34 and MP 34.5, and between MP 35.9 and MP 36.8; and it is reported that roadkill data show two segments of project area have higher kill rates than the rest of the project area, MP 34 and MP 37.

The EA states that wildlife mitigation strategies may include wildlife friendly fencing and vegetation management facilitating at-grade crossings at desired locations, and signing and barrier fencing at curves and areas of limited roadside visibility. MDT will consider wider shoulders cleared of vegetation to improve sight distances, and use tree planting to encourage animal movement at desirable locations. Animal detection systems with flashing lights and signs will be considered if reliable and cost-effective technology becomes available (page 42). MDT will also consider enhancement of structures such as the Little Boulder River bridge and culverts to allow animal movement; and will consider wildlife overpass crossing facilities.

We are pleased that MDT will consider potential measures to improve opportunities for safe wildlife passage, although we note that few firm commitments to implement these measures appear to be provided. It is just stated that MDT will consider such measures. We recommend inclusion of firmer commitments to implement measures that will provide safe wildlife passage and reduce wildlife-vehicle collisions. As evidenced in our comment letter and prior comments, we also believe traffic calming measures that promote slower traffic at wildlife crossing areas and areas with a higher rate of wildlife-vehicle collisions would enhance wildlife passage, as well as increase public safety, and potentially reduce river and wetland impacts if done in association with a narrower road.

It would be of interest to evaluate congruence or similarity of wildlife crossing areas and areas with a higher rate of wildlife-vehicle collisions and areas of potential river and

wetland encroachment. Are there particular areas where a slightly narrower road would result in reduced wetland or river encroachment that would also correspond to wildlife crossing areas? Perhaps the Wetland 4 area mentioned above would be one such area. Traffic calming measures at such locations may offer the dual benefit of enhancing wildlife passage and reducing river/wetland encroachment, while also increasing public safety.

We also want to indicate that we fully support proposed use of a larger Little Boulder River bridge crossing and larger culverts that increase opportunity for small animal passage under the roadway. Bridge and culvert dimensions that provide animal movement should also assure that the road stream crossings adequately pass flood flows, flood borne debris, sediment, and bedload, with minimal creation of scour or erosive eddies, sedimentation, gravel deposition, and backwater, with minimal river channel, floodplain and riparian encroachment.

9) We appreciate MDT's efforts to enhance pedestrian and bicycle travel opportunities with incorporation of a pedestrian/bicycle path along the roadway corridor (pages 10, 11). Although the extent to which a pedestrian/bicycle path along the roadway corridor may exacerbate river and wetland encroachments should be more clearly identified.