Alternatives Analysis

for

STPP 69-1(9)22

Boulder-South

(CN 2019)

in

Jefferson County, Montana

December 2009

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ANALYSIS•ADVOCACY•ADVANTAGE

MONTANA MDT DEPARTMENT OF TRANSPORTATION

U.S. Department of Transportation Federal Highway Administration

EXECUTIVE SUMMARY

Background

The Montana Department of Transportation (MDT), in coordination with the Federal Highway Administration (FHWA), initiated an Alternatives Analysis to compare potential alternatives in the Boulder-South Corridor. MDT and FHWA's intentions are to conduct and document the Alternatives Analysis in a manner such that it can be built upon in future National and Montana Environmental Policy Act (NEPA/MEPA) environmental analyses.

This report summarizes the Boulder-South Alternatives Analysis. Key pieces of the analysis documented in this report include the following items:

- Current transportation problems in the corridor,
- Road improvement alternatives (including the No Build Alternative) under consideration,
- Rationale and history behind the development of alternatives (including public and agency involvement),
- Screening criteria used for comparing and evaluating the alternatives,
- Planning-level evaluation of alternatives under consideration in the corridor, and
- Recommendations and findings of the analysis.

Problems in the Boulder Corridor

There are two primary problems in the Boulder corridor. First, there are a high number of accidents over the portion of MT 69 from MP 31.8± to MP 37.5± as compared to the statewide average for similar facilities. Secondly, the physical roadway surface is deteriorating and is in need of repair.

Alternatives Considered in this Study

Five alternatives were considered for this study. They are briefly described below.

- **No Build**
  No improvements would be provided under this alternative.
- **Spot Improvements / Speed Reduction / Enforcement**
  This alternative would provide minor improvements along the existing MT 69 alignment, including construction of pullout locations and roadway re-surfacing. A reduction in the posted speed limit and an increase in speed enforcement are also considered under this alternative, although it should be noted that these actions are outside MDT / FHWA jurisdiction. For ease, this alternative will be referenced as the Spot Improvements alternative throughout the remainder of this document.
- **Existing Alignment**
  This alternative would include rehabilitation / reconstruction and widening of the existing alignment generally in accordance with current MDT standards, including flatter side slopes and wider shoulders.

- **Eastern Alignment**
  Under this alternative, a new alignment would be constructed to the east of the Boulder River generally following a Jefferson County Road. The roadway would generally be constructed in accordance with current MDT standards.
- **Western Alignment**
  Under this alternative, a new alignment would be constructed to the west of the existing alignment following steep topography. The roadway would generally be constructed in accordance with current MDT standards.

Alternatives Screening Criteria

A three-part screen was established to assess each of the five alternatives, as follows:

Screen 1: Does the alternative address the problems in the corridor?
In order to pass this screen, an alternative must improve safety performance, as well as the physical condition of the facility.

Screen 2: Are there fatal flaws relating to natural resource impacts or regulatory compliance?
Under this screen, a fatal flaw is defined as an impact to a natural resource that cannot be mitigated to a level below significance in the NEPA/MEPA context. Resource areas considered include drainages and water bodies, wildlife and habitat, floodplains, water quality and fisheries, and wetlands, as well as cumulative impacts expected to result from each alternative.

Screen 3: Is the alternative reasonable and practicable?
In order to pass screen three, an alternative must be reasonable and practicable from economic, technical, and logistical standpoints. Specific considerations included under this screen include capital and maintenance costs, opportunity costs, constructability concerns, technical considerations, relative social / political support, access issues, and ease of right-of-way acquisition.

Analysis of Alternatives

Table ES 1 presents the results of the screening process with respect to each of the five alternatives. It should be noted that each alternative was assessed under each screen in order to provide a more thorough and objective assessment. In order to pass the entire screening process, however, an alternative must pass each of the three individual screens; failure to pass a single screen results in overall failure of an alternative.

Table ES 1 Results of Screening Process

Screen	Screen Component	No Build	Spot Improvements	Existing Alignment	Eastern Alignment	Western Alignment
Screen One **Does the Alternative Address Corridor Problems?**		Incidence of crashes expected to increase without new roadway template.		Wider shoulders and flatter side slopes would reduce incidence of crashes. New roadway would have multi-year design life.		
Screen Two **Are There Fatal Flaws Relating to Natural Resource Impacts or Regulatory Compliance?**		No new impacts	Impacts would occur, but none that are anticipated to preclude regulatory compliance. Assuming standard avoidance, minimization, and mitigation measures would be utilized, no fatal flaws have been identified.			
Screen Three **Is the Alternative Reasonable and Practicable?**	**Construction Cost***	NA	$1.6 million	$20 million	$27.5 million	$68.5 million
	Opportunity Costs	Deteriorating roadway would cause travel inefficiencies.	Reduced speed limit would inconvenience drivers.	None	Slightly longer route would result in minor travel delays.	Longer route and mountainous topography would cause travel delays and reduce route efficiency.
	Constructability	NA	Some challenges relating to close proximity of Boulder River and wetland areas.			Substantial challenges relating to steep topography.
	Social / Political Support	Strong Support	Strong Support	Some Opposition	Strong Opposition	Potential Opposition
	Access	NA	All access points would be perpetuated	All access points would be perpetuated	Difficult to perpetuate access	Difficult to perpetuate access
	Right-of-Way Acquisition	None	1 acre	10 acres	100 acres	77 acres
RESULT		**Fail**	**Fail**	**Pass**	**Fail**	**Fail**

Note: Orange shaded cells indicate failure of individual screen component, leading to overall failure of alternative.

*Maintenance costs for eastern and western alignments would be approximately double those for existing alignment as a result of two paved roadways through corridor.

Recommendations

Based on the results of the screening process, this study has identified rehabilitation / reconstruction and widening of the existing alignment as the only reasonable and practicable alternative that would address the problems in the Boulder corridor. While social and environmental impacts would be expected with this alternative, practicable avoidance, minimization and mitigation measures would be incorporated as the design process evolves.

Accordingly, this study recommends elimination of the No Build, Spot Improvements, Eastern Alignment, and Western Alignment alternatives from further consideration.

TABLE OF CONTENTS

Appendices

Tables

Figures

1.0 INTRODUCTION

A portion of Montana State Primary Route 69 (MT 69) south of Boulder, in Jefferson County, was nominated for rehabilitation / reconstruction and widening by the Montana Department of Transportation (MDT) in May 2004 in order to address safety concerns in the corridor. At the time, MDT intended to prepare an Environmental Assessment in accordance with National Environmental Policy Act (NEPA) and Montana Environmental Policy Act (MEPA) regulations.

Through public and agency involvement activities since that time, members of the public and resource agencies voiced concern regarding rehabilitation / reconstruction and widening of the existing alignment and suggested other potential options. In the interest of narrowing the field of potential options to be evaluated under NEPA/MEPA, MDT has conducted a planning-level analysis of alternatives in the MT 69 corridor, as documented in this report.

As noted in Federal Highway Administration (FHWA) guidance on linking transportation planning and NEPA processes, transportation planning can be used to limit alternative solutions to be evaluated during the NEPA/MEPA process. A planning study may be incorporated by reference into a NEPA/MEPA document, and can thereby provide a basis for early screening of alternatives. Preliminary screening of alternatives allows exclusive focus on reasonable alternatives during the NEPA/MEPA process, which provides cost and time savings.

Preliminary alternatives screening is also recognized as a valid methodology with regard to permitting under Section 404 of the Clean Water Act (Section 404), which is applicable where discharge of dredged or fill material into wetlands and other Waters of the U.S. are anticipated. Implementing regulations state that discharge of dredged or fill material is not permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem (40 CFR 230.10). Following an initial determination of practicability, the least environmentally damaging alternative should be selected.

This report documents the early alternatives screening process used in the MT 69 corridor with the intent of fulfilling future NEPA/MEPA and Section 404 requirements. The report identifies the primary factors for project nomination in the corridor, documents the rationale and history behind the development of alternatives, defines a set of screening criteria based on NEPA/MEPA and Section 404 implementing guidelines, and presents a planning-level evaluation of alternatives under consideration in the corridor.

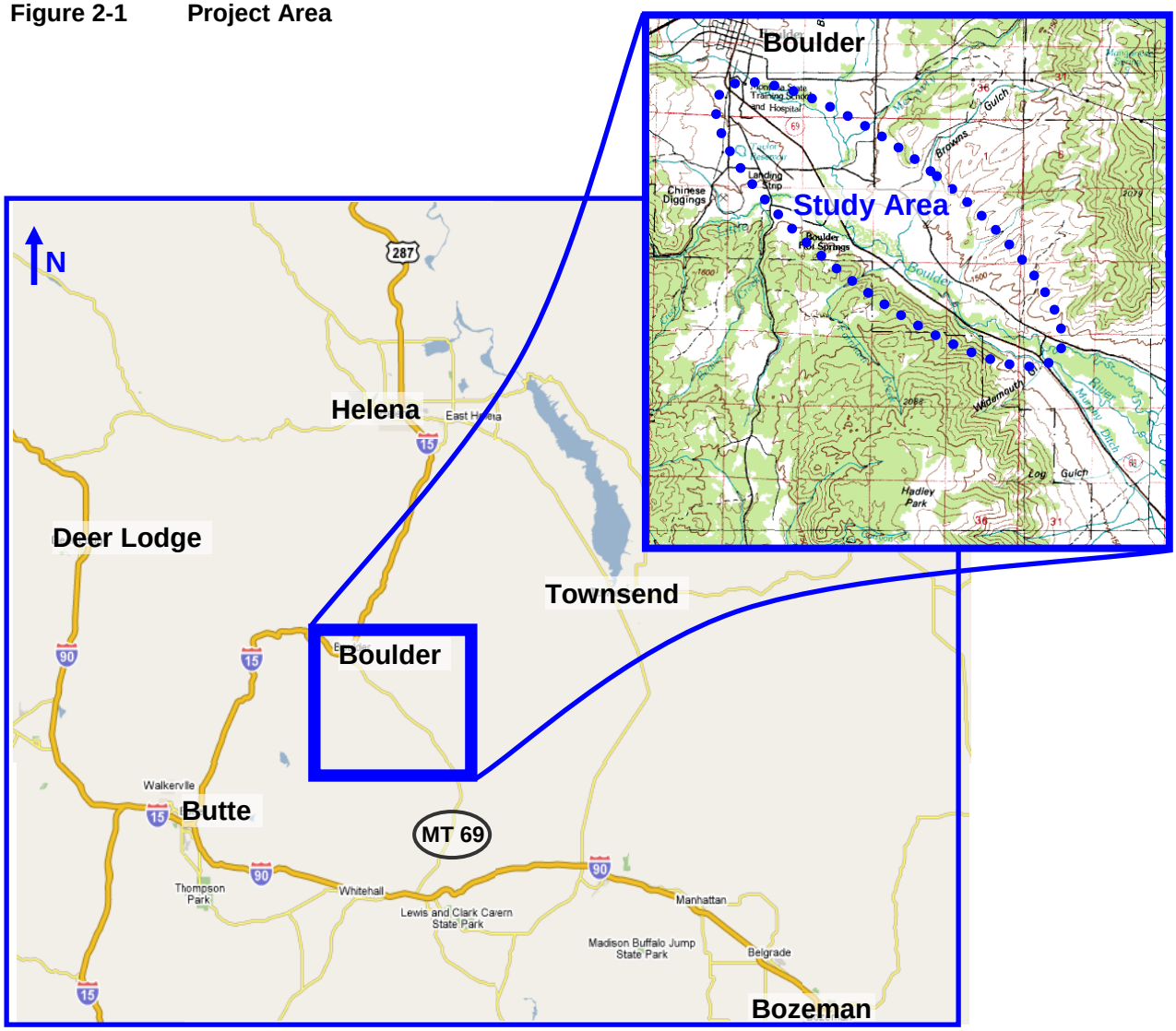
2.0 PROJECT AREA DESCRIPTION

As shown in Figure 2-1, the proposed project is located within the following legal description(s):

Township	Range	Section(s)
5 N	3 W	18, 19
5 N	4 W	2, 3, 4, 10, 11, 13, 14, 24
6 N	4 W	32, 33

The project area begins at MP 31.8± and extends to the north approximately six miles, ending at MP 37.5± just south of Boulder.

Figure 2-1 Project Area



Note: Figure not to scale.

The existing MT 69 alignment generally follows the Boulder River with wetlands on either side of the road and a substantial rock outcropping adjacent to the western side of the road near MP 34±. A representative portion of the road is shown in Figure 2-2.

Figure 2-2 Existing Roadway Along Boulder River

MT 69 is a state primary highway. It is used by rural residents traveling between home and work, as well as regional users traveling between Helena, Butte, Three Forks, and Bozeman. MT 69 is also an interstate truck route, and currently serves a substantial number of regional, national, and international freight carriers.

3.0 CORRIDOR PROBLEM STATEMENT

As shown in Table 3.1, the all-vehicle crash rate for the portion of MT 69 from MP 31.8± to MP 37.5± over the period January 1, 1998 through December 31, 2007 was approximately 44 percent greater than the statewide average crash rate for rural state primary highway systems. Over the same period, the all-vehicle severity rate was over 17 percent greater than the statewide average. Additionally, the percentage of crashes involving trucks over this portion of MT 69 was approximately 27 percent greater than the percentage of crashes involving trucks for all rural state primary highways over the same time period. There have been 23 injuries and one fatality during the period from 1998 through 2007.

Table 3.1 Crash History Comparison

Criteria	Rural State Primary Highways (1998-2007)	MT 69 MP 31.8± – 37.5± (1998-2007)
Weighted AADT	NA	1,199
Total Number of Crashes	15,495	51
Crash Rate (All Vehicles)	1.42	2.04
Severity Index (All Vehicles)	2.41	1.96
Severity Rate (All Vehicles)	3.41	4.00
Total Number of Crashes Involving Trucks	1,193	5
Percentage of Crashes Involving Trucks	7.7%	9.8%
Snow, Slush, and Ice Pavement Conditions at Time of Crash (All Vehicles)	3,080	9
Dark Not Lighted at Time of Crash (All Vehicles)	4,887	15

Source: Montana Department of Transportation, 2008

Single vehicle off-road accidents resulting in overturn are of particular concern in this corridor. Of all crashes that occurred during the period January 1, 1998 through December 31, 2007, nearly 73 percent (37 out of 51) involved single vehicles. Of these, nearly 30 percent (11 out of 37) resulted in overturn. An additional crash involving two vehicles also resulted in overturn.

Speed was indicated as a factor in six of the 51 total crashes in the reporting period in this corridor, with one-third of rollover crashes citing speed as a factor. Of the 12 rollovers, five occurred on a curve, seven occurred under dark conditions, and four occurred in snow, rain, or ice conditions.

Conflicts with wild and domestic animals is another concern in the project corridor. Of all crashes over the period January 1, 1998 through December 31, 2007, just over 21 percent (or 15 crashes out of 51 total crashes) involved collisions with animals. Of these 15 crashes, one-third (or 5 out of 15) involved domestic animals, while the remaining two-thirds (or 10 out of 15) involved wild animals.

The portion of MT 69 between MP 31.8± and MP 35± experiences periodic icing due to shading from the rock outcropping, which likely contributes to the incidence of crashes. Nine of the 28 accidents over this portion of the corridor occurred under icy or snowy roadway conditions.

In addition to the high incidence of crashes on MT 69, the roadway has also outlived its design life. This means that the pavement surfacing and roadway base have begun to deteriorate and will continue to do so if no improvements are made.

4.0 RANGE OF COMMON SOLUTIONS

This chapter presents common solutions used to address poor highway safety performance. Specifically, three categories of improvement options are introduced, including speed limit reduction / enforcement, spot improvements, and geometric improvements. As discussed below, these are typical measures used to correct the problems identified in Chapter 3.

Speed Limit Reduction / Enforcement

In some cases, excessive speeds can create unsafe conditions. Where excessive speeds are believed to be a factor, speed studies can be conducted to determine how fast vehicles are traveling and whether an adjustment should be made to the posted speed limit.

In cases where it appears that the posted speed limit is appropriate, enforcement measures may be used to attempt to bring more drivers into compliance with the legal limit. Due to the current narrow paved width and lack of shoulders in the Boulder corridor, speed limit enforcement is difficult.

Spot Improvements

The intent of spot improvements is to provide measurable safety benefits in a particular location without undergoing a major reconstruction project. Spot improvements are often specific to a particular roadway, but can include construction of pullout locations to allow emergency and law enforcement stopping, pavement resurfacing to extend the life of a roadway, and trimming of vegetation to improve sight distance.

Geometric Improvements

Highways constructed several decades ago often do not meet current MDT design standards with regard to geometric roadway features, including horizontal and vertical curves, paved widths, and side slopes. Corrected horizontal and vertical alignments and roadway templates can result in improved safety performance. Depending on the extent of non-standard geometric features, this type of improvement can take the form of either a targeted rehabilitation or a full roadway reconstruction to address more widespread concerns. When more than 25 percent of a roadway requires rehabilitation, it is MDT policy to completely reconstruct the entire roadway length. The following provides an overview of the current geometric issues in the corridor.

Horizontal and Vertical Curves

Nonstandard horizontal and vertical curves can contribute to unsafe conditions on a roadway. Sharp horizontal curves and short vertical curves are often targeted during reconstruction projects as a means to improve safety. In the Boulder corridor, all horizontal or vertical curves meet or nearly meet current MDT standards.

Clear Zone

The clear zone is defined as the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a recovery area. The desired width is dependent upon traffic volumes, speeds and roadside geometry.

Obstacles within the clear zone create hazards for errant vehicles. A roadside obstacle is generally defined as any roadside feature that cannot be safely impacted by a run-off-the-road vehicle. Roadside obstacles include both fixed objects (e.g., trees, signs, boulders) and non-traversable roadside features (e.g., rivers).

Where a roadside obstacle is located within the clear zone, highway design should incorporate the most practical and cost-effective treatment for the site conditions. As listed in the MDT Road Design Manual, the range of treatments in order of preference includes:

1. eliminate the obstacle (flatten embankment, remove rock outcroppings, etc.);
2. relocate the obstacle;
3. where applicable, make the obstacle breakaway (sign posts, luminaire supports);
4. shield the obstacle with a roadside barrier; or
5. do nothing.

The selected treatment should be based upon the traffic volumes, roadway geometry, proximity of the obstacle to traveled way, nature of the hazard, costs for remedial action, and accident experience.

Guardrail is considered one type of roadside barrier. Because roadside barriers are themselves a hazard to errant vehicles, guardrail is typically installed when the relative severity of impacting the barrier is considered less than the relative severity associated with impacting the obstacle. In appropriate situations after careful consideration, however, MDT sometimes uses guardrail in resource avoidance and minimization efforts.

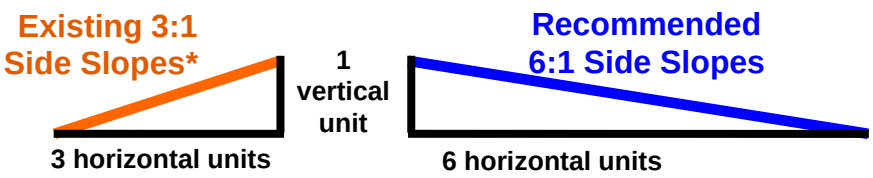
There are a number of obstacles within the MT 69 clear zone, including a rock outcropping located near MP 34± and the Boulder River, which runs adjacent to the roadway through the majority of the project corridor. The appropriateness of guardrail application in this corridor would generally be determined later in the design phase of the project.

Side Slopes

Based on statewide and national data, steep side slopes can be correlated with the incidence of overturning vehicles. When highways are reconstructed or rehabilitated, steep side slopes are often flattened to meet current standards in order to improve safety performance.

The existing MT 69 alignment has steeper side slopes than recommended under current MDT design standards. Figure 4-1 presents a schematic drawing showing existing side slopes and recommended side slopes.

Figure 4-1 Existing and Recommended Side Slopes



As noted in Chapter 14 of the MDT Road Design Manual, a 3:1 slope is considered to be traversable, but non-recoverable. This means that a run-off-the-road vehicle could safely negotiate the slope without overturning, but would not be able to successfully return to the roadway. Slopes steeper than 3:1 are considered critical, meaning that they cannot be safely traversed by a run-off-the-road vehicle and would therefore likely result in overturn.

Slopes throughout the study area are very near the traversability threshold. Although the existing slopes are generally 3:1 and therefore are theoretically defined as being traversable, 30 percent of all single-vehicle crashes result in overturn according to crash data for this corridor. It is likely that the current side slope conditions on MT 69 contribute to the incidence of crashes resulting in overturn.

Roadway Width

Shoulder width has been shown to affect safety performance. Wider shoulders generally allow errant vehicles to correct their path and return to the travel lane without leaving the paved surface. Additionally, wider shoulders provide an opportunity for vehicles to pull over in emergency situations and enable speed limit enforcement by providing locations for law enforcement officers to pull over speeding drivers. A wider top width can also improve sight distance, allowing drivers to detect objects and animals in the roadway.

The current MT 69 roadway is approximately 26 feet wide, which is narrower than the 32-foot width recommended by the MDT Route Segment Plan. Since 1996, it has been MDT policy to add two feet of width on reconstruction projects in order to provide sufficient width for a future overlay with standard slopes and still maintain Route Segment Plan width. Following this policy, the total recommended roadway width in the MT 69 corridor is 34 feet, including two 12-foot travel lanes and two five-foot shoulders.

As depicted in Figure 4-2, the existing roadway has very narrow shoulders, while wider shoulders are recommended throughout the corridor. As noted in the American Association of State Highway and Transportation Officials' (AASHTO) Policy on Geometric Design of Highways and Streets, although it is desirable that a shoulder be wide enough for a vehicle to be driven completely off the traveled way, narrower shoulders are better than none at all. When a vehicle making an emergency stop can drive onto the shoulder to occupy only one to four feet of a traveled way of adequate width, the remaining traveled way width can be used by passing vehicles.

Figure 4-2 Existing and Recommended Paved Width

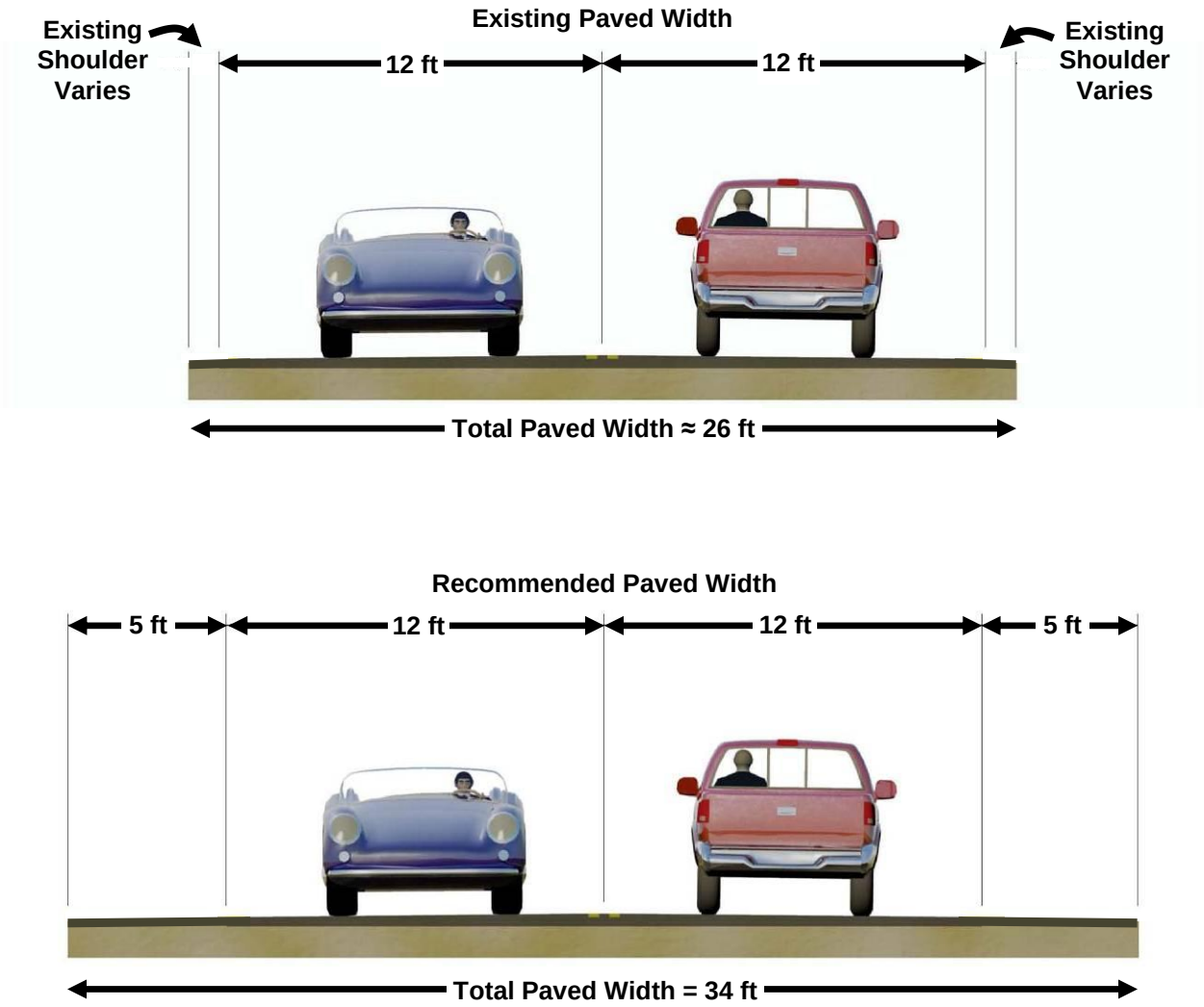
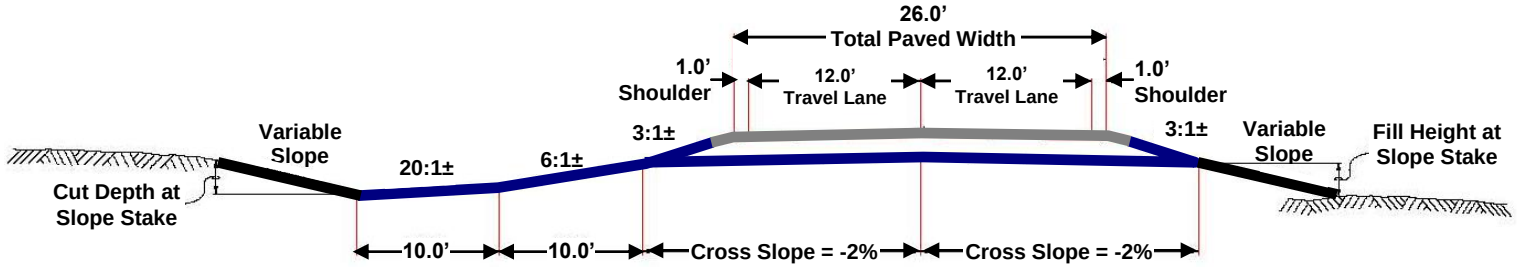


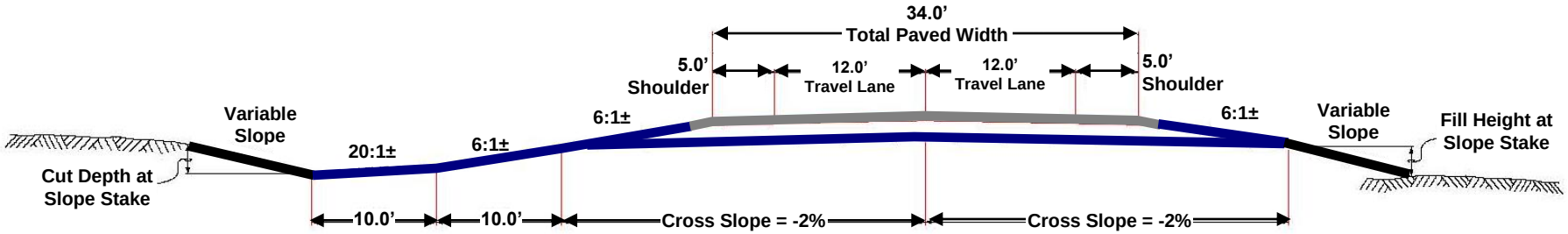
Figure 4-3 presents hypothetical cross sections for the existing and proposed roadways. Differences between the two include wider shoulders and flatter side slopes for the proposed cross section as compared to the existing cross section. It should be noted that there is some variance in cross section elements on the existing roadway over the length of the project corridor. It should also be noted that the proposed cross section does not account for any adjustments to the vertical elevation of the roadway; the necessity of a grade raise would be determined later in the design of the project.

Figure 4-3 Existing and Proposed Cross Sections

Existing Cross Section



Proposed Cross Section



5.0 DEVELOPMENT OF ALTERNATIVES

This chapter describes the five alternatives considered in this study. Alternatives are presented in chronological order according to their development during this process.

Existing Alignment Alternative

MT 69 was nominated for rehabilitation / reconstruction and widening in order to preserve the driving surface of the existing roadway and improve safety performance on the highway. Rehabilitation / reconstruction and widening of the existing alignment was the first alternative considered in the corridor.

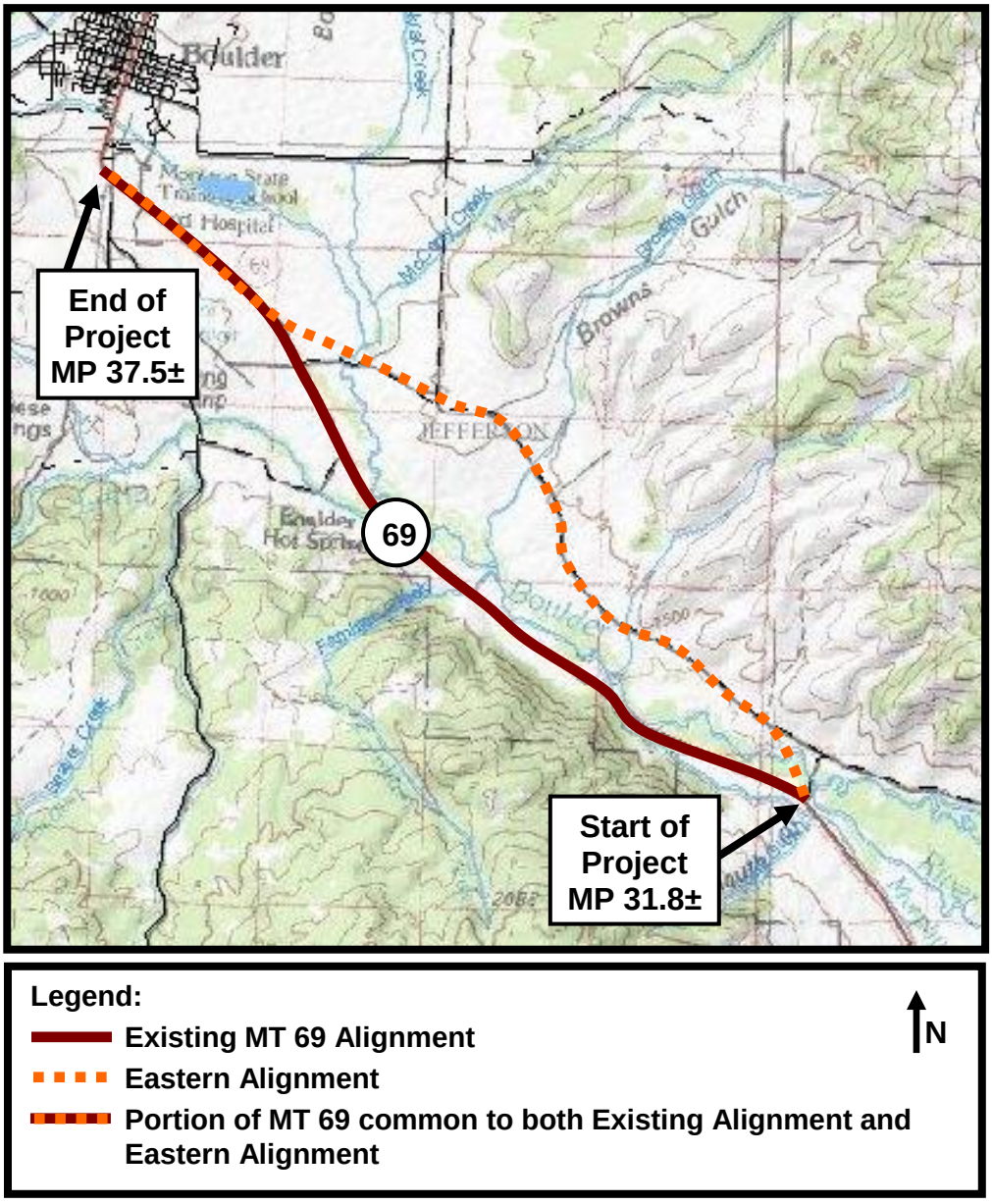
This alternative would widen MT 69 generally following the existing alignment, but allowing for minor alignment shifts intended to minimize impacts to natural resources. A minor alignment shift is defined as generally overlapping or closely paralleling the existing alignment within a few feet of the roadway centerline. Under this alternative, non-standard geometric features would be corrected, including shoulders and side slopes. The paved width would be widened to 34 feet, as previously illustrated in Figures 4-2 and 4-3. It should be noted that Figure 4-3 does not account for any alterations to the existing grade level, which may be required for rehabilitation / reconstruction and widening of the existing alignment. A grade raise would result in a wider overall footprint than depicted in Figure 4-3.

Eastern Alignment Alternative

In weighing rehabilitation / reconstruction and widening of the existing roadway, MDT took into consideration the challenges associated with providing the necessary improvements along an alignment constricted by the Boulder River; numerous wetlands which make construction more complex, costly, and difficult to permit; and rock outcrops which cause shading and icing problems in inclement winter weather.

Although new alignments are generally not proposed for safety improvement projects, MDT initiated the development of a conceptual alignment that would generally follow an existing Jefferson County road east of the Boulder River in coordination with Jefferson County commissioners. It was thought that this eastern alignment may be easier to construct, provide a safer route for drivers, result in fewer wetland and river impacts, and experience less icing as compared to the existing roadway. The existing and eastern alignments are illustrated in Figure 5-1.

Figure 5-1 Existing and Eastern Alignments



Note: Figure not to scale. MP locations approximated.

Under this alternative, the new roadway would be constructed in accordance with current MDT geometric standards, including 6:1 side slopes and a 34-foot paved width, as previously illustrated in Figures 4-2 and 4-3.

It should be noted that construction of a new eastern alignment would create two paved roadways through the corridor since the existing MT 69 roadway would continue to be maintained as a local access roadway.

No Build Alternative

An early scoping meeting was held on June 1, 2005 in Boulder, during which the existing and eastern alignment alternatives were presented. Approximately 100 people attended the meeting and the majority of those in attendance expressed their strong disapproval of any new alignment east of the river, as noted in the summary of public involvement activities, meeting transcript, and written comments, which are included in Appendices A, B, and C.

As an alternative to a new alignment, several members of the public expressed support for a No Build alternative in which no improvements would be made in the corridor. A No Build alternative is therefore included in this study.

A No Build alternative would maintain existing conditions along the entire length of the project corridor by providing routine maintenance. There would be no opportunity for geometric improvements or roadway widening. Existing vegetation would remain in place, posing a continuing sight distance impediment. The roadway would continue to experience deterioration as a result of exceeding its design life.

Spot Improvements / Speed Limit Reduction / Enforcement Alternative

At the June 2005 public meeting, attendees' chief complaint was that vehicles, particularly trucks, were traveling above the posted speed limit and that enforcement measures were not sufficient to deter this behavior. It was suggested that reducing the posted speed limit or providing greater enforcement of the existing speed limit would improve safety in the Boulder corridor. In an effort to improve speed limit enforcement given the existing narrow shoulder width, members of the public suggested construction of pullout locations at regular intervals through the corridor.

During agency involvement activities conducted in 2008 and 2009, resource agencies also supported this option as an alternative to rehabilitation / reconstruction and widening of the existing alignment based on the assumption that strategic placement of pullouts may result in fewer impacts to wetlands than roadway widening through the entire corridor. Refer to Appendix A for a summary of public and agency involvement activities conducted to date. Agency correspondence is included in Appendix F, and minutes from agency meetings are included in Appendix G.

In response to public and resource agency requests, a Spot Improvements / Speed Limit Reduction / Enforcement alternative was developed for this study. This alternative would provide specific pullout locations through the corridor in order to provide opportunities for emergency and law enforcement stops. Additionally, the roadway would be resurfaced in order to extend the design life of the facility, but the existing travel width and side slopes would remain unchanged. This alternative also includes consideration of a lowered posted speed limit, as well as trimming of vegetation to improve sight distance. For ease, this alternative will be referenced as the Spot Improvements alternative throughout the remainder of this document. It should be noted that MDT does not have the authority to either establish or enforce speed limits. While construction of pullout locations may facilitate greater opportunity for the Montana

Highway Patrol to stop speeding vehicles, the success of this effort relies heavily on the level of enforcement provided by the Highway Patrol.

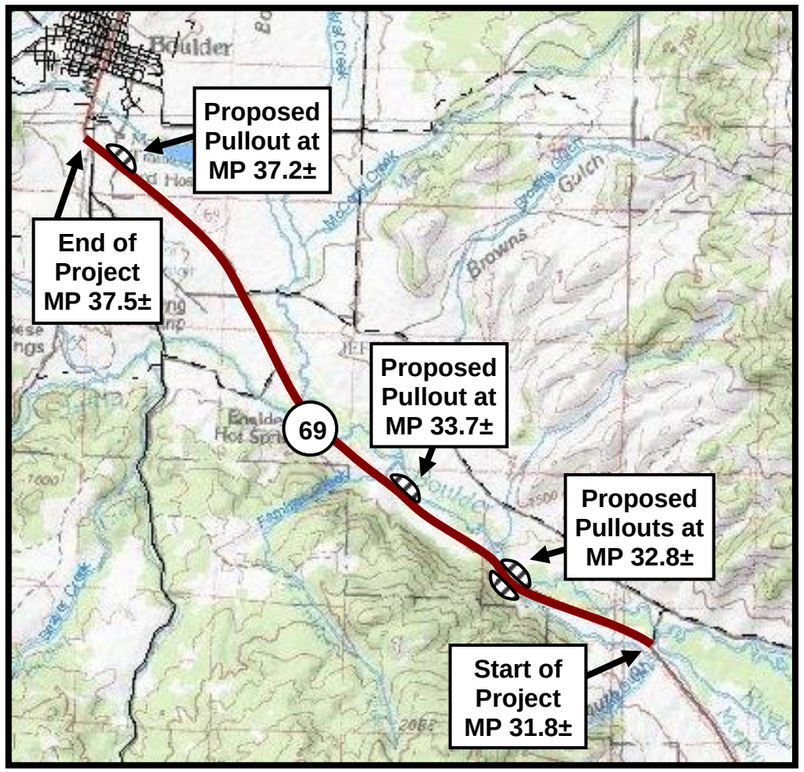
Under this alternative, pullout locations were identified primarily based on physical constraints in the corridor. Although enforcement efforts are most successful when there are relatively continuous pullout opportunities, pullout locations were identified only in areas that would result in minimal wetland impacts in response to resource agency requests. Pullouts were also identified in locations with adequate sight distance to allow safe acceleration and re-entry into the travel lane.

The AASHTO Policy on Geometric Design of Highways and Streets recommends a minimum turnout length of 170 m (560 ft) including taper lengths for an approach speed of 100 kilometers per hour (or approximately 60 miles per hour), and a maximum turnout length of 200 m (660 ft) to avoid use of the turnout as a passing lane. The minimum turnout width should be 3.6 m (11.8 ft), although a width of 5.0 m (16.4 ft) is considered desirable. The turnout location should also provide a minimum sight distance of 300 m (1000 ft) in each direction and a firm, smooth surface. Similarly, for truck turnouts, the MDT Road Design Manual recommends a turnout length of approximately 210 m (690 ft) including taper lengths, although it notes that dimensions may be dictated by site conditions.

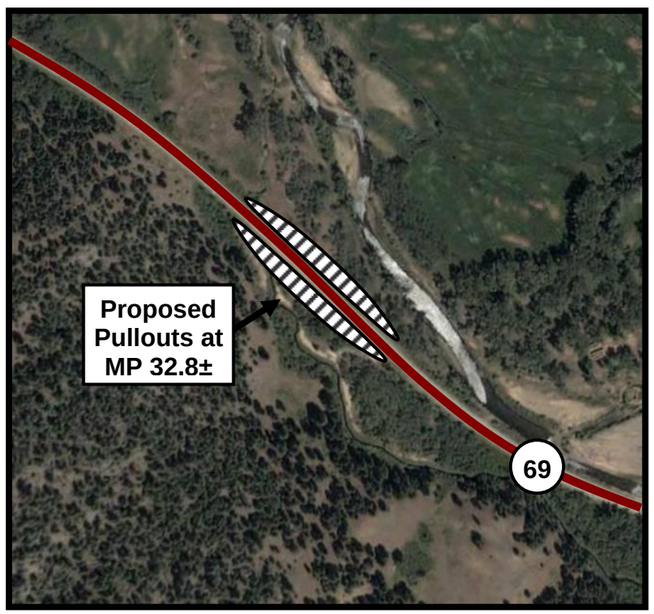
Due to the close proximity of the Boulder River and associated wetland areas, there are very few opportunities for adequate pullout locations within the project limits without resulting in wetland impacts. Although there are a number of private and farmfield approaches through the corridor that rise above adjacent wetland areas, wetland impacts would be expected to result on either side of the majority of these approaches if the recommended AASHTO and MDT length guidelines were followed. Therefore, in most cases, approaches were not identified as appropriate pullout locations.

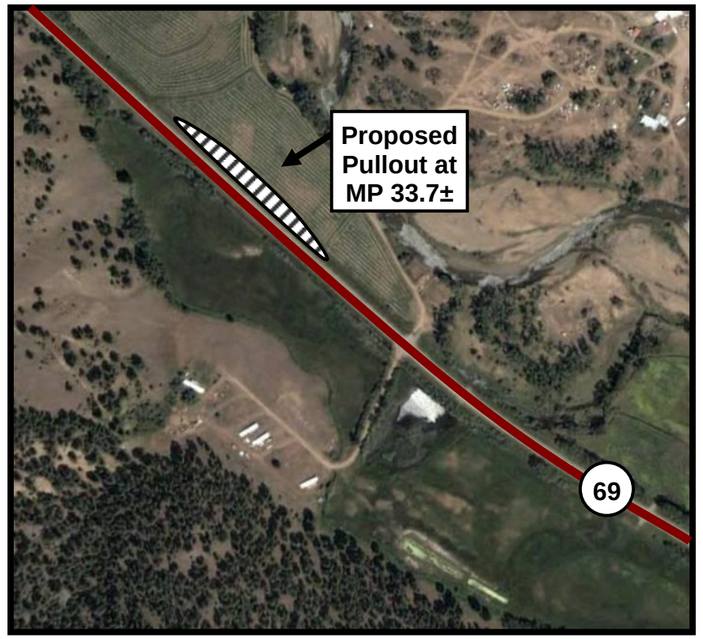
Four potential pullout locations were identified, as depicted in Figure 5-2. The pullouts are designed to be 600 feet in length and only six feet in width in order to minimize wetland impacts.

Figure 5-2 Proposed Pullout Locations



Note: Figure not to scale. MP locations approximated.





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Western Alignment Alternative

During agency involvement activities in 2008 and 2009, resource agencies voiced concern about potential impacts to the Boulder River, adjacent wetlands, and wildlife habitat that may result from rehabilitation / reconstruction and widening of the existing MT 69 alignment. Resource agencies requested consideration of alignment shifts off the existing alignment over a portion or portions of the project to avoid construction in areas closest to the Boulder River and associated wetland and floodplain areas.

In response to this request, the corridor was reviewed to determine if major alignment shifts away from the existing alignment over portions of the corridor would be feasible in order to minimize potential river, wetland, and floodplain impacts. An alignment shift immediately to the west over the portion of the corridor from MP 31.8± to 34.5± would impact farmlands and the Murphy Ditch. An alignment shift to the east would impact wet meadows between the existing alignment and the Boulder River. From MP 34.5 to 36.0, alignment shifts to the west would impact existing pasture land and wetland areas. Further west, an alignment shift would impact the Boulder Hot Springs and additional wetland areas. To the east, the roadway alignment is constrained by the Boulder River. From MP 36.0 to 37.4, an alignment shift to the west would impact the fairground, airport, and wetland areas. It should be noted that alignment shifts would involve new blocks of wetland impacts, whereas rehabilitation / reconstruction and widening of the existing alignment would impact linear slivers of wetland areas. Based on this corridor review, it was determined that major alignment shifts over relatively short portions of the corridor would not appreciably reduce wetland impacts, and may result in new impacts to other resources.

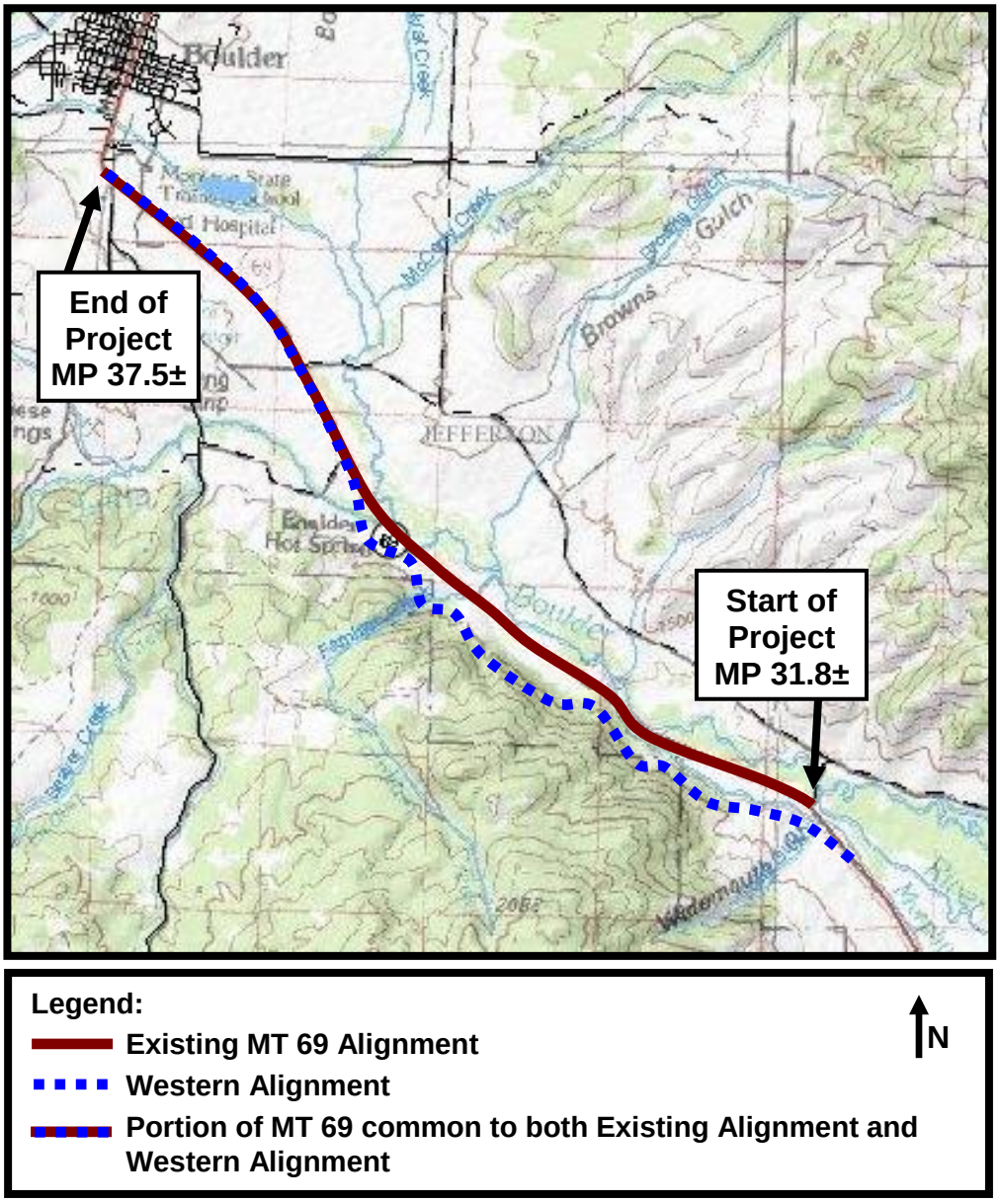
With the understanding that many members of the public expressed strong opposition to an eastern alignment, resource agencies also requested consideration of an alignment completely outside of the Boulder River floodplain to the west of the existing roadway over the entire project limits. Refer to Appendix G for minutes from the resource agency meetings conducted to date. As a result of this request, a western alignment was developed at a conceptual level, assuming construction in accordance with current MDT geometric standards, including 6:1 side slopes and a 34-foot paved width, as previously illustrated in Figures 4-2 and 4-3. It should be noted that in some locations along the western alignment, rock cuts would be required, necessitating some variance from the proposed typical section. In these cases, the total roadway footprint would likely be narrower than presented in Figure 4-3.

There is a sharp rise in elevation to the west of the existing roadway. In order to avoid construction within low-lying wetland areas throughout the valley floor, a western alignment would need to climb several hundred feet in elevation and traverse rough terrain. This proposed western alignment is illustrated in Figures 5-3 and 5-4. Although wetland areas could potentially be avoided by following the base of the hills along the valley floor, this would require a greater number of horizontal curves to accommodate the serpentine formation of the hillside, further reducing the efficiency and drivability of the roadway.

The western alignment does not include consideration of climbing lanes, although they may be required given the steep grades. Determining the need for climbing lanes is usually conducted later in the design phase. If climbing lanes were needed, they would increase the cost of this alternative substantially.

It should be noted that construction of a new western alignment would create two paved roadways through the corridor since the existing MT 69 roadway would continue to be maintained as a local access roadway.

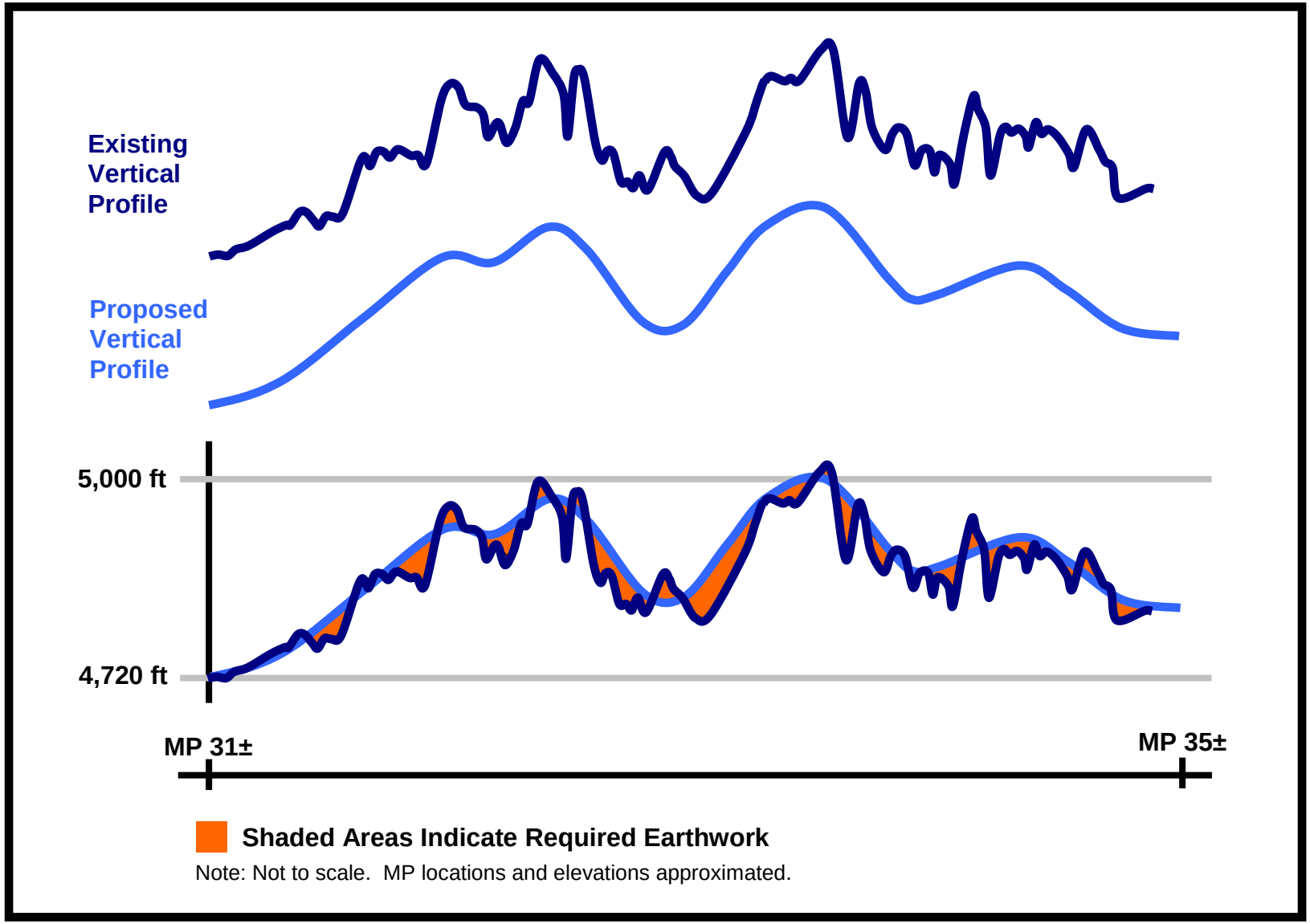
Figure 5-3 Existing and Western Alignments



Note: Figure not to scale. MP locations approximated.

As shown in Figure 5-3, the western alignment would include a number of horizontal curves. The proposed roadway was designed to curve in this manner in order to optimize the vertical alignment and to minimize the amount of cut and fill that would be required. Despite this effort, a substantial amount of earthwork would still be required due to the mountainous terrain, as depicted in Figure 5-4.

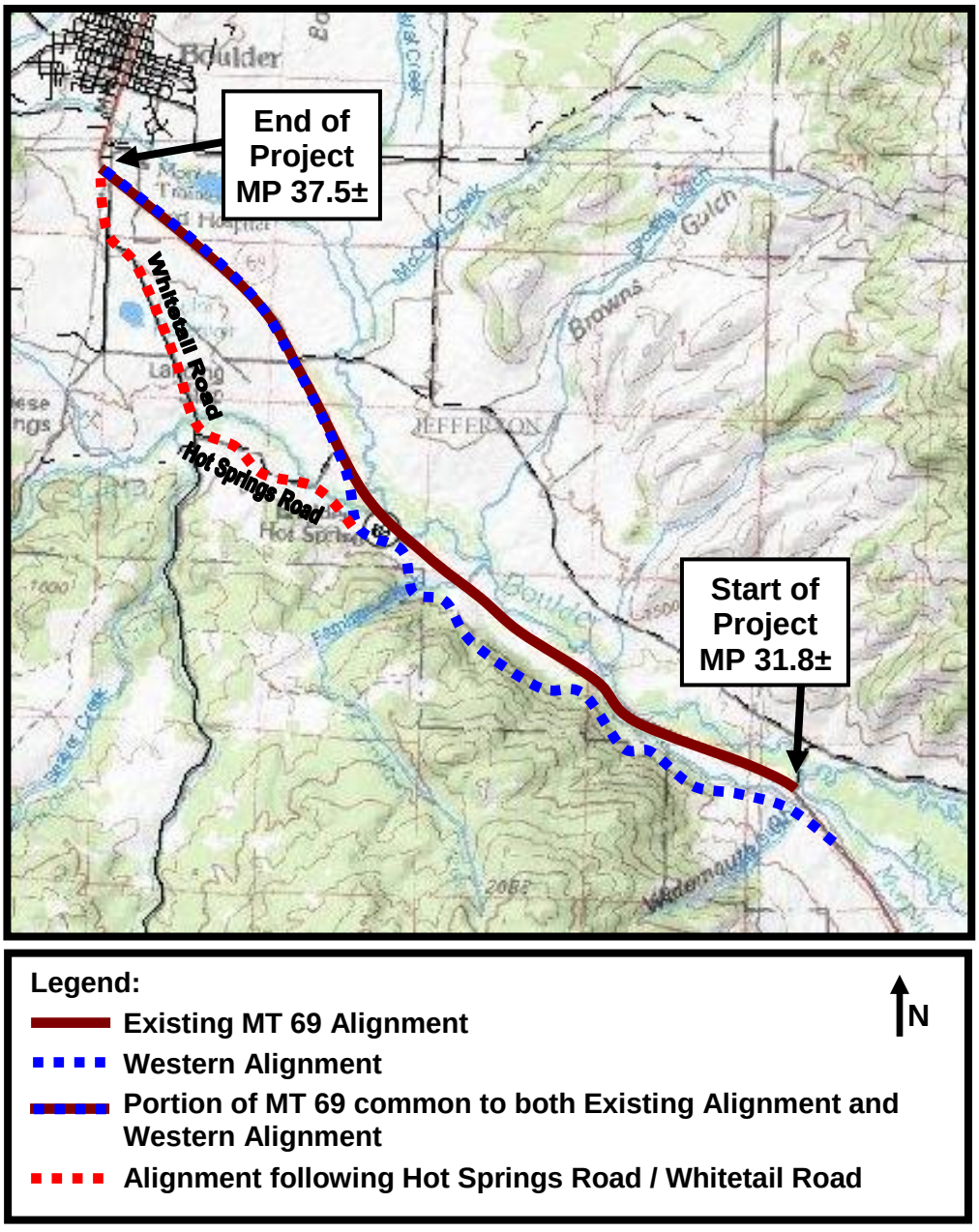
Figure 5-4 Proposed Vertical Profile for Western Alignment



In designing the western alignment, there was some initial consideration given to following Hot Springs Road and Whitetail Road farther to the west in the hopes of further minimizing wetland impacts, as opposed to tying back into the existing alignment near MP 35±. By doing so, the western alignment would essentially bypass the entire Boulder River floodplain over the project limits, as illustrated in Figure 5-5.

Following these existing county roadways to the west would extend the total length of the project, and would still impact wetland areas and require crossing the Little Boulder River. This alignment would also impact farmlands, and potentially impact the county fairgrounds and the airport. For these reasons, this alignment was not explored further.

Figure 5-5 Alignment Following Hot Springs Road / Whitetail Road



Note: Figure not to scale. MP locations approximated.

6.0 ALTERNATIVES SCREENING CRITERIA

A three-part screening process was developed in order to evaluate the alternatives at a pre-NEPA/MEPA planning level. While inability to pass any one of these screens would typically be cause for elimination of an alternative, each alternative is passed through each screen to provide a more thorough and objective analysis in preparation for future NEPA/MEPA analyses. In order to pass the overall screening process, however, an alternative must pass each of the three individual screens. These three screens are described in more detail below, and analysis follows in the next chapter.

Screen 1: Does the alternative address the problems in the corridor?

As described in the Chapter 3, the primary concerns in the MT 69 corridor are the relatively high number of single vehicle crashes resulting in overturn, animal-vehicle conflicts, and a deteriorating roadway facility. In order to pass the first screen, an alternative would need to directly address these issues.

Screen 2: Are there fatal flaws relating to natural resource impacts or regulatory compliance?

This screen is intended to identify fatal flaws relating to anticipated natural resource impacts. In this context, a fatal flaw is defined as a natural resource impact that cannot be mitigated to a level below significance in the NEPA/MEPA context.

Screen 3: Is the alternative reasonable and practicable?

In order to be considered viable, an alternative must be reasonable and practicable. Reasonable alternatives are described in Council on Environmental Quality (CEQ) guidelines as including "those that are practical or feasible from the technical and economic standpoint and using common sense." Additionally, an alternative is considered unreasonable if it does not satisfy the purpose and need for the project.

Practicability is a concept defined in relation to permitting under Section 404. Implementing regulations for Individual Permits state that discharge of dredged or fill material into Waters of the U.S. is not permitted if there is a practicable alternative which would have less adverse impact on the aquatic ecosystem (40 CFR 230.10). Accordingly, impracticable alternatives can be eliminated from further consideration. Practicability is determined based on factors including cost, existing technology, and logistics in light of overall project purposes.

In a joint memorandum regarding Section 404 Guidelines, the Environmental Protection Agency (EPA) and the Department of the Army state that "[t]he determination of what constitutes an unreasonable expense should generally consider whether the projected cost is substantially greater than costs normally associated with the particular type of project." Further, Section 404 Guidelines state that "[i]f an alleged alternative is unreasonably expensive to the applicant, the alternative is not practicable." Cost is an important consideration in the determination of practicability and therefore will be given considerable weight in this analysis.

In addition to cost, existing technology and logistics are measures of practicability. New or untested technologies are not required to be employed in order to minimize impacts. Further, logistical factors including constructability, social and political concerns, and ease of right-of-way acquisition are important considerations in the determination of an alternative's practicability. If an alternative presents too great an impediment based on any of these factors, it could be considered impracticable and eliminated from further consideration. Such impediments could include absence of community and/or political support and condemnation proceedings where necessity could not be established, as defined under eminent domain laws.

Once each alternative has been tested against these three screens, they will be compared to determine what, if any, alternatives should be forwarded, and what, if any, should be eliminated from further consideration in the NEPA/MEPA process.

7.0 ANALYSIS OF ALTERNATIVES

This chapter discusses the evaluation of alternatives according to the defined screening process. Under each screen, alternatives are not discussed in chronological order as in Chapter 5, but rather in order of relative level of construction involvement, with the No Build alternative discussed first and new alignments discussed last.

Screen 1: Does the alternative address the problems in the corridor?

While this project was initially nominated due to deteriorating roadway condition, the primary concern in the corridor is the high incidence of single-vehicle rollover crashes and animal-vehicle conflicts. Thus, the preferred improvement alternative must address the condition of the driving surface itself, as well as safety concerns through the corridor.

Following the Zegeer method (FHWA, 1987), a safety and operational crash model was developed in order to assess the effect of varying roadway templates on safety performance. Six roadway templates were compared, including the existing roadway and roadways with four-foot and five-foot shoulders assuming existing side slopes (generally 3:1), as well as templates with varying shoulder widths and new side slopes (flatter than 4:1). Four-foot shoulders correlate to the paved roadway width recommended under the Route Segment Plan, while five-foot shoulders follow MDT's policy of adding two additional feet for future overlay purposes. Current year (2008) AADT served as a baseline comparison, with design year (2032) AADT projected for each of the roadway templates. The model output was calibrated to exactly match the number of crashes over the ten-year period from January 1, 1998 through December 31, 2007 (as listed for current year 2008).

Each roadway template was assigned a hazard rating, which was determined based on factors including width of portion of clear zone outside pavement edge; presence of guardrail, exposed trees, poles, or other objects; side slopes; and relative recoverability, with higher numbers representing greater overall roadway hazards.

A hazard rating of five was assigned to the existing roadway template and roadway templates with four-foot and five-foot shoulder widths, given the following assumptions:

- Portion of clear zone outside pavement edge between five and ten feet from pavement edge
- Side slopes generally 3:1 (considered virtually non-recoverable)
- May have guardrail zero to five feet from pavement edge
- May have exposed trees, poles, or other objects within ten feet from pavement edge

A hazard rating of two was assigned to all other roadway templates, with the following assumptions:

- Portion of clear zone outside pavement edge between 20 and 25 feet from pavement edge
- Side slopes flatter than 4:1 (considered recoverable)
- No objects within ten feet from pavement edge

The results of this modeling effort are presented in Table 7.1.

Table 7.1 Results of Safety and Operational Crash Model

Parameter		Existing Roadway 1-ft Shoulder (2008)	Existing Side Slopes (Generally 3:1)			New Side Slopes (Flatter than 4:1)		
			Existing Roadway 1-ft Shoulder (2032)	4-ft Shoulder (2032)	5-ft Shoulder (2032)	Existing Roadway 1-ft Shoulder (2032)	4-ft Shoulder (2032)	5-ft Shoulder (2032)
Input Values	AADT	900	1,170	1,170	1,170	1,170	1,170	1,170
	Lane Width (ft)	12	12	12	12	12	12	12
	Paved Shoulder Width (ft)	1	1	4	5	1	4	5
	Unpaved Shoulder Width (ft)	0	0	0	0	0	0	0
	Hazard Rating	5	5	5	5	2	2	2
Crash Comparison	Total Crashes (10 years)	36.4	46.9	39.0	36.7	27.2	22.6	21.2
	Total Crashes (10 years) Calibrated**	51.0	65.8	54.7	51.4	38.1	31.7	29.8
	Total Crashes (per year)	10.2	13.2	10.9	10.3	7.6	6.3	6.0
	Percent Change in Total Crashes (per year) Compared to Existing Roadway (2008)	NA	29% Higher	7% Higher	1% Higher	25% Lower	38% Lower	41% Lower

** Calibration Multiplier = 1.402 (Actual crashes/predicted crashes)
Source: MDT, 2009.

As shown in Table 7.1, there is a marked difference in safety performance between the existing and new roadway templates. With no improvements, the existing roadway is predicted to experience 29 percent more crashes in 2032 as compared to 2008. A new roadway with existing side slopes (generally 3:1) and wider shoulders ranging from four to five feet is expected to result in one to seven percent more crashes per year as compared to the existing roadway in 2008. This indicates that additional shoulder width alone does not result in substantial improvements in safety performance.

A new roadway template with existing shoulders (one foot in width) and flatter side slopes would result in 25 percent fewer crashes per year, while new roadway templates with flatter slide slopes combined with wider shoulders ranging from four to five feet in width are expected to result in a 38 to 41 percent reduction in crashes in 2032 as compared to the existing roadway in 2008. These results show that while flatter side slopes alone provide safety benefits, the greatest benefit results from a combination of flatter side slopes and greater shoulder widths.

It should be noted that while guardrail is assumed over discrete portions of the roadway under a hazard rating of five, the model does not define a hazard rating for instances where guardrail borders the entire length of the roadway in question. While steeper side slopes in combination with guardrail can reduce impacts to adjacent lands, guardrail is considered to be a roadside obstacle for run-off-the-road vehicles. Any object in or near the path of a vehicle can contribute to crash severity should the vehicle leave the travel lane.

No Build

This alternative **fails** to pass the first screen because it would not address any of the problems in the corridor. By maintaining the existing roadway template, there would be no improvement in the incidence of single vehicle crashes or animal-vehicle conflicts. Steep side slopes would continue to enable rollover accidents if a vehicle were to stray from the travel lane. Narrow shoulders and dense vegetation closely paralleling the roadway would continue to pose a sight distance impediment. As shown in the crash model, the number of crashes is predicted to increase over the next twenty years if no improvements are made to the existing roadway. Additionally, this alternative would not improve the physical condition of the roadway facility, and therefore the roadway would continue to experience deterioration as a result of exceeding its design life.

Spot Improvements

This alternative was developed based on the public perception that travel speeds are too high in this corridor. While excessive speeds can create unsafe conditions in some instances, a number of studies have shown that reducing posted speed limits alone does not substantially affect driver behavior. FHWA, the Institute of Transportation Engineers (ITE), the Transportation Research Board (TRB), and others have found that motorists tend to drive at a speed they feel is reasonable and prudent for the conditions, regardless of the posted speed limit. Posted speed limits are generally set at the speed at which 85 percent of traffic is moving. This 85th percentile speed is generally acceptable to most drivers and therefore results in the highest voluntary compliance. Lowering the posted speed limit alone is generally an ineffective measure. Consistent enforcement efforts are needed to successfully lower speeds below the 85th percentile speed.

Although residents in the MT 69 corridor south of Boulder perceive that a majority of vehicles exceed the posted speed limit on MT 69, recent data suggests otherwise. A speed study conducted in February 2009 on MT 69 from the town of Boulder to MP 35.0 shows that 85 percent of vehicles traveled at or below 71 miles per hour (mph) over the portion of the corridor with a posted speed limit of 70 mph. As noted in Chapter 3, speed was indicated as a factor in just seven of the 51 total crashes in the reporting period in this corridor. Just one-third of the rollover crashes included speed as a factor. Thus, even if the posted speed limit was reduced and the Montana Highway Patrol implemented greater speed enforcement measures, this alternative would address less than 14 percent of all crashes in the corridor.

The 2009 speed study shows that approximately 15 percent of vehicles travel at speeds exceeding the posted speed limit. Improved enforcement may bring more drivers into compliance with the speed limit in this corridor. Enforcement of posted speed limits on MT 69 is currently difficult given the narrow shoulders through the corridor. Law enforcement personnel are generally unable to pull drivers over for speeding or other infractions due to lack of any space to pull over a vehicle.

Enforcement efforts are most successful when there are relatively continuous pullout opportunities, with continuous shoulders providing the most effective enforcement opportunities. In response to public and agency requests, however, the spot improvement alternative was developed for this study to only include intermittent pullout locations. In the interest of minimizing project impacts, pullout locations were identified only in areas expected to result in minimal impacts to wetlands.

Because shoulder widths and side slopes would remain the same over the corridor, the high incidence of single vehicle crashes resulting in overturn is projected to worsen over time, as noted in Table 7.1. The four proposed pullout locations would provide some opportunity for emergency stops and may help enforcement efforts. Speed limit enforcement is most successful, however, when there are continuous shoulders along each side of a roadway. As noted above, speed was a factor in only a minority of crashes. Even if enforcement efforts were improved through the construction of pullout locations, speed limit enforcement alone likely would not appreciably affect the high incidence of crashes in the corridor. For these reasons, this alternative **fails** to address the primary concerns in the corridor.

Existing Alignment

Rehabilitation / reconstruction and widening of the existing alignment would successfully address the problems in the corridor, therefore **passes** the first screen. By providing a new roadway template with flatter side slopes and wider shoulders, this alternative is projected to reduce the incidence of crashes and animal-vehicle conflicts by at least 30 percent from the existing conditions, provide sufficient opportunity for emergency and enforcement stops, and would provide a new facility with a multi-year design life.

Although some members of the public have requested that no improvements be made in the Boulder corridor, MDT and FHWA have a responsibility to provide a safe and efficient roadway facility. As documented in this report, the crash rates (both in number and in severity) along the existing MT 69 route are substantially higher than on other similar routes across the state, resulting in 23 injuries and one fatality during the period from 1998 through 2007. Given the location of accidents, it can be concluded that most crashes are the result of roadway geometry,

with driver error, speed, and adverse weather conditions also playing a role. By providing a wider paved width and flatter side slopes, this alternative is expected to reduce the number of single vehicle crashes resulting in overturn, as well as the total number of crashes in the corridor.

Eastern and Western Alignments

A new alignment would successfully address the problems in the corridor, and therefore the eastern and western alignment alternatives **pass** the first screen. By providing a new facility that meets current MDT design standards, these alternatives would likely reduce the incidence of crashes and animal-vehicle conflicts in the corridor, provide sufficient opportunity for emergency and enforcement stops along the new route, and would provide a new facility with a multi-year design life.

Table 7.2 presents the results of the first screen.

Table 7.2 Results of First Screen

Component of Screen One	Alternatives				
	No Build	Spot Improvements	Existing Alignment	Eastern Alignment	Western Alignment
Single Vehicle Crashes Resulting in Overturn	Number of crashes predicted to increase without new roadway template	Number of crashes predicted to increase without new roadway template	Flatter side slopes and wider shoulders would reduce the number of single vehicle crashes resulting in overturn.		
Animal-Vehicle Conflicts	No Improvement	Trimming vegetation would improve sight distance somewhat.	Wider shoulders and thinner vegetation cover would improve sight distance and likely reduce the number of animal-vehicle conflicts.		
Deteriorating Roadway	No Improvement	New surfacing would extend the life of the roadway.	A new roadway facility would have a multi-year design life.		
Screening Result	**FAIL**	**FAIL**	**PASS**	**PASS**	**PASS**

Note: Orange shaded cells indicate failure of individual screen component, leading to failure of overall screen.

Screen 2: Are there fatal flaws relating to natural resource impacts or regulatory compliance?

A number of regulatory entities have permitting jurisdiction with regard to this project, including the Montana Department of Environmental Quality (DEQ), the U.S. Army Corps of Engineers (USACE), Montana Fish, Wildlife & Parks (FWP), the Department of Natural Resources and Conservation (DNRC), and Jefferson County. This screen considers whether there are any fatal flaws posed by anticipated impacts resulting from each of the five alternatives under consideration. Resources discussed under this screen include water bodies, wildlife habitat and migration patterns, floodplains, and wetlands, which are of particular concern given the orientation and location of the Boulder corridor.

It should be noted that this screen is not intended to compare the relative level of natural resource impacts resulting from one alternative to those resulting from another alternative. Rather, the intent of this screen is to focus exclusively on potential fatal flaws that could preclude regulatory compliance and prohibit project implementation.

Minimal field work was conducted for this effort; the analysis in this report is generally qualitative in nature and is primarily based on available database searches. These searches include a review of the Natural Resource Information System (NRIS), Natural Resource Conservation Service (NRCS), and the Montana Natural Heritage Program (MNHP). Information was also drawn from communication with MNHP biologists and resource agencies, as well as walking and windshield surveys of the corridor. Each resource area is discussed separately below.

Drainages and Water Body Crossings

Any construction project modifying the natural existing shape and form of any stream in Montana, its banks, or its tributaries must provide a Montana Stream Protection Act (SPA) 124 Notification to FWP.

There are several rivers and streams located within the project area, including the Boulder River, Little Boulder River, Muskrat Creek, McCarty Creek, Farnham Creek, Beaver Creek, and a number of unnamed intermittent streams, as depicted in Figure 7-1.

No Build

There would be no new impacts under the No Build alternative, thus **passing** this component of screen two.

Spot Improvements

There would be no impacts under this alternative, thus **passing** this component of screen two.

Existing Alignment

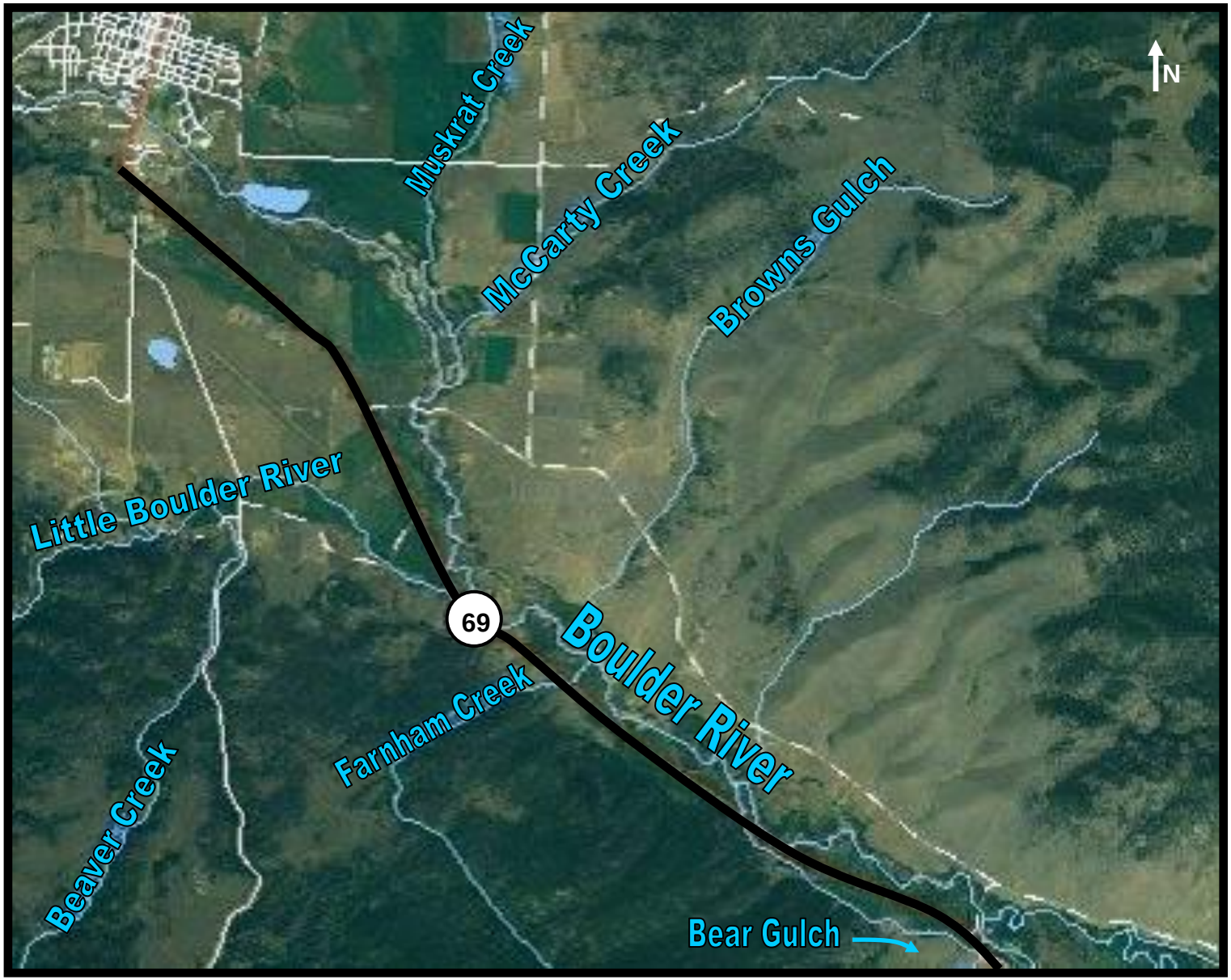
Rehabilitation / reconstruction and widening of the existing alignment would not impact any new drainages in the MT 69 corridor. The roadway would essentially follow the existing alignment, and would not result in any new stream crossings.

There are 55 culverts located along the existing MT 69 alignment. All existing culverts would be replaced by longer culverts to accommodate rehabilitation / reconstruction and widening on the existing alignment. Reconstruction of the existing alignment would not involve relocation of the Boulder River, Little Boulder River, or any of the unnamed perennial streams. Due to widening of the existing roadway, some encroachment into the river channel may occur; riprap, retaining walls, or other bank stabilization measures would likely be required in some locations. Based on MDT's experience with past projects, impacts to water bodies are not anticipated to preclude regulatory compliance. This alternative **passes** this component of screen two.

Eastern and Western Alignments

New alignments would result in several new stream crossings. Based on the location of intermittent streams, it was determined that a minimum of 27 culverts would be required along an eastern alignment, while a western alignment would require placement of seven new culverts. Construction of a new alignment would not involve relocation of the Boulder River, Little Boulder River, or any of the unnamed perennial streams. Riprap or other bank stabilization measures would likely be required in some locations. Based on MDT's experience with past projects, new impacts to intermittent streams are not anticipated to be immitigable or to preclude regulatory compliance. These alternatives **pass** this component of screen two.

Figure 7-1 Rivers and Streams within Corridor

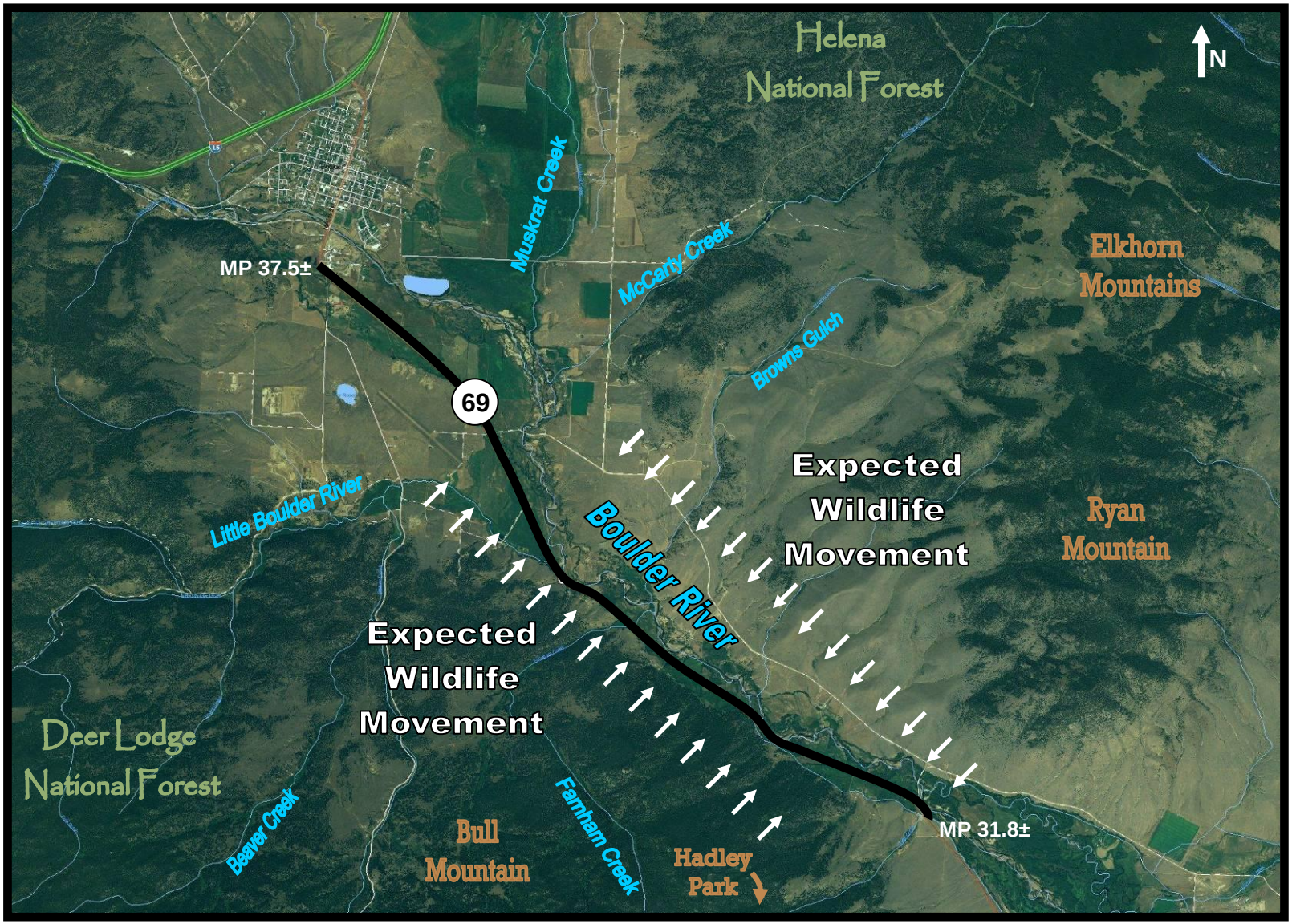


Wildlife Habitat and Migration Patterns

Currently, there is an abundance of high quality wildlife habitat along the Boulder River and associated with the numerous wetland areas adjacent to MT 69. The corridor provides good browse, water, cover, and travel habitat and attracts wildlife from high elevation areas surrounding the river corridor. The project area shows signs of high and consistent use by deer, elk, moose, and coyotes, with small mammal activity likely as well. Generally, it is expected that wildlife access the river from the Elk Horn Mountains and the Helena National Forest to the east, and from the Deer Lodge National Forest to the west. Through correspondence, resource agencies have noted that wildlife movement between Ryan Mountain in the Elkhorn Mountains and Hadley Park in the Bull Mountains towards the south end of the highway project would be expected. Additionally, movement would likely occur in the vicinity of Brown's Gulch and the Bull Mountains. Expected wildlife movement is illustrated in Figure 7-2.

It should be noted that no federally-listed species were identified from the NRIS database search. A bald eagle nest was reported by an MDT biologist and was observed in the field in April 2009 to the northwest of MT 69 near Hot Springs Road. No plant or wildlife species of concern were observed during field surveys.

Figure 7-2 Expected Wildlife Migration Patterns



No Build

No new impacts to wildlife habitat or migration patterns are expected to result from the No Build alternative. As traffic volumes increase over time, there may be an associated increase in animal-vehicle collisions. No fatal flaws were identified for this alternative, and therefore it **passes** this component of screen two.

Spot Improvements

Construction of pullout locations in two locations on MT 69 is expected to result in minimal impacts to wetlands and wildlife habitat. Trimming of vegetation is expected to impact wildlife habitat directly adjacent to the existing MT 69 alignment, but may also improve drivers' ability to identify and avoid animals crossing the roadway, thereby potentially reducing animal-vehicle conflicts. For the reasons described under screen one, it is unlikely that this alternative would affect driver speed; accordingly, apart from improvements in sight distance, it is unlikely that this alternative would substantially affect the number or frequency of animal-vehicle collisions. Migration patterns are not expected to be altered. Due to the limited nature of the proposed improvements, impacts are not anticipated to be immitigable or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Existing Alignment

Reconstruction and widening of MT 69 is expected to result in direct impacts to linear slivers of wetland areas and wildlife habitat running parallel to the existing alignment. Migration patterns likely would not be altered. It should be noted that a wider, flatter roadway template would improve sight distance, allowing drivers to detect animals earlier and thereby potentially reducing the number of animal-vehicle conflicts. Based on MDT's experience with past projects, impacts to wildlife habitat and migration patterns are not anticipated to be immitigable or to preclude regulatory compliance. Therefore, this alternative **passes** this component of screen two.

Eastern and Western Alignments

At the two points of intersection with the existing MT 69 alignment, construction of a new alignment is expected to result in impacts to new blocks of wetland areas. Additionally, large land areas would be impacted during construction. For an alignment roughly following the county road to the east of MT 69, the existing gravel road would be paved and widened. An eastern alignment would diverge in some places from the existing county road, resulting in new impacts. A western alignment would run through entirely virgin territory, creating a new roadway through previously undisturbed forest and wetland areas.

Construction of a highway to the east of MT 69 would create a new paved surface between the Boulder River and the mountains to the east, resulting in a new impediment to wildlife migration patterns between high elevations and the river corridor. Similarly, construction of a highway to the west of MT 69 would create a new paved roadway acting as an impediment to wildlife movements. Construction of a new roadway alignment would require wildlife to cross two roadways within the corridor. Although a new roadway template generally constructed in accordance with current MDT standards would reduce the overall number of crashes as compared to the existing roadway, a new alignment would further fragment the

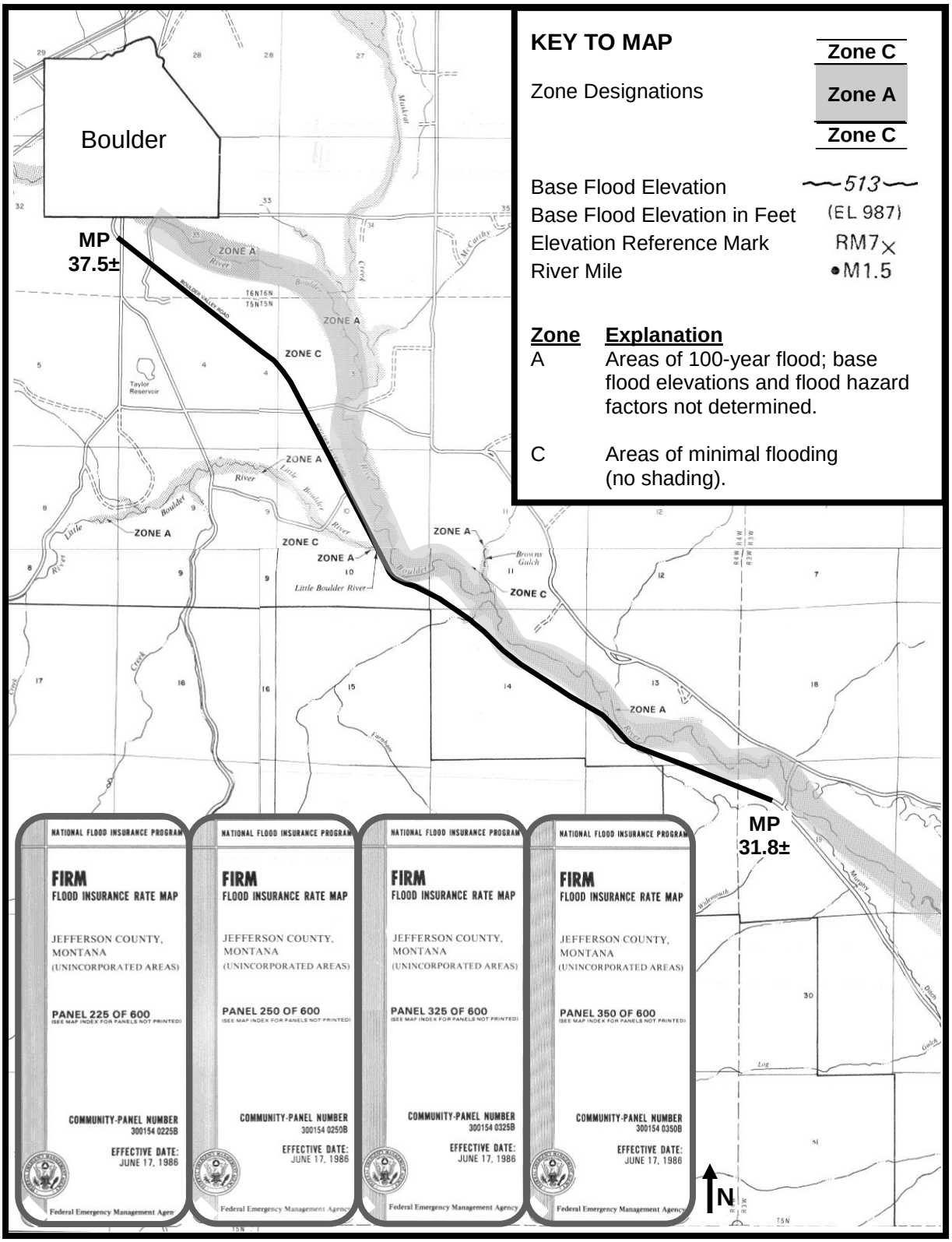
Boulder valley and could create new conflict points with wildlife. Impacts are not anticipated to preclude regulatory compliance, thus these alternatives **pass** this component of screen two.

Floodplains

Projects involving construction within a designated 100-year floodplain must comply with the Montana Floodplain and Floodway Management Act. As applicable, a Floodplain Development Permit for this project would be sought from the Jefferson County Floodplain Administrator or from DNRC.

The Boulder River floodplain closely parallels MT 69 through much of the corridor, as depicted in Figure 7-3.

Figure 7-3 100-Year Floodplain Mapping



Note: Figure not to scale. MP locations are approximated.

No Build

Under the No Build alternative, there would be no new impacts to the Boulder River floodplain, thus **passing** this component of screen two.

Spot Improvements

Pullouts would require some construction work within the floodplain area at concentrated intervals through the corridor. Due to the limited nature of the proposed improvements, impacts are not anticipated to be immitigable or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Existing Alignment

Reconstruction efforts on the existing alignment would be located almost entirely within the Boulder River floodplain. Impacts would be expected parallel to each side of the existing MT 69 roadway. Based on MDT's experience with past projects, impacts are to floodplains are not anticipated to be immitigable or to preclude regulatory compliance. Therefore, this alternative **passes** this component of screen two.

Eastern and Western Alignments

As noted above, construction of a new alignment is expected to result in impacts within the floodplain at the two points of intersection with the existing MT 69 alignment. The majority of any new alignment, however, would run outside the Boulder River floodplain, whether the alignment was located to the east or the west of the existing roadway. Impacts are not anticipated to be immitigable or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Water Quality and Fisheries

Any construction project modifying the natural existing shape and form of any stream in Montana, its banks, or its tributaries must provide a Montana Stream Protection Act (SPA) 124 Notification to FWP. Additionally, projects resulting in short-term or temporary violations of state surface water quality standards for turbidity must secure a 318 authorization from DEQ. The authorization may be waived by FWP during its review process under the SPA.

The Boulder River supports several native fish species, as well as brook, brown, and rainbow trout. Several small trout were observed in shallow areas of the Boulder River and in ditches near their confluences with the Boulder River. No population estimates or quantitative surveys were conducted. Based on site visits, fish habitat in the Boulder River appears to be of good diversity and quality.

No Build

Under the No Build alternative, there would be no new impacts to water quality or fisheries within the corridor, thus **passing** this component of screen two.

Spot Improvements

Construction of pullouts through the corridor could result in temporary impacts to fisheries and water quality. Pullout locations have been proposed in areas that do not directly border the Boulder River or wetland areas in order to minimize such impacts, although minor

impacts would be expected as a result of the increase in impervious surface area. Due to the limited nature of the proposed improvements, impacts are anticipated to be minor, thus this alternative **passes** this component of screen two.

Existing Alignment

Rehabilitation / reconstruction and widening of the existing alignment would result in construction activities within and in close proximity to the Boulder River. The Boulder River is TMDL impaired due to mining waste and agricultural run-off. Resource agencies have voiced concerns regarding "slickins," or mine tailings that have settled in the riverbed over time. In-stream construction activities associated with placement of new structures, culverts, and bank stabilization measures could potentially disturb these particles, thereby negatively impacting water quality and fisheries. It should also be noted that all 55 existing culverts would be replaced by longer culverts to accommodate rehabilitation / reconstruction and widening on the existing alignment, which would likely result in permanent loss of channel. It should also be noted that minor impacts would be expected as a result of the increase in impervious surface area. Based on MDT's experience with past projects, impacts are not anticipated to immitigable or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Eastern and Western Alignments

Construction of a new alignment would impact the Boulder River at the points where the new roadway leaves and rejoins the existing alignment. A minimum of 27 culverts would be required along an eastern alignment, while a western alignment would require placement of seven new culverts. The majority of these would cross intermittent streams, which do not support fish populations. New structures and culverts would result in construction activities within and in close proximity to the Boulder River, the Little Boulder River, and minor drainages. Such activities could potentially affect water quality and fisheries due to the multiple crossings of channels required by two alignments in the drainage. It should also be noted that minor impacts would be expected as a result of the increase in impervious surface area. Impacts are not anticipated to be immitigable or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Wetlands

Projects involving the discharge or placement of dredged or fill material into Waters of the United States, including wetlands, must comply with the Federal Clean Water Act and secure a Section 404 permit through the USACE. The United States Environmental Protection Agency (EPA) also has regulatory review and enforcement functions under the law.

Wetland complexes border both sides of the existing MT 69 alignment through a majority of the corridor. This network of wetlands is mainly associated with the low-lying Boulder River floodplain. Wetlands recede to the east and west of the existing roadway as elevations rise from the river corridor to more mountainous terrain.

Wetland delineations were conducted exclusively along the existing MT 69 alignment. Wetlands were not delineated along the portions of the eastern and western alignments that do not overlap with the existing alignment. Further, no National Wetland Inventory (NWI) mapping is

available within the general project area. During an agency meeting on December 17, 2008, resource agencies requested more accurate quantification of wetland impacts along new alignments than can be provided through review of common aerial imagery. Minutes from this agency meeting are provided in Appendix G.

In response to this agency request, color-infrared images of the corridor were examined and are presented in Figures 7-4 through 7-6. Color-infrared technology captures near-infrared wavelengths, which are otherwise invisible to the human eye. The resulting images make it easier to distinguish land features as compared to traditional aerial images. In color-infrared imagery, leaves of healthy, growing vegetation reflect a high degree of near-infrared wavelengths, and appear red or pink. These highly-vegetated pink areas are often associated with wetlands.

No Build

The No Build alternative would result in no new impacts to wetlands within the corridor, thus **passing** this component of screen two.

Spot Improvements

Only minor impacts to wetlands would likely occur from construction of pullout locations. As noted previously, pullout locations have been proposed in areas not directly bordering the river or wetland areas in order to minimize such impacts. As such, impacts are not anticipated to be substantial or immitigable, or to preclude regulatory compliance, thus this alternative **passes** this component of screen two.

Existing Alignment

Rehabilitation / reconstruction and widening of MT 69 is expected to result in linear wetland impacts paralleling both sides of the roadway through the majority of the corridor. Based on wetland delineations and preliminary design efforts, it is estimated that approximately 20 acres of wetlands would be impacted under this alternative. Wetland impacts could potentially be reduced using avoidance, minimization, and mitigation measures later in the design phase of the project. Based on wetland mitigation potential within the watershed and MDT's experience with past projects, impacts are not anticipated to be immitigable or to preclude regulatory compliance. Therefore this alternative **passes** this component of screen two.

Eastern and Western Alignments

Figure 7-4 presents color infrared imagery over the full extent of the project limits. Figures 7-5 and 7-6 present portions of the eastern and western alignments where wetland impacts are anticipated based on wetland delineations, color infrared imagery, and field verification. Black boxes are defined as "areas of anticipated impact" and are intended to highlight areas where the new roadway footprint coincides with pink shaded areas on the color infrared imagery along the portions of the new eastern and western alignments that do not overlap with the existing alignment. Field verification was used to determine the degree to which pink areas within these areas of anticipated impact actually exhibit wetland characteristics. Areas of anticipated impact are not intended to show the exact extent of wetland impacts, but rather to simply note the location where field verification was conducted. It should also be

noted that under the eastern and western alignment alternatives, wetland impacts would also be expected to occur along the overlapping portions with the existing alignment, although wetland delineations were used to calculate impacts over these lengths.

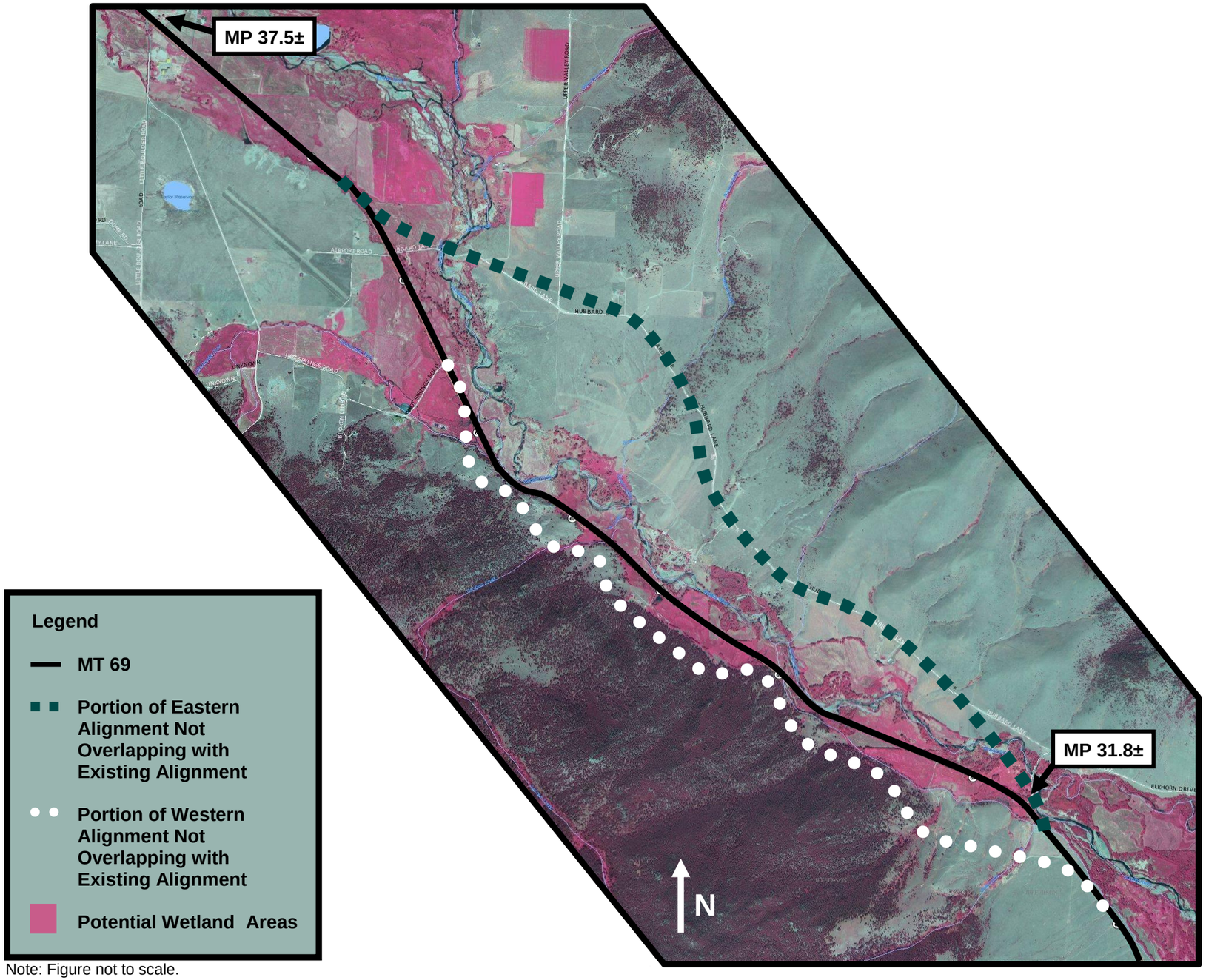
As confirmed during windshield and walking surveys conducted in April 2009, wetland areas are scattered in a varied mosaic with dry, upland areas through the Boulder River floodplain. At the points where a new eastern alignment would leave and rejoin the existing alignment, portions of meadows and agricultural fields are seasonally inundated with standing water, forming wetland areas. Wetland fringes also border the Boulder River. Adjacent riparian areas support stands of aspen, which as a whole would not be classified as wetlands.

Of the anticipated areas of impact identified in Figure 7-5 for the eastern alignment, it was determined that only approximately 30 to 40 percent of the areas would likely be classified as wetlands. Additionally, there would likely be wetland impacts associated with this alternative over the portion of the eastern alignment overlapping with the existing alignment. Based on the proposed roadway footprint, it was determined that approximately six to eight acres of wetland impacts would be expected to result from this alternative over the entire project limits.

At the northern point of intersection between a new western alignment and the existing alignment as depicted in Figure 7-6, it was determined through field verification that wetlands exist over virtually all of the anticipated area of impact. Additionally, it is anticipated that there would likely be some wetland impacts associated with drainage crossings as well as impacts resulting over portions of the western alignment overlapping with the existing alignment. Based on the proposed roadway footprint, it was determined that approximately 14 to 15 acres of wetland impacts would be expected to result from this alternative over the entire project limits. It should be reiterated that wetland delineations were not conducted for new alignments and wetland impact estimates are approximate in nature.

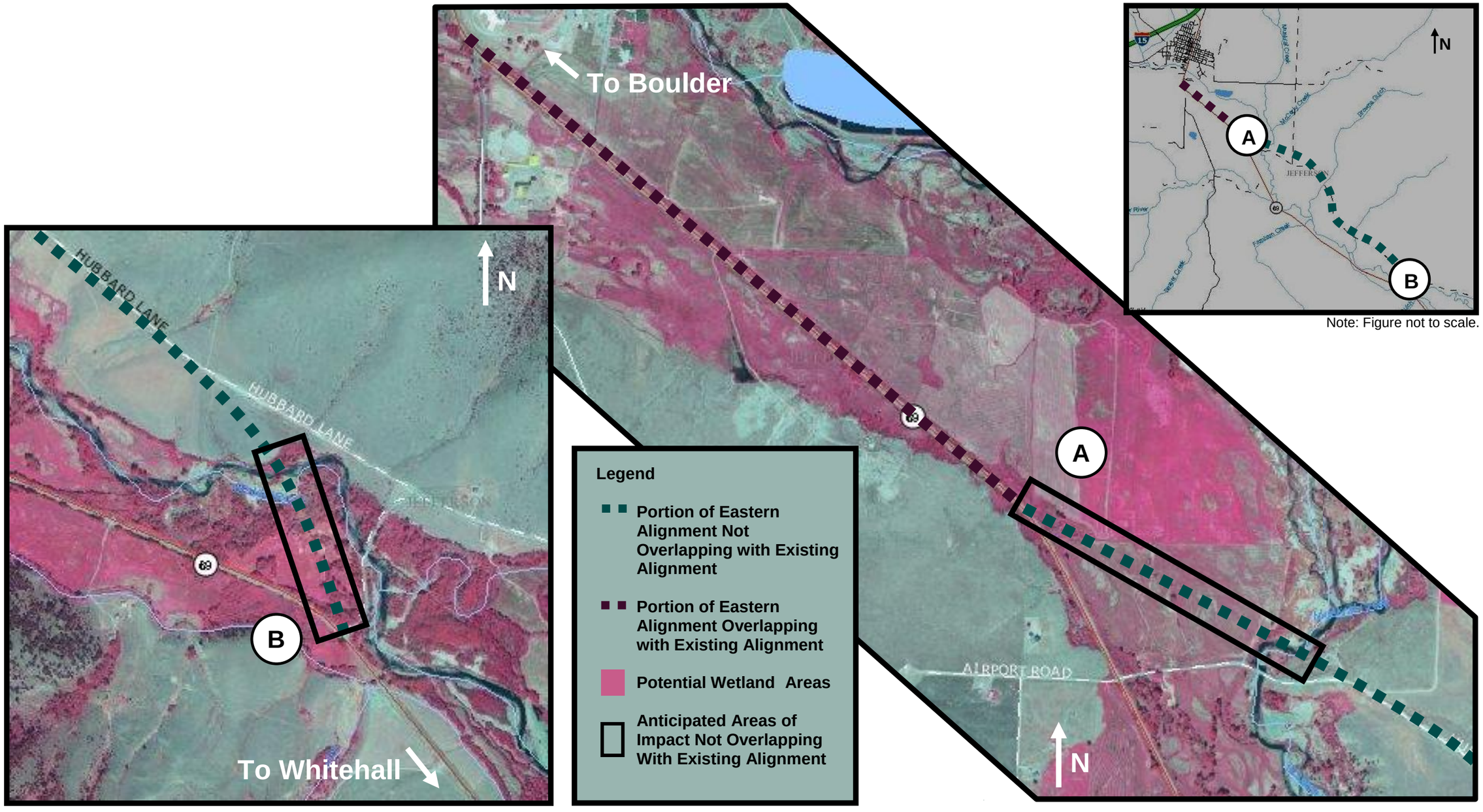
Avoidance, minimization, and mitigation opportunities are available along the new alignments. Impacts are not anticipated to be immitigable or to preclude regulatory compliance, thus these alternatives **pass** this component of screen two.

Figure 7-4 Infrared Mapping of Corridor



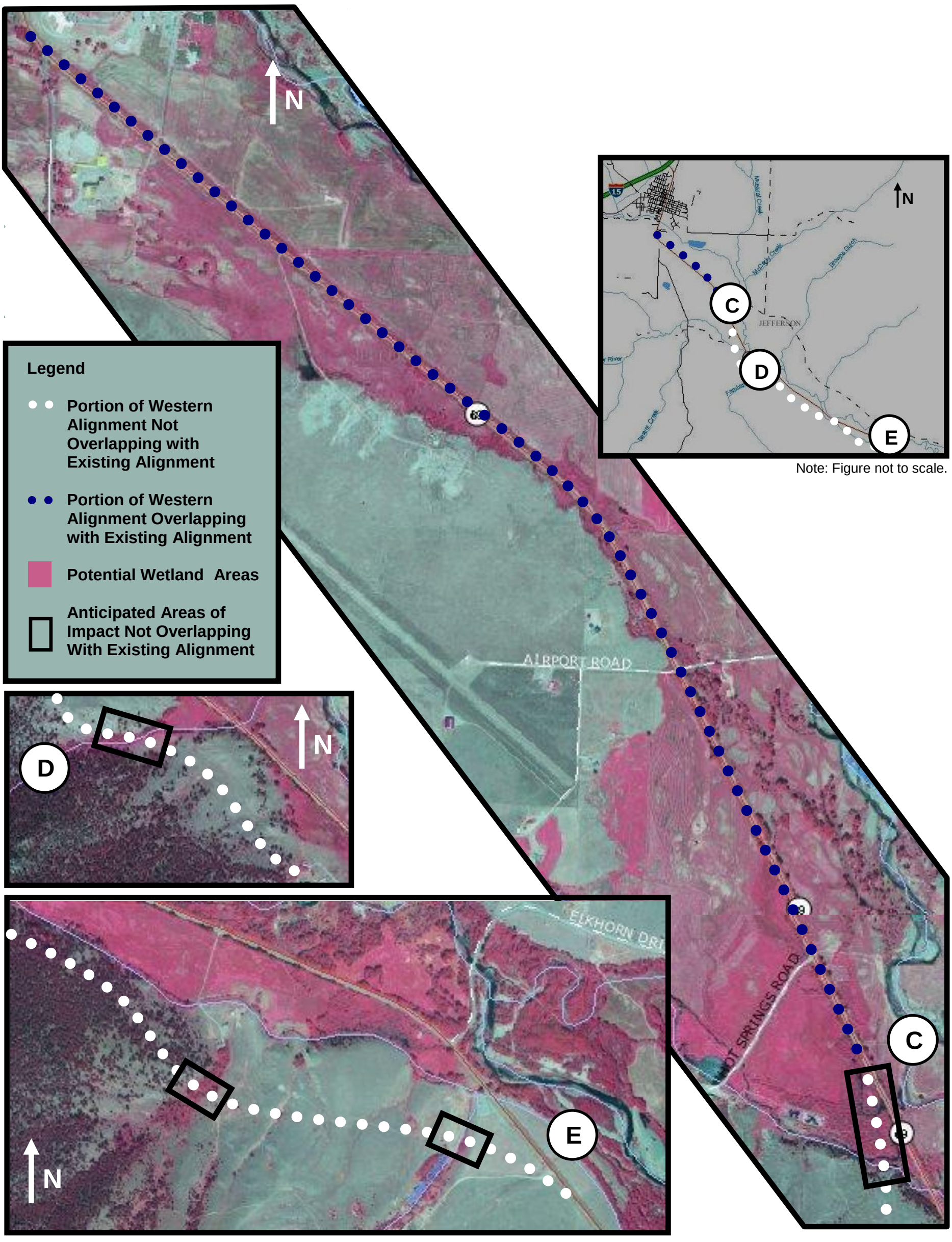
Note: Figure not to scale.

Figure 7-5 Expected Wetland Impacts on Eastern Alignment



Note: Figure not to scale.

Figure 7-6 Expected Wetland Impacts on Western Alignment



Note: Figure not to scale.

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Cumulative Impacts

The existing MT 69 roadway alignment was originally constructed in the 1940s and 1950s adjacent to the Boulder River and within the 100-year floodplain. At the time of original construction, there would have been impacts to a wide expanse of wildlife habitat and wetland areas within the general footprint of the roadway over the length of the corridor. Additionally, construction of the roadway would likely have impacted the dynamics and morphology of the Boulder River channel as well as wildlife migration patterns by creating a man-made impediment to such natural movements.

It is important to consider the additive nature of impacts resulting from the proposed project in connection with impacts resulting from past projects. Cumulative impacts expected to result from each of the alternatives are discussed below.

No Build

Because the No Build alternative would result in no new impacts to any environmental resources, no cumulative impacts are anticipated. This alternative **passes** this component of screen two.

Spot Improvements

Overall, this alternative is expected to result in only minor impacts to resources in the project area. Some additional wetland impacts may result from construction of pullout locations beyond those previously impacted by the existing roadway; these impacts would be mitigated to the extent practicable. This alternative **passes** this component of screen two.

Existing Alignment

Rehabilitation / reconstruction and widening of the existing MT 69 alignment is expected to result in additional impacts to wetlands and wildlife habitat beyond those associated with the existing roadway. While this alternative would likely result in the greatest number of impacted wetland acres as compared to other alternatives, impacts are expected to be concentrated in linear slivers along the existing alignment and would be mitigated to the extent practicable. This alternative may also result in additional bank stabilization measures along the Boulder River. Following minimization, mitigation, and avoidance efforts, anticipated impacts can be considered incrementally greater than those previously resulting from the original construction of MT 69. While cumulative impacts would occur, no fatal flaws were identified under this screen and therefore this alternative **passes** this component of screen two.

Eastern and Western Alignments

The new eastern and western alignment alternatives would result in construction of a second paved roadway through the Boulder corridor. While the existing MT 69 roadway acts as an impediment for wildlife movement, construction of a second paved roadway would impede wildlife movement to an even greater degree, requiring wildlife to cross two paved roadways in the corridor. Further, new swaths of currently undisturbed land would be impacted, further fragmenting wildlife habitat and resulting in new blocks of wetland impacts. Construction of new alignments would also result in new crossings over the Boulder and Little Boulder Rivers and new conveyances over minor drainages with resulting cumulative channel

impacts. Construction of new alignments may also include placement of bank stabilization measures, with associated cumulative impacts to fisheries and water quality. While cumulative impacts would occur, no fatal flaws were identified under this screen and therefore this alternative **passes** this component of screen two.

Summary of Second Screen

Table 7.3 presents a summary of potential impacts to environmental resources resulting from each of the five alternatives. It should be noted that additional field work would be required in order to verify anticipated impacts. The information in Table 7.3 is intended for order-of-magnitude comparison purposes in measuring the relative difference in anticipated impacts between each alternative.

Table 7.3 Results of Second Screen

Component of Screen Two	Potential Impacts Expected to Result From Alternatives				
	No Build	**Spot Improvements**	**Existing Alignment**	**Eastern Alignment**	**Western Alignment**
Drainages and Water Body Crossings	No new impacts	No new crossings	No new crossings; bank stabilization measures may be required	Impacts at 27 new crossings; bank stabilization measures may be required	Impacts at seven new crossings; bank stabilization measures may be required
Wildlife Habitat and Migration Patterns	No new impacts	Impacts at pullout construction locations	Some impacts to habitat throughout corridor due to widening	Large impacts to habitat and new impediment to wildlife movements	Large impacts to habitat and new impediment to wildlife movements
Floodplains	No new impacts	Impacts at pullout construction locations	Linear impacts throughout corridor	Impacts at points where new roadway leaves and rejoins existing roadway	Impacts at points where new roadway leaves and rejoins existing roadway
Water Quality and Fisheries	No new impacts	Impacts at pullout construction locations	Some impacts associated with new culverts and structures	Some impacts associated with new culverts and structures	Some impacts associated with new culverts and structures
Wetlands*	No new impacts	Impacts at pullout construction locations	Linear impacts throughout corridor due to widening (Approximately 20 acres)	Impacts at points where new roadway leaves and rejoins existing roadway and along portion overlapping with existing alignment (Approximately 6 to 8 acres)	Impacts at northern intersection with existing roadway, at drainage crossings, and along portion overlapping with existing alignment (Approximately 14 to 15 acres)
Cumulative Impacts	No new impacts	Some cumulative impacts to wetlands and floodplain; minimal impacts overall	Greatest cumulative impacts to wetlands and floodplains	Greatest cumulative impacts to wildlife habitat / migration patterns	
Fatal Flaws Relating to Natural Resource Impacts or Regulatory Compliance	**None Identified**	**None Identified**	**None Identified**	**None Identified**	
Screening Result	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

*Wetland impacts are approximate in nature. Wetland delineations were not conducted along portions of new alignments not overlapping with existing alignment.

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Screen 3: Is the alternative reasonable and practicable?

Under this screen, the reasonableness and practicability of each alternative is considered in relation to the regulatory implications discussed in Chapter 6 of this document. As noted in Chapter 6, the definitions of reasonableness and practicability share overlapping concepts with regard to economic and technical considerations. For ease of analysis, the discussion in this section has been divided into three sections detailing economic, technical, and logistical considerations.

Economic Considerations

Cost of Construction

Table 7.4 provides a summary of planning-level costs associated with the various improvement alternatives. The cost estimates are useful for the purpose of comparing the order of magnitude differences relative to each alternative. Planning-level cost calculations are provided in Appendix H.

Table 7.4 Planning-Level Cost Comparison

Alternative	Approximate Construction Cost	Notes
No Build	NA	No construction costs area associated with this alternative.
Spot Improvements	$1.6 million	Estimate based on construction of pullouts and resurfacing of the existing roadway.
Existing Alignment*	$20 million	Estimate assumes rehabilitation / reconstruction and widening of existing alignment.
Eastern Alignment*	$27.5 million	Although traversing relatively flat terrain, the eastern alignment would require two new multi-span bridges. It should be noted that the eastern alignment would no longer utilize the Red Bridge, which was recently reconstructed at a cost of approximately $783,000.
Western Alignment*	$68.5 million	The western alignment would traverse difficult terrain. Four new multi-span bridges and extensive earthwork would be required.

*Maintenance costs for eastern and western alignments would be approximately double those for the existing alignment due to two paved roadways through the corridor.

No Build

There would be no associated capital cost for this alternative, although maintenance costs are expected to increase over time due to the deteriorating roadway surface. This alternative **passes** this component of screen three.

Spot Improvements

The capital cost for this alternative is relatively low at approximately $1.6 million. This alternative **passes** this component of screen three.

Existing Alignment

This alternative would cost approximately $20 million, which is reasonable in light of the scope of the project. This alternative **passes** this component of screen three.

Eastern and Western Alignments

The construction cost for a new eastern alignment would be approximately $27.5 million, or roughly $7.5 million more than rehabilitation / reconstruction and widening of the existing alignment. Construction of a western alignment is prohibitive at approximately $68.5 million, or approximately $48.5 million more costly as rehabilitation / reconstruction and widening of the existing roadway.

It should also be noted that maintenance costs associated with a new alignment would be nearly double those for the existing alignment because MDT would be required to maintain two roadways over the length of the corridor. Although Jefferson County originally offered to maintain the existing roadway in the event that a new eastern alignment was constructed, this offer was rescinded in light of strong public opposition to the eastern alignment.

These alternatives **fail** this component of screen three.

Opportunity Costs

When considering the impacts of infrastructure spending, it is important to consider the cost of delaying improvements, or providing no improvements to the transportation facilities, as well as the real costs to the providers of goods and services if the most efficient transportation routes are congested, in disrepair, or are unsafe. Unimproved and failing infrastructure imposes a direct cost on those goods and service providers who use the highway system to access Montana communities. They must choose either longer routes or accept the liability of traveling on these undesirable routes and pass on the costs to the consumer. Providing no improvements in this corridor would be inconsistent with the mission of MDT and FHWA to provide safe and efficient roadways for people and commerce.

No Build

As noted above, the lack of improvements passes on a real cost to the traveling public and commercial shippers utilizing this corridor. This alternative **fails** this component of screen three.

Spot Improvements

Under this alternative, the roadway would be resurfaced to extend the life of the facility. Although a reduction in the posted speed limit may inconvenience the traveling public and commercial operations, it would likely add less than a minute of travel time depending on the new posted speed limit. Again, it should be noted that it is not within MDT/FHWA jurisdiction to either establish or enforce speed limits. This alternative **passes** this component of screen three.

Existing Alignment

Rehabilitation / reconstruction and widening of the existing route would provide all of the necessary safety and operational improvements necessary to make the route useful and

competitive for the traveling public and commercial shippers, and **passes** this component of screen three.

Eastern Alignment

A new eastern alignment would provide adequate safety and operational improvements in the corridor. Although an eastern alignment would be somewhat longer in length than the existing route, it would travel relatively level terrain and is expected to result in less than a half a minute of additional travel time. This alternative **passes** this component of screen three.

Western Alignment

Because a western alignment would traverse mountainous terrain, travel speeds would be lower than those on the existing route. Horizontal curves coupled with steep grades ranging up to eight percent would substantially slow commercial truck speeds, thereby slowing any following passenger vehicles. Additionally, the overall length of the roadway would be extended by just over a mile. Accordingly, it would likely take three to four minutes longer to travel the length of the corridor via a western route, representing an increase in travel time of 50 to 70 percent over this roadway segment. Resulting travel delays could negatively affect the efficiency of commercial trucking operations, as well as local and regional travelers. This alternative therefore **fails** this component of screen three.

Technical Considerations

No new or untested technologies would be required to be employed under any of the alternatives. Although there would be some technical challenges associated with attempts to reduce impacts to wetlands and the Boulder River channel, similar avoidance, minimization, and mitigation measures have been used successfully in past projects. Accordingly, all five alternatives under consideration **pass** this component of screen three.

Logistical Considerations

Constructability

No Build

The No Build alternative would have no constructability issues, thus **passes** this component of screen three.

Spot Improvements

Pullouts would be proposed only in areas where impacts to sensitive resources are not anticipated. This does pose some difficulty for construction due to the additional limitations on staging areas and tightened construction limits, but not to an extraordinary extent. This alternative **passes** this component of screen three.

Existing Alignment

Rehabilitation / reconstruction and widening of the existing alignment would be constrained by the close proximity of the Boulder River and adjacent wetland areas and efforts would be made to minimize impacts to these resources. The natural constraints pose some difficulty for construction due to the additional limitations on staging areas and tightened construction

limits throughout the corridor, but not to an extraordinary extent. This alternative **passes** this component of screen three.

Eastern Alignment

The terrain to the east of the Boulder River is relatively flat. While construction of an eastern alignment would involve new structures, the majority of the alignment would not pose substantial construction challenges. This alternative **passes** this component of screen three.

Western Alignment

A western alignment would be extremely difficult to construct. The terrain to the west of the existing alignment rises sharply, forming mountainous peaks and valleys. A substantial amount of earthwork would be required. Grades would likely range up to eight percent. Four structures would be required in order to span deep ravines along the alignment. While construction is possible, this alignment would not normally be pursued due to extraordinary construction challenges, thus this alternative **fails** this component of screen three.

Social / Political Concerns

No Build

While this alternative fails to address the safety concerns of the traveling public, it was recommended by a number of public participants and is a necessary part of any future NEPA/MEPA analysis and will be forwarded. This alternative **passes** the social/political component of screen three.

Spot Improvements

This alternative was proposed by the public and resource agencies involved with the study; therefore, it **passes** the social/political component of screen three.

Existing Alignment

Although some members of the public have requested that no improvements be made in the Boulder corridor, rehabilitation / reconstruction and widening of the existing alignment is publicly favored over construction of new alignments. This alternative **passes** the social/political component of screen three.

Eastern and Western Alignments

A new roadway alignment generally constructed to meet current MDT standards would provide safety benefits to the traveling public. As noted previously, however, there is strong public opposition to construction of an eastern alignment. Neighboring residents have quality of life concerns regarding increased noise and traffic levels on an eastern alignment, as well as concerns regarding the loss of private land due to new right-of-way required for a new alignment. The existing county road is used extensively by agricultural vehicles and for moving livestock, as well as for recreational purposes. Members of the public would prefer that it remain a rural access roadway. A new eastern alignment has also met with political opposition. Through correspondence, the Jefferson County Commission and Planning Board separately expressed their concern over a new alignment and favored rehabilitation / reconstruction and widening along the existing MT 69 alignment in letters dated July 6 and July 14, 2005, respectively. It is currently assumed that a western

alignment would meet similar objections, thus eastern and western alignment alternatives **fail** the social/political component of screen three.

Access

Table 7.5 lists existing access points located along MT 69.

Table 7.5 MT 69 Access Points

Mile Post	Approach Type (Left-hand side, traveling north)	Approach Type (Right-hand side, traveling north)
31.78	Farm/Field	Farm/Field
32.05	Private	Farm/Field
32.36	Farm/Field	Farm/Field
32.48	Farm/Field	
32.67		Farm/Field
33.06	Farm/Field	Farm/Field
33.25	Farm/Field	Farm/Field
33.41	Farm/Field	Farm/Field
33.57	Private	Farm/Field
34.02	Farm/Field	Farm/Field
34.19		Farm/Field
34.48	Private	
35.06	Private (Boulder Hotsprings)	Farm/Field
35.60	Private	Private (Hubbard Lane)
36.58	Farm/Field	Farm/Field
36.74	Farm/Field	
37.00	Farm/Field	Public (paved)
37.09	Farm/Field	
37.26	Public	
37.37		Public

No Build

All existing access points would be perpetuated under this alternative and therefore it **passes** this component of screen three.

Spot Improvements

All existing access points would be perpetuated under this alternative and therefore it **passes** this component of screen three.

Existing Alignment

All existing access points would be perpetuated under this alternative and therefore it **passes** this component of screen three.

Eastern and Western Alignments

Construction of a new alignment would directly impact local access. Given the physical constraints in the corridor, it would be very difficult to perpetuate access to a new roadway alignment. Providing access from existing approach roadways to an eastern alignment would be restricted by the Boulder River, while access to a western alignment would be constrained by steep topography. These alternatives **fail** this component of screen three.

Ease of Right-of-Way Acquisition

No Build

There would be no right-of-way issues with the No Build alternative, thus **passing** this component of screen three.

Spot Improvements

Minimal amounts of new right-of-way would be required and it is not anticipated that acquisition would be challenged. This alternative **passes** this component of screen three.

Existing Alignment

Approximately 10 acres of new right-of-way would be needed for rehabilitation / reconstruction and widening of the existing roadway. No right-of-way acquisition difficulties are anticipated, thus this alternative **passes** this component of screen three.

Eastern Alignment

Approximately 100 acres of new right-of-way would be needed for construction of an eastern alignment, most of which is currently in private ownership (including easements for the existing county road). This acquisition and the construction of a new roadway would likely result in a direct impact to some farming operations, movement of cattle, future building plans, and the historic use of the existing county road. As documented in the transcript of the June 2005 public meeting, many residents who own property to the east of the existing alignment noted that they would not be willing sellers of any needed right-of-way for a new alignment. State Representative Scott Mendenhall expressed his concern that the state would have a difficult time justifying the acquisition of property on the east side of the river if it would be at all feasible to reconstruct the existing MT 69 alignment.

Should landowners refuse to sell needed right-of-way for a new roadway alignment, MDT could pursue exercise of eminent domain, which is defined as the right of the state to take private property for public use (MCA § 60-1-103(11)). Under Montana law, MDT would need to show that the taking of land by exercise of the right of eminent domain is necessary to the public use (MCA § 70-31-111). Because the existing route currently serves the purpose that a new alignment would serve, it may be difficult to prove such a necessity. Given the expressed opposition to this alternative, and the public's stated refusal to sell right-of-way, the eastern alignment alternative **fails** this component of screen three.

Western Alignment

Approximately 77 acres of new right-of-way would be needed for a new western alignment, which could result in impacts to farmland, forested areas, and wetlands. Although landowner sentiments are not known over this portion of the corridor, there may be similar obstacles to right-of-way acquisition to the west of the existing roadway. While public sentiment is not

as clear on this alignment at this stage, it is assumed that right-of-way acquisition would be difficult, and necessity equally difficult to prove. The standing of the western alignment alternative is **uncertain** with regard to this component of screen three.

Summary of Third Screen

Table 7.6 presents the results of the third screen. Each alternative was assessed in terms of reasonableness and practicability. Specifically, the factors of cost, technology, constructability, social/political concerns, and ease of right-of-way acquisition were considered.

The No Build alternative would require no capital expenditure and no new right-of-way acquisition. Although this alternative is generally supported by the public, travel would be hindered over time due to the deteriorating roadway facility and the associated opportunity costs related to a roadway in disrepair.

The Spot Improvement alternative is relatively low in cost and is generally supported by members of the public. Minimal new right-of-way acreage would be required for this alternative. Although construction of pullout locations would be constrained due to nearby wetland areas, there are no substantial constructability concerns.

Rehabilitation / reconstruction and widening of the existing alignment represents a reasonable and practicable alternative, with no identifiable fatal flaws. Apart from the No Build and Spot Improvement alternatives, it is the least costly. While the Boulder River and adjacent wetlands would present some constructability challenges, these can be addressed using existing technologies without substantial difficulties.

The new eastern alignment fails under this screen because of cost, constructability, and social/political concerns. An eastern alignment would be approximately $7.5 million more costly than rehabilitation / reconstruction and widening of the existing alignment. Furthermore, an eastern alignment faces strong public and political opposition. Right-of-way acquisition would be very difficult. If landowners were unwilling sellers of right-of-way, MDT may have difficulty proving necessity under eminent domain proceedings.

The new western alignment would be excessively costly at approximately $68.5 million. Rough terrain would present substantial constructability challenges. Although this alternative was not presented at the June 2005 public meeting, it is possible that area residents would oppose a western alignment as well, given the general sentiments that MT 69 should remain in its current location. There may be associated right-of-way acquisition difficulties.

Table 7.6 Results of Third Screen

Components of Screen Three			No Build	Spot Improvements	Existing Alignment	Eastern Alignment	Western Alignment
Reasonableness	**Technical Standpoint**		NA	Some Challenges	Some Challenges	Some Challenges	Some Challenges
	Economic Standpoint		No Cost	Second Lowest Cost	Moderate Cost	Second Highest Cost	Highest Cost
Practicability	**Economic Considerations**	**Construction Cost***	NA	$1.6 million	$20 million	$27.5 million	$68.5 million
		Opportunity Costs	Lack of Improvements Results in Travel Inefficiencies	Speed Reduction Could Inconvenience Travelers	No Opportunity Costs	Less Than One Minute of Additional Travel Time	Three to Four Minutes (50 to 70 Percent) Additional Travel Time
	Technical Considerations		NA	Some Challenges	Some Challenges	Some Challenges	Some Challenges
	Logistical Considerations	**Constructability**	NA	Some Challenges	Some Challenges	Some Challenges	Substantial Challenges
		Social / Political Concerns	Strong Support	Strong Support	Some Opposition	Strong Opposition	Potential Opposition
		Access	NA	All access points would be perpetuated	All access points would be perpetuated	Difficult to perpetuate access	Difficult to perpetuate access
		Right-of-Way Acquisition	NA	Minimal acres No Anticipated Difficulties	10 acres No Anticipated Difficulties	100 acres Substantial Challenges	77 acres Potential Challenges
Screening Result			**FAIL**	**PASS**	**PASS**	**FAIL**	**FAIL**

Note: Orange shaded cells indicate failure of individual screen component, leading to failure of overall screen.

*Maintenance costs for eastern and western alignments would be approximately double those for existing alignment as a result of two paved roadways through corridor.

8.0 CONCLUSION

Based on this preliminary evaluation of the five proposed alternatives, two have been eliminated based on their inability to address the problems in the corridor. The No Build alternative would fail to make any improvements in the corridor. While the Spot Improvements alternative would provide intermittent opportunities for emergency and law enforcement stops and would include resurfacing to extend the physical life of the roadway, it would not reduce the number of single vehicle crashes resulting in overturn, which is of primary concern on MT 69. This would fail in future NEPA/MEPA analyses due to its inability to satisfy purpose and need.

New alignment alternatives were eliminated based on their impracticability and unreasonableness resulting from excessive cost, considerable constructability challenges, known and anticipated right-of-way acquisition difficulties, and strong social and political obstacles. The concept of a new alignment in the Boulder corridor was met with strong opposition by members of the public and local officials. Further, landowners adjacent to the existing county road noted they would be unwilling to voluntarily sell their land to MDT. In addition to public opposition, the eastern alignment would be approximately $7.5 million costlier than rehabilitation / reconstruction and widening of the existing roadway. A western alignment would be excessively costly at approximately $68.5 million and would be difficult to construct given the rough terrain to the west of the existing alignment. Table 8.1 summarizes these findings.

For these reasons, rehabilitation / reconstruction and widening of the existing MT 69 alignment is the only reasonable and practicable alternative that addresses the problems in the Boulder corridor. As noted in Chapter 6, this alternative is expected to result in impacts to the Boulder River, wetlands, and wildlife habitat. Design efforts will strive to minimize impacts to these resources as much as practicable and will be explored in coordination with appropriate resource agencies during future NEPA/MEPA analyses.

Table 8.1 Summary Comparison Matrix

Screen	Screen Component	No Build	Spot Improvements	Existing Alignment	Eastern Alignment	Western Alignment
Screen One Does the Alternative Address Corridor Problems?		Incidence of crashes expected to increase without new roadway template.		Wider shoulders and flatter side slopes would reduce incidence of crashes. New roadway would have multi-year design life.		
Screen Two Are There Fatal Flaws Relating to Natural Resource Impacts or Regulatory Compliance?		No new impacts	Impacts would occur, but none that are anticipated to preclude regulatory compliance. No fatal flaws were identified. Standard avoidance, minimization, and mitigation measures would be utilized.			
Screen Three Is the Alternative Reasonable and Practicable?	**Construction Cost***	NA	$1.6 million	$20 million	$27.5 million	$68.5 million
	Opportunity Costs	Deteriorating roadway would cause travel inefficiencies.	Reduced speed limit would inconvenience drivers.	None	Slightly longer route would result in minor travel delays.	Longer route and mountainous topography would cause travel delays and reduce route efficiency.
	Constructability	NA	Some challenges relating to close proximity of Boulder River and wetland areas.			Substantial challenges relating to steep topography.
	Social / Political Support	Strong Support	Strong Support	Some Opposition	Strong Opposition	Potential Opposition
	Access	NA	All access points would be perpetuated	All access points would be perpetuated	Difficult to perpetuate access	Difficult to perpetuate access
	Right-of-Way Acquisition	None	1 acre	10 acres	100 acres	77 acres
RESULT		**FAIL**	**FAIL**	**PASS**	**FAIL**	**FAIL**

Note: Orange shaded cells indicate failure of individual screen component, leading to overall failure of alternative.
*Maintenance costs for eastern and western alignments would be approximately double those for existing alignment as a result of two paved roadways through corridor.

Appendix A

Public and
Agency Coordination

MDT and FHWA have coordinated with members of the public and various regulatory agencies with the intention that these activities could be built upon in future NEPA/MEPA environmental analyses. Public and agency coordination activities are summarized in the following sections.

Agency Coordination

State and federal regulatory agencies were asked to participate in the Alternatives Analysis process in order to foster communication, identify and resolve issues, and provide timely and constructive comments on draft work products. Letters were sent to the following regional, state, and federal resource agencies as a notification that the U.S. Department of Transportation's Federal Highway Administration (FHWA), in cooperation with MDT's Highways Division, propose to reconstruct a portion of MT 69.

- Montana Department of Natural Resources and Conservation (DNRC)
- U.S. Bureau of Land Management (BLM)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish & Wildlife Service (USFWS)
- Montana Department of Environmental Quality (DEQ)
- Montana Fish, Wildlife & Parks (FWP)
- U.S. Environmental Protection Agency (EPA)
- U.S. Forest Service (USFS)
- Jefferson County Board of Commissioners
- City of Boulder

Through these letters, MDT requested each agency's participation in identifying any concerns that would need to be addressed through the environmental review process.

An initial Agency Coordination Meeting was scheduled with the regulatory agencies with jurisdiction, interest, or expertise on issues within the study corridor. This meeting was held on July 30, 2008 and consisted of a presentation of the Purpose and Need for the proposed project, the alternatives to be considered, and the proposed methodologies to be used for the environmental analyses. Representatives were present from DEQ, FWP, USACE, USFWS, EPA, BLM, and Jefferson County. DNRC and the City of Boulder declined to participate in the project. Minutes from this meeting are included in Appendix G.

A second Agency Coordination Meeting was held on December 17, 2008. The intent of this meeting was to discuss agency concerns regarding the Alternatives Analysis and the Biological Resource Report (BRR) documents. Representatives from DEQ, FWP, USFWS, EPA, BLM, and Jefferson County attended the meeting. Minutes from this meeting are included in Appendix G.

A third Agency Coordination Meeting was held on November 20, 2009 to discuss the revised Alternatives Analysis document. Representatives from USFWS, USACE, FWP, and DEQ attended the meeting.

Public Involvement

A public information meeting was held at the Jefferson High School on June 1, 2005 at 6:30 p.m. The meeting format included a formal presentation and a question/comment period. The purpose of the meeting was to introduce the project and gather public opinion regarding issues and concerns related to transportation in the MT 69 corridor. Two alignment alternatives were presented at the public meeting. One alignment option involved rehabilitation / reconstruction and widening of the existing MT 69 alignment, and one involved construction of a new alignment on the east side of the Boulder River following an existing Jefferson County road as much as practicable. Aerial photographs illustrating the proposed centerline of the existing alignment and the eastern alignment alternatives were displayed around the room. Approximately 100 people attended the meeting and the majority of those in attendance expressed their disapproval of any new alignment east of the river. As an alternative to a new alignment, public meeting attendees requested consideration of a reduction in the posted speed limit and/or greater speed enforcement within the corridor; construction of pullout locations to aid in speed enforcement; and a No Build option. A transcript of the meeting is included in Appendix B.

The meeting location was accessible under the Americans with Disabilities Act (ADA). Contact information was obtained from all attendees by having a dedicated greeter who welcomed citizens to the event, ensured sign-in, distributed a project newsletter, and provided a brief project overview. Participants were encouraged to provide written comments via a comment sheet. Comments received at and following the meeting are included in Appendix B.

Members of the public were also invited to comment on the Purpose and Need for the project during a public comment period from September 10, 2008 to October 10, 2008. A newspaper advertisement was published in the Boulder Monitor announcing the availability of the Purpose and Need statement on the project web site and inviting public comments. No written public comments were received during the public comment period.

Appendix B

Public Meeting Transcript

BOULDER-SOUTH
PUBLIC MEETING

CN2019

Jefferson High School
Boulder, MT
6:30 p.m. – June 1, 2005

WELCOME

(John Robinson) Hello everyone, thank you all for coming tonight. It is really important that you all showed up because, as you've seen in the newspaper and in the advertisement, we have not made a decision about this project yet and your opinions and comments and concerns are very important in the decision-making process for this project.

My name is John Robinson. I'm from the Public Involvement Section of the Montana Department of Transportation. The purpose of the meeting tonight is to get your comments and concerns on two options we have for reconstruction of Highway 69 South of Boulder. The entire project is approximately 15 miles long. It begins at milepost 22.2 south of the Elkhorn turn off and proceeds in this direction (referring to graphic). The project proceeds this way, follows this line, and here is the Elkhorn turn off (referring to graphic). On this section, the roadway would be widened and resurfaced. From the Elkhorn turn off, we have two options: we can either stay with the remaining alignment and take this route where it now stands all the way up to Boulder at the end point; or, because of the impacts to the wetlands, we need to examine the option of going up on the county road and taking a new alignment away from the wetlands.

I want to say that whenever there is a construction or reconstruction project, which has such significant impacts to the environment and/or social impacts on the project, we usually do an Environmental Assessment. Whenever there is a project with these types of impacts, the Federal Highway Administration requires us to look at different alternatives and options so they understand that no matter what the decision is we have also looked at other options other than filling wetlands. So that is the purpose of this meeting. This meeting is not to make a decision tonight on which route might be taken or which alignment, but the meeting tonight is to hear your concerns and your comments about the project and which option you prefer. We want to hear from you whether you think this is good or bad or whether you prefer this way.

With these impacts, we knew we were possibly going to have to have an Environmental Assessment, so we hired an outside consulting firm to conduct a fair and factual Environmental Assessment and that consultant is Darryl James. Darryl is the project engineer from HKM Inc. out of Helena. Darryl will explain and describe the Environmental Assessment and the process to you so that everyone has a full understanding of the study that will take place. The study will also examine the comments you give us tonight.

I would like to make some introductions from MDT: Jeff Ebert, the District Administrator for the Butte District; Joe Olsen is the District II Engineering Services Supervisor from the Butte District, he is the number two man under Jeff Ebert; Jim Davies, the District Project Engineer. No matter what option is decided upon, Jim and his crew from Road Design will be overseeing the road design of the project. Bob Tholt, the Project engineer from Consultant Design. From Jefferson County we have Mr. Chuck Nutbohm, Jefferson County Commissioner and Ken Weber is also here with us. He is also a County Commissioner.

Our meetings always follow the same format. First the Engineers will give a presentation and details of the project. We ask you to please hold your comments or questions until they complete their presentations. First Jeff Ebert, the District Administrator, will give a brief overview of the project. After Jeff is done, then Darryl James will give his presentation on the details and the process for the Environmental Assessment. Again please hold your questions, comments and concerns until after Darryl has completed his presentation. At that time we will open it up for your questions and comments. I will come to you and hold the microphone so that the sound works properly. We want to know if you favor an option and why you favor that option. If you are against an option, we want to know why. Again your comments will be used in the Environmental Assessment. No decisions have been made on this project.

Please see the comment form that I gave you earlier. We usually have a 30-day comment period on our projects, but because of the impacts and the importance to you of this project, we've decided to extend it to almost 45 days. The comment can be given in written form and sent to Jeff Ebert. His mailing address is on that sheet in bold type. Or you can email the consultant, Darryl James. His email address is also on this form. With that I will turn it over to Mr. Jeff Ebert. Thank you.

PRESENTATION: **(Jeff Ebert, MDT)**

Good evening. Thank you all for coming tonight to this very important meeting concerning the reconstruction of the Montana 69 Highway south of Boulder. I want to give you a brief background of where we are, where we've gone, and where we are headed with the project that we are contemplating doing here.

The Boulder South project was first nominated by the Department in the summer of 1991. At that time we felt we were going to get a fairly large increase in funding under the Transportation Act at the time. We felt that funding would be available in the 1998 construction season. As we all well know, that 1998 date came and went. The reason is that we didn't get as much funding from the federal government to do the project so it got put off for a period of time.

The reconstruction project that we started out with started down at milepost 22 and went to the southern boundary limits of Boulder. In 1992, a thin-lift overlay was placed on the section from

south of Boulder down to the Elkhorn turn off, and again in 1997 another thin-lift overlay was placed on the section from the Elkhorn turnoff down to the other end of the project – the southern end. We did that because the reconstruction funds were not available and we needed something to hold the roadway together. Then in the spring of 2004, this project was basically reactivated in our system. Again, based on funding we feel we are going to receive. We are kind of in the same position we were in back in 1991 relaying on estimates of federal funding we would receive to do this project.

Currently right now we are looking at starting over from scratch. We did some preliminary work back in 1991 and 1992 when the project was first placed on the system, but since that time standards have changed, so we are basically going to start from scratch again. Survey work was started last fall in 2004. You've probably seen some of our guys out there doing some survey work on the project. We had a public information press release that was published in October and November of 2004 basically re-announcing that the project was going to be started. During that time period we determined that, because of the alternatives that were being proposed, we would probably need to do an Environmental Assessment, and as John mentioned we went ahead and hired HKM to do that Environmental Assessment. We just got them under contract within the last month or so and the first order of business to get going on was to hold this public information meeting.

Right now the way the funding looks, and we are still kind of up in the air because the Transportation Bill currently expired in 2003 and we have been going on extensions for about a month and a half. But we still feel with the amount of the projects we currently have in the program and with the cost of this project that we would have funding for this to go to contract in November of 2008, which would mean that construction would not occur until 2009. So we are a few years out yet but again we are just getting started on this project.

The budget right now to do the construction engineering is in the $16-17 million range. Because of the two different scopes we are talking about with the widening and resurfacing on the southern portion and then the full reconstruction on the northern portion, the project will probably be split into two projects for construction but that is still yet to be determined.

With that, I guess I will turn it over to Darryl James and have him talk to you a little bit about the Environmental Assessment and then some of the specifics of the project. Thank you all again for coming tonight.

P**RESENTATION**: **(Darryl James, HKM)**

Thanks to everybody for coming tonight. I'm going to walk through a couple of things real briefly here just to kind of explain the process and what we are here for tonight. The first thing is, just to stress again and both John and Jeff mentioned it, no decisions have been made to date on this project regardless of what you've heard in the past. I'm very impressed by the turnout,

but there is a reason you are here. There is always the history of the big, bad Department of Transportation over the last 40-50 years coming through and building a highway and it doesn't matter what you guys think. But the National Environmental Policy Act and the Montana Environmental Policy Act set up a process to make sure that your concerns are heard and that we really take a comprehensive look at all the social, environmental, and economic impacts on any federal aid project.

There is a little diagram on the back of your information sheet you picked up when you came in. What we are doing right now is called "scoping". It is a matter of coming out, hearing what your concerns are in the community, and then identifying all of the social, economic, and environmental conditions within the project area. I'll walk through some of those issue areas might be in a minute.

Again, our role as HKM, MDT is going to be doing the design work on this project, we are just here to assist and to make sure they consider all the issues, the concerns that you have, and the things the resource agencies are going to be paying attention to as we go into permitting and construction of this project.

Issue areas that are of concern to the MEPA and NEPA guidelines – things like land use, public right-of-way, adjacent farmlands, public lands, those kinds of things that are actually protected by different federal permitting processes or regulations. Farmlands, social conditions, if they've got a project that might impact community cohesion or bisect farmlands or things like that we will be taking a look at those. Economic impacts of the highway project, pedestrian/bicycle facilities, air quality, noise, and water quality are all environmental concerns. There are quite a few high quality wetlands in this corridor that we have to consider and try to minimize impacts to those. Water bodies and wildlife habitat, floodplains, threatened and endangered species, historic and archeological and paleontological resources, hazardous waste and visual resources. These are all specifically outlined in the MEPA and NEPA guidelines as things we have to pay attention to and account for any impact to any of those resource areas.

The purpose of the project. It is pretty simple – to provide safety upgrades to this corridor. MDT has identified some accident clusters throughout this corridor that they need to try and address for re-design and basically provide a facility with updated design features. Whenever the Department of Transportation goes to construct or reconstruct a roadway, they solicit funds from the Highway Federal Administration. They have a certain level of design we need to meet in order to spend those funds. So they could not come back out here and basically reconstruct this roadway without making some basic geometric improvements. The radius of the curves is too sharp, again based on current standards.

Design objectives. I just kind of put these together to give you a general idea of things that we might be working on and that I would like your input on later tonight and to find out if there other things we ought to consider during this process. We want to minimize impacts to the

Boulder River. We've got an area here that is very narrowly confined and we need to try and minimize those impacts to the river, minimize impacts to the wetlands, minimize impacts to adjacent farmlands. We need to always try to provide cost-effective improvements. Jeff noted the difficulty in the federal funding package right now, it's been delayed a number of months and that means projects get backed up and construction costs are going up; the cost of steel and concrete have been going through the roof. It just means that MDT cuts back on the number of projects they can complete within a fiscal cycle or in a construction season. We also need to avoid or minimize impacts to cultural and historic resources. We understand that this valley has a quite a history that dates back to pre-white settlers. So we understand there are quite a few resources in the corridor that we need to be aware of.

Evaluation criteria that we might use. Does it meet current MDT standards? Does it meet current AASHTO guidelines? Again, that is what Federal Highways is going to be paying attention to in saying can we commit funds to this project. There is a certain level of design you need to be achieving for a reconstruction project. Are the improvements cost effective? Does it minimize impacts to the natural environment?

Jeff and John also mentioned that we've got two alternatives. Under NEPA we actually start out with three different alternatives: One is a no-build. We can always go through this assessment and determine that doing nothing is the best option. I doubt anybody here is going to jump up and say "let's go home and we'll call it good." Everybody recognizes that some improvements are probably warranted. Whether that means just overlaying what we have or trying to correct some of the areas where we know there are accident clusters and icing and sheeting issues – those are things we need to try and address. So basically that what I want to talk about real quick tonight – what these three options really mean. Then we have two other people here with HKM, Jennifer Peterson and Sarah Nickolie. They are going to walk through just an exercise in trying to solicit some more specific comments from you tonight. I'm going to try and make this real brief – we are really here tonight to hear from you.

Again this is the scoping part of our process (referring to graphic on back of handout). We start with the scoping process. We will go through the development of alternatives with the Department of Transportation in response to the comments we get from you, the research we do out in the filed identifying wetlands, identifying where the stream encroachments might be, where do we have prime farmlands, where do we have ranch accesses or county roads that we need to maintain access to, and those kinds of things. Once we've got a real good clear picture of what the constraints are and what opportunities we have for improvements, we will work with MDT to further refine either these alternatives or other alternatives that you may help us with. Then we move into the Alternative Analysis phase where we go into detailed assessment of all those impacts – to quantify wetlands impacts and report those to the Corp of Engineers and start working on permit applications and those kinds of things. Then we will develop the Environmental Assessment. That is an official public document that again discloses all the environmental constraints, the proposed impacts, and the cost of the project. All those things are

documented and will be available for your review and comment. It also goes to all of the affected agencies. It is out there for a 30-45 day period. We will take all your comments. During that review period, we will also have another meeting – a formal public hearing to accept comments and any responses from MDT, and Federal Highway will issue either a Revised Environmental Assessment or a Finding of No Significant Impact and that will be the decision document for this project. Or if it looks like the impacts are too severe or there is just an outstanding amount of controversy over something that wasn't disclosed or we missed, then it kicks you into a full Environmental Impact Statement. We are going to try and avoid that. So that in general is the process. Are there any immediate questions on any of that material?

Q: The timeline for the Environmental Assessment.

A: Federal Highways right now is trying to stick to about an 18-month schedule for an EA. I think that is pretty reasonable for this project.

I want to re-iterate where the project is right now and how we've come to develop the alternatives that are shown and explain some of the environmental constraints that we are aware of and want to ask you if you are aware of other constraints we need to be identifying. If you know of cultural or historic resources in this corridor particularly areas that are heavy wildlife crossings, or anything that you may think are pertinent to helping with the design of these different alternatives.

As John mentioned, basically from the southern end to the Elkhorn turnoff is a minor widening overlay. The reset of the project corridor is a complete reconstruction. Once you get basically north of the Elkhorn turnoff, you can see how close we get to the Boulder River Referring to graphic). That is really the most difficult part of this project – trying to fit this winding roadway into a very narrowly constrained corridor. You've got the river on one side, you have some homes on the other, and you've got some rock outcrops. It just gets very narrow. That is basically what prompted the Department of Transportation to look at an alternative across the river to get out away from some of these rock cuts, away from the sheeting areas, and away from impacting the river and some very high quality wetlands which are sometimes very, very difficult to mitigate. Again, that is what prompted the orange lineup here on the other side basically in the county road corridor. Again basically from there into town is a reconstruct on the existing lineup.

I ask you to hold your questions until I go through this real quick and then for the question and answer, if you will raise your hand John will come around with a microphone and we will try and get to everybody. John is recording the meeting this evening so we want to make sure that we have a microphone in front of everybody so we can accurately record any comments we get from you.

I know everybody is a little excited about this orange line – just to tell you again; it is literally what you see. It is a tape line on the aerial just to say that this is an idea – there has been no design work done on either one of these things. It is truly prompted to try and go through these minimizations right here. We need to try and avoid and minimize impacts to wetlands and these streams basically because it is a bear to try and get those things permitted any more. It can be done, but the Corp of Engineers – let me back up and explain this. The National Environmental Policy Act, this NEPA process, is basically a public disclosure process. It is designed to make sure that we walk through all of the other regulatory requirements in a public process so you understand how the decisions are made. One of the most critical applications in this corridor is going to be permitting for wetland impacts. The Corp of Engineers has very specific requirements – you have to avoid first, minimize second, and then mitigate third. They are requiring mitigation within the same watershed for a lot of these MDT projects. So that is going to be a big challenge if we've got substantial impacts to wetlands, finding an area to buy the right-of-way, create new wetlands, and then maintain those over a number of years. Again, just to let you know what some of the challenges are with the existing alignment.

QUESTIONS/COMMENTS

(John Robinson) I'd like to ask everyone to state your name for the record so that we know who was speaking. That way when Darryl reviews the questions and comments, he can know which landowner said what.

Q: (Paul Richards) I'd like to point out I-15 over here (referring to graphic). The interstate is designed for high-speed truck traffic. We've spent many years on this; many of us in the valley are trying to have the high-speed truck traffic on the interstate where it belongs. The accident clusters you are talking about are because the drivers are driving a rural secondary road that is not designed for high-speed truck traffic. I would ask you, as our employees, to get the trucks on the interstate where they belong. Once you get the trucks off of this site, then we can talk bike paths, pedestrian walkways all along this site; we can talk protection of the rural characteristics of this particular stretch here. Number one, it is very frustrating to see the truck traffic over here that should be on the interstate coming through here. Number two, the weigh station isn't being manned so we are not getting anybody weighed so that is not slowing them down. We don't have any police enforcement there and it is time we put the whole package together and get thorough speeding enforcement, weigh station manned 24-hours a day, the speeding enforcement manned 24-hours a day. Those two things alone are going to push the traffic onto the interstate where we need it. That's going to drop your projections phenomenally. Thank you.

A: (Darryl James) Thank you.

Q: (Charlie Sperry) I live out on Hwy 69. I have a clarifying question. On the alternative that would maintain the existing highway route, what would need to be done to widen or reconstruct the highway along the river corridor? What action would take place that would potentially impact the river corridor?

A: (Darryl James) There has been no design work done. I'm sure the Department, and we can ask Jim or somebody in the back, if they have identified specific curves. The radius on these curves would need to be reviewed to see if they meet current standards. I'm assuming they do not. So to bring these into a current design standard would likely encroach on the river, plus the widening. I think we are looking at about a 35-foot roadway top, so with different crossroads and wider shoulders on the roadway, the wider section, flatter curves, you are undoubtedly going to be into the river and the wetlands in that existing corridor.

Q: (Charlie Sperry) You are talking about the stream, is that on the river channel? My question is are you talking about straightening the river channel to accommodate the highway straightening? What exactly would happen?

A: (Darryl James) It could be a re-alignment of the river channel. Some moving it away, probably straightening portions. Again it is frowned on by the resource agencies if we have a different alternative. It would involve some stream alteration.

Q: (Karalee Bancroft) I have three things to say: one's a comment and two are questions. The first comment is that I agree with Paul that a lot of the problems we are having are a result of traffic avoiding other alternate routes rather than using this because this is the most logical one. A lot of the traffic we are getting should really be on Hwy 287 going from Helena down to I-90. They avoid that because they get ticketed there. Ok? They come down to Boulder and cut down Hwy 69. So yes, traffic should be pushed back onto I-15 where it belongs and a lot of it should be on Hwy 287. If we were to widen portions of the existing road so the police could enforce the speed limits, we would eliminate a lot of problems right there. That is my comment overall.

The first question I have is what happens to the old Hwy 69 if we were to go along with this orange line that you have on the charts?

A: (Darryl James) That's a good question, thanks for asking that. Generally what you have now is the county road on the north side is a gravel two-lane roadway. The county has already entered into discussions with the Department of Transportation, just general casual conversations about what might happen here. If the Department of Transportation were to come over and construct this orange alignment, MDT has agreed to basically do an overlay, a chip seal overlay, on the existing alignment and would turn that over to the county. The county would then own and maintain this existing alignment basically from

the Elkhorn turnoff up to this point (referring to graphic). So basically it would just be a flip-flop in ownership of those two alignments.

Q: (Karalee Bancroft) My second question is this whole project appears to be contingent on federal funds, is that correct?

A: (Darryl James) Almost any MDT project is heavily contingent on federal funds.

Q: (Karalee Bancroft) Ok, why does that have to be? Why do we have to follow federal regulations for this secondary road if it is not designed for that, nor do any of us want that? We don't want the traffic; we want it to be local for farmers and moving our product and stuff. Why do we need to go to federal mandates and have the road brought up to federal standards? Why can't we just do this with our own funds? Do what is needed as opposed to making these huge changes to appease federal departments.

A: (Jeff Ebert) Let me go ahead and … I guess your question is why we have to do this to this secondary road? Let me correct that by saying this is actually a State Primary Highway. The Montana Transportation Commission actually … this has been a State Primary Highway for a number of years … even back in 1991 when it was first nominated. In order to get federal aid participation we have to meet their standards. We do no have state funds to do any improvements to this road.

Q: (Karalee Bancroft) Why is that a problem? Why do we have to do anything? Why do we need those federal funds? Why do we have to have outsiders come in and construct all of this stuff on our property to allow other outsiders to speed down our valley?

A: (Jeff Ebert) We have identified locations out here that have safety concerns and we need to address those safety concerns. As a part of the federal aid funding package we can go in and do spot fixes out here if that is what we are hearing tonight from the majority of folks. That may be an alternative we choose.

Q: (Barbara Rashleigh) I commute daily on Hwy 69 to Whitehall, and I'll tell you where the accidents are. I follow trucks that play stupid games with the cars. They slow down and when you go to pass them, they speed up when there's two trucks together. So I agree with everybody, keep the trucks on the Interstate and that will stop a lot of the crashes on Hwy 69.

Q: (Allen LeMeiux) My question deals with the alternative road as compared to the one you are planning to turn over to the county if you go that way. How does that impact the county financing? Does the county have to pay for all maintenance from then on? And why would we want to do that if that is the case? Why wouldn't we leave it the way it is where the state is paying for the maintenance?

A: (Darryl James) The county is paying for maintenance on this route here. So they would be picking up the maintenance of the shorter route and it is a paved route. The county apparently has expressed interest in doing that.

Q: (Allen LeMieux) Is that about the same cost then or would it be different?

A: (Darryl James) I don't know that I could answer that very effectively. I would assume that long term it would be less costly to maintain the paved route than this longer gravel route.

Q: (Allen LeMieux) Well I'd like to see the county start paving more roads then. Let me add one other thing. On this curve coming into Boulder, you are following the same old route, as I understand it. That is a very poor curve. Has anybody addressed that question?

A: (Darryl James) We will address that question as we get into design, the detailed design will look at that curve and see what design speed it is and whether it needs to be redesigned or anything like that. That will be addressed as we move into the design phase.

Q: (Allen LeMieux) My last question for now, how much new land would be taken on the old road as compared with new wetlands on the new road?

A: (Darryl James) Again it is so early in the design process, there is no way to even venture a guess on that but it will be quantified as we move forward with these alternatives. You will be able to look at that and be able to weigh that decision for yourselves.

Let me stop for just a second and explain the cards that Jennifer and Sarah passed out a few minutes ago. I just want to get some feedback from you on some specific questions just to try and get a little bit of dialogue going. If any of you have already filled this out, please hold them up and I'll have Jennifer and Sarah pick those up. We will try and summarize some of the recurring themes on these comment cards. At your leisure please fill these out tonight and hopefully you will give them back to either Jennifer or Sarah and again we will try and summarize some of the comments.

Q: (Mark Steketee) I just want to ask a couple of questions. I think Mr. Ebert you said that Hwy 69 is now a major highway?

A: (Jeff Ebert) It is a state primary road.

Q: (Mark Steketee) Is that the same as a minor arterial?

A: (Jeff Ebert) No.

Q: (Mark Steketee) In your preliminary field report, has the highway changed since your report was developed?

A: (Jeff Ebert) Yes, a minor arterial … it is the functional classification of the roadway. The state designation be it primary, secondary, interstate, is a federal designation and/or a state designation, but AASHTO (American Association of State Highway Transportation Officials) puts out a pecking order as far as the classification of roadways with interstate highways being the highest classification, a national highway being the second classification of which the interstate is a portion of that. Then there is what's called a principle arterial, and those are the national highways also. There is also then a minor arterial of which this is that classification which coincides with a primary and a minor arterial … they are kind of one and the same. A national highway and a principal arterial are kind of one and the same. Then a major collector is a secondary highway and that has a lower classification.

Q: (Mark Steketee) Is that volume related? In other words, does a minor arterial design for 208 trucks per day?

A: (Jeff Ebert) Volume is one aspect of that, but they look at the connectivity between major cities, farm-to-market routes, and those types of routes. But volume is a small consideration on how roadways are classified under that classification system.

Q: (Mark Steketee) The second question I have is relative to the accident clusters. In your preliminary field report you indicated there were no feasible counter-measures to address specific crash trends. Are you saying that you have now identified?

A: (Jeff Ebert) The analysis that was performed on those particular accident clusters kept in mind what are some of the small things we can do to correct the crashes that are occurring at those locations. By small things I mean, could you come in there and simply flatten the slopes of the roadway adjacent to a narrow section of a steep section of the roadway, or could you put up curve signs that would better delineate that curve that is upcoming. Under our Safety Engineering Improvement Program we look at those crash locations statewide and under that program, it is fairly cost constraining because we have to do a benefit cost – look at the number of accidents that would be reduced by doing that fix. Then taking that fix and as long as the fix has a benefit greater than one, then we can do a safety project. But what is being talked about in that report is that there were no cost beneficial types of fixes short of doing a full reconstruction through that corridor to mitigate those crash locations.

Q: (Mark Steketee) Is speed part of the accident severity? In other words do we feel that part of the reason the accidents severity for trucks is 70% greater is because of the speed of the trucks?

A: (Jeff Ebert) I don't think speed is figured in the severity. What they look at with severity is the results of the crash. Obviously speed is a factor within that; the faster you are going the more damage that is going to occur. But overall, this is a speed issue and the gentleman up here touched on it, the State Legislature sets the speed limit through here. It is mandated 70 mph for trucks and cars … when I say trucks I mean pickup trucks. The truck speed limit for commercial traffic is 60 mph.

Q: (Terry Minow) I support improving the safety of Hwy 69 but I'm opposed to the re-routing of Hwy 69 and I'm opposed to rebuilding the highway in a way that will increase the speed and the traffic on Hwy 69. My opposition is based on three major concerns: first of all I'm concerned that neither one of these proposals will improve safety. The problem of safety on the highway is due to excessive speed and to the number of trucks using the road. You've heard that from a number of people already. If you just make the road wider and take out the curves, you are actually going to increase the speed. The traffic is already too fast. The proposed changes will make the speed that much more of a problem.

Secondly, I'm concerned about the impact on our rural lifestyle. Moving the highway will make it more difficult for ranchers to move cows and equipment. They do that every day on that road. People in the area use the back road (as we call it) to bike, to walk, to ride horses, to teach our kids to drive. I take it in the winter when it is too much to face a semi on a blinding blizzard.

Third, I think it is really important to maintain the beauty of the existing highway and I don't think you have considered that in your proposals. Highway 69 is a gorgeous road especially through the canyon. The trees and the foliage in the fall are spectacular. I don't want to see the trees and the foliage and the vegetation stripped out of the area in order to make a huge expanse of pavement.

I suggest the State consider the following ideas immediately in the interest of improving safety and minimizing accidents, and I don't think we have to wait until 2008 or 2009. We need to beef up enforcement of the speed limit on Hwy 69. Ticket those trucks that are running people off the road and passing on curves and over hills. Do whatever it takes to slow down traffic. I think that is in the power of the State right now. Ban semi trucks from using Hwy 69. An exception, of course, should be made for local trucks, but I don't see why we can't ban them. Lower the speed limit for trucks. There is no way that a truck can go 60 mph through the canyon and be safe around those curves.

I think the goal of improving Hwy 69 is an admirable one and I appreciate that, however, I believe these proposals are going to have unintended consequences of actually making the safety worse. I ask you to refocus your proposal on the goal of improving the safety of Hwy 69 while maintaining the rural economy, lifestyle, and beauty of the Boulder Valley.

Q: (All Martini) I just wanted to point out here and have you clarify something about the road maintenance. You said the county would take over the maintenance of the existing road now? But the county is also going to have to still maintain the old gravel road with your new alignment, correct? Now let me clarify that – if there is only a little stretch there that the county wouldn't have to maintain that goes right where you're pointing to (referring to graphic).

A: (Darryl James) That is a good point. If the Department of Transportation comes through with something generally along this orange alignment, all of this would be obliterated. It would be taken out. The ownership would basically revert to an adjacent landowner or there would be some right-of-way negotiation. The other roadway, be they county roads or private access, would be extended to meet up with this new alignment. Something like this you may have to come in with an extended roadway here (referring to graphic). But this would all be taken out. This would be the primary route through that area and any other access that currently meets up with that county road would be extended to the new alignment.

Q: (Al Martini) So the county is going to have to come down the new alignment and maintain 200 feet of road to come into my driveway, go down the new alignment and maintain 100 feet of road to go to somebody else's driveway then?

A: (Darryl James) No it would be a private driveway.

Q: (Al Martini) So I would have to maintain another 100 feet of driveway then?

A: (Darryl James) That's right.

Q: (Scott Mendenhall) I represent HD 77, which includes this area. I have some questions for Mr. Ebert. On the proposed alternative, let's assume the Department decides to choose that. Has the Department contacted any of the landowners along that area in terms of … has the Department secured any of that property over there at all?

A: (Jeff Ebert) No we have not. We have not secured any of the right-of-way. Again just as Darryl mentioned, this is just a piece of orange tape on our aerial photograph. We have not done any of that.

Q: (Scott Mendenhall) If you make that decision, then what is the process for acquiring the property?

A: (Jeff Ebert) Before we could acquire any right-of-way, we would have to complete the Environmental Assessment. In the EA the decision would be made whether … and I'm not supporting this and I'm not saying that we would go along that line; we would then start right-of-way negotiations with the affected landowners. We would come out, bring them a set of plans, and show them on paper, then also we would go out and stake out what right-of-way we would need to build the project and what right-of-way would then revert back and those type of things. But it wouldn't be until after this Environmental Assessment is done. So that's probably two to three years out.

Q: (Scott Mendenhall) So if a landowner doesn't agree to sell to you then what happens?

A: (Jeff Ebert) I guess we would negotiate and if we could not come to an agreement, we would utilize Eminent Domain and use that route. But again, that is a last resort.

Q: (Scott Mendenhall) My understanding of the law of Eminent Domain, there has to be a clearly established public need, is that right?

A: (Jeff Ebert) Exactly, and that is what the Environmental Assessment does. Before we even get to that point the Environmental Analysis will look at those impacts in a pretty macro sense and decide whether or not that is an alternative even worth pursuing.

Q: (Scott Mendenhall) Do you think the State would have any difficulty establishing a clear public need when there is an existing right-of-way and roadway in place such that would justify using the law of Eminent Domain?

A: (Jeff Ebert) The only way I could see that occur is if the environmental impacts that were talked about on the current alignment were significant in comparison to that. Then we would pick that alternative. And that would then drive the Purpose and Need for us exercising Eminent Domain. But again, we are way ahead of that decision.

Q: (Scott Mendenhall) Just in comment then, I think one of the criteria the Department should consider is whether or not they would be violating state law and potentially bringing the liability on the State because of a misuse of the law of Eminent Domain. Because clearly I believe you will have a hard time proving the need when there is an existing roadway and aright-of-way here as opposed to takings of private property. So I would re-echo some of the sentiment here, and urge the Department to please steer away from that alternative that is described there in orange and stick with looking at improving the existing roadway.

I would also ask a question of Mr. Ebert, is there any place in the State … we've looked at this truck traffic and speed limit issue before … is there any place in the State where the Department has enacted differential speed limits through a law or something like that? It seems like we looked at a special situation speed limit for some area up in the Flathead area or the Libby area this last session. Is that a possibility on this route?

A: (Jeff Ebert) You're a Legislator so that would be something that could be done through the legislative process. The only other process we have and the Transportation Commission has, is looking at speed zones through certain areas. I don't know of any locations statewide where the Transportation Commission has come in and looked at a speed zone on a 30-mile corridor. We usually look at smaller areas like approaching coming into towns. The speed limit that is set as you come into Boulder, the Transportation Commission sets speed zones and steps that down from70 mph and gets you down to a more urban type roadway. But I don't know of any locations statewide where the Transportation Commission has come in and set a speed zone for an entire corridor. That is usually done by the Legislature.

Q: (Randy Kirk) I live 15 miles south of Boulder near the southern edge of the project. I manage a ranch for a non-resident. I would prefer keeping the highway on the existing route. Moving it across the river would disrupt and damage an otherwise peaceful rural area. The Lower Valley road, as it is, provides a safe place to move cattle and machinery safely and efficiently and it should be left alone. My main concern however, is that if we improve the highway at all, it is going to increase the volume of traffic especially the truck traffic. I've been harassed by trucks like some other people have mentioned on a regular basis. I would like us to consider making every effort to discourage or eliminate interstate truck traffic, which would reduce the need for such substantial and expensive improvements.

Q: (Sam Samson) I live on Browns Gulch Road. I represent myself and my wife Joanne. We feel very strongly about the issue at hand and feel also that the decisions made now will affect not only us but future generations as well. I've agreed with all the speakers so far. We have great interest and knowledge in this piece of highway and I've driven it since it was a dirt road in the 40's. We also attended hearings over 30 years ago in this very school when the roadway was the alternative route to the interstate. It was decided at that time that the major north south route should be and is located where the freeway exists today not down Hwy 69. For that reason and the following we respectfully ask you to focus your planning on the upgrade of the present day right-of-way, if any upgrade is necessary at all. As a Jefferson County Commissioner I work to encourage the building of a permanent manned GVW station in the lower valley. As a Commission, we also ask for a speed limit from the Elkhorn Bridge to Boulder and for better enforcement. Neither one nor two have been done.

Now as a citizen I'm again asking you to give number one and two serious consideration and we believe this would be a simple way to lessen risk and improve safety. Over ten years of discussions, hearings, and at great cost we recently completed the Red Bridge keeping its historic look and even protecting old Cottonwoods near its location. To build a new bridge in the same area would make absolutely no sense cost wise, aesthetically, or ecologically. Wildlife would be cut off from the river from both sides forcing constant road crossing pressure in the evening and early morning hours. This doesn't constitute a safety upgrade for wildlife or humans. Placing the highway on the north side would also add ten more approaches, many very poor site distances, and a high number of uses per day. This is a bus route and is also used by ranchers to herd cattle from one field to another and move them across Forest Service lands. The piece of county road is also used on a daily basis by bikers, runners, walkers, horseback riders, and I've personally put over 20,000 miles of running on this little stretch of road myself over the last 29 years. Each of these activities represents an enormous safety risk and greatly interrupts traffic flow. Virtually all the residents of the proposed route do not want this highway moved. Moving this road would pose a great hardship to the ranchers in this area and we are an agriculturally based community. Moving the highway would be going against the intent of the use of our valley. Changing this location violates number two and three guiding principles and goals the Jefferson County Growth Policy adopted in 2003 which state on page six number eleven: "protect and maintain Jefferson County's rural character." And number three: "preserve and enhance the rural friendly and independent lifestyle currently enjoyed by Jefferson County citizens."

In conclusion, we do agree the highway may need to be upgraded, however, it seems inconceivable that the cost of surveys, design works, miles of right-of-way, the cost of an EIS and EA, constructing two completely new bridges, overpasses, earthwork to bring grade through rolling hills, and signing and building numerous approaches could possibly even be near the cost of upgrading the existing roadbed. Also, if I were still a County Commissioner, there is no way that I would take that road over as an added cost to taxpayers. So thank you again for the chance to speak.

Com: (Darryl James) I want to interrupt just for a minute. Jeff said something like nobody has been out here staking right-of-way or anything. What you may see in the next two weeks or the next month and a half are people out laying targets for survey. Don't be alarmed at that, they are surveying this entire area for these two alternatives. We are not staking right-of-way, there are no alignments being mapped, it is purely survey for this project.

Q: (Nancy Owens) I live in Basin but we use Hwy 69 quite a bit. I agree with everything that people have said so far and I was glad to hear Tom talk about the rural character of the area. I've had a lot of experience doing EIS work myself and also evaluating it. I have a methodological suggestion for HKM, which is to take a really creative approach to the economic analysis because the kind of thing I foresee is that you've got this alternative

alignment that is going to disrupt farmers and ranchers. You've got wetlands on the existing alignment and because we know more about mitigating wetlands and the concrete could come up more expensive than the disruption to farmers and ranchers. In reality we are a rural community and if the farmers and ranchers get discouraged and sell out, then we are going to have subdivisions like crazy and we will loose the character and we will have a community that you are actually building the road you are talking about for. So there is a lot of economic sense in not building that kind of a road or you will get what you are building it for. That is what I have to say. Thank you.

Q: (Bud Smith) Local owner of a mechanic repair shop here in Boulder. I've lived in Boulder and the town of Elkhorn all my life. I'm here to represent Elkhorn Working Group that has submitted a letter in opposition to the rerouting of Hwy 69 to the east side of the Boulder River. The reasons are set forth in the letter sent May 18th to Mr. Ebert. Members of the Elkhorn Working Group are from communities surrounding the Elkhorn's. The group has 14 voting members that include ranchers, hunters, conservationists, recreation users, and community leaders such as County Commissioners and three non-voting members from the Fish Wildlife and Parks, Forest Service and BLM. It should be noted that these recommendations to agencies such as our May 18th letter are made through collaborative discussion and by consensus vote. Our recommendation has such a consensus vote reached after reviewing DOT's primary field report and discussing the issue at two of our meetings. I am submitting a copy of this letter as part of the record. Thank you for your consideration.

Also on a personal note, my home is in the town of Elkhorn and I travel this lower valley road summer and winter, day and night, and the amount of animals crossing this road is immense. To take this road from the speed limit which is 40 mph to a 70 mph road would be detrimental to both man and beast. Thank you for letting me comment on the issues.

Q: (Tresa Smith) I'm a rancher in the Boulder valley and a conservationist. I would like to state that I believe the plans for widening or a route change of the highway is an intrusion to a Montana way of life. I'm opposed to changing the route of Hwy 69. The Boulder Valley is a very narrow valley between two mountain ranges. A change in route would significantly impact the agriculture and wildlife environment. Not only would the lives of the family farmers who work in this area be economically altered, as Bud pointed out and others too, it would endanger the wildlife that use this river valley as a corridor and also the fish and water problems that could occur. It would ultimately affect not only just the people who live here but the people who play here – the many hunters and anglers who would loose a very valuable resource to them also. Many people here tonight have made comments and I really applaud the comments about the speed limit and the interstate being the route the fast trucks should use and not the route that the wildlife and the agricultural area use.

Q: (Cathy Birtcher) My husband couldn't make it tonight but we are both opposed to the idea of moving state route 69 from its presently traveled way. There are some other options that I have heard considered that are less costly and they keep everybody living here happy. One very easy option would be to just lower the speed limit and enforce it. This option would: one reduce the truck traffic and entice the trucks to use I-15 that is designed for those; two reduce accidents along the road; three there would be no additional impacts to wetlands; four no additional safety issues; five reduce the cost of construction; six maintain the financial impact of the existing road such as the Boulder Hot Springs because putting in a new route is just going to devastate them. I realize right now the Sheriff's office has a very difficult time because it is very narrow. There are some things that haven't being considered – the new technology, the cameras that are out. It might be much less expensive to put those cameras up than to worry about widening the road and trying to enforce it the way that it is.

Q: (John Heide) From the Heide Ranch. I have a question for Mr. Ebert. I'm opposed to the alternative route and if you haven't decided on anything, why have you sent letters to us asking for permission to survey?

A: (Jeff Ebert) As Darryl indicated we are setting targets out there to do some survey work. Based on the public input we are receiving tonight, we are going to sit down and look at the decision to do that survey work over there. Short of seeing … we are not going to do that, I would presupposing the environmental process and we could endanger the use of federal funds if I do that. So we are listening to what you are saying. If there is overwhelming support not to go over there, we may not do that.

Q: (John Heide) The main question I have is about the letter that was sent to us pertaining to Hwy 69, there was no mention of the alternative route. That is my main concern.

A: (Jeff Ebert) Are you on this route? (referring to graphic). Right on this end? Let me say that we are going to reconsider that.

A: (Darryl James) Before Jeff commits us to that let me just explain one thing. I tried to allude to his earlier. Part of this process is just to walk us through all the other regulatory requirements. On this existing alignment, we are going to have substantial wetlands impacts. The Corp of Engineers requirements are that we fully assess any alternative that would avoid or minimize impacts. We may just have to set this up as a comparison for them to show that we looked at something but they are going to hang everybody at the Department of Transportation and this Boulder Valley if we went with that. So we at least have to explore that option and it may be in the end that there is no way we would have support to do that but we have to take that alternative to the Corp of Engineers and say that we have 20 acres of wetlands impacts with this alignment and we've got four on

this one, but if you build this people are going to come out of their shoes. So we are going to have to suck this up and find a way to mitigate those. Based on the Corp of Engineers requirements, it is not MDT, it not a NEPA requirement, it is a Corp of Engineers 404 Wetland and Dredge and Build Permit requirement that we have to look at other alternatives if they are available. So I can't let Jeff completely off the hook on this just yet.

Q: (Paul Smith) I'm a rancher down in the Boulder Valley. In fact one of the ancient ones you were talking about, I think it was one of my forefathers that had the bright idea of letting the road down there in the first place. They never should have done that but that was in 1964. My question is on the wetlands. I know you are talking about that, but what is the impact just along river where you are talking about reconstructing on the present route? Is it all the way along that route or is it just up by the river where it is impacting the wetlands?

A: (Darryl James) Most of your real high quality wetlands are in this immediate river corridor. You do have wetland complexes throughout the alignment.

Q: (Paul Smith) There is already a road through that in fact and isn't there more of an impact by going through virgin territory getting over to the east side and coming back over to Hwy 69? You are not just widening a road that is going through an existing route; you are creating a whole new route through wetlands to get over the Lower Valley Road.

A: (Darryl James) You are right.

Q: (Paul Smith) Impacting the river being a consideration or putting in two new bridges – twice the impact as staying on the west side of the river.

A: (Darryl James) You are absolutely correct and that is what we have to analyze in detail to find out how those balance out and weigh those impacts to find which is preferable.

Q: (Paul Smith) I would also emphasize that for 18 years I drove from the upper lower valley road down to the ranch. I would just go along with what Bud Smith was saying, there is a lot of wildlife – mule deer, whitetail deer, an occasional bear – that use that route to get down to the river and water. I think it would a lot more devastating impact on wildlife than keeping the route where it is.

The other thing I would bring up – if you did go through these ranches, there are four or five this direct route would devastate. We are probably talking about them selling out the adjacent land for subdivision. Maybe that sounds like good economics to have some subdivision, but from the standpoint of habitat fragmentation and wildlife devastation and devastation to the local rural community lifestyle, not only that but a local study done in

2000 showed that subdivisions for every dollar of taxes they generate demanded $2.16 in services. Open space and the agriculture for every dollar received from them, the county only spent $.29. So it would also be a big blow to the tax base to take out these ranches and put them into subdivisions.

Finally I would also recommend that you do a speed study to see if the trucks are really going 60 mph. If they are, then my old pickup needs to be traded in because it doesn't even get close to them.

My final point is that I think if you decide to keep that alternative route as part of your environmental document you might be making a serious mistake. Look at the criteria for an EIS, it would seem to me that you were pulling a trickery when you go over there because of the seven factors that are to be considered when deciding whether or not to do an EIS – about five of them are in the negative if you go over and use that as the proposed route.

Q: (Claudette Corrado) I object to the proposed highway. I'm concerned about school bus route. As I'm aware I don't think there are any in that area on old Hwy 69, but if you go on the orange line, there are more residents that have children in that area than on the yellow line. So they would have to be coming down to the highway to get on the school bus. Being a retired school bus driver I know the traffic does not stop when you put those red lights on because they just can't if they are doing 70 mph.

A: (Darryl James) Good point. Thank you.

Q: (Buster Bulloch) I'm in favor of a safe highway 69. There are some things we can't do anything about and that is a highway going down the Boulder Valley. It is a route, taxes are paid on it, and people are going to drive down it, and there is not a thing we can do about that. So I'm interested in a safe route and whatever is the safest route I think is what is in all our best interests.

Secondly, I love to drive down that Boulder Valley to my house through all those trees, and if they keep the alignment in the same place it is today, all those views are going away. If we take the alternative route there are some adverse effects, but there are some adverse affects on the other side, which we don't get to have that pretty view no more. So that is what I'm interested in.

Q: (David LeMieux) I have a couple of comments but first I have a couple of questions to clarify some things. First for Mr. Ebert. Would you say the construction challenges are the sub-grade, this rock wall, and wetlands?

A: (Jeff Ebert) The wetlands.

Q: (David LeMieux) Is that really ... now I'm just talking about the section of road just for the alternate route?

A: (Jeff Ebert) Wetlands and the Boulder River there.

Q: (David LeMieux) How significant are those construction challenges in your mind?

A: (Jeff Ebert) Without knowing the design, we just don't know yet. We've done a preliminary geological report through here, and I think it stated that there may be the possibility of some blasting that would have to occur but, again, that is still preliminary. Dealing through wetlands, we do it throughout the state. Contractors get creative and that is what they get paid the big bucks for. So I really can't comment because we just don't know those impacts yet.

Q: (David LeMieux) What is the plan for the existing Red and White Bridges?

A: (Jeff Ebert) The White Bridge is at the Elkhorn turnoff?

Q: (David LeMieux) If the alternate route is used what will those two bridges be used for? How will they be maintained or will it be removed? I don't mean to pin you down here; I'm just trying to get some information.

A: (Jeff Ebert) I think the Department would look fairly silly, if I can use that term, because we put some federal funds into re-doing the Red Bridge for us to come in and remove it. There has been some discussion on it and I haven't heard it here yet and maybe I shouldn't bring it up, but pedestrians, bike paths, and those types of things, we could get creative and possibly incorporate that into the design of those two and allow pedestrians and bikes to use that but we don't have a plan right now. We quite honestly don't have a plan for those.

Q: (David LeMieux) Just for my information could you locate the accident clusters you are talking about on the existing route between mile marker 31.5 and mile marker 36? That would be on the existing route all the way to the turnoff there.

A: (Jeff Ebert) I don't have that report in front of me but I think we do have a copy of it and I could kind of show it to you.

Q: (David LeMieux) Is that something MDT is concerned about in terms of correcting with upgrading that highway?

A: (Jeff Ebert) One of them is the straightaway, mile marker 26.4, which would be right about here (referring to graphic. That is on a straightaway and I'm guessing it is passing opportunities. That is one cluster. There was another one down on 32.6 probably right about here (referring to graphic), and one on 33.5 where it narrows right in this area in here (referring to graphic).

Q: (David LeMieux) So essentially those are in relatively straight corridors as it is.

A: (Jeff Ebert) That is the kind of ironic thing that we've found in this. That is probably why we couldn't come in and just put up curve signs and things like that to delineate it because there are no curves there.

Q: (David LeMieux) On the alternate route, we've got just a tape here and I know that you haven't done any surveys, but you talked about some icing and some shading areas, but you don't talk about on the other side what kind of grade you are going to have. You are probably looking at upwards of a 6% grade in several places. Another thing you are looking at in terms of highway safety is that you have two bridges and they are notorious for icing. Ok, so you've got a flat road on one side with no river and on the other side you've got grade and two bridges. I don't mean to put you on the spot here.

A: (Jeff Ebert) No. I'm not arguing with either. We want to hear these things, that is why we are here.

Q: (David LeMieux) Your turn Mr. James. I'm wondering if you could just define for us all what wetlands are? You call this a substantial wetlands area, can you define that and when you define that can you also define for us what an irrigation ditch is and how it influences and affects what you call wetlands?

A: (Darryl James) We've actually got an MDT biologist here and if my answer is insufficient, I might call on him. I'll try and educate you as much as I can. There are basically three different criteria for wetland delineation. It is based on hydrology, hydration, soil type, wildlife use and that kind of stuff. That basically identifies whether it is a wetland. MDT has a classification system of four different levels of quality in the functional class of wetland types. Again in this river valley and that river corridor, you are going to have higher quality wetlands just based on the use and the hydrology.

Now as far as irrigation ditches: there are new court rulings within the last year and a half or two years that have substantially changed what is considered a wetland under the jurisdiction of the Corp of Engineers. It is basically any surface water that's navigable are under their jurisdiction. So we've found that irrigation ditches can contribute and can in fact be wetlands under the jurisdiction of the Corp of Engineers as opposed to just a drainage or a borrow ditch along the side of the highway. So the definition of wetlands

under the jurisdiction of the Corp of Engineers has expanded greatly just in the last year and a half or so.

Q: (David LeMieux) So essentially you are not supposed to go into a wetland with an excavator? Is that correct?

A: (Darryl James) Absolutely.

Q: (David LeMieux) So then the ranchers that have owned and maintained these irrigation ditches which effectively run both sides of the highway through that whole corridor, they can no longer go in and clean out the irrigation ditches?

A: (Darryl James) I'm not even going to answer that question. What I can tell you is what MDT can't do is go in there with an excavator because, again, they are subject to the regulations of the Corp of Engineers. Actually Deb Wambaugh from MDT is the District Biologist and she would like to address that question.

A: (Deb Wambaugh) Just briefly without going into too much detail regarding irrigation ditches. Using an excavator in an irrigation ditch is not necessarily covered under the jurisdiction of the Corp of Engineers. It is actually fill and dredged material, the placement thereof, so what MDT is regulated for is the placement of fill into a wetland, which may be an irrigation ditch in this situation. There is also the grandfather clauses and there are all sorts of different regulations that apply to the maintenance of existing facilities with regard to potential impact to wetlands that may not necessarily apply to MDT, may apply to ranchers or vise-versa. So it is kind of two different things.

Q: (David LeMieux) So it kind of sounds like you all could save a lot of money if the farmers would just go in there and clean out the irrigation ditches before you get started fixing the highway. Another comment I have – first if we do look at that section here, at the Elkhorn turnoff on the map there with the arrow, then if you go to the alternate route and if you cross the valley floor, that distance is approximately .75 miles. Then if you come back to the Red Bridge, Bud Smith pointed this out a bit earlier, to the Red Bridge is 1.9 miles. If you look at the total area of these two sections combined and you subtract the .6 miles in the existing route where the highway approaches the rock face, there are actually two places where you have solid footing and good ground. If you look at the total area that would be obstructed by those two sections of roadway alone and you compare that to widening the existing route according to your own specs here, it is the same amount of area. So what I'm saying is the alternate route actually affects as much ground of lower valley floor ground as just widening the existing route. So I would appreciate it if when you do your study, to take a careful look at that.

Another thing I really want to point out here is that when we look at this alternate route, we talked about ranchers getting pretty concerned about making it and so forth. But if you look back twenty years Brown's Gulch was uninhabited and twenty years ago or maybe twenty-five years ago, there wasn't really anything up on the bench either. If you go back forty years, we weren't there. My point is that essentially what you are going to see over the coming years, fifty years or one hundred years from now, long-term planning, you are going to see more and more homes up on this upper bench. Part of the reason is you can't put home sites in the floodplain. How this affects the highway is directly related to safety. You have more and more people that are turning on and off of the highway in addition to ranchers using that route. You have variable speeds and so forth, and you really run into a lot more safety issues with this alternate route than using this existing route.

Q: (Judy Johnson) I just wanted to make one real short comment. My husband and I live about 10 miles south of Boulder, and we use that road a lot. We travel that road a lot. I don't know if everybody remembers but it's been one or two years ago that the road was closed to truckers. They were doing some kind of construction down at Twin Bridges and it was just unbelievable how safe that road was. My husband and I were commenting about how nice it would be if there was no truck traffic on there. In the winter it is just treacherous with the trucks. So I do believe if that truck traffic was controlled, that would be the solution to this whole problem and I just really hope you will consider that. Thank you very much.

Q: (Mike DuBois) I'm a Boulder resident. Back in the 90's you widened the road from Whitehall up to approximately the half way point and it made it a fairly nice road. Actually that road needs to be widened all the way from that point where that stopped all the way into Boulder. Why don't you waste your money doing that rather than worrying about this alternate route? I've seen a lot of accidents. You can see on down by the barn about 15 miles down there, a truck driver just drove off the road down there. The road has no edges to it whatsoever the whole length from there to Boulder.

A: (Darryl James) I might just see if Jeff wanted to elaborate on some of the projects that might have occurred in the area over the past several years. Again, it basically comes down to funding. A lot of these roadways haven't been touched in 40-50 years. They aren't up to current standards. MDT is doing everything it can just to patch up and make basic improvements to these corridors. So you are seeing a project that was designed to be funded and built but they can't do an entire corridor all at once. That is what this project is about, it is trying to bring this up to the same standard as the lower portion.

Q: (Sabrina Steketee) I grew up here in Boulder. That valley road, and you probably wish you wouldn't have used this word, but you said you were planning on "obliterating" it. That is right in the middle of almost 30 miles of what we call the back road. Not only, as

people have talked about is it important to us locally for our kids to ride their horses or their bikes or to just walk along, but as we talk about economic development in Boulder, that kind of a stretch of road is really becoming a rarity. As we seek to develop tourism in our area, access to a road like that can really draw people to our area for long bike trips, for family hikes, for day trips into the mountains around the area. I think to chop it up like that or to obliterate the middle of it is really short sighted for us in terms of economic development.

Q: (Tom Dawson) I own a substantial part of that cross over property on the south end of the proposed road. That would just ruin a beautiful meadow out through there, and it is semi wetland now. I have a question about … on all your literature, your press releases and stuff; you said that the Elkhorn turnoff was 30.8, that is incorrect. It is almost 31.8 and it is a little misleading. I would like to ask you from Elkhorn down, what are your plans for fencing cattle, underpasses, taking the hill down there at the Elkhorn turnoff so that you have some safety and line of sight? What are you planning on doing for law enforcement for pullouts and things like that?

A: (Darryl James) Again let me stress that we are so far from having done any real design work, I can't even tell you anything about pullouts or fencing or anything like that. MDT, when they reconstruct or when they purchase new right-of-way, will install fence along the primary corridor like this and work with the landowner to find out what kind of fencing they want and that kind of thing. As far as enforcement, the wider shoulders are to provide enough area for enforcement for the officers to pull a vehicle over. But if there is a location that would warrant either a school bus turnout or a larger enforcement area, we can look at something like that. But again, those design details are several months away.

Q: (Tom Dawson) Just for the record, I adamantly oppose the alternate road on the lower valley road.

Q: (Charlie Sperry) I live out on Hwy 68 about nine miles out. First of all I would like to comment that I'm really glad that I don't have you guys job because you've got some tough decisions to make. I really don't have an opinion on the two choices as far as from Elkhorn on down, but I do sympathize with the landowners over there, and I think you've heard loud and clear their concerns. Mainly I want to ask a question. There has been a lot of talk about or suggestions about trying to reduce commercial truck traffic on the highway. Ms. Johnson correctly observed that when the trucks were not using the highway, it was a lot safer to drive. I can tell you I drive it twice a day five days a week all year around driving to Helena. It is scary with the truck traffic on there. So my questions is, I've never personally seen a highway where commercial truck traffic was not allowed, are there any examples of that? Is that a viable option, to eliminate commercial truck traffic on a highway like this? If it is not a viable option, are there other alternatives

to try to either minimize truck traffic or to reduce truck traffic speed? You've talked about a speed zone, etc. But I do think they've hit upon something that is worth looking into.

A: (Darryl James) I'll ask Jeff to elaborate on that but short of a legislative action, we can't take truck traffic completely off of a state primary route.

A: (Jeff Ebert) I don't mean to put Mr. Molter on the spot here, but I just want to point out that he does pay a lot of taxes for fueling – fuel taxes. Because of that we cannot ban trucks on this road. There is just no way we can. I don't think even the Legislature can do that because of the federal law that they do pay taxes and fuel excise taxes. There is no way … as a part of this project the weigh station was mentioned, the temporary weigh station that is out there, ex-commissioner Samson did provide some impetus into getting that put in. We are going to re-do that facility with this project, and try to make that a little more user friendly. Right now the roadway is not really flat and it is tough for our folks to come in. We take care of weighing the trucks that come up and down the roads, but as far as law enforcement that is under the Montana Highway Patrol, which is a separate state agency. I know the recent Legislature did provide them the funding to hire 39 additional patrolmen statewide. I suspect that, based on the needs I'm hearing here tonight, that would be something that we could help bring about and at least talk to the Highway Patrol about trying to put more enforcement. On of the things we hear from the Highway Patrolmen that run this area is that there are no places to pull off a truck should they be speeding or even a local rancher. I know you guys don't speed either.

One thing we did point out here was that one of the things we are looking at, and these are kind of our minimum design standards that we have, right now you have pretty steep slopes coming off the edge of the asphalt, we would be putting in 6:1 slopes. This is where we get into the wetlands and we actually start filling in that material. That does give you the opportunity to pull over a truck or anybody that is speeding out there. It would help the law enforcement. I know that is one of the things they would point the finger back at us and say, "if you give us a place to pull these trucks over, we will try and do a better job of enforcement."

Q: (Ed McCauley) I live on the alternative route. I would just like to echo everyone else's comments so far. I'm opposed to the alternative route. I've got a number of questions to ask and part of it relates to Mr. Sperry. Isn't there a state law that says that if there is a safety issue on a highway of less than 50 miles that the Highway Commission can look at reducing speed limits and restrictions on trucks?"

A: (Jeff Ebert) I'm not aware of that so I don't know for sure. But it may be something we can look into on this highway, Ed?

A: (Ed _____) This highway would qualify for that if it were just less than 50 miles. It probably could. I think it is only 37-39 miles or something like that.

A: (Ed McCauley) What everybody here is talking about speed, you don't have very many truck accidents in the City of Boulder I assume? It is marked 25 and 35 mph. Personally speaking, I was a victim of a truck wreck here a couple of years ago where the trucker … and they couldn't prove he was speaking but I know he was. They ticketed him $70 for rear-ending me, and passing on a double solid line. It was a Canadian truck and all he cared about was getting to Utah. The State of Montana ticketed him $70. I don't really think they did a very good job.

Some of my other questions … you are talking about a total rebuild from the Elkhorn turnoff up to mile marker 30 something? Yes that stretch (referring to graphic). So a total rebuild is that you are taking it right back down to the gravel or are you just filling in the ditches?

A: (Jeff Ebert) No we would look at putting this type of prism in there, digging it down and building it back up.

Q: (Ed McCauley) I don't know if you took time to drive down the highway today when it was raining but the south bound lane all the way down through that stretch through your whole thing, this portion up here is basically an old railroad bed and it is pretty solid. I guess I disagree with you taking it down and starting over.

A: (Jeff Ebert) Let me preface it by saying we have not gotten that far along in the design. I'm just saying that under a typical project that is what we'd do. That may not be what we have to do here. We just don't know enough to really say.

Q: (Ed McCauley) One of the other comments that was made by Mr. Bulloch was that all the trees are going to be gone down through that stretch if you stay on the existing route, so you really don't know if that is going to be the case yet or not?

A: (Jeff Ebert) I can't say, no. We will try and minimize the impacts to the trees. I mean those trees are nice for protecting from the wind. I know that wind can be a big thing in blowing trucks off the road and all that kind of stuff. We would try and minimize the impacts to the trees.

Q: (Ed McCauley) So you would try and stay within the 100-foot right-of-way as much as you could? You are talking about 6:1 slopes over here, and you told me before that was your general guidelines but they could change that a little bit if they had to.

Q: (Jeff Ebert) That is correct. We could try and minimize this but then that calls for what is called a "design exception" and we have to get federal approval for that. But if there are areas where we need to mitigate for wetlands, we can put in guardrail which is actually an obstacle to hit too but versus going into a wetland. We will have to weigh that in the design specifics as we get further along.

Q: (Ed McCauley) While we are on that, the lower portion of the road where you are hooking this up I believe the roadway is 25-foot pavement?

A: (Jeff Ebert) That is correct.

Q: (Ed McCauley) So you are going from a 34-foot up here to a 24–foot down there?

A: (Jeff Ebert) When we are done the whole route would be 34 feet wide.

Q: (Ed McCauley) On the portion that you are redoing?

A: (Jeff Ebert) Both portions.

Q: (Ed McCauley) So you are going all the way to Cardwell?

A: (Jeff Ebert) No. We are just going down here to 22 with this project.

Q: (Ed McCauley) That is what I'm saying, where you are starting down there, from there to Cardwell right now it is presently only 24 feet.

A: (Jeff Ebert) No that is a little wider.

Q: (Ed McCauley) I don't believe so.

A: (Jeff Ebert) Well it is not 30 feet. On this end of it (referring to graphic)? But it has flatter slopes.

Q: (Ed McCauley) I agree that it has flatter slopes, but I'm talking about the actual pavement part. I guess I would just as soon you stay with the same amount of pavement and minimize your impacts up here as far as how wide of road.

A: (Jeff Ebert) Well, this width is kind of our minimum standard.

Q: (Ed McCauley) I see. So when you redid the lower section of road …?

A: (Jeff Ebert) A different set of standards.

Q: (Ed McCauley) Why? It is the same road.

A: (Jeff Ebert) That other one was done about 10 years ago and our standards have changed based on federal requirements; AASHTO and those sorts of things.

Q: (Ed McCauley) I guess that is all the questions I have for right now. I reiterate my comment that I'm opposed to the alternative route. Just fill in the ditches, straighten a few curves. Use the excess money for the law enforcement.

That is the other thing I always get from the law enforcement – that if we pull over one truck then everybody else knows and they quit. Well why aren't you doing the job then? They take it like they only get one guy so why waste our time out there?

Q: (Ed Katzbeck) I live on Brown's Gulch. Before we leave tonight just out of curiosity I want you to take a vote tonight, just raise your hands: how many people oppose the road and how many people …. (inaudible)…? This way you can see the majority of the vote what we want.

A: (Darryl James) Can I guess first? I want a show of hands. Anybody who think this orange alignment is a preferred alignment at this point? Overwhelming! Ok. What I would like to do, we are king of pushing up against what we had identified as the end of our open house period. Unless there are any other pressing questions or comments, I would like Jennifer and Sarah to kind of summarize what we've heard and make sure that we've got everything generally covered. We will review the tape later and make sure that we've got all these comments clearly in hand before we move forward in this process. Then I would like to invite you if you've got specific questions, to come up and review the aerials with our staff or with MDT staff. We will hang around for another half hour or so to answer any individual questions you have. Feel free if you didn't have a chance or you didn't feel like standing up and making a comment tonight with the microphone, to fill out either the little half sheet that we've provided and John's also has comment sheets up in the front table if you didn't get one on your way in. Feel free to send those in to Jeff Ebert in Butte or send them to my email address or however you want to do that. Thanks for all your comments. You can leave your comments with us tonight also.

Q: (Tom Butler) I'm from Jefferson City. I've lived in Jefferson County all my life and I'm also a Sergeant in the Highway Patrol for the last 13 years. The enforcement challenges you are speaking about tonight on Hwy 69 are very challenging. It is almost a catch 22, everybody wants the trucks worked in this particular section and the only way that is going to happen is if the road is widened out. Everybody needs to understand that. This particular section, particular the lower southern end of the valley, is nearly impossible to work truck traffic on because there is absolutely nowhere to pull over. Also a cause of

the rollover accidents that happen down there on a regular basis, one minor distraction and if you cross the line, you have no ability to make any corrections, you are upside down in the ditch. So everybody needs to keep in mind that for us to come down and effectively work it, we are going to need a wider section of highway.

One other point I would make, this being a rural area with truck traffic, just to give you an example from two weeks ago, I was on my way home and I stopped a truck down by Bob Simms house on the lower southern end of the valley. She was logged with violation of speeding. I ended up following her all the way to Whitehall and it took an extra hour and a half just to get the money that is required for an out-of-state truck driver. So those types of things crop up in this area. There are no ATM machines in the Boulder valley. When somebody comes down here to work, that all plays into what we do.

Mr. Ebert mentioned the extra staffing the Highway Patrol obtained in the last Legislative session. Just so everybody keeps in mind those officers will not hit the road until the summer of 2007. So if there is any extra enforcements as expected down here, it is not coming any time soon. The officer that is stationed in Boulder has been deployed to Iraq or activated in the National Guard three times in the last 18 months. So everybody needs to keep in mind that he has not been in the area to do anything simply due to the National Guard commitments that he is in.

One other quick comment, the truck traffic is up, the economy is increasing, truck traffic are growing on an average of three to five percent increase in truck traffic per year. Everything that comes to Montana with some minor exceptions of rail traffic, arrives on a truck. It is part of the economy and it is something that we are going to have effectively deal with. But banning trucks from the State of Montana or this particular area would be a detriment to the economy and would be impossible to do with the fuel taxes they pay on this highway.

Com: (Jennifer, HKM) Some quick housekeeping. It is very important that we have your mailing address or your email address. For future public meetings we will be notifying you either with a post card or an email. So please give us that information as you leave or on the sign in sheet. Sarah and I have compiled throughout the meeting on this board what we've heard from you verbally, what you've written down, we also have the official record that John has been keeping track of on the tape, so hopefully we've gotten it all. We want to make sure we don't miss anything.

The things we've heard over and over:

- Keep the truck traffic on the interstate.
- Speed enforcement.

- Throughout this we've also heard about the curve into Boulder being unsafe.
- Don't increase the speed on the existing route.
- Keep the rural character.
- Consider the agriculture impacts.
- Some potential creative solutions: Maybe new technology.
- Consider the cost, which is something we have to consider. We will be putting together spreadsheets that compare costs, wetlands impacts, everything that is affected in every alternative that we consider. So you will be able to see all of that like Darryl said.
- Look at the natural beauty, the resource impacts.
- We heard, through written comments, over and over again that there are many of you that would like us to go with the no-build alternative. We saw that in your written comments.
- Look at the wildlife impacts.
- The recreational use of the valley road: the pedestrians, the bicycles, the runners.
- Consider the school bus stops, how we are going to deal with some of those issues.
- The safest route. Safety is something that is of the utmost concern to all of you so that will be disclosed in the public environmental assessment also.
- More of a detail item: to look at the state law regarding the trucks and the truck traffic on this route and what options are available there.

Thank you again for all your input. It's important that we hear all of this.

CLOSING (Darryl James)

To give you an idea what the next step is. We will compile all of these comments and they will be made part of the Environmental Assessment. The next step: we start with some cultural resource surveys, biological resource surveys. You are going to see some folks out in the corridor this summer delineating wetlands, maybe digging some test pits, and all that kind of fun stuff along the alignment. Feel free to stop and talk to them, not on the shoulder because there isn't one, so be careful. You will see some activity in the corridor, feel free to give me a call or give Jeff a call. There are additional contacts on your little information sheet, feel free to contact anybody on that list. Anytime you have questions or comments throughout this process, that is why we are here, we need to hear form you. Again, thank you all very much for coming out, I appreciate your participation and we will see you, hopefully, within a few months to give you an update. Thank you.

Appendix C

Written Comments
Received at the June 1, 2005
Public Meeting

June 1, 2005
Highway 69 public hearing

Testimony of Terry Minow, 502 Lower Valley Road, Boulder, MT 59632, in opposition to re-routing of Highway 69

Good evening. My name is Terry Minow. My family ranches at 502 Lower Valley Road, which is 10 miles below the white bridge on the county road.

I support improving the safety of Highway 69, but I am opposed to re-routing of HWY 69, **and** I am opposed to rebuilding the highway in a way that will increase traffic and the speed of traffic on Highway 69.

My opposition is based on three major concerns.

First, I am concerned that neither one of these proposals will improve safety. The problem of safety on the highway is due to excessive speed, and to the number of trucks using the road. If you make the road wider and take out the curves, you will actually make it less safe. The traffic is already too fast—these proposed changes will speed it up that much more. Deer, elk, and other animals cross the back road every morning and night to water in the Boulder River. Moving the highway will also increase animal-vehicle wrecks.

Secondly, I am concerned about the impact on our rural lifestyle. Moving the highway will make it difficult for ranchers to move cows and equipment, which they do every day, up and down lower valley road, or the back road, as we call it. People in the area use the back road to bike, walk, run, ride horses, take a Sunday drive—and teach their kids how to drive. The school bus stops along the back road to pick up kids. Ranchers & neighbors also use the back road when the highway is icy, or when meeting a semi truck in a blinding blizzard is too much to handle.

Third, it is important to maintain the beauty of the existing highway, and I don't think that is considered in your proposals. Highway 69 is a gorgeous road, especially through the canyon. The trees and foliage in the fall are spectacular. I don't want to see the trees and vegetation stripped out of the area in order to make the road a big wide expanse of pavement.

I suggest the state consider the following ideas immediately, in the interest of improving safety and minimizing accidents:

Beef up enforcement of the speed limit on Highway 69. Ticket the truckers and other drivers who are speeding and passing on curves and over hills. Do whatever it takes to slow down traffic.

Ban semi trucks from using Highway 69. The interstate was built for high speed and commercial traffic. An exception should be made for local truck traffic.

Lower the speed limit for trucks. There is no way a truck can drive through the canyon at 60 miles an hour and be safe. Do a speed assessment.

The goal of improving the safety of HWY 69 is an admirable goal, one we support. However, I believe these proposals will have the unintended consequence of actually making HWY 69 less safe.

I ask you to refocus the construction projects on the goal of improving the safety of Highway 69 while maintaining the rural economy, lifestyle, and beauty of the Boulder Valley.

I very much appreciate the opportunity to comment on these proposals. Thank you for your time and attention.

MONTANA DEPARTMENT OF TRANSPORTATION
Comment Form

Project: **BOULDER-SOUTH**
Project Number: **STPP 69-1(9)22**
Control Number: **CN2019**

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Megan Bullock
Box 364
Boulder MT 59632

COMMENTS: With communities in Montana growing, more people are on the states highways. The safety levels on the current highway are compromised in the winter months when snow & ice melt slowly along the river & through the shaded areas. Moving the road east of the river will allow the sun full access to road surfaces and improve melting. In addition, the farmers & ranchers who are most affected have access also to Highway 69 so they will simply just need to change their main entrance. The most logical & economical solution is to use the alternative route.

Boulder, Montana
June 1, 2005

TO: MONTANA DEPARTMENT OF TRANSPORTATION

RE: OBJECTIONS TO HIGHWAY CONSTRUCTION ON EAST BOULDER VALLEY ROAD

My name is Allen LeMieux. My wife and I live at 39 Hubbard Lane, Boulder, Montana 59632. My telephone number is 406-225-3359.

Our home is adjacent to what is popularly known as "The Red Bridge" which lies athwart the Boulder River and, as I understand it, right next to the line of a new highway proposed to be built along the East Boulder Valley Road. For the past thirty years we have lived here in peace, beauty and tranquility, enjoying a great Montana life, raising nine children and now having twenty-four grandchildren. Not only is this place our chosen home but the place of their choosing for fishing, swimming, camping, picnicking, horseback riding, cattle raising and playing in the sandbox. One million dollars would not substitute for its value to us and our family in personal value alone. We hate to think that we could lose all of this – along with the aesthetic destruction of the entire area – for what? To avoid a bit of rock blasting along the existing highway? To avoid a wet-lands substitute land purchase of a few acres? To create two parallel highways? To destroy safe foot, horseback, cattle, bicycle travel? To create incessant noise pollution? To block or retard our easy access to our mountains, streams and woodlands? What kind of planning is this that would wreck so much to accomplish so little?

Can it seriously be taken that this proposed highway must be built <u>as a public necessity?</u> We doubt it very much. By the way the Boulder River lies upon a geologic fault line. Would that impact your decision to build two more bridges there?

The present road, for the most part, is built upon the old railroad bed that for years carried trains to Elkhorn. Surely, with improvements for safety, it could carry all of the traffic of Montana without faltering.

The Montana Department of Transportation news release in the Boulder Monitor says that usage on the present highway now runs from 1,500 to 1,600 vehicles daily. 17% of this travel is attributed to semi-truck hauling. We do have interstate highways nearby. But consider this: There are 1,440 minutes in a 24 hour day. According to your own figures, this means that <u>on average</u> a vehicle of some sort will fly past our home every 54 seconds! Further, of those vehicles, it

will be a semi-truck every 5½ minutes! What effect would you expect this to have on a peaceful, quiet, neighborhood? How much more traffic will follow in coming years?

The homes here are located where they are precisely, mainly at least, because of their remoteness from a busy, noisy, smelly, necessary but obnoxious, highway. I do not protest your proposal for myself alone. My neighbors must also continue to live in the atmosphere of peace and beauty they have worked most of their lives to own. What you propose is the destruction of us all!

Our message to you is clear enough; keep out!

Sincerely yours,

Allen LeMieux

TO: Mr. Darry/ James, HKM
cc: Montana Department of Transportation

FROM: David LeMieux
39 Hubbard Lane
Boulder, MT 59632

RE: Proposed Alternate Route for Highway 69, East of Boulder, MT

DATE: June 1, 2005

Recent news that the MDOT is considering rerouting Hwy 69, south of Boulder, MT, has perhaps all-of-the-local-residents concerned (myself included) about the impacts upon the valley that this action would cause. Although we acknowledge the wisdom of considering all options during early planning stages; we rural residents strongly request the MDOT rule-out this hwy rerouting option early in the planning process due numerous adverse impacts this rerouting option would have on the area.

MDOT has indicated that widening the existing route would cost $16MM and using the alternate route would cost $15MM. MDOT cites, construction of solid subgrade in the valley-floor land to contribute to the higher cost for widening the existing route. However, the most logical alternate route would be to bypass 5.5 miles of the existing route (from MP 31.5 to MP 36), but the alternate route would still cross ~1.9 miles of valley-floor land! Considering that the existing valley-floor highway is along solid ground for ~0.6 miles, the total area affected by this 1.9 miles of new roadway across valley-floor land is *identical* to the area affected by widening the existing route and of course saves construction of 2 bridges and ~3.5miles of bench-land highway. This demonstrates that the proposed alternate route will actually cost *significantly* more than widening the existing route.

Note also that the existing route and alternate route lengths are both ~5.5 miles in length.

Additionally, the alternate route cause other impact that I hope encourage you to abandon rerouting plans for Hwy 69:

1. Number of egress points: The existing route is on the valley floor and due to flood-plane building regulations; this land cannot be used for future housing development. In contrast, the proposed alternate route crosses through land of at least three ranches and adjacent to numerous existing homes. Also, there are numerous landowners of properties near the alternate route. The past 20 years clearly shows this trend toward rural housing in this area and this suggests that in the future (20 to 50 years from now) even more homes will be built in this area. Therefore, a hwy reconstructed along the alternate route would have more rural traffic egress points—both upon construction and with increasing numbers in the future. This is a safety concern for both rural and non-rural traffic. To illustrate this safety concern, the proposed alternate route would contain numerous school bus stops—and these stops would

increase in number as more homes were built in the future, but in contrast, the existing route would always have very few school bus stops.

2. Business Impacts—Part 1: The existing hwy route passes directly in front of the historic Bolder Hot Springs Spa and Hotel. The alternate route would bypass the hotel, likely reducing business to this establishment. In addition the alternate route would impact ranch use on the existing Lower Valley and Hubbard Lane roads. Ranchers use these roads to periodically drive cattle and to haul hay on a daily basis. These ranchers would also loose valuable ranch land if the hwy was rerouted. Mixing ranch use with hwy travel is also another safety concern for Hwy 69 travel.

3. Business Impacts—Part 2: The alternate hwy route would likely be about 5.5 miles in length; of this, ~1.9 miles of the alternate hwy route would cross valley-floor land that is similar in nature to the land the existing hwy crosses. The MDOT indicates that the primary purpose of the alternate route is to prevent hwy construction over valley-floor land, but the area covered by the ~1.9 mile stretch is nearly equivalent in total area affected by widening the existing route. The proposed route would also travel over ~3.5miles of the existing Lower Valley Road and much adjacent lands (to reduce grade elevation changes). Thus, the proposed alternate route will in fact use a significant amount of ranch land.

4. Recreational Use: The Lower Valley Road and the Hubbard Lane roads are used by rural residents, Boulder residents, and area residents for recreational uses such as walking, running, cycling and to access fishing and hunting areas. The proposed alternate hwy route would decrease, or eliminate, the recreational enjoyment value of these roads. This is yet another safety concern… to illustrate this safety concern, the proposed alternate route would pass near or over the existing historic Red Bridge—a location frequented by sportspersons who access the river for fishing and by unsupervised children who use the bridge for a bicycle parking lot, diving platform, sunbathing and general hang-out.

5. Rural Living Environment: Rural residents have moved to this area specifically for a rural lifestyle. However, the alternate route would effectively route hwy travel nearby and in some cases—immediately adjacent to—existing homes. According to MDOT data, this equates to and average of one vehicle passing by every 54 seconds and of these about every fifth vehicle is a semi-truck. This noise pollution would wreck the living environment these residents have spent their lives searching to find and working to purchase.

6. Infrastructure: The proposed alternate route requires building two new bridges to cross the Boulder River. In addition to building to new bridges, the existing NEW bridges (commonly known as the historic Red Bridge and the White Bridge) would likely be removed. The loss of this existing infrastructure seems 'unfortunate' in terms of long-term planning and particularly since rural residents spent a significant effort preserving the now historic Red Bridge.

7. Hwy Winter Road Conditions: The proposed alternate route will cross the river twice and have several uphill and downhill grades and likely more corners. This is more concern for safety because bridges are notorious for icing conditions and grades are more difficult for travelers to negotiate in winter conditions.

8. "Wetland" Considerations: Highway planners may be concerned that widening the existing Hwy 69 route, instead of using the alternate route, would affect so called wetlands. Along this section of roadway are age-old irrigation ditches that line the hwy on both sides. In many places, the ditches effectively form the borrow pits of the roadway, with the roadway slope comprising one side of the ditch. These irrigation ditches channel water to fields from spring to late fall. Local ranchers routinely clean and maintain these ditches using excavation equipment. *Is such a practice consistent with our current thoughts and management of what we all know are true wetlands?* Reasonably speaking these so called "wetlands" exist entirely due to irrigation practices. Widening the existing hwy route will only move the ditches outward to accommodate a widened roadway. This merely *relocates* rather then eliminates the so-called "wetlands."

The brief outline provided above is only a synopsis of impacts rerouting the Hwy 69 would have on the local area. Residents of the valley clearly do not want the proposed alternate route and request the MDOT to rule-out this option early in the planning process.

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Glenn Marx
Whitehall Ledger (weekly newspaper)
Box 1169 Whitehall 59759 whledger@in-tch.com

COMMENTS: You've said to have to make the existing road work. The Norwegian route isn't going to work and is not acceptable to nearly all or all local residents

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Cheryl Martin
8 Hubbard Lane
Boulder, MT. 59632

COMMENTS: I am opposed to the construction of a new route. The alternate route would have huge impacts on the local ranchers, would impact wildlife that cross the county road. The alternate route would impact the same amount of wetlands as the existing alignment.

I suggest the best alternative is to keep the existing highway corridor, make spot fixes, and lower the speed limit in the corridor from the Elkhorn turnoff north to Boulder and enforce the lower speed limit. It seems there is technology available to minimize impacts to the Boulder River and wetlands.

Staff the weigh station and enforce the speed limit on the entire highway length.

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Tresa V. Smith, P.O. Box 29 Boulder, MT. 59632 = Boulder Valley Rancher and Environmentalist email: tresalazyranch@aol.com Plans for widening and route change are an intrusion to a way of montana life.

COMMENTS: I am opposed to changing the route of Highway 69. The Boulder Valley is a narrow valley between two mountain ranges a change in route would significantly impact the agricultural and wildlife environment. Not only would the lives of the people who have worked and lived in this area since their families arrived as pioneers, be economically altered; it would also endanger the wildlife which use this river valley as a corridor, and the fish and fowl which depend on the river and wetlands. Thus, it would ultimately effect the many hunters and anglers who would want to continue recreation and enjoyment in this area.

Years ago a argument was made to make the inter-State go through this area. After significant discussion and arguments, it was decided to put this highway through Helena and Butte. Nonetheless, truckers continue to use 69 as a main route. The problem is their use of this secondary highway as a main route. Yes the accident rate may be high for trucks But the volume of trucking on such a secondary route is excessive. Speed limits — weigh stations — should be considered as an option — not just pandering to truckers and traffic, and making the road wider for more traffic.

June 1, 2005
Jeffery M. Ebert, Butte District Administrator
Butte Dist. Office
3751 Wynne Ave.
Butte, Mt 5702-3068

Dear Mr. Ebert,

This letter is in response to the recent proposal by the MDT to move Highway 69 to the Lower Valley Road.

Our family ranch has been operating in the Boulder Valley for 15 years. We are opposed to rerouting the highway for the following reasons:

- *The current Lower Valley Road is the primary route for agricultural movement.* Our family and neighbors use the county road to drive cattle from pasture to pasture. In addition to people on horseback, we also frequently drive slow moving vehicles such as tractors, swathers and 4-wheelers. Changing the highway would make our daily operations extremely hazardous and dangerous for travelers on 69.

- *Negative Impact to Wildlife.* As members of the Block Management Program we enjoy seeing healthy game populations and successful hunters. The current low traffic road allows adequate wildlife movement from the foothills of the Elkhorn Mountains to the water of the Boulder River. A paved highway with stronger and higher fences would disrupt animal migration (causing herds to leave altogether) and genetically fragment animal populations (decrease strength and viability of herds).

- *Removal or alteration of three irrigation ditches.* If the highway is moved then the white bridge will need to be replaced and realigned which would take out two of our headgates and completely alter the flow of all three ditches. These ditches and headgates are not only built and maintained with our time and money, but are also our primary source for irrigating hay fields which feed the cows through the winter.

- *The removal of the Red Bridge.* The Red Bridge has been a long time favorite swim hole for our family and friends. We highly value this spot as one of the only recreation areas in the Valley.

Thank you for your time,

Compton Ranch

Gene Compton and family~ 747 Lower Valley rd. Boulder Mt. 59632

Gene Compton

Red Rock Valley Ranch, LLP
Griff Davidson
634 Basin Creek Rd.
Butte, Mt. 59701

Montana Department of Transportation
P.O. Box 201001
Helena, Mt. 59620-1001

To Whom it May Concern :

We presently own Section 18, T. 5N., R. 3W., located at the Elkhorn turnoff. If the decision is made to realign Hwy. 69 a crossed the Boulder River, our property will be greatly impacted.

The Montana Department of Transportation has defined Mt. Hwy. 69 as a rural minor arterial. In keeping with that definition the proper course of action to take would be none. Mt. Hwy. 69 is probably adequate for the purpose for which it was intended. Some say that safety is a concern and that the truck severity rate for the section of highway in question is 70 per cent greater than the state average for rural primary highways. It seems to me the most cost effective and simplest solution to this problem would be to reduce truck traffic on the highway. Posting lower speed limits, manning the temporary weigh station and aggressive enforcement will deter the high speed truck traffic and encourage those trucks to take Interstate 15.

If the decision is made to rebuild Hwy. 69, it makes sense to rebuild on the existing alignment. Fewer land owners and ranches will be impacted and the effect on property values will be less. The existing highway has fewer curves and far fewer hills than the alternative a crossed the Boulder River. Even if the alternative were constructed, I'm not sure the truckers would use it. They may continue to use the existing route because it is relatively straight and has little grade. Wetlands will be affected no matter which route is chosen, but much of what are considered wetlands on the existing highway are actually irrigation ditches. These ditches will have to be reconstructed near their present alignments as the highway is reconstructed. Hence, those "wetlands" will remain intact.

In my conversations with individuals at the Montana Department of Transportation concerning this issue I was led to believe that local public opinion was one of the major determining factors in making the decision on which alternative to use. If this is in fact the case, it seems that the plan for realignment a crossed the Boulder River is unacceptable.

Thank You,

Griff Davidson

Kimberly Davidson

MONTANA DEPARTMENT OF TRANSPORTATION
Comment Form

Project: **BOULDER-SOUTH**
Project Number: **STPP 69-1(9)22**
Control Number: **CN2019**

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: GRIFF DAVIDSON
Red Rock Valley Rock Valley
634 Basin Creek Rd.
Butte, MT 59701

COMMENTS:

MONTANA DEPARTMENT OF TRANSPORTATION
Comment Form

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Karen L Davidson
Box 53 Basin MT 59631-0053
406-225-3554

COMMENTS:

Statement against rerouting Highway 69

Karen Davidson
Box 53
Basin, Mt. 931-0053
406-225-3554

My first option and the one that I would prefer is to do nothing to Highway 69 except lower the speed limit to 55 mph and enforce that and open the weigh station randomly 40 hours per week.

Next option would be to improve Highway 69 on the existing roadbed.

The idea of moving the highway across the river seems not to make any sense to me.

It would disturb an entirely new set of wet lands without mitigating the effects of the currant highway on the wetlands it goes through since the currant highway would remain as a frontage road.

It would divide a number of ranches even more by routing a major highway through them.

The number of access roads onto the highway would increase dramatically.

It would either cross or move five irrigation ditches.

It would directly impactmore people than the existing road.

It would greatly impact wildlife and wildlife corridors.

There would probably be an increase in wildlife vehicle accidents.

It would require building two new bridges.

Currantly the back road has a large number of school bus stops and the safety of those stops would be severely compromised.

The back road is often used recreationally for biking, horseback riding, sledding, drivers ed. and is an important route for moving cows and these activities would be impossible if this road becomes a major highway.

This option also does not take into account any of the currant community opinions, the character of our community, or the fact that this part of the county is a rural agricultural area that would be divided and damaged by moving the highway.

Having two roads to maintain and patrol when neither is done effectivly now seems like wishful thinking.

The currant road is listed in"Montana Outdoors" as one of the nicest drives in Montana.Why ruin a good thing when it can be improved with little or no expense or work.

If safety is truly a concern the speed limit should be lowered and enforced.

This is a rural road and should be considered as such when thinking about what kind of traffic is being planned for and who should be using it.

Please consider these thoughts when you are planning the future of this road.

Karen Davidson
Box 53
Basin, Mt 59631-0053

TO: Montana Department of Transportation

FROM: Bruce Dyer, 1184 Lower Valley Road

RE: Plan to re-route Highway 69

DATE: June 1, 2005

I have some serious concerns about your proposal to move Highway 69 onto Lower Valley Road. Though I am sure that your engineers initially felt that this was a logical solution to the problems with the existing highway, I do not feel that the full impact of this decision and all of the problems which such a change would cause were fully thought out.

First, take a look at the environmental factors. Your report states that widening the existing highway will encroach on wetlands. However, many of these so called wetlands are merely irrigation ditches. To route the highway to the other side of the valley will require crossing the Boulder river twice, which will definitely mean you will be building a new road through existing wetlands. There is simply no way to cross the river bottom without doing so. Constructing two entirely new bridges will certainly have an impact on wetlands. Leaving the road where it is will ultimately disturb the wetlands less than a move to the other side.

Also to be taken into consideration with the environment is the impact on wildlife. The gulches to the north of the river are full of elk, deer, and moose, all of which have established trails leading across Lower Valley Road to the river. Placing a highway on the north side will greatly increase the conflict between vehicles and wildlife. Along this stretch of Lower Valley Road you will also find nesting areas for bald eagles and sandhill cranes.

When one discusses environment, they must also take into consideration the humans which will be affected by any changes. There are at least 15 residences which are accessed by this portion of Lower Valley Road. These people have chosen to live in a rural area either because their means of making a living is dependent upon it, or because they prefer a rural lifestyle. Placing a busy highway on the north side of the river would completely destroy the peace, security, and privacy the residents currently enjoy.

Next, I would like to address safety. Your report sites accident statistics which are above normal for 2-lane highways in Montana. Looking at these accidents, I am sure you will find they are either caused by excessive speed or alcohol, or a combination of the two. Widening and straightening a road will not cause drivers to slow down, nor will it cause them to stop drinking. Adequate enforcement of speed limits and discouraging truck traffic will effectively lower the accident rate.

Moving the highway onto Lower Valley Road will actually create additional safety problems. Due to the far greater number of homes along the back road, there are a number of school bus stops. The greatest enemy of school busses and children are trucks traveling at high speeds. The back road is also used as a route for ranchers to move cattle and agricultural equipment. Because ranchers have the use of Lower Valley Road, they can avoid using Highway 69 for such purposes. Lower Valley Road is also used for recreational purposes. People take relaxing walks; children ride their bicycles; residents take horseback rides; kids sled on it in the winter; and many a Boulder youth has taken their first driving lesson on this road. Construction of a busy highway, with fast moving vehicles and semi-trucks, will simply make this route unsuitable and very dangerous for all of these uses.

One must also consider the terrain over which these roads were built. Though there are some sharp curves along this stretch of Highway 69, it is essentially flat. Lower Valley Road, on the other hand, is both curvy and hilly. There are a large number of approaches along Lower Valley, many of them on curves and hills. Vehicles moving at highway speeds would make access extremely hazardous.

Next, I will address some economic concerns. Your report suggests that the base under the existing highway is not suitable for its use. However, it has held up to vehicle traffic for over 50 years without any significant maintenance. Additionally, it held up to freight train traffic for many years prior to that, as Highway 69 was in fact built upon an old railroad bed. The massive effort it would take to cross the river bottom twice and completely construct a new highway along the north side of the river, as well as construct two new bridges, would certainly require significantly more money than simply widening the existing roadway.

There will also be a major economic impact on the ranchers who depend on Lower Valley Road to efficiently and safely run their operations. New construction would destroy many acres of hay and grazing land. Further, the value of the homes along this road would no doubt be substantially affected by an intrusive state highway.

Finally, I would like to address the issue of the Red Bridge. This historic structure over the Boulder river was recently refurbished at a significant expenses to taxpayers. It would appear that your proposed route for the new highway will go right through this area. Do you intend to remove this historic and beloved symbol, or merely bypass it? Either way, it would be a huge waste of the fortune recently spent on the preservation of this bridge. I believe the media would have a field day with such a blatant waste of the taxpayer's money.

I hope the State realizes that the problems associated with moving Highway 69 far outweigh any potential benefits. Your careful consideration of this matter will be much appreciated. If you would like to further discuss any of these issues, please feel free to contact me at 406-225-3590.

MONTANA DEPARTMENT OF TRANSPORTATION
Comment Form

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Brud Smith Box 565
Boulder, MT 59632 Ph 225-4397

COMMENTS: See attached - Oppose Alternative on east side of river

Box 565, Boulder, MT 59632 Phone 225-4397

June 1, 2005

My name is Brad Smith. I am a fourth generation rancher living on the Lower Boulder Valley Road. Although the proposed alternative east of the river would not go through our property, I believe it would be very detrimental to ranching, wildlife and our rural community lifestyles and interests. I am opposed to the alternative route east of the river.

From 1983 until 2000 I daily drove the Lower Valley Road from east of Boulder down to the ranch, 10 miles south. A highway along that route down to the Elkhorn Bridge would wreck havoc with whitetail and mule deer and elk and the occasional bear and moose that come down from the Elkhorns to get to water and the river bottom. There isn't near the problem with Bull Mountain and wildlife on present highway 69 that there would be with rerouting. Fencing would only cut off important wildlife corridors.

A highway on the east side would also make it very difficult in moving cattle in the spring and fall to BLM & Forest permits many of which come home on their own in the fall along the Lower Valley Road.

The ranches with the highway right through them would be devastated and probably all the adjoining property which means subdivision, subdivision fragmentation and loss of an important tax base. A local study in 2000 showed that for every dollar Jefferson County received in taxes from subdivisions it cost the County $2.16 in local services. For open spaces and agriculture for every dollar received the County spent 29¢ for services.

If safety is the driving issue for the project then consideration should be done about the high speed

of the semis that use the route. Dust local rancher complaints have not been addressed. Widening the road might help pull over violators but building a 55 mph designed hilly highway with an unenforced 60 mph truck 70 mph cars, will only add to the safety problem not detract. I would recommend a speed study be done of the traffic on Highway 69. And why can't something be done short of legislation to get interstate trucks traffic to use the interstate. If the truck accident rate is as bad as your study shows then how is the trucking industry economically saving by speeding down Highway 69 and getting in wrecks. Maybe some safety projects in the July '95 DOT report should be considered first.

Now if the primary consideration is avoidance of environmental wetlands in reconstruction of the present route of 6.3 miles from 26.2 ft to 32 ft how do you justify opening up a brand new right of way through the same type of wetland to get to the Town Valley Road and then back to Highway 69 at the Elkhorn Bridge (Plus crossing the Boulder River twice) It would appear that there would be more environmental impact on opening new wetlands ~~area~~ in the alternative than simply widening in the present route with a highway already through it.

In conclusion I believe that consideration of the seven factors that determine whether there will not be significant impact on the environment will indeed trigger the necessity for an EIS not an EA if the alternative route is considered as an option in the upcoming proposed EA document. Thanks for listening. Good luck. Brad Smith

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Michael A. Hartwell
3361 Hwy 69
Boulder Mt. 59632

COMMENTS: I myself would prefer the alternative of a no build option, three things that I feel would make the accident chances safer would be;
(1) inforce speed limit
(2) put up guard rails where needed
(3) mark corners with signs + flashing lights where needed.

MONTANA DEPARTMENT OF TRANSPORTATION
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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: S. Mark Steketee
Box 516
Boulder MT 59632

COMMENTS: I am opposed to the alternative re-route for the following reasons
1. Impact on ranches
2. Impact on residents
3. Impact on wildlife
4. Without enforcement improvement the road will be more dangerous for us less dangerous for truckers.

S. Mark Steketee

MONTANA DEPARTMENT OF TRANSPORTATION
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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Sabrina Steketee
Box 566
Boulder, MT

COMMENTS: I am vehemently opposed to the alternate route. There is no advantage to the environment - there is detriment to our current and future economy and our way of life. Neither alternative addresses safety and enforcement concerns.

1184 Lower Valley Rd.
Boulder, MT. 59632
406-225-3992

6-1-05

To Whom It May Concern:

We are opposed to the idea of moving St. Rt. 69 from its presently traveled way.

There are other options that have not been considered, are less costly and keep those of us living here happy.

A very cost effective option would be to LOWER the speed limit & ENFORCE it.

This option would:

1) Reduce truck traffic & entice trucks to use Rt. 15 that is designed for them.
2) Reduce accidents along the road.
3) No additional impact to wetlands.
4) No additional safety issues. (school bus)
5) Reduce costs of "construction."
6) Maintain the financial impact of the existing road. (Hot Springs & businesses proposing to go in south of Boulder.)

I realize the sheriff's department is unable to enforce a speed limit; however, there are the new technology (cameras) that can enforce the reduced speed limit & cost much less than $16 to $17 million dollars.

Cathy Birtcher
Jon L Burton

e-mail jbirtcher@qwest.net

THE ELKHORN WORKING GROUP

C/O HELENA AREA RESOURCE OFFICE 930 CUSTER AVE. WEST
HELENA, MT 59620 (406) 495-3260

June 1, 2005 Public Meeting Highway 69

I am Bud Smith, local owner of a mechanic repair shop here in Boulder. I have lived in Boulder and Elkhorn all of my life.

I am representing the Elkhorn Working Group that has submitted a letter in opposition to the rerouting of Highway 69 to the east side of the Boulder River. The reasons are set forth in that letter sent May 18 of this year to Mr. Ebert.

Members of the Elkhorn Working Group are from the communities surrounding the Elkhorns. The group has fourteen voting members that includes ranchers, hunters, conservationists, recreational users, and community leaders such as a county commissioner and three more non-voting members from the FW&P, Forest Service, and BLM. It should be noted that recommendations to agencies such as in our May 18 letter are made through collaborative discussions and by consensus vote.

Our recommendation had such a consensus vote reached after reviewing DOT's Preliminary Field Report and discussing the issue at two of our meetings.

I am submitting a copy of the letter as part of the record. Thank you for your consideration.

Bud Smith

Bud Smith

Member Elkhorn Working Group

Jefferery M. Ebert, P.E., Butte District Administrator
Butte District Office
3751 Wynne Avenue
PO Box 36
Butte, MT 5702-3068

Dear Mr. Ebert: May 18, 2005

This letter is in response to the recent proposal by the Montana Department of Transportation to change Highway 69 south of Boulder to the opposite side of the Boulder River along what is presently Lower Valley Road. These are comments by the Elkhorn Working Group after review of the Preliminary Field Report prepared by the Department of Transportation and approved by Mr. Paul Perry on August 5th, 2004.

The Elkhorn Working Group (EWG) opposes the rerouting of Highway 69 along the course of the current Lower Valley Road for the following reasons:

***A direct increase to wildlife mortality.** Every day hundreds of different animal species cross the current low traffic county road to get from the feeding grounds in the foothills to their main water source, the Boulder River. The proposed highway would increase the occurrence of wildlife/ vehicular collisions.

*** A direct increase in livestock/vehicular interactions.** Domestic livestock reside on both sides of the Lower Valley Road. When large domestic animals are hit by vehicles, lawsuits often follow. A long drawn out lawsuit can be economically devastating for ranchers. This problem would increase with the highway change as more livestock reside along the Lower Valley Road than the present Highway 69 route.

***Increased automobile accidents resulting in injuries and deaths.** The two previous bullets demonstrate the increased number of domestic animals and wildlife colliding with vehicles. Therefore, traffic injuries and fatalities will increase for all travelers on Highway 69 with the proposed highway change.

The direct affects mentioned can ultimately lead to several harmful *indirect* affects including:

The loss of ranches to subdivisions. Ranches that are not economically viable have promoted the growth of subdivisions. Subdivisions in turn cause habitat fragmentation and loss of animal populations.

The Elkhorn Working Group was created several years ago to provide cooperation and coordination between, agencies, landowners and interested parties involved in the Elkhorn Mountains. The Elkhorn Working Group acknowledges that decisions regarding public lands often impact private landowners and that good stewardship of the land serves both private and public interest, benefiting both wildlife and livestock. It is in the interest of the State of Montana to preserve and maintain successful ranching operations that ultimately support local economies. The EWG is in opposition to the proposed highway project because it would drastically alter and negatively affect wildlife and ranching operations.

We urge the Montana Department of Transportation to abandon further consideration of the proposed alternative of Highway 69.

Thank you for your consideration,

The Elkhorn Working Group

Tom Williams

Brad Smith

Tomma E. Lythgoe

Sam Samson

C H Ruzicka

Darrell Baum

David J Brown

Denise Lengacher

[illegible]

David R Baum

Paul B Smith

Leah Compton

MONTANA DEPARTMENT OF TRANSPORTATION
Comment Form

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Please indicate your name, address and affiliation (if any) below. Thank you for your interest and comments on this project. Feel free to use the back and/or additional sheets of paper if necessary.

NAME AND ADDRESS: Bud Smith
Box 29 Boulder MT, 59632

COMMENTS: ON A personal note - My home is in the town of Elkhorn AND I drive this road (Shower Valley) Summer - winter - day AND night The AMOUNT of ANIMALS crossing this road is immense, To MAKE A road so as the speed limit would be increased from present 40 mph to 70 mph would be ~~detrimental~~ devastating to MAN AND BEAST.

Thanks for letting me Address this issue.

Bud Smith

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

get the trucks off of Highway 69
enforce a 50 mph speed limit for this project area
man the weigh station full-time

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

we won't let you destroy the Old Red Bridge!

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

bikepaths
pedestrian walkways
no trucks

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

Cultural & social impact to the Valley
Environmental issues
Safety when traffic increases (esp truck traffic)

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

Move trucks to I-15 would be the preferred alt (No Build)

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

Reduce speed limit

HKM

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   1 - alternate route
   2 - alternate route
   3 - alternate route

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

   I live here - I know every curve and hill of the property you are considering destroying.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

   Don't spend 17 million to fix a 2 problem. Build some pullouts + use the rest to staff patrolmen - you'd have enough to keep a patrolman on the road for 100 years!

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   I am concerned if use alternate route we will have 2 highways many Trucks & Tourists will use existing 69 making 2 Dangerous intersection

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

HKM

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   IMPACT of Proposed Alternate 69 on Farm Community & Wildlife
   Safety - Will the state do anything to slow down trucks on Hwy 6

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

   I drive 69 often. It's a beautiful road - Safety issues that arise when I drive this road are almost always because of semi trucks or wildlife on road

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

   Slow down the semi's.
   Enforce Speed limits
   Protect wildlife by creating wildlife corridors or underpasses.

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   1. SAFETY
   2. RANCHER CONCERNS
   3. TRUCK CONTROL

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

   NO

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

   1. CURVES
   2. ROAD WIDTH
   3. TRUCK CONTROL

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   SAFETY, PROTECTION of WETLANDS
   PRESERVATION of NATURAL BEAUTY

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** LOCAL BUSINESS, RETAIL & AGRICULTURAL
   THIS AREA is BECOMING MORE DEPENDENT on TOURISM and
   TOURISM is IMPACTED by the EXISTANCE of NATURAL BEAUTY
   AND the PRESERVATION of RURAL esthetic.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?** GREATER enforcement of SPEED limits,

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   1) Proposed re-route location, safety, loss of infrastructure
   2) Truck speed & increased traffic due to improved road
   3)

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   1) Fault line on Boulder River
   2) Bald Eagle habitat obstruction where alt. route crosses
   3) Recreational use of Valley Road.
   4) Noise pollution (traffic)
   5) Loss of scenic Hwy (existing route)

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   1) Photo-radar systems to reduce speed.
   2) Relocate the scales
   3) Design Hwy and Turnouts

HKM ENGINEERING

Boulder–South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   Disturbing wetlands, + the expense of "mitigation" compared to signage, patrolling, diverting trucks to I-15
   Disruption of agriculture + neighbors/community @ alt. rt —
   This is hard to "quantify" because of how economics measure

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** over

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

   No build alternative w/ ways to improve safety w/o change.

HKM ENGINEERING

things. For ex, from a "money" view, the "cost" of compensating farmers/ranchers could be relatively cheap (compared to wetlands mitigation, for ex). However, farming/ranching is marginal economically + ranchers could get discouraged + sell out + then we'd have many subdivisions + pop. growth — i.e. a community that needs the road you're building. Such a change is "calculated economically" as a plus. Yet it's a horror story for current residents + historical values.

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   ① Alternate route coming much closer to my home. I am opposed.
   ② Ruining a major game crossing & feeding ground.
   ③ Cost, paying with my tax dollars.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   The proposed new route will impact a major game crossing to bottom lands, that may qualify as wetlands, and cut those lands. The major impact will be to game feeding & crossing.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   Reduce speed limit & enforce with cameras.

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   Farm land between 22 + 23 mm

   High-way crossing Carey Ditch between 25 + 26 mm

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   Irrigation Ditch and center pivot next to road

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   - Agricultural impact
   - Safety concerns - don't want high speed traffic
   - Maintain rural character, including scenic areas
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   - Ban trucks
   - Lower speed limit
   - Enforce speed limit

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   1. GETTING THE TRUCKS BACK ON TO INTERSTATE 15, WHERE THEY BELONG!
   2. GETTING TRUCKS OFF OF HIGHWAY 69
   3. ENFORCE THE GOVERNED SPEED LIMIT 24/-
   4. MAIN THE WEIGHT STATION 24/-
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   YES - I HAVE LIVED IN THIS AREA ALL OF MY LIFE

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   BIKE PATHS + PEDESTRIAN WALKWAYS ALONG EXISTING ROADS - THAT'S IT - NO RE ROUTING ON TO BENCH

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
Ranch activity, Hunters, wildlife

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
I am in favor of No Build option

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
① Improvement of Hwy 69
② Possible relocation of road
③ Interest in conserving wetlands

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
wetlands & waters along current route would be better protected by relocating road to drylands east of river.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
none known

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   1- Cost of Relocation
   2- Fact - How Is Old Road To Still Be Maintained
   3- Impact To Landowners on Relocation

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** No

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

HKM ENGINEERING

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   1. Agriculture - Economic Survival of Farm Families
   2. Environmental - Endangering Wildlife, Food, Fish, Water Quality
   3. Why should they be negatively impacted to encourage traffic and international trucking.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** Area serves as an example of what makes Montana - Montana - Farm families wildlife - why should a major highway intrude on this - High speed trucks should use the high speed inter-state.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?** =

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. What top three issues spurred your interest in this meeting?

trucks routed on the highway to Butte
excessive speed.
Move cattle, etc - disrupt rancher & others, recreation, wildlife

2. Do you have personal knowledge about resources that may be impacted by this project? Please describe.

3. Are there specific improvements to transportation facilities in the corridor that should be considered?

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. What top three issues spurred your interest in this meeting?

landowner

2. Do you have personal knowledge about resources that may be impacted by this project? Please describe.

· river crossing

3. Are there specific improvements to transportation facilities in the corridor that should be considered?

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   - Bisecting Ranchlands, & disrupting agricultural movement on county road.
   - Ruining the Red Bridge swimming & recreation area.
   - Spread of weeds from highway traffic to nearby rangeland.
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

   Lifelong resident of the Boulder Valley.
   Degree in Range Management.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

   Permanent weigh station

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   - Impact on fellow ranches (which will be detrimental)
   - Increased traffic - negative - which will result
   - Difficulties resulting for all valley residents
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

   Lifelong resident of the Boulder Valley

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?** Lower speed limit
   weigh station that's OPEN

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
1) The Alternative route being discussed. happens to run through our property
2) are travel the "would be alternative" route every day with slow moving vechicles from the elk Horn bridge to the Red Bridge.
3) LAND taken away from ranchers.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
Many agricultural feilds will be devided
Wild life habaitat being taken away.
Historical sites being removed.
You would also have more cattle on the Alternative route slowing down traffic

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
widring existing route or leaving it the same way.

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** Lots of Ranches cut in Half and Loss of Land

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
Guard rails, Signs on corners, inforce speed limit

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   Changing the Present Road
   Constructing a new Route
   Safty on Hyway 69
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   New Road would be in more of an impact zone
   Pertaining to animals
3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   Control the Traffic on 69

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   The opposition of the alternative highway
   MDT's views on road options (sincerity!)
   Community input
2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.** Yes. The resource would be hay and pasture ground completely to be split up by the proposed alternative highway. It would eliminate water sources for a majority of pasture ground
3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   The alternative route is also in floodplain area.

HKM

Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   I own land for 3+ miles of 69
   own land @ Elkhorn turn off. major impact on ranching business
   Safety issues related to improved roadway

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   Ranch access

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   Fences
   underpasses for livestock

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   - The alternate route through the valley - which I oppose
   - The potential of having a highway through this valley.
   - Concern for ranchers & their life style

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   - Boulder Hot Springs would no longer be right off a secondary road - this would negatively affect business.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   - Truck traffic + monitoring of speed, weight etc.
   - bike + pedestrian paths
   - provide safety for wildlife

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   Social
   wildlife impacts
   personal

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   Yes, I live near the red bridge or drive hwy 69 4 days/week to Whitehall.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   lower the speed limit from Elkhorn turnoff to Boulder. Utilize technology to minimize impacts to wetlands or maintain the existing corridor. Maintain the beauty of the current highway.

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
   Building a new road when the existing road is more than adequate
   Concerned for the effects a new road would have on the aesthetic experience of driving on Highway 69 + on the property owners.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
   Property values on some personal property.
   Splitting ranch property

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
   Enact + enforce a 55 mph speed limit + open the weigh station

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
- Impact on property I own Along Alternative Route.
- Decrease in my property Value Along Alternative Route.
- impact on rural lifestyle of the Boulder Valley as more high speed Traffic uses the new road.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**
- Because I own land along the Alternative Route the income I generate off that property will be affect if That Route is Chosen.

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**
- lower Speed limits
- weigh Station
- greater enforcement of weight limits And Speed limits.

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**
Concern That road improvement will attract increased Traffic. Especially large Trucks
Concern about impact of new road right-of-way on existing land owners.

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?** The single biggest improvement would be To lower The speed limit To 55 and Then enforce it.

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Boulder-South

Public Scoping Meeting
June 1, 2005

1. **What top three issues spurred your interest in this meeting?**

   Public Safety
   wildlife
   Public Welfare

2. **Do you have personal knowledge about resources that may be impacted by this project? Please describe.**

3. **Are there specific improvements to transportation facilities in the corridor that should be considered?**

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Appendix D

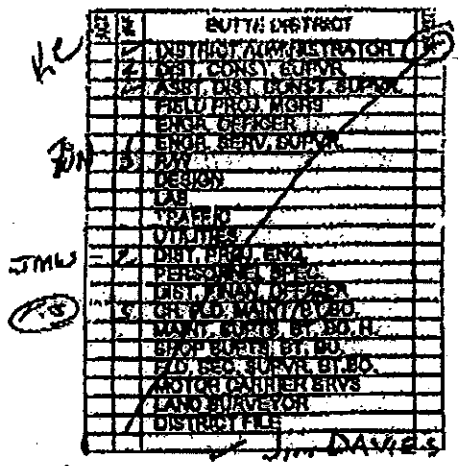
Letters from
Jefferson County Commission and
Jefferson County Planning Board

Jefferson County Commission

Courthouse, P.O. Box H
Boulder, Montana 59632-0249
Telephone 406-225-4025
Fax 406-225-4148

Tom Lythgoe, Chair Chuck Notbohm, Commissioner Ken Weber, Commissioner

July 6, 2005



Jeff Ebert, District Administrator
Montana Department of Transportation
PO Box 3068
Butte, MT 59701

Dear Jeff,

The Jefferson County Commission would like to comment on the upcoming Highway 69 project. The scoping meeting held in Boulder on June 1st was very informative, and we would like to thank the Transportation Department for the time and answers given to our constituents. That public meeting was very informative not only from the Transportation Department stand point, but also from the area resident's view point. This Commission has some concerns over the fact that the Transportation Department might propose asking the county to take over the maintenance of Highway 69 between the Red Bridge and the Elkhorn turn off. This being a paved road with definite safety and quality concerns makes the Commission leary of taking over the maintenance of this section of road. We see a need to address the needs of this highway, and applaud the Transportation Department's efforts to address these concerns, especially from a safety perspective.

Please let the record show that due to our resident's concerns, the safety concerns, and the budget concerns, the Jefferson County Commission would ask the Montana Department of Transportation to rebuild Highway 69 in the present location, and not move it to the proposed alternative location.

Thank you for the opportunity to submit our comments on this project.

Sincerely,

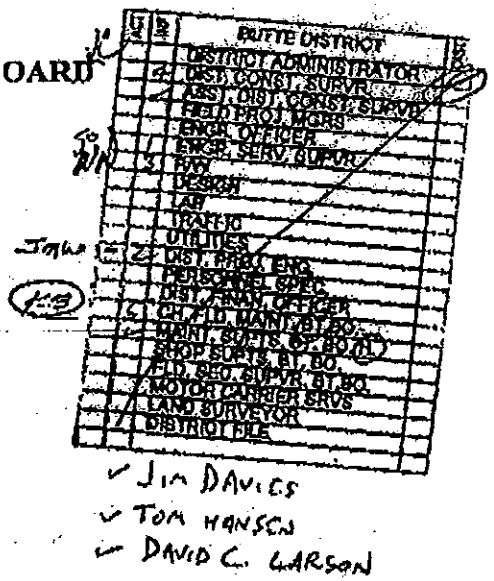
Tomas E. Lythgoe, Chair
Jefferson County Board of Commissioners

Chuck Notbohm

Ken Weber

COM/ha

JEFFERSON COUNTY PLANNING BOARD
COURTHOUSE, P.O. BOX H
BOULDER, MONTANA 59632



July 14, 2005

Jeff Ebert, District Engineer
Montana Department of Transportation
P.O. Box 3068
Butte, MT 59702-3068

Dear Mr. Ebert:

The Jefferson County Planning Board has reviewed your tentative proposal concerning upgrading Highway 69 south of Boulder to approximately mile post 22.

We realize that plans are in the beginning stage and that a full range of alternatives has not been developed. However, one of the tentative alternatives proposes to construct a portion of the highway east of the Boulder River to approximately the Elkhorn turn off.

The Jefferson County Planning Board is opposed to the proposal as we believe it would violate a number of our goals and objectives set forth in Jefferson County's Growth Policy, adopted June 18, 2003.

Specifically, the Right to Farm and Ranch Policy, Resolution 31-2002, is intended in part to:

- Conserve, enhance, and encourage ranch, farming and all manner of agriculture activities and operations within and throughout Jefferson County where appropriate.

- Minimize potential conflicts between agriculture and non-agricultural uses of the land in Jefferson County (Growth Policy, Pg.37).

We believe adding a new section of highway as proposed, maintain the old highway as a county road and obliterating the present dirt county road east of the river would be very detrimental to ranching activities in the Boulder Valley and would ultimately result in loss of agricultural land and congest subdivisions in the area harmful to agriculture, wildlife, and the rural character of the area.

Such construction in this narrow strip of valley would also violate other goals of the Growth Policy to protect and maintain Jefferson County rural character and the community's historic relationship with natural resource development, and to preserve and enhance the rural, friendly, and independent lifestyle currently enjoyed by Jefferson County residents.

We are looking forward to working with you in the future on the project and reviewing all alternatives once you deliver them.

Sincerely,

Gerry Keogh

Gerry Keogh, Chairman
Jefferson County Planning Board

CC: Jim Lynch, Director MDOT
Jefferson County Commission

Appendix E

Newspaper Articles Regarding
the June 1, 2005 Public Meeting

IR Monday, May 30, 2011

Highway 69 alternate route faces opposition

Proposed safety changes criticized for effect they would have on ranchers

By MARCA LINCOLN
IR staff writer

A Montana Department of Transportation plan to rebuild a scenic but high-accident stretch of Highway 69 south of Boulder is running into mounting opposition from ranchers and rural residents.

MDT will hold a meeting Wednesday, June 1, at 6:30 p.m. in the Jefferson High School cafeteria to present two proposed alternatives for rebuilding the road and to hear public comment.

One proposal would widen the existing road, adding shoulders and straightening some curves between mile post 32 and 38, according to Jeff Ebert, Butte district engineer for MDT.

The other moves the highway across the Boulder River at the Elkhorn turn-off and runs it along what is now Lower Valley Road, a county gravel road.

MDT wants to build or rebuild this highway section because it's "in dire need of repair and to bring it up to modern standards so people can travel safer," Ebert said.

It is considering relocating a portion of the roadbed because of adjacent wetlands and rocky cliffs along the current roadway.

Ranchers feel threatened

"People definitely want to improve the safety," said Terry Mingow, who ranches with her husband, Brad Smith. "They just think this is the wrong way to do it."

More HIGHWAY, page 7A

Highway: Some say safety will be worse

continued from 1A

Relocating the highway is particularly drawing fire.

Minow and about 30 neighbors met in the past few days to discuss the project.

"Everybody opposes the rerouting," said Minow. "Most people want some improvements to the highway, but they're very concerned that the improvements protect their land and rural lifestyle and that it improve safety, not make it worse.

"People are concerned it will increase the amount of high-speed traffic and make it less safe," she said.

"Their proposed change would have a drastic effect on me and other people. My ranching operation will take a pretty big hit," said one neighbor, rancher Ed McCauley. Generations of his family have ranched in that area since the 1860s.

"If they move it over here then I don't have a safe route," he said. "I move cattle and hay and equipment up and down this road all the time."

It would affect six to eight ranching families using the roadway, he said.

People use Lower Valley Road not only for ranch operations, said Minow, but also for scenic drives, school bus routes, horseback riding, biking, jogging and walking. It's where they teach their kids to drive.

Also at issue is the historic "red bridge" that residents have rallied to save in the past along the relocation alternative's route. It's a favorite local swimming hole and fishing spot. Minow said she thinks the plans threaten the bridge; Ebert said a parallel bridge may be built.

The Elkhorn Working Group went on record with a May 18 letter of opposition to the proposed route change.

The group, which was formed to promote land stewardship and local economies, asks MDT "to abandon further consideration of the proposed alternative of Highway 69."

The proposed change would increase the number of collisions between cars and both livestock and wildlife, the letter states, because the Boulder River is a main water source.

The proposal could create other unintended effects, according to the letter.

"If ranches are not economically viable then the trend is to create subdivisions. Subdivisions in turn cause habitat fragmentation and the loss of animal populations," it states,

IR photo by **Marga Lincoln**

Highway 69 has little to no shoulder, creating safety hazards. This also makes it difficult for law enforcement officers to pull over speeding vehicles.

The project and issues

The total project encompasses about 15 miles, between mile posts 22 and 37.

MDT reports that 106 accidents have been recorded along that stretch of road from Jan. 1, 1994, to Dec. 31, 2003.

Daily traffic volumes are 1,500 to 1,600 per day, with 17 percent of this trucks, according to Ebert.

Accident severity in this section rates 30 percent greater than the statewide average for the state's rural highway system, according to an MDT field report.

And the truck crash severity rate is 70 percent greater than the statewide average for state rural primary highway systems.

MDT faults the outdated and substandard road design for a series of accident clusters.

About seven miles of road would be widening the existing road. The remaining eight miles would be either on the existing roadbed or relocated.

The cost is estimated at $16 million to $17 million for either proposal.

Money still has to be allocated for the project, said Ebert. It is at its very beginning stages. The earliest that construction could start would be 2008.

The issue of speed

However, for some, the speed limit presents a bigger safety issue than the road design.

The road's speed limit, set by the Legislature, is 70 mph for cars and 60 for trucks.

However, there is little police enforcement and trucks consistently exceed the posted speed and barrel past vehicles even in nonpassing zones, said rancher Randy Kirk.

Enforcement could conceivably improve with the addition of road shoulders, so the highway patrol would have some place to pull over trucks, said Ebert.

Preferred by trucks

Residents would like semis to use Interstate 15, which was built for that purpose, said Kirk.

MDT can't close Highway 69 to trucks, Ebert said, because it is a primary highway eligible for federal funding. Such highways must be open to trucks.

Highway 69 has become a preferred route for trucks, particularly those heading to Dillon, Idaho, Utah and Las Vegas, said Ebert.

"You don't have to cross the Continental Divide three different times, like you do on the Interstate," he explained. "It's got a flatter grade.

Although there's no permanent weigh station on Highway 69, another reason truckers like it, there is a temporary one that's used on occasion. This would be improved as part of the rebuild project.

Voicing concerns

"We want to get people out," said Ebert. "We're very open to hearing their concerns, comments and questions."

Wdnesday's meeting will include a description of the project, a presentation of environmental concerns, and will be open for public comment. Individuals can talk with staff after the meeting about the project's impact on their property.

Neighbors
MONTANA CITY • TOWNSEND • JEFFERSON CITY • CLANCY

C-17-05

Hwy. 69 project largely opposed

None of the 120 who attend MDT meeting supports plan to relocate the highway

By MARGA LINCOLN
IR Staff Writer

Many Boulder Valley citizens would like to just say no to the state's reconstruction plans for Highway 69 south of Boulder.

They prefer their rural and scenic highway just the way it is, even though it has a high accident rate.

A standing-room-only crowd of about 120 showed up for a June Montana Department of Transportation public meeting in Boulder to voice their concerns and hear about MDT's proposed plans for safety improvements.

One option would widen the road, add shoulders, and straighten some of the curves between mileposts 22 and 37.

The other alternative moves the highway across the Boulder River at the Elkhorn turn-off and runs it along Lower Valley Road, a county gravel road.

This option is an attempt to address environmental impacts that could arise from widening the existing Highway 69. It runs close to the Boulder River and is bordered at times by either steep rock cliffs or wetlands.

Both alternatives are meant to address highway safety problems.

Accident severity along this designated stretch of highway is 30 percent greater than the statewide average for the state's rural highway system, according to a recent MDT field report.

No citizens at the meeting favored relocating the highway.

A number of citizens prefer doing nothing with the roadway.

They asked instead for a lower speed limit and diverting semi-trucks to the nearby Interstate highway.

"People were very passionate about their beliefs and wanting to keep this valley in a rural ranching type of environment," said Jeff Ebert, MDT Butte district engineer.

They'd like it to remain very much like it was 100 years ago when ranchers first settled in the area, he said.

He believes that safety improvements can be made to the road, while still maintaining the rural character of the valley.

"A lot of the testimony focused on things that could be done right away," such as putting in a speed zone and increasing enforcement, said local resident Terry Minow.

"People were concerned about the speed of the traffic and the amount of truck traffic on Highway 69," she said.

Minow, a member of a newly formed group Boulder Valley Neighbors, said they are developing their own proposed safety alternatives which they'll submit to MDT.

"If you make the road wider and take out the curves, you will actually make it less safe," she said, because there will be more high-speed traffic.

More **HIGHWAY**, *page 2E*

Highway: EA should take 12-18 months

continued from 1E

Moving the highway would negatively impact the rural lifestyle of the area, she said.

"Highway 69 is a gorgeous road, especially through the canyon," Minow said. "The trees and foliage in the fall are spectacular. I don't want to see the trees and vegetation stripped out of the area in order to make the road a big wide expanse of pavement."

Former county commissioner Sam Sampson testified that the county, years ago, asked for a lower speed limit, better enforcement of speed limits, and the construction of a permanent weigh station for trucks. None of these requests have been done, he said.

The highway has become a preferred route for trucks heading to Dillon, Idaho and Utah because it has a flatter grade and does not cross the Continental Divide three times, like the Interstate does.

It's widely believed the trucks also use the route to avoid weigh stations.

MDT can't keep trucks off the highway, Ebert said, because it's a state primary highway eligible for federal dollars.

There are also problems with beefing up law enforcement, he said. At this time, the lack of shoulders makes it difficult for officers to pull over speeders.

MDT will continue to accept public comment until July 15 on this stage of the project, said Ebert.

All of the comment becomes part of the public record for the environmental assessment, which should be completed over the next 12 to 18 months.

When a draft of it is available, another public meeting will be held to take additional public comment.

When the draft environmental assessment is released it will recommend one of three things Ebert said:

- A finding that the recommended alternative (whatever it is) will cause no significant environmental impact;
- A recommendation that the preferred alternative requires a full environmental impact statement report; or
- A "no build" recommendation, which leaves the road as it is.

Ebert said he cannot recall any recent studies recommending a "no build" option.

Appendix F

Agency Correspondence

Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • www.deq.mt.gov

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

Dear Mr. Martin:

The Department of Environmental Quality's (DEQ) will be a cooperating agency with the Montana Department of Transportation's (MDT) in its environmental assessment (EA) of the proposed Boulder-South project on State Primary Route 69, south of Boulder, MT, in Jefferson County.

The DEQ reviewed the information received from MDT on May 8, 2008. Due to the substantial wetland/water quality values impacted by the existing highway, the department had the following concerns:

- There are several TMDL (Total Maximum Daily Load) water quality impaired streams in the adjacent project area. MDT has accurately listed the two upstream TMDL segments (Little Boulder River, and the Boulder River from Basin to the town of Boulder) as water quality impaired from highway construction (among several causes). In addition, the Boulder River from the town of Boulder to Cottonwood Creek (within the proposed highway project) is water quality impaired (TMDL impaired list), with wetland/habitat alteration impairments as major causes (also metals, sediment and flow alteration). The lowest Boulder River segment (from Cottonwood Creek to the Jefferson River) is also impaired from wetland/riparian alteration from highways. Both of these segments should be included in the project scoping data and in the project goals/constraints considerations.

- In 2006, DEQ described the stream channel conditions in the highway project area as:

1 – Biology: Severe impairment indicated by fish population numbers relative to numbers upstream of Basin (<25% of reference);
2 – Habitat: Moderately impaired, based on 64% DEQ assessment score, partial dewatering;
3 – Chemistry: Severe impairment due to silver, copper, lead, iron and zinc aquatic life standard exceedences in > 10% of data set, and elevated temperatures;
4 - Agriculture: High metals concentrations may discourage use for livestock watering;
5 - Drinking Water: Lead and silver human health standard exceedences; and
6 - Primary Contact (recreation): Dewatering discourages use for recreation.

In summary, the middle Boulder River is a highly degraded stream segment that needs substantial habitat and stream restoration work to meet water quality standards.

- Wetland/Water Quality Restoration - There are substantial physical constrictions (including river channel meander blockages) which the current highway alignment has imposed on the historic channel morphology (since the highway pushes through several wetlands and forces itself between the river and nearby rock cliffs). The proposed project design alternatives should include significant channel restoration work and wetland mitigation (including highway and/or stream channel relocation to mitigate the current highway's design and location which is a substantial contributor to the Boulder River's impairment..

- The project area is rife with wetlands and sensitive fish habitat. Staff with the Department of Fish, Wildlife and Parks would have much better fisheries and aquatic organism information (and would be important technical participants in the project design/restoration work).

- Highway Relocation - The majority of the existing highway alignment appears to not meet current safety standards and to have antiquated low-visibility narrow roadways. DEQ suggests consideration of a substantive relocation of the highway right-of-way onto the wide gentle grassy north-bank hill slopes, which are mostly beyond the Boulder River flood plain and riparian zone. This highway relocation probably would include a north side right-of-way combining Highway 69 with the existing upland county road (i.e. changing/improving the highway between ~MP31.1 to MP 35). This relocation would allow MDT to restore almost all of the existing highway-degraded wetlands, and would significantly reduce future road maintenance expenses and winter-time sanding/plowing operations. The county road folks should be consulted to develop relative highway maintenance conditions and costs for this type of relocation.

- In general, best management practices (BMPs) should include no direct discharge of stormwater from bridge surface or approaching road surfaces or drainage ways.

Additionally, steps should be taken to ensure that sand or other friction materials is prevented from entering adjacent state waters from the road surface. BMPs could include retention facilities (dry or wet ponds), vegetated swales, check dams within vegetated swales, and on-going maintenance (e.g. removal of accumulated sediment) from retention facilities and vegetated swales.

Thank you for the opportunity to comment.

Sincerely,

Tom Ellerhoff
Science Program Manager

cc: J. Ryan
M. Kelley
R. Ray

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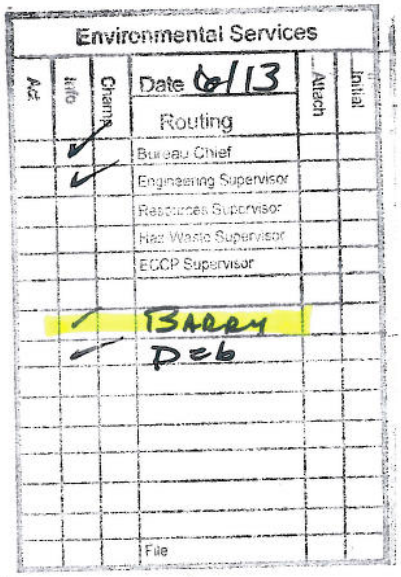
JUN 13 2008
ENVIRONMENTAL

United States Department of the Interior

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
585 SHEPARD WAY
HELENA, MONTANA 59601
PHONE (406) 449-5225, FAX (406) 449-5339



M.44 MDT (I)

June 11

Tom Martin
Montana Department of Transportation
Environmental Services
2701 Prospect Avenue
PO Box 201001
Helena, Montana 59620-1001

Dear Mr. Martin:

This is in response to your letter dated May 7, 2008 in reference to Montana Department of Transportation's initiation of an Environmental Assessment (EA) for the proposed Boulder - South project (STPP 69-1(9)22; Control No. 2019) on State Primary Route 69 in Jefferson County, Montana. This proposed project would improve approximately 6.3 miles of Highway 69 just south of the town of Boulder. Your letter requested that the US Fish and Wildlife Service (Service) be a cooperating agency in the preparation of the EA. Your letter also requested information from the Service regarding threatened or endangered species in the vicinity of the proposed project area, or any information relative to Service lands adjacent to this area. The Service's Montana Field Office received your letter on May 12, 2008.

As correctly identified in your letter, the only federally-listed threatened or endangered species that may occur in the vicinity of the project area is the threatened Ute ladies'-tresses orchid (*Spiranthes diluvialis*). No species that have been proposed for listing or that are candidates for listing under the Act are likely to be present in the project area. No critical habitat has been designated for any listed species within the project area. If it is determined that the proposed project "is likely to adversely affect" any listed species, formal consultation should be initiated with this office. If it is concluded that the project "is not likely to adversely affect" listed species, the Service should be asked to review the assessment and concur with the determination of no adverse effect.

The Service agrees to be a cooperating agency for this project. As such, we will review and respond to documents required for compliance with the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.), and other applicable laws.

We are not aware of any Service-owned or administered lands that may occur near, or be impacted by, the proposed project subject to Section 4(f) of the 1966 Department of Transportation Act (49 U.S.C. 303).

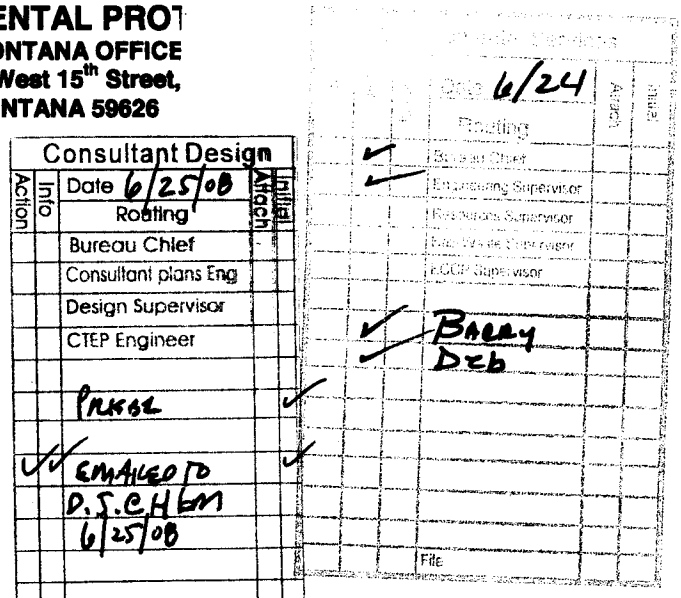
Given its location, it seems likely that construction activities associated with this proposed project could impact wetlands or other waters of the United States. If so, a Section 404 permit may be required from the Corps of Engineers (Corps). In that event, depending on permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps as may appear reasonable based on the information available at that time.

We look forward to working with you on this project. If you have questions regarding this letter, please contact Scott Jackson at the address above or by phone at (406) 449-5225, extension 201.

Sincerely,

for R. Mark Wilson
Field Supervisor

UNITED STATES ENVIRONMENTAL PRO
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 10 West 15th Street,
HELENA, MONTANA 59626



Ref: 8MO

June 19, 2008

Mr. Tom Martin, P.E.
Environmental Services Bureau Chief
Montana Dept. of Transportation
2701 Prospect Avenue, P.O. Box 202001
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 received your invitation to become a cooperating or participating agency on the above referenced Boulder – South highway project on Montana Primary Route 69, in Jefferson County, south of Boulder, Montana.

The EPA is interested in providing meaningful input on environmental issues of concern for this project, and in reviewing the draft EA. We are particularly interested in helping to ensure protection of water quality, wetlands and riparian areas, fisheries, and wildlife. The Agency, however, has resource limitations and other program commitments which will have to limit the degree and extent of EPA's participation in the EA preparation process. These resource constraints and other program commitments make it difficult for me to agree to full fledged participation as a cooperating agency during the preparation of the EA (see 40 CFR 1501.6(c)).

The EPA will agree, however, to be involved in the EA process as a participating agency, and expects to participate in project review to the extent that our resources, other program commitments, and schedules allow. Mr. Stephen Potts of my staff will provide EPA input for this project, including review the draft EA, in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. At this time Mr. Potts is planning to attend the July 30, 2008 meeting scheduled at MDT's Helena Offices for interagency discussion of this project.

If you have any questions please contact Mr. Stephen Potts 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.

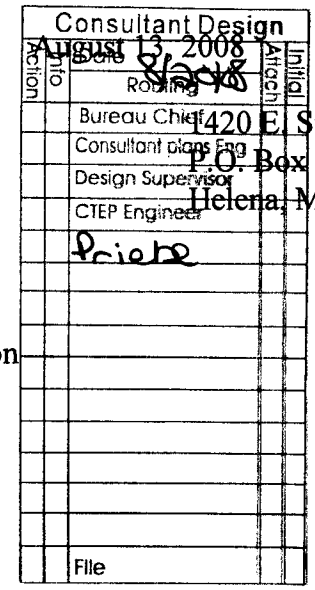
Sincerely,

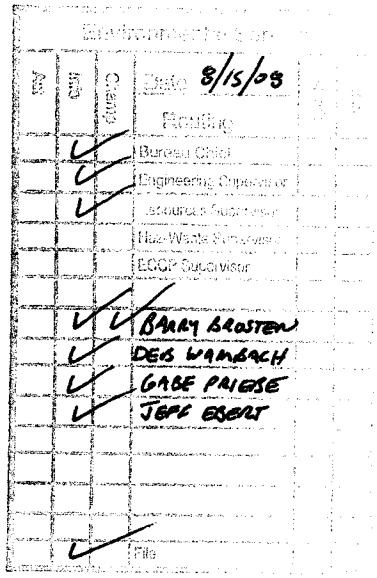
for John F. Wardell
Director
Montana Office

cc: Larry Svoboda/Julia Johnson, EPA, 8EPA-N, Denver
Jeff Ryan, MDEQ, Helena

Montana Fish, Wildlife & Parks

1420 E. Sixth Avenue
P.O. Box 200701
Helena, Montana 59620-0701





August 13, 2008

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

Dear Mr. Martin:

Thank you for the opportunity to attend the July 30, 2008, meeting regarding Montana Department of Transportation's (MDT) Alternatives Analysis (AA) for the Boulder-South project. It is encouraging that MDT is initiating efforts to seek input from cooperating and regulatory agencies earlier in planning, NEPA and MEPA processes. Your introductory remarks that you were attempting to "break the old paradigm" of developing a preferred plan with little or no involvement or input from other agencies sounded promising. However, is was discouraging thereafter to hear that MDT has prepared a document (the AA) that basically identifies a preferred plan, again without prior agency involvement in the alternatives formulation or review process. It is a step forward that MDT agreed to include a reference to environmental and social concerns within the project purpose and need statement and add an objectives section to the environmental document. It appears that the "paradigm", however, is not and will not be broken until MDT initiates a program that seeks and involves active participation from other agencies prior to identification, evaluation and selection of alternatives.

Fish, Wildlife and Parks (FWP) does not concur at this time that an alternative alignment or other means of improving safety or reducing hazards to the public do not exist beyond that presented in the AA. There are likely other viable alternatives that would result in less damage to aquatic and riparian resources than the identified preferred plan, while minimizing hazards and improving safety. Some potentially viable alternatives were identified by the agencies present at the meeting.

We remain encouraged by MDT's intent to seek early coordination and agency input. We believe that with early agency involvement, a preferred plan can be developed that protects and/or enhances aquatic and associated riparian resources as well as improves safety for the general public and at the same time meet regulatory requirement.

Thank you again for the opportunity to discuss the AA. We look forward to coordinating with MDT on the Boulder-South project and improve general communication and cooperation between our agencies.

If you have any questions on these comments, please contact me at 444-3175.

Sincerely,

dougmcdonald

Doug McDonald
Stream Protection Coordinator
Habitat Protection Bureau/Fisheries

Copy: FWP Region 3 – Ron Spoon/Tom Carlsen
DEQ – Jeff Ryan/Mark Kelley
FHWA – Carl James
EPA – Steve Potts
USFWS – Scott Jackson
USACE – Deborah Blank

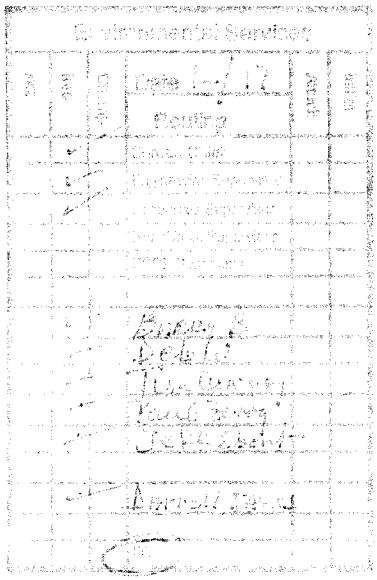
From: McDonald, Doug [mailto:dmcdonald@mt.gov]
Sent: Monday, October 06, 2008 3:35 PM
To: MDT Comments - Boulder EA
Cc: James, Darryl; 'mt.gov'; 'Allan.E.Steinle@usace.army.mil'; 'Potts.Steven@epamail.epa.gov'; 'scott_jackson@fws.gov'
Subject: Comment on Boulder South EA

Hello Darryl - a comment on the Boulder South project - after a site visit i believe there are notably less wetland impacts associated with the alternative alignment than stated in the EA; there are virtually no wetlands located on the south end of the alternative route that would be impacted and very few acres of Category II-IV wetlands at the upper end; the potential wetland impacts associated with the alternative route should be in the 3-4 acre category rather than the 30 or so as stated; the EA should also note that the alternative along the existing route could also result in the loss of several thousand trees/shrubs that now border the route and secondary impacts to improving the existing road could result in additional adverse impacts to wetlands and aquatic resources via modification of existing hydrology. Thankx Darryl !

Montana Department of
ENVIRONMENTAL QUALITY

P.O. Box 200901 • Helena, MT 59620-0901 •

Brian Schweitzer, Governor



December 16, 2008

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

Dear Mr. Martin:

The Department of Environmental Quality (DEQ) appreciates being a cooperating agency with the Montana Department of Transportation (MDT) in its environmental assessment (EA) of the proposed Boulder-South Highway Project, located south of Boulder, MT, in Jefferson County. This letter is in response to letters Judy Hanson, DEQ Permitting and Compliance Division Administrator received October 23, 2008, relative to MDT requesting DEQ to review the project Alternatives Analysis (AA), and a November 12, 2008 MDT request for DEQ to review the project's Draft Biological Resources Report (BRR).

DEQ's review of the BRR concludes it is a reasonably thorough analysis of the biological resources and impacts associated with reconstruction of only the roadway along the existing highway alignment; however, that leads to DEQ's principle concern with this AA.

The AA concludes, and as stated in the previous MDT October 23, 2008, correspondence to Judy Hanson:

> "Through that analysis, it was determined that the relatively small differences in impacts coupled with substantial differences in cumulative effects, right-of-way acquisition, maintenance requirements, and cost did not warrant further exploration of the proposed alternate alignment in the corridor, and that reconstruction/rehabilitation of the existing alignment should be carried forward in the NEPA process."

DEQ does not support this office level environmental inventory, these preliminary route comparison metrics, or the proposed route conclusions from this exercise. Recent, multi-

agency site visits, by DEQ, Montana Department of Fish, Wildlife and Parks (FWP), and the Army Corps of Engineers, of both AA alignments have resulted in virtual unanimous agency consensus, that at a minimum, the potential environmental impacts associated with both alignments are not "relatively small differences." The other factors in the alternatives analysis, such as cost, maintenance, and right-of-way acquisition, may also be open to question and appear to notably tilt towards the reconstruction/rehabilitation of the existing alignment alternative.

Having stated that, DEQ wants to make it perfectly clear that it is not supporting or promoting selection of either alternative. DEQ is suggesting the current alternatives analysis needs to be revisited. Since the current review process/analysis is serving as a pilot project of SAFETEA-LU, and has been noted as an opportunity to suggest alternatives analysis methodologies, DEQ is asking MDT to consider a different approach based in MDT's Planning Division's routing analysis processes.

Recent meetings at MDT sponsored by the MDT Planning Division with DEQ and multiple agencies, on the Sidney Bypass Study, and prior to that, the Great Falls South Arterial Study supported a very productive early resource agency assessment and input method. The process used on these two projects appears to negate many potential biases in alternatives analysis. In particular, the application of the new Quantum software system by MDT's Planning Division to evaluate alternative routes would seem highly suited for the Boulder-South Project routing alternatives analysis.

DEQ believes, if MDT /Federal Highway Administration and the resource agencies are truly interested in moving beyond the old "paradigm" of premature transportation project decisions followed by ongoing project revisions/conflicts in response to permitting concerns, we strongly need to consider a change in direction for the Boulder South Project to use this more productive route analysis approach. Again, thank you for the opportunity be a cooperating agency for this project's environmental review. DEQ looks forward to discussing the issues raised in this letter and other pertinent issues at the up-coming December 17, 2008, meeting at MDT.

Sincerely,

Tom Ellerhoff
Science Program Manager

cc: J. Ryan
M. Kelley
R. Ray
J. Hanson
J. Chambers
D. McDonald, FWP
S. Potts, EPA

A. Steinle, COE
S. Jackson, USFWS

-----Original Message-----
From: Blank, Deborah L NWO [mailto:Deborah.L.Blank@usace.army.mil]
Sent: Wednesday, December 17, 2008 4:28 PM
To: Nicolai, Sarah; scott_jackson@fws.gov; tlythgoe@jeffco.mt.gov; djudge@fs.fed.us; Carlsen, Tom; Carlsen, Tom; McDonald, Doug; Spoon, Ron; Kelley, Mark; Ryan, Jeff; Kelly_Acree@blm.gov; Mike_Wyatt@blm.gov; potts.stephen@epa.gov
Cc: Priebe, Gabe; Brosten, Barry; Bruner, Heidy; Martin, Tom; Wambach, Deborah; Djames@gallatinpublicaffairs.com
Subject: RE: Boulder - South Environmental Assessment - Second Agency Coordination Meeting; MDT Control Number 2019

I am sorry I was not able to make the meeting this morning. I would like a copy of the meeting notes. I heard there was a response requested from the Agencies by December 19, but I am not finding where that request is and what it was for?

As a reminder, as you go forward on this project, the CWA 404 (b)(1) analysis must determine the least damaging practicable alternative based on cost, logistics and technology. The road on the other side of the river and improving HWY 399 to Whitehall appear to be less damaging to Waters of the US, so they, as a minimum, need to be analyzed under the 404(b)(1) alternatives analysis (more specific than an EA level analysis) according to cost, logistics and technology.

Thank you,

Deborah Blank
Helena Regulatory Office
10 West 15th Street, Suite 2200
Helena, MT 59620
(406)441-1375
(406)441-1380 (fax)
Helena Regulatory Web Site
https://www.nwo.usace.army.mil/html/od-rmt/mthome.htm

12/22

UNITED STA ECTION AGENCY

FED Suite 3200

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✓ Barry
Deb
Tim Conway
Paul Ferry
Jeff Ebert
Darrel James
File

Consultant Design

Info Action	Routing	Date 12/23/08	Attach	Initial
	Bureau Chief			
	Consultant plans engr			
	Design Supervisor			
	CTEP Engineer			
	Priebe			
	File			

Ref: 8MO

December 18, 2008

Mr. Tom Martin, P.E.
Environmental Services Bureau Chief
Montana Dept. of Transportation
2701 Prospect Avenue, P.O. Box 202001
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 reviewed a copy of the Draft Biological Resources Report (BRR) for the above referenced Boulder–South highway improvement project on Montana Primary Route 69, in Jefferson County, south of Boulder, Montana. We are enclosing some preliminary comments (see comments enclosed). We are also sharing some perspectives regarding this project based on our review of the draft BRR, Alternatives Analysis (dated September 2006), and correspondence received on the project.

EPA supports efforts of the Montana Dept. of Transportation (MDT) to improve safety for travelers on Montana Highway 69, although we also believe it is important to mitigate adverse environmental effects and address public concerns as much as possible. We are concerned about potential adverse impacts that could occur to the Boulder River and wetlands and other sensitive aquatic and terrestrial habitats that are in close proximity to the existing road. Road reconstruction, widening, straightening, and other improvements have potential to result in significant adverse effects to the river, wetlands, and other sensitive habitats depending on the extent of road widening or straightening that may be proposed.

Review of the public meeting transcripts and comments that are included in the appendices of the Alternatives Analysis Report (AA, dated September 2006) show that many members of the public in the project area questioned the need for the project, and/or thought only minor improvements needed to be made to the highway. For example, among the public comments shown in the AA appendices were:

-"I am in favor of no build option"

-"don't spend $17 million for a $2 problem-build pullouts for highway patrolman"

- "guard rails, signs on corners, enforce speed limits"

- "concerned about building a new road when the existing road is more than adequate"

- "no build alternative w/ways to improve safety w/o change"

- "open weigh station"

Many public comments identified concerns about high speeds and commercial truck traffic. For example,

-"safety issues are almost always because of trucks and wildlife on the road"

- "will the State do anything to slow down trucks?"

-"ban trucks-lower speed limit-enforce speed limit"

Some were concerned that highway improvements would encourage more traffic, more trucks, and higher speeds. For example,

-"concerned about truck speed and increased traffic due to improved road"

-"proposals to widen the road are going to have the unintended consequence of making safety worse"

-"plans for widening or a route change of the highway is an intrusion to a Montana way of life"

Many were concerned about impacts to wetlands, wildlife, water quality and scenery. For example,

-"why should wildlife, wetlands, water quality be negatively impacted to encourage traffic and international trucking?"

-"trees and foliage in the Fall are spectacular, I don't want to see the trees, foliage, and vegetation stripped out of the area to make a huge expanse of pavement"

EPA shares many of the public concerns in regard to potential impacts to water quality, wetlands, vegetation, and wildlife that could occur in association with widening and straightening of Highway 69. We believe the public concerns about impacts to these resources as well as concerns about excessive speed should be fully considered as project purpose and need and alternatives are further developed and evaluated. We recommend that careful evaluation of the purpose and need for the project and proposed alternatives take place in light of the extent of potential environmental impacts that could result from road widening and straightening in this sensitive location.

The public meeting transcript in the AA indicates that the Transportation Commission can set speed zones in certain areas, and notes that the Commission often does this on highway approaches to Towns. Given the sensitive location of Highway 69 adjacent to the Boulder River and in close proximity to many wetlands, we believe innovative thinking is needed in regard to project planning. We recommend that the MDT consider incorporating the lowering of speed limits on this 5.7 mile length of road, along with pullouts that facilitate speed limit enforcement, and other potential road improvement activities (e.g., improved road signs, rumble strips, guard rails, opened weigh stations, improved bridges and culverts, etc.). We believe adjustment of speed limits in association with other road improvement activities should be considered among the practicable alternatives that are available to address safety issues and public concerns, mitigate environmental impacts, and reduce project costs.

We also want to take this opportunity to note that the letter from MDT regarding "Agency Involvement Opportunities and Coordination Plan," sent to EPA, dated October 23, 2008, stated that evaluation of the alternate alignment east of the Boulder River was not going to be carried forward and evaluated further during NEPA analysis. The letter stated that the reasoning for dropping further analysis of the alternate alignment was that it had been determined that there were relatively small differences in impacts coupled with substantial differences in cumulative effects, right-of-way acquisition, maintenance requirements, and costs.

While it appears to us, based on the preliminary information presented in the AA report, that there are significant drawbacks to the alternate alignment for Highway 69 east of the Boulder River, we did not see adequate environmental analyses to conclude that there are "relatively small differences in impacts" between roadway improvements along the existing alignment and the alternate alignment. It did not appear to us that the AA Report provided an equivalent level of environmental analysis for the existing and alternate alignment alternatives to conclude that there are relatively small differences in environmental impacts between the two alternatives.

For example, the AA estimated that approximately 45 acres of wetland impacts may occur from highway improvements along the existing alignment, while the level of wetland impacts occurring from road construction on the alternate alignment was not quantified. The AA estimated that approximately 30 acres of wetlands may be present along the alternate alignment, but the amount of these wetlands potentially impacted was not clearly stated. It would appear that many of the 30 acres of wetlands along the alternate alignment could likely be avoided, which would result in significantly less wetland impacts with the alternate alignment. It does not appear, therefore, that small differences in impacts between the two alternatives has been shown.

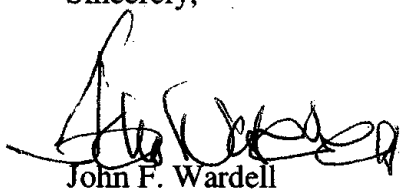
However, the AA Report does indicate that there are significant cost differences between the two alignments (estimated at $9.2 million cost difference in September 2006, and this figure may be even higher in current dollars), and there would be two new bridge crossings of the Boulder River, with additional (unquantified) impacts with the alternate alignment. The AA report also indicates significant opposition by the public and local officials to the alternate alignment, including the possible need for condemnation of land to obtain highway right-of-way. An amount of 100 acres of new right-of-way acquisition may be needed for the alternate alignment. It is also mentioned that two paved roads on either side of the Boulder River, which would occur if the alternate alignment was constructed and the existing road was not removed,

would result in increased adverse effects to wildlife migration, and likely increased road kill, and disrupted agricultural operations. Maintenance requirements would also increase with the need to maintain two paved roads.

We believe these factors may provide more appropriate and compelling reasons to justify dismissal of detailed analysis of a new alignment east of the Boulder River, and it would be more appropriate to discuss these factors in greater detail in regard to consideration and/or dismissal of alternatives. We recommend that an accurate and comprehensive description of the reasoning for consideration or dismissal of any alternatives be provided.

Finally, we thank you for the opportunity to review and comment on the AA Report and draft BRR, as well as to participate in the agency coordination meetings held on July 30, 2008 and December 17, 2008. If you have any questions regarding our comments 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,



John F. Wardell
Director
Montana Office

cc: Larry Svoboda/Julia Johnson, EPA, 8EPA-N, Denver
Jeff Ryan/Mark Kelley, MDEQ, Helena
Doug McDonald, MDFWP, Helena
Scott Jackson, USFWS, Helena
Deborah Blank, COE, Helena

Preliminary EPA Comments on Draft Biological Resources Report, Boulder-South Highway 69 Project

Brief Project Overview:

The MDT proposes to reconstruct and widen a portion of Montana Highway 69 south of the Town of Boulder, Montana from MP 31.8 to MP 37.5 (5.7 miles), to correct several horizontal and vertical curve deficiencies with the existing road. A bridge over the Little Boulder River would need to be reconstructed. The wetland survey delineated 24 wetlands throughout the project area, of which 15 were considered to be jurisdictional wetlands. The project area includes 150 feet on both sides of the existing road. The highway bisects an extensive riparian/wetland complex as it enters the valley bottom, and follows the Boulder River to the north end of the project.

Comments:

1) It would be helpful if the high-use wildlife crossing area noted at MP33 on page 15 were shown on Figure 1 (page 18) showing road kill locations. It would also be helpful if Browns Gulch, which is mentioned on page 15 (bottom of page), were also shown on Figure 1. It is also suggested that the Appendix E aerial photos, which include wildlife collision locations, be referenced in the report narrative where animal-vehicle collisions are discussed (page 16), so the reader of the report can refer to these photos when reading the narrative.

2) It is interesting that the tables showing animal-vehicle collisions and road kills by location on pages 16 and 17 (Table 7 and two Table 8's (??)) show the highest animal mortalities near MP 34 (36%) and MP 37 (43%), while the narrative says that the high use wildlife crossing is at MP 33. The discussion on page 19 provides a potential explanation in regard to why there isn't also a higher mortality rate near the high use wildlife crossing at MP33 (i.e., it is explained that animals hit by cars may get into the vegetation and out of sight of the road before expiring, thus reducing road kill evidence).

   There is a reference to an "apparently successful crossing zone" at MP 33 (page 19), which is somewhat confusing when considered in relation to the explanation that MP 33 may not have a high mortality rate due to the possibility of animals expiring out of sight in nearby vegetation, thus reducing road kill evidence. If this explanation is correct MP33 may not be as "successful a crossing zone" as suggested on page 19.

3) It is stated that it would be difficult to integrate bridge structures or large culverts into the road design at MP 33 due to the high water table, and it is suggested that leaving the vegetation in this area as intact as possible on both sides of the highway may help to maintain the apparently successful crossing zone (page 19). While there may be difficulties associated with using large culverts and bridge structures to promote safer wildlife crossings and improved highway safety, it would appear to be possible. We very much support the concept of providing culverts for small mammal crossings, and larger culverts and bridge structures that would allow for other wildlife crossings, and reduce vehicle-animal collision accidents. We also recommend consideration of using fencing to

deter wildlife crossing at areas with high mortality rates, and to direct wildlife to safer crossing areas wherever possible. The BRR recommends that the Little Boulder River bridge be expanded to act as an animal passage structure (page 30), and we fully support this recommendation.

4) We also agree with the recommendation included on page 26 that a river geomorphologist specializing in Rocky Mountain streams should be consulted during engineering design in regard to avoiding and minimizing impacts to the Boulder River channel. In addition, we support shifting the roadway alignment away from the river and from wetlands to reduce encroachments upon aquatic areas as much as possible.

5) We recommend expanding the discussion regarding the bridge reconstruction over the Little Boulder River (page 30) to state that the bridge should adequately span the river channel, floodway and riparian area to pass flood flows, with minimal river channel, floodplain and riparian encroachment. For that matter, all road stream crossings should 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. As noted above, we very much support the concept of providing for animal passage with an expanded Little Boulder River bridge span design.

6) We generally support the recommended conservation measures shown on pages 8, 22, 30, 36, 38, 42, 45, 47, and 65, although we have questions regarding the extent of highway improvements and widening that may be proposed, since even with the recommended conservation measures significant impacts to aquatic and other resources may occur. We believe careful evaluation of the purpose and need for the project and proposed improvements should take place, with improvements evaluated and weighed vs. the extent of potential environmental impacts that could result from such improvements. Review of the public comments presented in the Alternative Analysis (AA) indicate that many members of the public believe only minor roadway improvements are needed, with the greatest support shown for reduced speed limits and enforcement to improve highway safety. There was also great concern over the amount of commercial truck traffic. We believe these public concerns should be fully considered, with speed limit lowering incorporated into development of alternatives. This would likely reduce environmental impacts and project costs and better realize safety benefits.

7) The draft Biological Resources report says that only 15 of the 24 wetlands along the existing alignment are jurisdictional, and that only 84 acres of the total 93 acres of wetlands jurisdictional (page 50). The AA report had indicated that 19 of the 24 wetlands along the existing alignment were jurisdictional; and that the total delineated acreage along the existing alignment was 115 acres, with 104 acres of jurisdictional wetlands (AA pages 9, 10). The AA report also said an additional 2 wetlands may be jurisdictional because of a "strong subsurface connection with the Boulder River" (wetlands 18 and 19 in the AA report). If wetlands 18 and 19 were considered jurisdictional that would add 6 acres, bringing the total jurisdictional wetlands along the existing alignment to 110 acres.

The draft BRR, therefore, reports a reduced amount of wetland acreage along the existing alignment from 115 acres (104-110 jurisdictional) to 93 acres (84 jurisdictional), and reduces the estimated level of wetland impacts that had been identified as 45 acres in the AA down to 20 acres (page 63).

We note that revisions to Clean Water Act jurisdictional guidance were recently released by the Corps of Engineers and EPA on December 2, 2008 (see copy enclosed). We recommend that this recent jurisdictional guidance be considered in regard to determinations of the acreage of jurisdictional wetlands along the alignments in the Environmental Assessment. The revised guidance clarifies, consistent with the regulatory definition, that a wetland is adjacent if it has an unbroken hydrologic connection to jurisdictional waters, or is separated from those waters by a berm or similar feature, or if it is in reasonably close proximity to a jurisdictional water. It may be that the "strong subsurface connection with the Boulder River" (as stated in the AA Report) of some wetlands near the Boulder River could increase the acreage of jurisdictional wetlands.

Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States

This memorandum[1] provides guidance to EPA regions and U.S. Army Corps of Engineers ["Corps"] districts implementing the Supreme Court's decision in the consolidated cases Rapanos v. United States and Carabell v. United States[2] (herein referred to simply as "Rapanos") which address the jurisdiction over waters of the United States under the Clean Water Act.[3] The chart below summarizes the key points contained in this memorandum. This reference tool is not a substitute for the more complete discussion of issues and guidance furnished throughout the memorandum.

Summary of Key Points

The agencies will assert jurisdiction over the following waters:

- **Traditional navigable waters**
- **Wetlands adjacent to traditional navigable waters**
- **Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)**
- **Wetlands that directly abut such tributaries**

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- **Non-navigable tributaries that are not relatively permanent**
- **Wetlands adjacent to non-navigable tributaries that are not relatively permanent**
- **Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary**

The agencies generally will not assert jurisdiction over the following features:

- **Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)**
- **Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water**

The agencies will apply the significant nexus standard as follows:

- **A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters**
- **Significant nexus includes consideration of hydrologic and ecologic factors**

[1] This guidance incorporates revisions to the EPA/Army Memorandum originally issued on June 6, 2007, after careful consideration of public comments received and based on the agencies' experience in implementing the *Rapanos* decision.

[2] 126 S. Ct. 2208 (2006).

[3] 33 U.S.C. §1251 et seq.

Background

Congress enacted the Clean Water Act ("CWA" or "the Act") "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."[4] One of the mechanisms adopted by Congress to achieve that purpose is a prohibition on the discharge of any pollutants, including dredged or fill material, into "navigable waters" except in compliance with other specified sections of the Act.[5] In most cases, this means compliance with a permit issued pursuant to CWA §402 or §404. The Act defines the term "discharge of a pollutant" as "any addition of any pollutant to navigable waters from any point source[,]"[6] and provides that "[t]he term 'navigable waters' means the waters of the United States, including the territorial seas[,]." [7]

In Rapanos, the Supreme Court addressed where the Federal government can apply the Clean Water Act, specifically by determining whether a wetland or tributary is a "water of the United States." The justices issued five separate opinions in Rapanos (one plurality opinion, two concurring opinions, and two dissenting opinions), with no single opinion commanding a majority of the Court.

The Rapanos Decision

Four justices, in a plurality opinion authored by Justice Scalia, rejected the argument that the term "waters of the United States" is limited to only those waters that are navigable in the traditional sense and their abutting wetlands.[8] However, the plurality concluded that the agencies' regulatory authority should extend only to "relatively permanent, standing or continuously flowing bodies of water" connected to traditional navigable waters, and to "wetlands with a continuous surface connection to" such relatively permanent waters.[9]

Justice Kennedy did not join the plurality's opinion but instead authored an opinion concurring in the judgment vacating and remanding the cases to the Sixth Circuit Court of Appeals.[10] Justice Kennedy agreed with the plurality that the statutory term "waters of the United States" extends beyond water bodies that are traditionally considered navigable.[11] Justice Kennedy, however, found the plurality's interpretation of the scope of the CWA to be "inconsistent with the Act's text, structure, and purpose[,]" and he instead presented a different standard for evaluating CWA jurisdiction over wetlands and other water bodies.[12] Justice Kennedy concluded that wetlands are "waters

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[4] 33 U.S.C. § 1251(a).
[5] 33 U.S.C. § 1311(a), §1362(12)(A).
[6] 33 U.S.C. § 1362(12)(A)
[7] 33 U.S.C. § 1362(7). See also 33 C.F.R. § 328.3(a) and 40 C.F.R. § 230.3(s).
[8] Id. at 2220.
[9] Id. at 2225-27.
[10] Id. at 2236-52. While Justice Kennedy concurred in the Court's decision to vacate and remand the cases to the Sixth Circuit, his basis for remand was limited to the question of "whether the specific wetlands at issue possess a significant nexus with navigable waters." 126 S. Ct. at 2252. In contrast, the plurality remanded the cases to determine both "whether the ditches and drains near each wetland are 'waters,'" and "whether the wetlands in question are 'adjacent' to these 'waters' in the sense of possessing a continuous surface connection...." Id. at 2235.
[11] Id. at 2241.
[12] Id. at 2246.

of the United States" "if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.' When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'"[13]

Four justices, in a dissenting opinion authored by Justice Stevens, concluded that EPA's and the Corps' interpretation of "waters of the United States" was a reasonable interpretation of the Clean Water Act.[14]

When there is no majority opinion in a Supreme Court case, controlling legal principles may be derived from those principles espoused by five or more justices.[15] Thus, regulatory jurisdiction under the CWA exists over a water body if either the plurality's or Justice Kennedy's standard is satisfied.[16] Since Rapanos, the United States has filed pleadings in a number of cases interpreting the decision in this manner.

The agencies are issuing this memorandum in recognition of the fact that EPA regions and Corps districts need guidance to ensure that jurisdictional determinations, permitting actions, and other relevant actions are consistent with the decision and supported by the administrative record. Therefore, the agencies have evaluated the Rapanos opinions to identify those waters that are subject to CWA jurisdiction under the reasoning of a majority of the justices. This approach is appropriate for a guidance document. The agencies will continue to monitor implementation of the Rapanos decision in the field and recognize that further consideration of jurisdictional issues, including clarification and definition of key terminology, may be appropriate in the future, either through issuance of additional guidance or through rulemaking.

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[13] Id. at 2248. Chief Justice Roberts wrote a separate concurring opinion explaining his agreement with the plurality. See 126 S. Ct. at 2235-36.

[14] Id. at 2252-65. Justice Breyer wrote a separate dissenting opinion explaining his agreement with Justice Stevens' dissent. See 126 S. Ct. at 2266.

[15] See Marks v. United States, 430 U.S. 188, 193-94 (1977); Waters v. Churchill, 511 U.S. 661, 685 (1994) (Souter, J., concurring) (analyzing the points of agreement between plurality, concurring, and dissenting opinions to identify the legal "test ... that lower courts should apply," under Marks, as the holding of the Court); cf. League of United Latin American Citizens v. Perry, 126 S. Ct. 2594, 2607 (2006) (analyzing concurring and dissenting opinions in a prior case to identify a legal conclusion of a majority of the Court); Alexander v. Sandoval, 532 U.S. 275, 281-282 (2001) (same).

[16] 126 S. Ct. at 2265 (Stevens, J., dissenting) ("Given that all four justices who have joined this opinion would uphold the Corps' jurisdiction in both of these cases – and in all other cases in which either the plurality's or Justice Kennedy's test is satisfied – on remand each of the judgments should be reinstated if *either* of those tests is met.") (emphasis in original). The agencies recognize that the Eleventh Circuit, in United States v. McWane, Inc., et al., 505 F.3d 1208 (11th Cir. 2007), has concluded that the Kennedy standard is the sole method of determining CWA jurisdiction in that Circuit. The Supreme Court denied the government's petition for a writ of *certiorari* on December 1, 2008.

Agency Guidance[17]

To ensure that jurisdictional determinations, administrative enforcement actions, and other relevant agency actions are consistent with the Rapanos decision, the agencies in this guidance address which waters are subject to CWA § 404 jurisdiction.[18] Specifically, this guidance identifies those waters over which the agencies will assert jurisdiction categorically and on a case-by-case basis, based on the reasoning of the Rapanos opinions.[19] EPA and the Corps will continually assess and review the application of this guidance to ensure nationwide consistency, reliability, and predictability in our administration of the statute.

1. Traditional Navigable Waters (i.e., "(a)(1) Waters") and Their Adjacent Wetlands

Key Points

- **The agencies will assert jurisdiction over traditional navigable waters, which includes all the waters described in 33 C.F.R. § 328.3(a)(1), and 40 C.F.R. § 230.3 (s)(1).**
- **The agencies will assert jurisdiction over wetlands adjacent to traditional navigable waters, including over adjacent wetlands that do not have a continuous surface connection to traditional navigable waters.**

EPA and the Corps will continue to assert jurisdiction over "[a]ll waters which are currently used, or were used in the past, or may be susceptible to use in interstate or

[17] The CWA provisions and regulations described in this document contain legally binding requirements. This guidance does not substitute for those provisions or regulations, nor is it a regulation itself. It does not impose legally binding requirements on EPA, the Corps, or the regulated community, and may not apply to a particular situation depending on the circumstances. Any decisions regarding a particular water will be based on the applicable statutes, regulations, and case law. Therefore, interested persons are free to raise questions about the appropriateness of the application of this guidance to a particular situation, and EPA and/or the Corps will consider whether or not the recommendations or interpretations of this guidance are appropriate in that situation based on the statutes, regulations, and case law.

[18] This guidance focuses only on those provisions of the agencies' regulations at issue in Rapanos -- 33 C.F.R. §§ 328.3(a)(1), (a)(5), and (a)(7); 40 C.F.R. §§ 230.3(s)(1), (s)(5), and (s)(7). This guidance does not address or affect other subparts of the agencies' regulations, or response authorities, relevant to the scope of jurisdiction under the CWA. In addition, because this guidance is issued by both the Corps and EPA, which jointly administer CWA § 404, it does not discuss other provisions of the CWA, including §§ 311 and 402, that differ in certain respects from § 404 but share the definition of "waters of the United States." Indeed, the plurality opinion in Rapanos noted that "... there is no reason to suppose that our construction today significantly affects the enforcement of §1342 ... The Act does not forbid the 'addition of any pollutant *directly* to navigable waters from any point source,' but rather the 'addition of any pollutant *to* navigable waters.'" (emphasis in original) 126 S. Ct. 2208, 2227. EPA is considering whether to provide additional guidance on these and other provisions of the CWA that may be affected by the Rapanos decision.

[19] In 2001, the Supreme Court held that use of "isolated" non-navigable intrastate waters by migratory birds was not by itself a sufficient basis for the exercise of federal regulatory jurisdiction under the CWA. See Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers, 531 U.S. 159 (2001). This guidance does not address SWANCC, nor does it affect the Joint Memorandum regarding that decision issued by the General Counsels of EPA and the Department of the Army on January 10, 2003. See 68 Fed. Reg. 1991, 1995 (Jan. 15, 2003).

foreign commerce, including all waters which are subject to the ebb and flow of the tide."[20] These waters are referred to in this guidance as traditional navigable waters.

The agencies will also continue to assert jurisdiction over wetlands "adjacent" to traditional navigable waters as defined in the agencies' regulations. Under EPA and Corps regulations and as used in this guidance, "adjacent" means "bordering, contiguous, or neighboring." Finding a continuous surface connection is not required to establish adjacency under this definition. The Rapanos decision does not affect the scope of jurisdiction over wetlands that are adjacent to traditional navigable waters because at least five justices agreed that such wetlands are "waters of the United States."[21]

The regulations define "adjacent" as follows: "The term *adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are 'adjacent wetlands.'"[22] Under this definition, the agencies consider wetlands adjacent if one of following three criteria is satisfied. First, there is an unbroken surface or shallow sub-surface connection to jurisdictional waters. This hydrologic connection may be intermittent. Second, they are physically separated from jurisdictional waters by man-made dikes or barriers, natural river berms, beach dunes, and the like. Or third, their proximity to a jurisdictional water is reasonably close, supporting the science-based

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[20] 33 C.F.R. § 328.3(a)(1); 40 C.F.R. § 230.3(s)(1). The "(a)(1)" waters include all of the "navigable waters of the United States," defined in 33 C.F.R. Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact (e.g., the Great Salt Lake, UT and Lake Minnetonka MN). For purposes of CWA jurisdiction and this guidance, waters will be considered traditional navigable waters if:

- They are subject to Section 9 or 10 of the Rivers and Harbors Act, or
- A federal court has determined that the water body is navigable-in-fact under federal law, or
- They are waters currently being used for commercial navigation, including commercial water-borne recreation (e.g., boat rentals, guided fishing trips, water ski tournaments, etc.), or
- They have historically been used for commercial navigation, including commercial water-borne recreation; or
- They are susceptible to being used in the future for commercial navigation, including commercial water-borne recreation. Susceptibility for future use may be determined by examining a number of factors, including the physical characteristics and capacity of the water (e.g., size, depth, and flow velocity, etc.) to be used in commercial navigation, including commercial recreational navigation, and the likelihood of future commercial navigation or commercial water-borne recreation. Evidence of future commercial navigation use, including commercial water-borne recreation (e.g., development plans, plans for water dependent events, etc.), must be clearly documented. Susceptibility to future commercial navigation, including commercial water-borne recreation, will not be supported when the evidence is insubstantial or speculative. Use of average flow statistics may not accurately represent streams with "flashy" flow characteristics. In such circumstances, daily gage data is more representative of flow characteristics.

[21] Id. at 2248 (Justice Kennedy, concurring) ("As applied to wetlands adjacent to navigable-in-fact waters, the Corps' conclusive standard for jurisdiction rests upon a reasonable inference of ecologic interconnection, and the assertion of jurisdiction for those wetlands is sustainable under the Act by showing adjacency alone.").

[22] 33 C.F.R. § 328.3(c).

inference that such wetlands have an ecological interconnection with jurisdictional waters.[23] Because of the scientific basis for this inference, determining whether a wetland is reasonably close to a jurisdictional water does not generally require a case-specific demonstration of an ecologic interconnection. In the case of a jurisdictional water and a reasonably close wetland, such implied ecological interconnectivity is neither speculative nor insubstantial. For example, species, such as amphibians or anadramous and catadramous fish, move between such waters for spawning and their life stage requirements. Migratory species, however, shall not be used to support an ecologic interconnection. In assessing whether a wetland is reasonably close to a jurisdictional water, the proximity of the wetland (including all parts of a single wetland that has been divided by road crossings, ditches, berms, etc.) in question will be evaluated and shall not be evaluated together with other wetlands in the area.

2. Relatively Permanent Non-navigable Tributaries of Traditional Navigable Waters and Wetlands with a Continuous Surface Connection with Such Tributaries

Key Points

- **The agencies will assert jurisdiction over non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).**
- **The agencies will assert jurisdiction over those adjacent wetlands that have a continuous surface connection to such tributaries (e.g., they are not separated by uplands, a berm, dike, or similar feature.)**

A non-navigable tributary[24] of a traditional navigable water is a non-navigable water body whose waters flow into a traditional navigable water either directly or indirectly by means of other tributaries. Both the plurality opinion and the dissent would uphold CWA jurisdiction over non-navigable tributaries that are "relatively permanent" – waters that typically (e.g., except due to drought) flow year-round or waters that have a

[23] See e.g., United States v. Riverside Bayview Homes, Inc., 474 U.S. 121, 134 (1985) ("...the Corps' ecological judgment about the relationship between waters and their adjacent wetlands provides an adequate basis for a legal judgment that adjacent wetlands may be defined as waters under the Act.").

[24] A tributary includes natural, man-altered, or man-made water bodies that carry flow directly or indirectly into a traditional navigable water. Furthermore, a tributary, for the purposes of this guidance, is the entire reach of the stream that is of the same order (i.e., from the point of confluence, where two lower order streams meet to form the tributary, downstream to the point such tributary enters a higher order stream). The flow characteristics of a particular tributary generally will be evaluated at the farthest downstream limit of such tributary (i.e., the point the tributary enters a higher order stream). However, for purposes of determining whether the tributary is relatively permanent, where data indicates the flow regime at the downstream limit is not representative of the entire tributary (as described above) (e.g., where data indicates the tributary is relatively permanent at its downstream limit but not for the majority of its length, or vice versa), the flow regime that best characterizes the entire tributary should be used. A primary factor in making this determination is the relative lengths of segments with differing flow regimes. It is reasonable for the agencies to treat the entire tributary in light of the Supreme Court's observation that the phrase "navigable waters" generally refers to "rivers, streams, and other hydrographic features." 126 S. Ct. at 2222 (Justice Scalia, quoting Riverside Bayview, 474 U.S. at 131). The entire reach of a stream is a reasonably identifiable hydrographic feature. The agencies will also use this characterization of tributary when applying the significant nexus standard under Section 3 of this guidance.

continuous flow at least seasonally (e.g., typically three months).[25] Justice Scalia emphasizes that relatively permanent waters do not include tributaries "whose flow is 'coming and going at intervals ... broken, fitful.'"[26] Therefore, "relatively permanent" waters do not include ephemeral tributaries which flow only in response to precipitation and intermittent streams which do not typically flow year-round or have continuous flow at least seasonally. However, CWA jurisdiction over these waters will be evaluated under the significant nexus standard described below. The agencies will assert jurisdiction over relatively permanent non-navigable tributaries of traditional navigable waters without a legal obligation to make a significant nexus finding.

In addition, the agencies will assert jurisdiction over those adjacent wetlands that have a continuous surface connection with a relatively permanent, non-navigable tributary, without the legal obligation to make a significant nexus finding. As explained above, the plurality opinion and the dissent agree that such wetlands are jurisdictional.[27] The plurality opinion indicates that "continuous surface connection" is a "physical connection requirement."[28] Therefore, a continuous surface connection exists between a wetland and a relatively permanent tributary where the wetland directly abuts the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature).[29]

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[25] See 126 S. Ct. at 2221 n. 5 (Justice Scalia, plurality opinion) (explaining that "relatively permanent" does not necessarily exclude waters "that might dry up in extraordinary circumstances such as drought" or "seasonal rivers, which contain continuous flow during some months of the year but no flow during dry months").

[26] Id. (internal citations omitted)

[27] Id. at 2226-27 (Justice Scalia, plurality opinion).

[28] Id. at 2232 n.13 (referring to "our physical-connection requirement" and later stating that Riverside Bayview does not reject "the physical-connection requirement") and 2234 ("Wetlands are 'waters of the United States' if they bear the 'significant nexus' of physical connection, which makes them as a practical matter *indistinguishable* from waters of the United States.") (emphasis in original). See also 126 S. Ct. at 2230 ("adjacent" means "physically abutting") and 2229 (citing to Riverside Bayview as "confirm[ing] that the scope of ambiguity of 'the waters of the United States' is determined by a wetland's *physical connection* to covered waters...") (emphasis in original). A continuous surface connection does not require surface water to be continuously present between the wetland and the tributary. 33 C.F.R. § 328.3(b) and 40 C.F.R. § 232.2 (defining wetlands as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support ... a prevalence of vegetation typically adapted for life in saturated soil conditions").

[29] While all wetlands that meet the agencies' definitions are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard.

3. Certain Adjacent Wetlands and Non-navigable Tributaries That Are Not Relatively Permanent

Key Points

- **The agencies will assert jurisdiction over non-navigable, not relatively permanent tributaries and their adjacent wetlands where such tributaries and wetlands have a significant nexus to a traditional navigable water.**
- **A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.**
- **"Similarly situated" wetlands include all wetlands adjacent to the same tributary.**
- **Significant nexus includes consideration of hydrologic factors including the following:**
  - **volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary**
  - **proximity to the traditional navigable water**
  - **size of the watershed**
  - **average annual rainfall**
  - **average annual winter snow pack**
- **Significant nexus also includes consideration of ecologic factors including the following:**
  - **potential of tributaries to carry pollutants and flood waters to traditional navigable waters**
  - **provision of aquatic habitat that supports a traditional navigable water**
  - **potential of wetlands to trap and filter pollutants or store flood waters**
  - **maintenance of water quality in traditional navigable waters**
- **The following geographic features generally are not jurisdictional waters:**
  - **swales or erosional features (e.g. gullies, small washes characterized by low volume, infrequent, or short duration flow)**
  - **ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water**

The agencies will assert jurisdiction over the following types of waters when they have a significant nexus with a traditional navigable water: (1) non-navigable tributaries that are not relatively permanent,[30] (2) wetlands adjacent to non-navigable tributaries that are not relatively permanent, and (3) wetlands adjacent to, but not directly abutting, a relatively permanent tributary (e.g., separated from it by uplands, a berm, dike or similar feature).[31] As described below, the agencies will assess the flow characteristics and functions of the tributary itself, together with the functions performed by any wetlands adjacent to that tributary, to determine whether collectively they have a significant nexus with traditional navigable waters.

[30] For simplicity, the term "tributary" when used alone in this section refers to non-navigable tributaries that are not relatively permanent.

[31] As described in Section 2 of this guidance, the agencies will assert jurisdiction, without the need for a significant nexus finding, over all wetlands that are both adjacent and have a continuous surface connection to relatively permanent tributaries. See pp. 6-7, supra.

The agencies' assertion of jurisdiction over non-navigable tributaries and adjacent wetlands that have a significant nexus to traditional navigable waters is supported by five justices. Justice Kennedy applied the significant nexus standard to the wetlands at issue in Rapanos and Carabell: "[W]etlands possess the requisite nexus, and thus come within the statutory phrase 'navigable waters,' if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.'"[32] While Justice Kennedy's opinion discusses the significant nexus standard primarily in the context of wetlands adjacent to non-navigable tributaries,[33] his opinion also addresses Clean Water Act jurisdiction over tributaries themselves. Justice Kennedy states that, based on the Supreme Court's decisions in Riverside Bayview and SWANCC, "the connection between a non-navigable water or wetland may be so close, or potentially so close, that the Corps may deem the water or wetland a 'navigable water' under the Act. ... Absent a significant nexus, jurisdiction under the Act is lacking."[34] Thus, Justice Kennedy would limit jurisdiction to those waters that have a significant nexus with traditional navigable waters, although his opinion focuses on the specific factors and functions the agencies should consider in evaluating significant nexus for adjacent wetlands, rather than for tributaries.

In considering how to apply the significant nexus standard, the agencies have focused on the integral relationship between the ecological characteristics of tributaries and those of their adjacent wetlands, which determines in part their contribution to restoring and maintaining the chemical, physical and biological integrity of the Nation's traditional navigable waters. The ecological relationship between tributaries and their adjacent wetlands is well documented in the scientific literature and reflects their physical proximity as well as shared hydrological and biological characteristics. The flow parameters and ecological functions that Justice Kennedy describes as most relevant to an evaluation of significant nexus result from the ecological inter-relationship between tributaries and their adjacent wetlands. For example, the duration, frequency, and volume of flow in a tributary, and subsequently the flow in downstream navigable waters, is directly affected by the presence of adjacent wetlands that hold floodwaters, intercept sheet flow from uplands, and then release waters to tributaries in a more even and constant manner. Wetlands may also help to maintain more consistent water temperature in tributaries, which is important for some aquatic species. Adjacent wetlands trap and hold pollutants that may otherwise reach tributaries (and downstream navigable waters) including sediments, chemicals, and other pollutants. Tributaries and their adjacent wetlands provide habitat (e.g., feeding, nesting, spawning, or rearing young) for many aquatic species that also live in traditional navigable waters.

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[32] Id. at 2248. When applying the significant nexus standard to tributaries and wetlands, it is important to apply it within the limits of jurisdiction articulated in SWANCC. Justice Kennedy cites SWANCC with approval and asserts that the significant nexus standard, rather than being articulated for the first time in Rapanos, was established in SWANCC. 126 S. Ct. at 2246 (describing SWANCC as "interpreting the Act to require a significant nexus with navigable waters"). It is clear, therefore, that Justice Kennedy did not intend for the significant nexus standard to be applied in a manner that would result in assertion of jurisdiction over waters that he and the other justices determined were not jurisdictional in SWANCC. Nothing in this guidance should be interpreted as providing authority to assert jurisdiction over waters deemed non-jurisdictional by SWANCC.

[33] 126 S. Ct. at 2247-50.

[34] Id. at 2241 (emphasis added).

When performing a significant nexus analysis,[35] the first step is to determine if the tributary has any adjacent wetlands. Where a tributary has no adjacent wetlands, the agencies will consider the flow characteristics and functions of only the tributary itself in determining whether such tributary has a significant effect on the chemical, physical and biological integrity of downstream traditional navigable waters. A tributary, as characterized in Section 2 above, is the entire reach of the stream that is of the same order (i.e., from the point of confluence, where two lower order streams meet to form the tributary, downstream to the point such tributary enters a higher order stream). For purposes of demonstrating a connection to traditional navigable waters, it is appropriate and reasonable to assess the flow characteristics of the tributary at the point at which water is in fact being contributed to a higher order tributary or to a traditional navigable water. If the tributary has adjacent wetlands, the significant nexus evaluation needs to recognize the ecological relationship between tributaries and their adjacent wetlands, and their closely linked role in protecting the chemical, physical, and biological integrity of downstream traditional navigable waters.

Therefore, the agencies will consider the flow and functions of the tributary together with the functions performed by all the wetlands adjacent to that tributary in evaluating whether a significant nexus is present. Similarly, where evaluating significant nexus for an adjacent wetland, the agencies will consider the flow characteristics and functions performed by the tributary to which the wetland is adjacent along with the functions performed by the wetland and all other wetlands adjacent to that tributary. This approach reflects the agencies' interpretation of Justice Kennedy's term "similarly situated" to include all wetlands adjacent to the same tributary. Where it is determined that a tributary and its adjacent wetlands collectively have a significant nexus with traditional navigable waters, the tributary and all of its adjacent wetlands are jurisdictional. Application of the significant nexus standard in this way is reasonable because of its strong scientific foundation – that is, the integral ecological relationship between a tributary and its adjacent wetlands. Interpreting the phrase "similarly situated" to include all wetlands adjacent to the same tributary is reasonable because such wetlands are physically located in a like manner (i.e., lying adjacent to the same tributary).

Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a traditional navigable water. In addition to any available hydrologic information (e.g., gauge data, flood predictions, historic records of water flow, statistical data, personal observations/records, etc.), the agencies may reasonably consider certain physical characteristics of the tributary to characterize its flow, and thus help to inform the determination of whether or not a significant nexus is present between the tributary and downstream traditional navigable waters. Physical indicators of flow may include the presence and characteristics of a reliable ordinary high water mark (OHWM) with a channel defined by bed and banks.[36] Other physical indicators of flow may include

[35] In discussing the significant nexus standard, Justice Kennedy stated: "The required nexus must be assessed in terms of the statute's goals and purposes. Congress enacted the [CWA] to 'restore and maintain the chemical, physical, and biological integrity of the Nation's waters' ..." 126 S. Ct. at 2248. Consistent with Justice Kennedy's instruction, EPA and the Corps will apply the significant nexus standard in a manner that restores and maintains any of these three attributes of traditional navigable waters.

[36] See 33 C.F.R. § 328.3(e). The OHWM also serves to define the lateral limit of jurisdiction in a non-navigable tributary where there are no adjacent wetlands. See 33 C.F.R. § 328.4(c). While EPA regions

shelving, wracking, water staining, sediment sorting, and scour.[37] Consideration will also be given to certain relevant contextual factors that directly influence the hydrology of tributaries including the size of the tributary's watershed, average annual rainfall, average annual winter snow pack, slope, and channel dimensions.

In addition, the agencies will consider other relevant factors, including the functions performed by the tributary together with the functions performed by any adjacent wetlands. One such factor is the extent to which the tributary and adjacent wetlands have the capacity to carry pollutants (e.g., petroleum wastes, toxic wastes, sediment) or flood waters to traditional navigable waters, or to reduce the amount of pollutants or flood waters that would otherwise enter traditional navigable waters.[38] The agencies will also evaluate ecological functions performed by the tributary and any adjacent wetlands which affect downstream traditional navigable waters, such as the capacity to transfer nutrients and organic carbon vital to support downstream foodwebs (e.g., macroinvertebrates present in headwater streams convert carbon in leaf litter making it available to species downstream), habitat services such as providing spawning areas for recreationally or commercially important species in downstream waters, and the extent to which the tributary and adjacent wetlands perform functions related to maintenance of downstream water quality such as sediment trapping.

After assessing the flow characteristics and functions of the tributary and its adjacent wetlands, the agencies will evaluate whether the tributary and its adjacent wetlands are likely to have an effect that is more than speculative or insubstantial on the chemical, physical, and biological integrity of a traditional navigable water. As the distance from the tributary to the navigable water increases, it will become increasingly important to document whether the tributary and its adjacent wetlands have a significant nexus rather than a speculative or insubstantial nexus with a traditional navigable water.

Accordingly, Corps districts and EPA regions shall document in the administrative record the available information regarding whether a tributary and its adjacent wetlands have a significant nexus with a traditional navigable water, including the physical indicators of flow in a particular case and available information regarding the functions of the tributary and any adjacent wetlands. The agencies will explain their basis for concluding whether or not the tributary and its adjacent wetlands, when considered together, have a more than speculative or insubstantial effect on the chemical, physical, and biological integrity of a traditional navigable water.

Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) are generally not waters of the United States

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and Corps districts must exercise judgment to identify the OHWM on a case-by-case basis, the Corps' regulations identify the factors to be applied. These regulations have recently been further explained in Regulatory Guidance Letter (RGL) 05-05 (Dec. 7, 2005). The agencies will apply the regulations and the RGL and take other steps as needed to ensure that the OHWM identification factors are applied consistently nationwide.

[37] See Justice Kennedy's discussion of "physical characteristics," 126 S. Ct. at 2248-2249.

[38] See, generally, 126 S. Ct. at 2248-53; see also 126 S. Ct. at 2249 ("Just as control over the non-navigable parts of a river may be essential or desirable in the interests of the navigable portions, so may the key to flood control on a navigable stream be found in whole or in part in flood control on its tributaries....") (citing to Oklahoma ex rel. Phillips v. Guy F. Atkinson Co., 313 U.S. 508, 524-25(1941)).

because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters. In addition, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters.[39] Even when not jurisdictional waters subject to CWA §404, these geographic features (e.g., swales, ditches) may still contribute to a surface hydrologic connection between an adjacent wetland and a traditional navigable water. In addition, these geographic features may function as point sources (i.e., "discernible, confined, and discrete conveyances"), such that discharges of pollutants to other waters through these features could be subject to other CWA regulations (e.g., CWA §§ 311 and 402).[40]

Certain ephemeral waters in the arid west are distinguishable from the geographic features described above where such ephemeral waters are tributaries and they have a significant nexus to downstream traditional navigable waters. For example, in some cases these ephemeral tributaries may serve as a transitional area between the upland environment and the traditional navigable waters. During and following precipitation events, ephemeral tributaries collect and transport water and sometimes sediment from the upper reaches of the landscape downstream to the traditional navigable waters. These ephemeral tributaries may provide habitat for wildlife and aquatic organisms in downstream traditional navigable waters. These biological and physical processes may further support nutrient cycling, sediment retention and transport, pollutant trapping and filtration, and improvement of water quality, functions that may significantly affect the chemical, physical, and biological integrity of downstream traditional navigable waters.

Documentation

As described above, the agencies will assert CWA jurisdiction over the following waters without the legal obligation to make a significant nexus determination: traditional navigable waters and wetlands adjacent thereto, non-navigable tributaries that are relatively permanent waters, and wetlands with a continuous surface connection with such tributaries. The agencies will also decide CWA jurisdiction over other non-navigable tributaries and over other wetlands adjacent to non-navigable tributaries based on a fact-specific analysis to determine whether they have a significant nexus with traditional navigable waters. For purposes of CWA §404 determinations by the Corps, the Corps and EPA are developing a revised form to be used by field regulators for documenting the assertion or declination of CWA jurisdiction.

Corps districts and EPA regions will ensure that the information in the record adequately supports any jurisdictional determination. The record shall, to the maximum extent practicable, explain the rationale for the determination, disclose the data and information relied upon, and, if applicable, explain what data or information received greater or lesser weight, and what professional judgment or assumptions were used in reaching the determination. The Corps districts and EPA regions will also demonstrate and document in the record that a particular water either fits within a class identified above as not requiring a significant nexus determination, or that the water has a

[39] See 51 Fed. Reg. 41206, 41217 (Nov. 13, 1986).
[40] 33 U.S.C. § 1362(14).

significant nexus with a traditional navigable water. As a matter of policy, Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

All pertinent documentation and analyses for a given jurisdictional determination (including the revised form) shall be adequately reflected in the record and clearly demonstrate the basis for asserting or declining CWA jurisdiction.[41] Maps, aerial photography, soil surveys, watershed studies, local development plans, literature citations, and references from studies pertinent to the parameters being reviewed are examples of information that will assist staff in completing accurate jurisdictional determinations. The level of documentation may vary among projects. For example, jurisdictional determinations for complex projects may require additional documentation by the project manager.

Benjamin H. Grumbles
Assistant Administrator for Water
U.S. Environmental Protection Agency

John Paul Woodley, Jr.
Assistant Secretary of the Army
(Civil Works)
Department of the Army

[41] For jurisdictional determinations and permitting decisions, such information shall be posted on the appropriate Corps website for public and interagency information.

Questions and Answers
Regarding the Revised *Rapanos & Carabell* Guidance
December 2, 2008

1. What changes have been made to the Rapanos Guidance?

EPA and the Corps have revised the *Rapanos* Guidance in consideration of public comments received and consistent with our experience implementing the guidance over the past 18 months. Specifically, the revised guidance:

1. Clarifies how to determine the reach of the "Traditional Navigable Waters (TNWs),"
2. Clarifies the regulatory term "adjacent wetlands," and;
3. Refines the concept of "relevant reach."

In addition, the Corps has issued a Regulatory Guidance Letter (RGL) 08-02 responding to public comments concerned with processing delays.

The June 2007 guidance discussed TNWs, as did Appendix D of the Instructional Manual that the agencies issued concurrently. Several public comments indicated that the concept of TNWs should be discussed further. The revised guidance clarifies, consistent with Appendix D, that TNWs are broader than Rivers and Harbors Act section 10 waters, and also include waters that have been determined to be navigable-in-fact by the courts, are currently being used or have historically been used for commercial navigation, or for which evidence showing susceptibility to future commercial navigation is more than insubstantial or speculative.

The June 2007 guidance also discussed the circumstances under which adjacent wetlands were jurisdictional after *Rapanos*, but did not discuss the meaning of adjacency other than to reference the regulatory definition as "bordering, contiguous, or neighboring." The revised guidance clarifies, consistent with the regulatory definition, that a wetland is adjacent if it has an unbroken hydrologic connection to jurisdictional waters, or is separated from those waters by a berm or similar feature, or if it is in reasonably close proximity to a jurisdictional water.

The original guidance stated that, for purposes of the guidance, a tributary is the entire reach of the stream that is of the same order, and that the flow characteristics of a particular stream reach should be evaluated at the farthest downstream limit of the reach (i.e., the point the tributary enters a higher order stream). Several commenters indicated that assessing flow at the

downstream point was not the most appropriate approach to characterizing the entire stream. The revised guidance makes some changes with respect to assessing flow in tributaries for purposes of determining whether a tributary is relatively permanent, indicating that where the downstream limit is not representative of the stream reach as a whole, the flow regime that best characterizes the reach should be used.

Several comments suggested changes to other aspects of the Rapanos Guidance, such as the approach to significant nexus or the definition of relatively permanent waters. For such issues, the agencies struck a careful balance when interpreting the Supreme Court opinions and drafting the original guidance. The positions articulated by commenters were among those considered by the agencies when developing the guidance, and the agencies have decided to maintain the policy choices they made.

Some public comments addressed procedural, rather than substantive, issues raised by the guidance. In particular, many commenters expressed concerns about processing delays often caused by data-intensive approved jurisdictional determinations. They suggested that the Corps should accept a presumption of jurisdiction, requested and agreed to by a permit applicant, treating all waters on the project site as jurisdictional, as a basis for proceeding to the permitting stage without waiting for an approved jurisdictional determination. In response to this comment, the Corps in June 2008 issued Regulatory Guidance Letter 08-02 , clarifying that project proponents may request a preliminary JD which is based on an "effective presumption of CWA/RHA jurisdiction over all of the wetlands and other water bodies at the site." (See RGL 08-02, paragraph 9a.)

The agencies will continue to monitor implementation of the *Rapanos* decision in the field. In the future, further consideration of jurisdictional issues may be appropriate, either through issuance of additional guidance or through rulemaking.

2. Why did Guidance revisions take so long?

EPA and the Corps received 66,047 public comments on the June 2007 Rapanos Guidance, many of which were extensive. Comments were received from states, environmental and conservation organizations, regulated entities, industry associations, and the general public. During discussions about potential amendments to the guidance, EPA and the Corps considered field implementation experiences of the 38 Corps District offices and 10 EPA Regional offices, in addition to these public comments. The revised guidance is the result of extensive discussions needed to fully consider public input and agencies' implementation experiences.

3. In light of the large number of public comments, why are there relatively few changes to the Guidance?

The agencies have decided it is not appropriate at this time to make no changes to the guidance with respect to several issues on which comments were received. The agencies struck a careful balance when interpreting the *Rapanos* opinions. The positions articulated by commenters were among those considered by the agencies when developing the guidance, and

for several issues the agencies have decided to maintain the policy choices they made in interpreting the decision.

4. What waters does the Corps/EPA Guidance indicate are protected under the Clean Water Act (CWA) after *Rapanos*?

Both the original and revised guidance have been developed to implement the U.S. Supreme Court decision in *Rapanos*. They address the regulatory definition of waters in (a)(1) (navigable waters), (a)(5) (tributaries), and (a)(7)(adjacent wetlands) addressed by the *Rapanos* opinions. In accordance with both the original and revised guidance, jurisdiction over these waters will be as follows:

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent (i.e., the tributaries typically flow year-round or have continuous flow at least seasonally)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally
- Wetlands adjacent to such tributaries
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies will apply the significant nexus evaluation as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if in combination they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors.

5. Many commenters requested that the agencies proceed with a rulemaking to clarify *Rapanos* and *SWANCC*. Why did the agencies decide not to address these cases in a regulation?

The agencies recognize the advantages of clarifying the Supreme Court decisions in ***Rapanos*** and ***SWANCC*** through the rulemaking process, particularly with regard to improved opportunities for public participation and for providing greater clarity and specificity. EPA and the Corps appreciate the very helpful comments we received from the public on this issue. The agencies will continue to monitor implementation of the ***Rapanos*** Guidance and, as we gain experience, consider appropriate opportunities to provide additional guidance or to initiate rulemaking.

RESPONSE TO COMMENTS
"CLEAN WATER ACT JURISDICTION FOLLOWING THE SUPREME COURT'S DECISION IN RAPANOS v. UNITED STATES & CARABELL v. UNITED STATES GUIDANCE" ISSUED JUNE 5, 2007

On June 5, 2007, the Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (the Corps) issued guidance, effective immediately, regarding Clean Water Act (CWA) jurisdiction following the U.S. Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States.* The agencies accepted public comments on the Rapanos guidance until January 20, 2008. The agencies received 66,047 public comments on the *Rapanos* Guidance (65,765 form letters, 282 non-form letters), from States, environmental and conservation organizations, regulated entities, industry associations, and the general public. EPA and the Corps have reviewed the comments and have revised the guidance in consideration of those comments and consistent with our experience implementing the guidance over the past 18 months.

The comments generally addressed four substantive issues and two procedural ones. The substantive areas were: the interpretation of the term "significant nexus;" the treatment of tributaries; the definition of "relatively permanent waters;" and the scope of "traditional navigable waters." The procedural areas were: the delay in processing jurisdictional determinations and the coordination between the two agencies on jurisdictional determinations.

The agencies also received comments from some on other important issues. One of these, the definition of adjacency, which has been an important implementation issue for the agencies, is also discussed below.

Significant Nexus

In *Rapanos*, Justice Kennedy concluded that wetlands are "waters of the United States" "if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.' When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'" The agency guidance states that the agencies will assess the flow characteristics and functions of the tributary itself,

together with the functions performed by any wetlands adjacent to that tributary, to determine whether collectively they have a significant nexus with traditional navigable waters.

Comments:

Environmental and conservation communities commented that the guidance interprets the term significant nexus too narrowly. They commented that under the Kennedy standard the agencies have the ability to continue to protect wetlands when they collectively affect water quality and to apply that protection to similar waterbodies. The regulated community commented that significant nexus is interpreted too broadly in the guidance. These commenters argued that there needs to be actual data showing impacts to integrity of traditional navigable waters (TNWs) to establish a significant nexus. States commented that they were concerned about the analytical and data burden of making significant nexus determinations consistent with the guidance. Arid states were especially concerned that a narrow interpretation leaves many important streams unregulated and thus unprotected.

Response:

The agencies have made no changes to the guidance with respect to significant nexus findings. The agencies struck a careful balance when interpreting Justice Kennedy's opinion. The positions articulated by commenters were among those considered by the agencies when developing the guidance, and the agencies have decided to maintain their interpretation of the term significant nexus for purposes of determining when a water is a "water of the United States."

Treatment of Tributaries

The guidance interprets Justice Kennedy's standard to apply to tributaries as well as wetlands. The guidance also clarifies that a tributary includes natural, man-altered, or man-made water bodies that carry flow directly or indirectly into a traditional navigable water. In addition, for the purposes of the guidance, a tributary is the entire reach of the stream that is of the same order (i.e., from the point of confluence, where two lower order streams meet to form the tributary, downstream to the point where such tributary enters a higher order stream). Under the guidance, the flow characteristics of a particular tributary will be evaluated at the farthest downstream limit of such tributary (i.e., the point the tributary enters a higher order stream).

Comments:

The environmental community commented that *Rapanos* did not address the scope of CWA jurisdiction for tributaries, and they should be jurisdictional categorically. The conservation community commented that tributaries should be jurisdictional categorically, or, alternatively, any tributary with an ordinary high water mark should be presumed to have a significant nexus. The regulated community commented that

tributaries are subject to *Rapanos*. States expressed concern about the loss of jurisdiction over tributaries generally. Arid states in particular expressed concerned about ephemeral, intermittent and headwater streams that are critical resources in their states.

A smaller number of commenters addressed the stream reach concept in the guidance. The general consensus among the regulated community was that the concept is overly broad in its interpretation and application when determining jurisdiction, and many suggested that the concept be abandoned. The environmental community commented that the concept limits jurisdiction and is not in keeping with Justice Kennedy's intent. Other commenters recommended the concept be more scientifically or ecologically based and that it should take into account a broader watershed approach. A few commenters opposed the guidance to assess flow at the farthest downstream limit. Some commented thought that this was simply not feasible, while others suggested that this was not the most appropriate approach to assessing an entire stream, suggesting that the stream flow be assessed where it is most representative of the entire stream.

Response:

The agencies have made no changes to the guidance with respect to utilizing Justice Kennedy's standard to determine the jurisdiction of tributaries. The agencies struck a careful balance when interpreting Justice Kennedy's opinion. The positions articulated by commenters were among those considered by the agencies when developing the guidance, and the agencies have decided to maintain their interpretation of the scope of Justice Kennedy's standard for purposes of determining when a tributary is a "water of the United States."

The agencies have made some changes with respect to assessing flow in tributaries for purposes of determining whether a tributary is relatively permanent. Footnote 24 of the guidance now clarifies that where data indicates the flow regime at the downstream limit is not representative of the tributary (e.g., where data indicates the tributary is relatively permanent at its downstream limit but not for the majority of its length, or vice versa), the flow regime that best characterizes the tributary should be used.

Definition of Relatively Permanent Waters

For purposes of implementing Justice Scalia's standard, the guidance interprets relatively permanent waters (RPWs) as "waters that typically (e.g., except due to drought) flow year-round or waters that have a continuous flow at least seasonally (e.g., typically three months)."

Comments:

The environmental community commented favorably on the agencies' approach to determining RPWs. The regulated community commented that RPWs should be limited to perennial streams or those that flow at least 290 days. The conservation community commented that the guidance's approach to RPWs could inappropriately

eliminate jurisdiction over some intermittent streams. They further commented that physical indicators, rather than timing of flow, should be used to meet the plurality test.

Response:

The agencies have made no changes to the guidance with respect to their approach to determining RPWs. The agencies struck a careful balance when interpreting Justice Scalia's opinion. The positions articulated by commenters were among those considered by the agencies when developing the guidance, and the agencies have decided to maintain their interpretation of the term relatively permanent for purposes of determining when a water is a "water of the United States." However, the agencies have provided additional technical guidance in footnote 24 on how to assess flow in a tributary to determine whether it is an RPW.

Traditional Navigable Waters

The agencies stated in the guidance that they considered section (a)(1) of their regulations defining "waters of the United States" to constitute the "traditional navigable waters" (TNWs) for purposes of Clean Water Act jurisdiction (see footnote 20 of the guidance and Appendix D of the field instructional manual).

Comments:

Environmental and conservation communities commented that TNWs should be interpreted as broadly as possible. The regulated community commented that TNWs are no broader than Section 10 waters under the Rivers and Harbors Act of 1899 (RHA).

Response:

The agencies have made some changes to the guidance to clarify the scope of "traditional navigable waters" for purposes of CWA jurisdiction. The agencies have edited footnote 20 of the guidance to make even more explicit that they consider Section 10 waters to be a subset of TNWs. In addition, changes to footnote 20 provide more guidance to the field on how to determine if a water is a TNW, including how to determine if it is susceptible for use in commercial navigation, including commercial water-borne recreation.

Processing Delay

To ensure that decisions are made on sound science and a defensible record, the guidance instructs Corps districts and EPA regions to document jurisdictional determinations (JDs) in a manner consistent with the standards laid out by the opinion. Specifically, the guidance indicates the "record shall, to the maximum extent practicable, explain the rationale for the determination, disclose the data and information relied upon, and, if applicable, explain what data or information received greater or lesser weight, and what professional judgment or assumptions were used in reaching the determination."

The agencies issued a number of documents, in conjunction with the *Rapanos* guidance, to assist field staff to make accurate and appropriately documented JD decisions. These documents included a field instructional manual, a JD form, and a MOU establishing an interagency coordination process with specific deadlines.

Comments:

All commenter groups expressed concern regarding delay in finalizing official JDs (i.e., "approved JDs"), and implications of that delay for permitting decisions and timing of associated projects. Many identified as a source of delay the extent of data and analysis required to finalize an approved JD. A number of commenters from the regulated community, state departments of transportation, and the conservation community recommended that the agencies provide an opportunity to "opt into" jurisdiction, allowing project proponents willing to have all aquatic resource impacts evaluated and mitigated to move to the permitting process rather than awaiting an approved JD.

Response:

On June 26, 2008, the Corps of Engineers issued Regulatory Guidance Letter (RGL) 08-02, clarifying that project proponents may request a preliminary JD, which is based on an "effective presumption of CWA/RHA jurisdiction over all of the wetlands and other water bodies at the site." (See RGL 08-02, paragraph 9a.) Consequently, a preliminary JD allows the Corps to proceed to the permitting process rather than waiting for an approved JD. RGL 08-02 indicates that, with such preliminary JDs, there is no legally binding determination of CWA jurisdiction over the particular water body or wetlands in question, but only a presumption of jurisdiction to facilitate permitting. For all cases where approved JDs are used, the agencies continue to believe that well-documented approved JDs are necessary to ensure that decisions are made based on sound science and a defensible record, and so the agencies have not modified documentation requirements for approved JDs in the guidance.

Coordination Process

Concurrent with issuance of the *Rapanos* guidance, the agencies established a coordination process for draft approved JDs involving a significant nexus or section (a)(3) of the regulatory definition of "waters of the United States." The June 2007 coordination process provided specific timeframes for interagency review, and a process for field staff to elevate specific JDs to EPA and Corps headquarters for resolution if necessary. While the coordination procedures for (a)(3)-related JDs were to continue indefinitely unless the agencies agreed to modifications, coordination of significant nexus-related JDs was to end after six months unless the agencies agreed to continue.

Comments:

Several commenters from state environmental agencies, environmental nonprofits, and the general public emphasized the importance of JD coordination for consistent and accurate JDs. Some commenters from the regulated community and state departments of transportation indicated that the interagency coordination process caused delays and recommended that coordination with EPA be ended altogether.

Response:

On January 28, 2008, the Corps indicated that for significant nexus-related JDs, the coordination process was being changed to provide a shorter timeframe than was established when the guidance was originally issued. Under the new coordination process for significant nexus-related JDs, the EPA Region has 15 days to review the draft JD, discuss any questions or concerns with the Corps District, and "special case" the JD if they feel it is necessary after those discussions. Coordination of (a)(3)-related draft JDs remained unchanged. As a result, the Corps continues to provide EPA with all draft JDs involving significant nexus or (a)(3) waters. This does not apply to preliminary JDs, since these are only used in cases where a project sponsor agrees to a presumption of CWA/RHA jurisdiction over all waters on the project site.

Adjacency

The guidance states that the agencies will continue to assert jurisdiction over wetlands "adjacent" to traditional navigable waters as defined in the agencies' regulations. Under EPA and Corps regulations and as used in this guidance, "adjacent" means "bordering, contiguous, or neighboring." Finding a continuous surface connection is not required to establish adjacency under this definition. The Rapanos decision does not affect the scope of jurisdiction over wetlands that are adjacent to traditional navigable waters because at least five justices agreed that such wetlands are "waters of the United States."

Comments

Some in the regulated community commented that the automatic regulation of nearby wetlands based solely on their adjacency to a traditional navigable water is inappropriate. These commenters also requested that the definition of "adjacent" be clarified and the regulations be revised.

Response:

Under the revised guidance, the agencies continue to assert jurisdiction over wetlands that are adjacent to traditional navigable waters as that term is defined in the agencies regulations.. The agencies disagree with commenters and conclude that at least five justices agreed that such wetlands are "waters of the United States." The agencies agree that the guidance should provide some further clarification of the term "adjacent"

and have revised the guidance to identify, consistent with the regulations and agency practice, the three criteria the agencies use to determine whether a wetland is adjacent.

Montana Fish, Wildlife & Parks

420 E. Sixth Avenue
P.O. Box 200701
Helena, Montana 59620-(

December 18, 2008

Consultant Design

Action	Date	Routing	Initials
	12/23/08		
		Bureau Chief	
		Consultant planning	
		Design Supervisor	
		CTEP Engineer	
		Priebe	
		File	

12/22

- ✓ Barry
- Deb
- Tim Conway
- Paul Ferry
- ✓ Jeff Ebert
- Darrel James
- 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
Biological Resources Rep

Dear Mr. Martin:

This letter is in regard to Montana Department of Transportation's (MDT) Alternatives Analysis (AA) referenced in your October 23, 2008 letter and Biological Resources Report (BRR) submitted with your November 12, 2008 letter. On August 13, 2008 we provided a letter in response to the AA and the agency coordination meeting held on July 30, 2008.

Our August 13, 2008 letter notes our gratification that Montana Department of Transportation (MDT) had initiated efforts to coordinate with participating/cooperating agencies in the Boulder-South project in accordance with the SAFETEA-LU process. However, we were discouraged that an alternative had been selected without opportunity for agency contribution, negating the intent of the process. After additional review of the AA, BRR and site visits, we believe that the selection of an alternative without prior agency participation in the development of the project purpose and need, range of alternatives, methodologies to be used and level of detail for analysis of alternatives did not comply with the National Environmental Policy Act (NEPA) nor the Montana Environmental Policy Act (MEPA) nor the SAFETEA-LU process. The difficulties in resolving issues surrounding this project should serve as a reminder that meaningful early involvement by the agencies will facilitate a smoother permitting process.

FWP believes that other viable, less damaging practicable alternatives exist and the rationale for dismissing the alternate (upland) route warrants clarification. We believe there are more than "relatively small differences in impacts" between the two alternatives evaluated. Adverse impacts to wetlands, streams, riparian areas and floodplains should be identified for the upland, proposed or other potential alternative route. Costs relevant to the acquisition and development of lands for mitigation of adverse impacts should also be compared for each alternative. The methods and level of detail for identifying impacts and costs should be consistent.

We request that MDT more thoroughly delineate the relative environmental, social and economic impacts of the alternative routes, including the upland route, and fully explain the overriding issues

that led to dismissal of that route. To the extent possible for this stage of the process, we request the following:

a. Regarding additional right-of-way (ROW), identify the number of landowners that would be directly affected by each alternative. The Alternatives Analysis notes that 100 acres of new ROW would be needed for the upland route. Please specify the amount of existing county road easement that could be utilized for a new alignment in addition to ROW that would be required from privately owned land.
b. Consider use of the existing Red Bridge as an integral part of a new bridge to reduce costs and impacts associated with an upland route.
c. Revisit wetland acreage impact figures and associated costs for acquisition and development of land for mitigation of direct and indirect impacts to wetlands, streams, floodplains, riparian lands, existing vegetation and supporting surface and groundwater hydrology.
d. Estimate costs for renovations to irrigation systems/canals.
e. Provide a more detailed analysis of the use of the existing corridor to include an expanded consideration of route adjustments that avoid encroachment upon the Boulder River and tributary streams along with traffic speed modification and pullouts.
f. Estimate potential costs associated with encountering contaminated soils, initial and future riprap and stream modifications.

We remain encouraged by and support MDT's intent to implement the SAFETEA-LU process and believe a preferred plan can be developed that would protect and/or enhance aquatic resources, improve safety for the general public and meet statutory requirements. If you have any questions about these comments or wish to discuss them, please contact Doug McDonald at 444-3175.

Sincerely,

Chris Hunter
Fisheries Division Administrator

Copy: FWP Region 3 – Ron Spoon/Tom Carlsen
DEQ – Jeff Ryan/Mark Kelley
FHWA – Jeff Patten
EPA – Steve Potts
USFWS – Scott Jackson
USACE – Allan Steinle

Montana Fish, Wildlife & Parks

To: Deborah Wambach
From: Tom Carlsen
Subject: Highway 69 Project
Date: 12/19/2008

Deb,

Just a few comments on the Biological Resources Report for this project a few comments on the project in general. As you are probably aware, Western States, including Montana are placing an emphasis on corridors and the movement and connections provided by corridors to the long-term viability of wildlife species. Highway 69, in the section being reconstructed, is the primary corridor and connection between two mountain ranges, the Elkhorn Mountains ands the Bull Mountains. Big game species, including bighorn sheep are known to move through this corridor.

Fish, Wildlife and Parks concerns in relation to potential impacts to wildlife, in regards to improvements in Highway 69, would be the increased potential for collisions between wildlife and vehicles due to increased traffic and increased speeds of vehicles. As mentioned in the Biological Resources Report (BRR), most passive means of controlling speed of vehicles, including reduced speed limits are ineffective. Therefore, the most viable alternative to ensure safe wildlife crossing is to develop wildlife crossings.

I haven't spent the time on the ground that you probably have looking for crossing potential but based on where I see big game species, primarily elk and mule deer in this area when I fly aerial surveys, I would expect movement between Ryan Mountain in the elkhorn Mountains and Hadley Park in the Bull Mountains towards the south end of the highway project. Additionally, movement would likely occur in the vicinity of Brown's Gulch and the Bull Mountains.

Two potential wildlife crossings are mentioned in the BRR. It is likely that only the Little Boulder River Bridge crossing has any merit based on a couple of factors including location. Ideally, I believe that there should be three wildlife crossings focused in the area from the Little Boulder River Bridge to the south end of the project. I realize this is a difficult section of the highway to construct crossings but I think that there is yet potential to identify potential sites and am willing to try to help with that effort. Please let me know if I can be of help.

Tom Carlsen
Wildlife Biologist - FWP

Appendix G

Minutes from Resource Agency Meetings

Agency Coordination Meeting

Wednesday, July 30, 2008
1:00 to 4:00 p.m.
Montana Department of Transportation
Commission Room, 2nd Floor

MEETING MINUTES

This memo is a summary of the Agency Coordination Meeting held on July 30, 2008.

The following were in attendance:

Gabe Priebe	MDT- Consultant Design
Jeff Ebert	MDT-Butte District Administrator
Jim Davies	MDT-Road Design
Dennis Dietrich	MDT-Road Design
Tom Martin	MDT-Environmental Services Bureau Chief
Barry Brosten	MDT-Environmental Services
Deb Wambach	MDT-Environmental Services
Jeff Patten	FHWA
Carl James	FHWA
Darryl James	HKM Engineering
Sarah Nicolai	HKM Engineering
Scott Jackson	USFWS
Tom Carlsen	FWP
Doug McDonald	FWP
Ron Spoon	FWP
Mike Wyatt	BLM
Kelly Acree	BLM
Mark Kelley	DEQ
Jeff Ryan	DEQ
Steve Potts	EPA
Deborah Blank	USACE
Tom Lythgoe	Jefferson County

SAFETEA-LU Discussion

Darryl James began the meeting with a brief overview of SAFETEA-LU's Section 6002 provisions regarding agency and public involvement opportunities throughout the project development process. Carl James elaborated that the intent is to ensure early and continuous coordination with agencies and members of the public in order to share information and address any concerns before critical project decisions are made.

Project Description and History

Darryl described the project location and provided a brief history of the project, noting the initial public scoping meeting in June 2005 and the Alternatives Analysis completed in the September 2006. Darryl also stressed that the Alternatives Analysis was intended to compare planning-level costs and impacts for the existing and alternate alignment alternatives to determine if one could be eliminated prior to full NEPA/MEPA analysis.

Project Purpose and Need

Darryl began this discussion by presenting draft versions of the Purpose and Need statements. A few agency representatives felt that the Purpose and Need language was too narrow. Jeff Ryan asked if the Purpose could be expanded to include provision of environmental enhancements. Scott Jackson asked if additional detail could be included in the Need statement regarding crashes involving domestic and wild animals. Tom Carlsen noted that the Elkhorn Management Area is bounded by MT 69.

Darryl and Deb Wambach stressed that the Purpose and Need language should be a statement of the transportation problem and should be kept relatively simple. Carl James noted that this is important given the restrictions associated with funding sources. Funds intended for transportation projects generally cannot be used for projects whose primary purpose is to enhance the environment.

It was agreed that the Purpose statement would be altered to reflect the following changes:

"To improve safety for users of ~~along~~ the project corridor while mitigating project impacts to the surrounding built and natural environments."

Deborah Blank noted that the term safety can be interpreted in a number of ways, and could include safety of the environment or of wildlife in addition to human or vehicular safety. Steve Potts requested the Need statement be expanded to include a description of the environmental constraints in the corridor. Jeff Ryan echoed this request.

Darryl asked the group to list resources of concern in the project area. Agency representatives noted the river corridor, wetlands, floodplains, fisheries, and potential gravel pit locations.

Deborah noted that the project could result in increased speeds on MT 69, which could in turn result in greater animal – vehicle conflicts. Jeff Ebert stated that the project would not affect the posted speed limit on MT 69. Deb Wambach also noted that even if actual travel speeds were to increase, evidence from national studies on speed and wildlife conflicts suggests that the wider shoulders and clear zones provide improved visibility of wildlife and decrease the risk of conflict.

Deb Wambach noted that all resources would be considered during project development and design and that enhancement and mitigation concerns could be included under goals and objectives, as opposed to the Purpose and Need statements.

Darryl asked Agency Representatives to formulate potential goals and objectives for the project. The group identified the following as goals and objectives for the project:

- Improve / maintain fishing access sites
- Maintain integrity of river corridor and minimize encroachment on river corridor and habitat
- Meet water quality standards (TMDLs to be developed in future)
- Seek opportunities for wildlife crossings

The discussion turned to the Alternatives Analysis completed in September 2006. Tom Lythgoe noted that originally the county had informally agreed to accept responsibility for maintaining the existing MT 69 alignment if the Alternate Alignment were to be constructed. In response to strong public opposition to this option, the county later determined that they could not accept maintenance responsibility for the roadway segment.

Deb Wambach noted that if the Alternate Alignment were pursued, there would be greater cumulative impacts because there would be two paved highways instead of one.

Deborah Blank requested that the EA document the rationale used for the Alternatives Analysis. Jeff Ryan requested that the EA briefly explore abandonment of the existing alignment over the entire corridor, or at minimum, over the portion between the trailer park and MP 32 in order to move the roadway out of the floodplain. Doug McDonald echoed this request. Doug also noted that there are greater safety concerns relating to ice and snow cover as compared to the Alternate Alignment, which tends to be sunnier and more open. Scott Jackson noted that it would be helpful to have a map showing the extent of the floodplain within the project area.

Jeff Ebert stressed that the Alternate Alignment option was a non-starter and would not be forwarded.

Tom Martin asked for clarification regarding the proposed project on the existing alignment. Jim Davies and Dennis Dietrich confirmed that the project would generally follow the existing alignment, with the exception of the curve near the Little Boulder River (approximately MP 35± - 36±), where the road would move farther into the rock face and may also move farther into the river. Jim noted that MDT would like to propose moving forward as a rehabilitation project.

Darryl confirmed that the EA would document the Alternatives Analysis, which would be incorporated by reference. Deborah Blank stated that it would not be acceptable to throw out alternatives early in the process. Tom Lythgoe stated that due in part to public outcry, the Alternate Alignment has already been eliminated and the project will stay on the existing alignment. Deborah stated that the EA must evaluate more than two alternatives. Darryl noted that the Alternate Alignment was previously explored in the Alternatives Analysis. Deborah stated that the EA must still show alternatives that minimize impacts.

Environmental Analyses

A discussion of the methodologies for the environmental analyses followed. Deb Wambach asked if it would be acceptable to perform wetland delineations using the old USACE forms and the 1987 manual. Deborah Blank stated that Alan Steinle would need to address this issue, which is pertinent to a number of ongoing projects.

Deb noted that the BRR would be distributed to agencies for review following completion of the survey for Ute Ladies' Tresses and the wetlands verification work. Jeff Ryan asked when the permitting phase would begin. Jeff Ebert stated that the project is currently scheduled for 2012, with permitting applications to potentially occur in 2011. Jeff Ryan noted that by 2011, there may be new USACE stream mitigation regulations and it may be helpful to speak with Allan Steinle on this issue as well.

Doug McDonald asked if mitigation costs have been identified for each alternative as a line item in the total cost estimate. Darryl confirmed that these costs were included in the Alternatives Analysis estimates.

Doug also asked if MDT has identified mitigation locations. Deb Wambach noted that there are a lot of options in Watershed 6. Jeff Ebert noted that the Boulder Hot Springs may be a potential mitigation location.

Mark Kelley noted that DEQ anticipated completing TMDLs by 2012, including the Boulder River. New regulations may include requirements for remedial actions for current practices.

Scott Jackson asked if roadkill data are addressed in the BRR. Deb Wambach noted that MDT and HKM have asked for more detail on this topic.

Ron Spoon brought up the issue of slickins and the instability of the river. Mark Kelley noted that there are sinuosity and river movement issues in the corridor and that there may be a need for a geomorphological analysis. Ron Spoon asked if hazardous materials have been addressed. Darryl James noted that the project team with talk with MDT Hydraulics to address this issue.

Upcoming Agency Coordination Opportunities

Darryl noted that the Draft BRR should be completed in September or October and that the next agency meeting will likely be scheduled in late October or early November after agencies have had an opportunity to review the Alternatives Analysis document and the Draft BRR. A final agency meeting would likely occur next summer.

Deborah Blank stressed that additional alternatives must be considered, including those proposed by the public such as slowing speeds in the corridor and adding pullout locations while leaving the roadway alone.

Darryl and Jeff Ebert noted that only the legislature can change the speed limit. Darryl stated that various design options would be included in the EA. Deborah stated that agencies would prefer to receive information on any additional analysis of alternatives early in the process.

Jeff Ryan noted that it may be beneficial to have a 404(b)(1) analysis in the EA document. Steve Potts echoed this sentiment.

Ron Spoon asked if agencies would have the opportunity to review potential gravel sites. Darryl stated that it may be too early in the process to identify specific sites, but that perhaps agencies should provide information on areas where gravel pits should not be located. Agency representatives noted that gravel pits should be kept outside of the floodplain.

It was noted that there will be a web site for the project and that pertinent documents will be posted at some point in the future. Agency representatives will be notified when the web site has been established.

Carl James concluded the meeting by commending MDT for undertaking the new SAFETEA-LU process for this project and stressed the benefits of early coordination efforts with agencies.

cc: Meeting attendees
file

Agency Coordination Meeting

Wednesday, December 17, 2008
9:00 to 11:30 a.m.
Montana Department of Transportation
Commission Room, 2nd Floor

MEETING MINUTES

This memo is a summary of the Agency Coordination Meeting held on December 17, 2008.

The following were in attendance:

Gabe Priebe	MDT-Consultant Design
Jeff Ebert	MDT-Butte District Administrator
Jim Davies	MDT-Road Design
Roger Schultz	MDT-Road Design
Damian Krings	MDT-Road Design
Bryan Miller	MDT-Bridge
Tom Martin	MDT-Environmental Services Bureau Chief
Heidy Bruner	MDT-Environmental Services
Deb Wambach	MDT-Environmental Services
Bonnie Steg	MDT-Environmental Services
Carl James	FHWA
Darryl James	Gallatin Public Affairs
Jamie Jespersen	DOWL HKM
Wendy Roberts	Garcia and Associates
Scott Jackson	USFWS
Tom Carlsen	FWP
Doug McDonald	FWP
Jim Darling	FWP
Mike Wyatt	BLM
Kelly Acree	BLM
Scot Franklin	BLM
Mark Kelley	DEQ
Jeff Ryan	DEQ
Chris Romankiewicz	DEQ
Steve Potts	EPA
Tom Lythgoe	Jefferson County

Summary of Key Points from Meeting

- Agencies feel they were left out of the initial decision-making process and that the Alternate Alignment was prematurely eliminated. It is important now to identify ways to address agency concerns and move forward collaboratively.
- Agencies noted that different methods were used to calculate impacts resulting from the Existing and Alternate Alignments. Agencies disagreed with MDT's characterization of relatively small differences in impacts between these two alternatives. Agencies requested a full discussion of impacts resulting from the Alternate Alignment.
- Agencies requested consideration of other options, including pullouts, reduced speeds, and other new alignments. Agencies requested the use of Quantm or other means to identify new alignments. Agencies noted the public's request for consideration of less impactful improvements.
- Due to physical, fiscal, and legal constraints, a new alignment is not feasible in this corridor. An engineering study would need to be completed to assess speed issues. In order to be effective, several pullouts would be needed in the corridor, but opportunities are limited.
- In order to address agency concerns regarding the Alternatives Analysis, it may be helpful to re-package information and expand the discussion on practicability.
- Regarding the Biological Resources Report (BRR), agencies appreciated the extra effort to identify species of concern. Agencies requested consideration of additional wildlife crossing measures.
- All agencies need to be concerned with the health, safety, and welfare of the public. The existing roadway has exceeded its design life and needs to be rehabilitated / reconstructed.
- Early agency coordination under SAFETEA-LU is only required for an EIS. MDT has voluntarily chosen this as a pilot project.

Governing Principles and SAFETEA-LU Discussion

Darryl James began the meeting with the governing principles behind the agency meeting. This meeting is to maintain open communication with regulatory agencies. Darryl James continued with a brief overview of SAFETEA-LU's Section 6002 provisions regarding agency and public involvement opportunities throughout the project development process, as well as purpose and need and methodologies. Carl James added that SAFETEA-LU is a new process and we're all still figuring it out.

Alternatives Analysis

Darryl James described the history of the Alternatives Analysis. The project started with two alternatives—the existing alignment and a county road option. However, the public was vehemently opposed to the county road option, so MDT and FHWA decided to pursue a pre-NEPA screening process, and the Alternatives Analysis was initiated.

Steve Potts noted that in reviewing the transcript of the June 2005 meeting, the locals thought speed and commercial trucks were an issue. The locals were also concerned about impacts to the river and wetlands. Steve then asked what level of improvement was needed. He questioned the process of changing speed limits and the Transportation Commission's involvement in that process. He noted that if environmental impacts are present, lowering the speed limit should be considered to avoid environmental impacts.

Darryl James noted that the speed issue was a recurring theme in all public meetings. Jeff Ebert responded to Steve's question about the involvement of the Transportation Commission. Jeff stated that the issue could be presented to the Transportation Commission, but the law states that there needs to be an engineering study completed. There is also a concern that there is no place in the existing corridor to pull people over safely for enforcement. Steve asked if they would consider pullouts in the southern portion of the corridor. Jeff responded that it was being considered but there would need to be a couple of pullouts in order to be effective. Steve stressed the overwhelming public concern and that the public only needs minor fixes and to reduce the speed and this could lower crash rates.

Jeff Ebert noted that they were somewhat liable for setting speed zones. There was a similar situation in Gallatin Canyon. In that area they found that when the speed limit was lifted from 55 mph to "reasonable and prudent," the crash rates decreased. Jeff Ryan asked who would perform the engineering study. Jeff Ebert responded that MDT usually does this internally and takes the results back to the county. There might already be a study done, but the data may be five years old. Jeff Ebert also relayed that the engineering studies looked at the 85th percentile and pace. Jeff Ryan asked how the speed results from the engineering study would affect the design of the roadway. Bryan Miller first asked if the local perception about the speed issue was in fact accurate. Jeff Ebert relayed to the group that trucks were legislated to go 10 mph slower than cars which causes a speed differential. Darryl James noted that a closer look could be given to the crash analysis to see if speed was truly a factor. Mark Kelley asked where the crash data was located. Darryl James noted that MDT does not release raw crash data publicly due to liability issues until safety measures are identified. Bryan Miller noted that the need statement says that this project should make the highways safer. Darryl James noted that safety improvements would be provided by flattening side slopes while minimizing impacts.

Doug McDonald relayed that the accident data shows that the accidents were due more to driver's error during dry conditions and not necessarily along curves. The preferred alternative refers to horizontal and vertical curve deficiencies, but only two horizontal curves corrected and one vertical curve corrected. The letter given to them says that a careful comparison of the two alternatives showed no difference in impacts. However, the BRR shows that there would be even more environmental impacts if the existing road were rebuilt. What is the reason for throwing the other alternative out? Doug McDonald suggested that there are not as many wetlands as stated in the BRR; the lands are riparian areas instead of wetlands. He would like the 30 acres of wetland impacts verified.

Darryl James provided some clarification of the differences in wetland impacts. He noted that the only impacts for the county road options were at the northern and southern junctions with MT 69. The county road option appears to have substantially fewer wetland impacts than reconstruction on existing, but it may not be fiscally or politically possible to build on the county road alignment. Steve Potts noted his concern about the portrayal of the amount of wetland impacts. The Alternatives Analysis estimated 45 acres of impacts on the existing alignment, 30 acres of wetlands along the alternate alignment, and also 30 acres of impacts on the alternate alignment. He noted that this was confusing and there could possibly be an error. Darryl James noted that the problem would be investigated but he wanted to know if the agencies were comfortable with the methodologies used.

Wendy Roberts gave a statement about Garcia and Associates' involvement and methods used. She noted that Leanne Roulson performed the field investigation and primarily focused on the

preferred route. She did not mind hopping a few fences to investigate further, but due to the timing of her investigation so soon after the public meeting, she did not want to upset landowners.

Doug McDonald confirmed Steve Potts's comment about the amount of wetland impacts. Doug noted that on page 20 of the Alternatives Analysis infers the basis for estimating the 45 acres on the existing alignment was different than methods used on the alternate alignment. If the group conducts wetland delineation on the north and south ends of the project, they will confirm that there are only two to three acres of wetlands on the alternative route and the rest are riparian areas. Doug also noted that for the existing alignment, the Alternatives Analysis does not define clearly the stream impacts. Also, the resources with these streams and the impacts associated with these are not clearly identified. Darryl James acknowledged that the detailed level of impact analysis Doug was looking for is not included in the Alternatives Analysis, and was probably not appropriate for a pre-NEPA planning document.

Tom Lythgoe asked why time was spent on the alternate route. He thought it was a waste of time and money to study this because it is either a No Build or build on the existing route. No further study is warranted. Darryl noted that the regulatory agencies had permitting requirements they would have to consider, and needed to make sure they had considered other reasonable alternatives. Tom Lythgoe added that he has been getting phone calls from people that think the alternate alignment is still considered a viable option. Tom added that when he met the team on the ground, they asked him if he would be interested in the alternate alignment. He thought it was a viable option at the time but admitted that he was wrong.

Jim Darling noted that the project was under the SAFETEA-LU and therefore required early agency involvement. Tom Martin apologized to the agencies noting that MDT should have involved the agencies upfront. He realized that the agencies were uncomfortable not having been involved upfront. MDT now has an Alternatives Analysis, which he thought was a useful tool, particularly in a financially difficult time. So, if we can make the Alternatives Analysis work, if it could be beefed up, that would be beneficial. He added that DEQ already gave some comments about requesting additional work completed on the resources.

Bryan Miller asked if it would make a difference in the public's eyes even if there were not any wetland impacts. Darryl James noted that public opposition was not enough in itself to drop an alternative. However, in the face of numerous condemnations and/or potential lawsuits, an alternative could be dropped if there is another viable alternative. In this corridor, reconstruction along the existing alignment is a viable alternative. Bryan asked what circumstances would be necessary to show the existing alignment as a nonviable option. Darryl responded that the impacts would have to reach an extraordinary level, and based on preliminary findings, the impacts along the existing route are not so high as to necessitate elimination of that option.

Carl James recalled that the Department considered the county road option and dropped it due to substantial public opposition. Carl also noted that a new alignment would have additional stream impacts and MDT would have to maintain two separate roadways in the corridor. Now MDT and FHWA need resource agencies to specify what information and analyses they need to keep the project moving forward. Jim Darling noted he felt that the agencies came in on a throw away and did not feel involved in the process. Carl reiterated that the agencies need to determine what they need in order to get to the next level.

Doug McDonald mentioned his concern with rip-rapping, whether there would be fill going into the river, if there would be disruption to river dynamics, and whether there would be disruption to mine tailings. He also wanted to know if bridges and culverts would be designed for fish and wildlife

passage. He asked that they look at readdressing the cost with these issues and put into the cost comparison of all alternatives and their mitigation to have support or documentation. He also noted that the 30 wetland acres would cost $900,000 but if dropped to two to three acres, this would reduce the cost substantially. He asked that they look at another viable option other than major road reconstruction, such as pullouts or another alternative.

Darryl James noted that these were all detailed design issues which would not be carried forward in the Alternatives Analysis. If you do this detailed analysis for both the existing alignment and the county road option, you've moved into an Environmental Assessment (EA). All these issues have to be addressed in an EA for reasonable alternatives. The idea is to see if there is a way to screen out alternatives at the planning level and minimize the number of alternatives analyzed in the EA.

Deb Wambach informed the group that there are currently two separate documents out for their review—the Alternatives Analysis and the BRR. The Alternatives Analysis is a tool used to identify a broad scope of issues. The BRR is done on the existing conditions to set a baseline of conditions and couples as a support document for an EA. At this point, they don't have that level of detailed design. The question is whether or not the identification of the existing conditions was done in enough detail. Once the project proceeds beyond 30 percent design and into conceptual design, they will then coordinate permitting issues with the agencies. When the process comes to the permitting stages, they will have quantities and structure types. At this time, MDT does not have that level of detail.

Steve Potts asked to further discuss the opportunity to dismiss the alternate alignment. The letter that was sent to the agencies states "minimal difference in impacts" and the agencies disagree. There are different types of impacts. If there would be a complete and good description of these impacts and the issues associated with a new alignment, then the alternate alignment could be eliminated. The county road alignment was eliminated due to public opposition but at that same meeting, the public expressed a desire to reduce speed limits. The speed limit should be another alternative.

Jeff Ryan asked Tom Martin if he had had time to distribute the DEQ letter that was sent. Tom replied that he had sent it to a few people but they may not have had time to review the letter. Jeff Ryan explained the contents of DEQ's letter to the group. DEQ is not endorsing one alignment over the other. Their primary concern is the process of eliminating the alternate alignment—they feel it is flawed. The letter also suggests a few things to help the agency feel more comfortable with this elimination. Jeff noted that recent meetings with other studies seem less biased. He thought the Sidney Bypass meeting showed that that project was primarily an alternatives analysis. He asked that the Department step back entirely and apply the software to ensure a level of comfort.

Mark Kelley noted that premature decisions lead to lack of comfort for the agencies. Due to their current lack of comfort, the agencies feel they cannot make a justifiable decision. He hoped SAFETEA-LU would be a better model than the path they are on right now.

Darryl gave a brief QUANTM overview for those not familiar with the software. He explained that the software had been used for both the Great Falls South Arterial project and the Sidney Bypass project. Both of these projects were looking at new alignments in untracked territory. He felt this project was different. Even if they find a different alignment, the same conditions apply—MDT can't build it. The process upfront is ideal but this project is too late in the game to do that now. The software costs approximately $10,000/mile to run. Also, MDT's contract is up so they would need to set up a new contract with QUANTM. Darryl asked if there was another way besides

QUANTM, so that when the project went to permitting stages, the agencies felt well informed and that their decisions were defensible. Right now, the project team is trying to figure out what they need to do at the planning level, without specific design, or more detailed analysis on an alignment that simply cannot be constructed.

Jim Darling asked to view the remainder of the PowerPoint and maybe come back to the question.

Areas of Agency Concern

Darryl James explained that wetlands, fishing access sites, water quality, and wildlife habitat were raised as the most substantive concerns on the part of the agencies at the last meeting. That would likely be the focus of the analysis in any further comparison between alignment options in the Alternatives Analysis, and the substantive issues in the EA.

Biological Resources Report

Darryl James explained that the initial wetland delineations, identification of wildlife activity, and field investigation for species of concern was done in 2005. Garcia and Associates went back out into the field to verify their findings in August 2008. He also explained that the enhanced investigation of the Ute Ladies'-tresses was in fact a detailed genetic process to verify/refute the presence of this species of concern. Deb Wambach explained that the enhanced field investigations were conducted due to the sensitivity of the corridor. With the wetland areas, the Corps of Engineers accepted using the 2005 results with verification in 2008. She reiterated that they were looking for acceptance of the methodologies used and if they took an acceptable approach with other resources discussed in the BRR.

Darryl James continued with an overview of the delineated jurisdictional and non-jurisdictional wetlands. He added that there was a high use wildlife crossing area near MP 33, but no accident concentration at this location. Since there were no high concentrations of accidents, no crossing or grade separations were going to be recommended. Deb said they would be explored conceptually, but there were difficulties with a design at that location due to the flat terrain.

Darryl proceeded with BRR findings. He gave a summary of impacts to terrestrial resources including some loss of vegetation and wildlife habitat. He also noted that clearing of vegetation could reduce animal-vehicle conflicts. Impacts to aquatic resources were discussed. Darryl noted that Jim Davies was looking at retaining walls and other methods of minimizing potential encroachment into river channel in which would otherwise result in impacts to fisheries and water quality. Potential impacts to both nesting bald eagles and westslope cutthroat trout were discussed, along with the anticipation of no impacts to Threatened and Endangered Species. Scott Jackson conveyed his appreciation for the extra effort in the determination of species. He noted that the process would have been a lot more complicated if the species would have turned out to be protected. He did not have any other concerns.

Darryl stated that the BRR estimated 20 acres of wetland impacts compared to the 45 outlined in the Alternatives Analysis.

Deb Wambach noted that the area between MP 34 and 34.5 was identified as a high use area. Fencing, signage, and vegetation management were listed as viable options to address potential future conflicts in this area. Tom Carlsen mentioned that the BRR did not have any alternatives or opportunities for building crossing structures. Deb noted that this was very difficult due to the footprint. It was a balance of building a crossing versus the impacts to the adjacent environment.

They are currently trying to design a crossing at the Little Boulder River Bridge. Bryan Miller noted that they were trying to achieve just under six feet of clearance. Deb noted that they would need to consider the water height due to beaver activity. Tom Carlsen thought there were a couple of areas where crossings could potentially be developed. One was at Ryan Mountain and the other was Browns Gulch. Deb mentioned at-grade crossings, but Tom Carlsen noted he was not a proponent of signs. Deb said they were committed to exhausting all options. Bryan asked if there others they could copy/learn from.

Scott Jackson asked about the AADT of the area. Doug McDonald thought it was in the 900 to 1,000 range.

Tom Carlsen asked if there was an opportunity for smaller structures to enhance the movement of smaller animals such as beavers under the road. He did not think this was mentioned yet. Deb Wambach noted this was fairly easy to do. Roger Schultz noted that they may want flatter slopes rather than steeper for visibility.

Darryl James discussed other analysis methodologies to be used in the EA analyses. He noted that since the corridor was in a rural valley we did not anticipate much discussion of social/economic issues. Hydraulic and geotechnical methodologies were discussed. Jim Davies noted that there was not much hydraulic information at this time but it would be developed after the alignment and grade stage. Geotechnically speaking, there needs to be approximately a two-foot rise in grade, which could increase impacts. However, the specifics will not be known until after drilling, which will come after the alignment and grade is determined. Bryan Miller added that a new single span pre-stressed beam bridge would be designed over the Little Boulder River. This would allow for 5 to 6 feet of clearance, and will be rip-rapped and covered. If the clearance should be increased, there are other options, but they are give-and-take scenarios. Jim added that it was typical of new construction to raise the grade at least two feet to get away from the water. Deb Wambach noted that two feet was due to the high water table and the need to dig out the substrate. Bryan reiterated that it was two feet for now until they had a better understanding of the materials.

Mark Kelley expressed an interest in the geohydrology for the stream movement and floodplains for areas immediately adjacent to the river. Due to the active floodplain, he had concerns about encroaching. Corps of Engineers' pending stream modification mitigation requirements were discussed in detail. Jeff Ryan noted that it would be a factor when this project is in the permitting process and would have implications in the alignments. Doug McDonald noted that the area was complex hydraulically. He questioned how the team would get a handle on the hydrology to ensure wetlands get the necessary water as they did before.

Scott Jackson asked if there were any areas noted in the accident analysis that were worse than other areas. He asked if there were any areas that would warrant greater safety design than other areas. He also asked if there were steep ditches throughout. Darryl James replied that the majority had steep side slopes. Darryl added that the project was originally a complete reconstruct but was now a rehabilitation and reconstruct project. The project team had a work session where they went through the project ¼ mile at a time to see where they could minimize wetland impacts.

Avoidance & Minimization

Darryl James continued to explain that over the timeframe of the project, the roadway width decreased from 34 feet, which gave room for future overlay while maintaining appropriate shoulders and side slopes, to 32 feet even knowing impacts to the life of the project. Damian

Krings noted that the 36 feet width on the bridge was wider than the roadway. This was designed to extend the life of the bridge. Darryl mentioned the consideration of using retaining walls in appropriate locations as well as minor alignment shifts to minimize/avoid impacts. Jeff Ryan asked why major alignment shifts were not considered on the side of the river that would give the river a lot more room. Darryl noted that due to the substantial amount of wetlands on either side, it would be a tradeoff. Jeff Ryan asked that they consider not just a 20 to 30 foot shift, but a shift way out in the valley. He added that there would be costs involved in researching this, but he felt it was a prudent alternative. Jeff Ebert relayed that the locals were very possessive of their trees in the valley. He added that to have minor shifts in alignment could help the traffic control as cars could travel on the old route while the new shifts in alignments were built. He also mentioned taking advantage of the ground that has settled for 40 years. Jeff Ryan noted that MDT may think that the construction is better, but it was not the better option from DEQ's point of view. Tom Carlsen mentioned developing wildlife crossings if the alignment was moved out of the floodplain.

Steve Potts asked what effects speed limits would have on design. Jeff Ebert noted that the width was based on future traffic. He thought the design speed had more to do with the slopes, alignment, and degrees of curvatures. Damian Krings added that these geometric features along with other issues such as site distance would be impacted by design speeds. Steve asked that the effect design speeds have on impacts be recorded in the EA. Darryl James noted that they were not considering a standard slope throughout the project but adjusting it to minimize impacts. Damian added that you can actually reduce impacts by raising the grade and that generalizations cannot be made but instead these are situational impacts.

Darryl James went around the room to ask one last time what information and analyses the agencies would need to feel like they were making an informed and defensible decision.

Kelly Acree noted that there was a tiny chunk of BLM as far as right-of-way was concerned.

Mark Kelley asked to take a step back and review the overall timeline and schedule of related projects. Overall the goal for this project was construction in 2012. Jeff Ebert confirmed this overall ballpark figure. Jeff Ebert added that they planned to start at Elk Horn to MP 22 for construction in 2010. That project had been scaled back to a widen and overlay project with minor curve modifications. Roger Schultz relayed to the attendees that this current project was originally part of the Elk Horn project. Mark noted that if the agencies got what they wanted, it might ultimately slow the process down.

Jim Darling asked how well what we've done so far follows the SAFETEA-LU process and early coordination. Have we given a good enough look at other reasonable alternatives? If not, what needs to transpire to satisfy the process?

Doug McDonald noted that SAFETEA-LU advises agencies not to proceed forward unless they have reviewed the alternatives. He feels that this part has been skipped and so the group should now step back and review the upland alternative. Currently, comparing the No Build to the existing alignment is black and white. He is not comfortable all the impacts have been addressed. He suggested using the current analysis as a comparison to the upland route costs to eliminate the upland route. The process needs to compare the same kinds of information for all the alternatives. He does not think they are in NEPA/SAFETEA-LU compliance if they proceed without further analysis. Darryl James disagreed. He asked what the agencies would like to see improved with the knowledge that this is not NEPA analysis but a planning level document. Physical, fiscal, and legal constraints exist that will preclude moving forward with a new alignment.

Tom Lythgoe reminded the attendees that they are all doing a job for the health, safety, and welfare of the public. Everyone needs to figure out a way to make this work instead of putting up roadblocks to slow the process down and increase the cost already incurred to date. He found it inappropriate that anyone would say they would not permit this project at this stage. He again stressed figuring out a way to make the project work.

On a final poll around the room,. Steve Potts asked that an alternative be considered that looks at reducing the speed limit and the impacts associated with a design based on the lower speed. Jeff Ryan asked for QUANTM. He considered the cost of running the program, and possibly doing a scaled down version of the program—QUANTM-lite—in order to eliminate the bias he felt was implemented into the project. He was not suggesting throwing out what has already been done, but adding a tool to compliment the progress.

Gabe Priebe asked what results QUANTM produces. Damian explained that you develop a general, digital model of the terrain and assign certain values to different aspects such as wetlands. Even if the model was built for free, if you cannot acquire the property, the alignment is a no go and can't progress any further.

Jeff Ryan noted that the MDT letter indicated insignificant differences between the existing alignment and the alternate alignment and he does not agree. Damian added that the existing alignment option does not necessarily mean on the center line. Darryl confirmed this and that the alignment would be generally along the existing. Different options with this general alignment will not be discounted in the EA, but completely different off-road alignment options should be screened out in the Alternatives Analysis. Jeff Ryan asked if/when the process goes into the EA stage, will they consider new alignments. Darryl noted that different design elements would be built into the design, but different alternatives would not be carried forward. Jeff Ryan added that only the no build and build on existing would be considered, and the Department wants concurrence. Darryl noted that the Department was saying that a new alignment was not feasible. Minor shifts will be addressed in the EA.

The difference between what is an entirely new alternative and what is considered the existing alternative with added design details was discussed. Mark Kelley noted that they were interested in the tradeoffs. Right now the tradeoffs and what has been considered seems to be in a black box. It was suggested to analyze these tradeoffs and say why the alternate route is not considered.

Jeff Ebert stressed the current condition of the existing road. It is beyond its design life and needs to be reconstructed. Mark Kelley asked about a No Build with minor modifications. Darryl James noted that this would not meet the purpose and need since it would fail to provide safety improvements. Mark mentioned the speed limit as a different alternative. He expressed that if the Department takes the public needs as rationale for not doing upland route they are contradicting themselves to not have a speed alternative that was expressed in the same meeting.

Damian addressed public comment misconceptions and how the existing road would not last 20 more years. He expressed the need to qualify their comments. To say that you want a reduced speed limit is completely different than saying you cannot buy my land.

Scott Jackson summarized the heartburn of the agencies. He noted that the agencies feel that there was an alternative that was dismissed but without any consideration to the environmental impacts. The Department needs to justify dropping the alternate route—environmental costs, condemnation, etc.—and clarify the statement "alternate alignment." The Alternatives Analysis

could be cleared up by laying it out differently. MDT could do this with different options to avoid/minimize impacts rather than with different alignments.

Carl James noted that under SAFETEA-LU, agency involvement is only required for an Environmental Impact Statement (EIS). The Department is involving the agencies in the EA process as a learning experience and to allow everyone to go through the process together. The Department is currently looking at how helpful it is. It is an opportunity for the agencies, but not required for an EA.

Tom Martin thanked everyone for coming. He apologized again for not involving them earlier, but they were all together now and now have the opportunity to discuss and move forward collaboratively. The Department will continue to keep the agencies involved to progress toward a usable project.

Darryl wrapped up the meeting with a commitment to get the agencies meeting minutes. He also informed the agencies that they had until December 19, 2008 to submit comments on the BRR. He concluded that everyone would do their best to keep communication open.

cc: Meeting attendees
file

Appendix H

Preliminary Planning-Level Cost Estimates

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BOULDER SOUTH ALTERNATIVES ANALYSIS
Planning Level Estimate of Costs

Spot Improvements

Item Description	Approx. Quantity	Unit Meas.	Estimated Unit Price	Amount
Clearing & Grubbing	1	AC	$2,542	$3,000
Remove Existing Pavement	0	SY	$5.85	$0
Unclassified Excavation Including Haul	1,400	CY	$4.00	$6,000
Unclassified Borrow	5,400	CY	$4.30	$24,000
Rock Excavation	0	CY	$11.00	$0
Base	1,000	CY	$27.50	$28,000
Crushed Aggregate Course	2,000	CY	$17.54	$36,000
Plant Mix Surfacing Grade S	15,500	Ton	$27.47	$426,000
Culverts				
18" Diameter	0	LF	$44.00	$0
24" Diameter	0	LF	$60.17	$0
36" Diameter	0	LF	$124.05	$0
48" Diameter	0	LF	$122.16	$0
Remove Existing Bridge Structures	0	EA	$10,695	$0
New Bridge Structures				
Single Span 1	0	SF	$95	$0
Single Span 2	0	SF	$95	$0
Single Span 3	0	SF	$95	$0
Multi Span 1	0	SF	$112	$0
Multi Span 2	0	SF	$112	$0
Painting and Striping	700	Gallons	$58.45	$41,000
Signing	0	Lump Sum	$52,000	$0
Seeding	0	AC	$423	$0
Fencing	0	LF	$2.53	$0
Wetland Mitigation	0	AC	$30,000	$0
SUBTOTAL 1				**$564,000**
Mobilization @ 10%	1	Lump Sum	$57,000	$57,000
Miscellaneous @ 25%	1	Lump Sum	$141,000	$141,000
SUBTOTAL 2 (2009)				**$762,000**
SUBTOTAL 2 (Let Date of 2012)	3	Years	3.00%	**$832,658**
Indirect Cost (IDC) - Construction	1		14.06%	$117,072
Planning / Survey/ Design @ 10%	1	Lump Sum	$83,000	$83,000
Traffic Control @ 4%	1	Lump Sum	$33,300	$34,000
Construction Contingencies @ 25%	1	Lump Sum	$208,200	$209,000
Construction Management @ 15%	1	Lump Sum	$124,900	$125,000
Acquire Right-of-Way	1	AC	$3,500	$4,000
TOTAL				***$1,405,000***

Unit Prices from January to December 2008 MDT Average Prices Catalog

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BOULDER SOUTH ALTERNATIVES ANALYSIS
Planning Level Estimate of Costs

Existing Alignment

Item Description	Approx. Quantity	Unit Meas.	Estimated Unit Price	Amount
Clearing & Grubbing	100	AC	$2,542	$255,000
Remove Existing Pavement	96,000	SY	$5.85	$562,000
Unclassified Excavation Including Haul	217,000	CY	$4.00	$868,000
Unclassified Borrow	0	CY	$4.30	$0
Rock Excavation	6,000	CY	$11.00	$66,000
Base	38,800	CY	$27.50	$1,067,000
Crushed Aggregate Course	85,000	CY	$17.54	$1,491,000
Plant Mix Surfacing Grade S	37,700	Ton	$27.47	$1,036,000
Culverts				
18" Diameter	1,020	LF	$44.00	$45,000
24" Diameter	1,587	LF	$60.17	$96,000
36" Diameter	828	LF	$124.05	$103,000
48" Diameter	168	LF	$122.16	$21,000
Remove Existing Bridge Structures	4	EA	$10,695	$43,000
New Bridge Structures				
Single Span 1	1,421	SF	$95	$136,000
Single Span 2	1,421	SF	$95	$136,000
Single Span 3	1,421	SF	$95	$136,000
Multi Span 1	4,264	SF	$112	$478,000
Multi Span 2	0	SF	$112	$0
Painting and Striping	700	Gallons	$58.45	$41,000
Signing	1	Lump Sum	$39,000	$39,000
Seeding	70	AC	$423	$30,000
Fencing	66,528	LF	$2.53	$169,000
Wetland Mitigation	20	AC	$30,000	$600,000
SUBTOTAL 1				**$7,418,000**
Mobilization @ 10%	1	Lump Sum	$742,000	$742,000
Miscellaneous @ 25%	1	Lump Sum	$1,854,500	$1,855,000
SUBTOTAL 2 (2009)				**$10,015,000**
SUBTOTAL 2 (Let Date of 2012)	3	Years	3.00%	**$10,943,661**
Indirect Cost (IDC) - Construction	1		14.06%	$1,538,679
Planning / Survey / Design @ 10%	1	Lump Sum	$1,094,000	$1,094,000
Traffic Control @ 15%	1	Lump Sum	$1,641,500	$1,642,000
Construction Contingencies @ 25%	1	Lump Sum	$2,735,900	$2,736,000
Construction Management @ 15%	1	Lump Sum	$1,641,500	$1,642,000
Acquire Right-of-Way	10	AC	$3,500	$35,000
TOTAL				***$19,631,000***

Unit Prices from January to December 2008 MDT Average Prices Catalog

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BOULDER SOUTH ALTERNATIVES ANALYSIS
Planning Level Estimate of Costs

Eastern Alignment

Item Description	Approx. Quantity	Unit Meas.	Estimated Unit Price	Amount
Clearing & Grubbing	131	AC	$2,542	$334,000
Remove Existing Pavement	24,556	SY	$5.85	$144,000
Unclassified Excavation Including Haul	411,000	CY	$4.00	$1,644,000
Unclassified Borrow	221,000	CY	$4.30	$951,000
Rock Excavation	0	CY	$11.00	$0
Base	39,500	CY	$27.50	$1,087,000
Crushed Aggregate Course	85,900	CY	$17.54	$1,507,000
Plant Mix Surfacing Grade S	37,900	Ton	$27.47	$1,041,000
Culverts				
18" Diameter	624	LF	$44.00	$28,000
24" Diameter	0	LF	$60.17	$0
36" Diameter	2,180	LF	$124.05	$271,000
48" Diameter	0	LF	$122.16	$0
Remove Existing Bridge Structures	2	EA	$10,695	$22,000
New Bridge Structures				
Single Span 1	1,421	SF	$95	$136,000
Single Span 2	1,421	SF	$95	$136,000
Single Span 3	0	SF	$95	$0
Multi Span 1	11,220	SF	$112	$1,257,000
Multi Span 2	14,960	SF	$112	$1,676,000
Painting and Striping	700	Gallons	$58.45	$41,000
Signing	1	Lump Sum	$39,000	$39,000
Seeding	75	AC	$423	$32,000
Fencing	67,690	LF	$2.53	$172,000
Wetland Mitigation	12	AC	$30,000	$360,000
SUBTOTAL 1				**$10,878,000**
Mobilization @ 10%	1	Lump Sum	$1,088,000	$1,088,000
Miscellaneous @ 25%	1	Lump Sum	$2,719,500	$2,720,000
SUBTOTAL 2 (2009)				**$14,686,000**
SUBTOTAL 2 (Let Date of 2012)	3	Years	3.00%	**$16,047,789**
Indirect Cost (IDC) - Construction	1		14.06%	$2,256,319
Planning / Survey/ Design @ 10%	1	Lump Sum	$1,605,000	$1,605,000
Traffic Control @ 4%	1	Lump Sum	$641,900	$642,000
Construction Contingencies @ 25%	1	Lump Sum	$4,011,900	$4,012,000
Construction Management @ 15%	1	Lump Sum	$2,407,200	$2,408,000
Acquire Right-of-Way	100	AC	$3,500	$350,000
TOTAL				***$27,321,000***

Unit Prices from January to December 2008 MDT Average Prices Catalog

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BOULDER SOUTH ALTERNATIVES ANALYSIS
Planning Level Estimate of Costs

Western Alignment

Item Description	Approx. Quantity	Unit Meas.	Estimated Unit Price	Amount
Clearing & Grubbing	108	AC	$2,542	$275,000
Remove Existing Pavement	32,000	SY	$5.85	$188,000
Unclassified Excavation Including Haul	285,595	CY	$4.00	$1,143,000
Unclassified Borrow	610,023	CY	$4.30	$2,624,000
Rock Excavation	472,388	CY	$11.00	$5,196,269
Base	42,000	CY	$27.50	$1,155,000
Crushed Aggregate Course	92,000	CY	$17.54	$1,614,000
Plant Mix Surfacing Grade S	41,000	Ton	$27.47	$1,126,000
Culverts				
18" Diameter	340	LF	$44.00	$15,000
24" Diameter	529	LF	$60.17	$32,000
36" Diameter	276	LF	$124.05	$35,000
48" Diameter	392	LF	$122.16	$48,000
Remove Existing Bridge Structures	2	EA	$10,695	$22,000
New Bridge Structures				
Single Span 1	1,421	SF	$95	$136,000
Single Span 2	1,421	SF	$95	$136,000
Single Span 3	0	SF	$95	$0
Multi Span 1	112,000	SF	$112	$12,544,000
Multi Span 2	0	SF	$112	$0
Painting and Striping	750	Gallons	$58.45	$44,000
Signing	1	Lump Sum	$52,000	$52,000
Seeding	78	AC	$423	$34,000
Fencing	74,176	LF	$2.53	$188,000
Wetland Mitigation	30	AC	$30,000	$900,000
SUBTOTAL 1				**$27,507,269**
Mobilization @ 10%	1	Lump Sum	$2,751,000	$2,751,000
Miscellaneous @ 25%	1	Lump Sum	$6,876,800	$6,877,000
SUBTOTAL 2 (2009)				**$37,135,269**
SUBTOTAL 2 (Let Date of 2012)	3	Years	3.00%	**$40,578,711**
Indirect Cost (IDC) - Construction	1		14.06%	$5,705,367
Planning / Survey/ Design @ 10%	1	Lump Sum	$4,058,000	$4,058,000
Traffic Control @ 4%	1	Lump Sum	$1,623,100	$1,624,000
Construction Contingencies @ 25%	1	Lump Sum	$10,144,700	$10,145,000
Construction Management @ 15%	1	Lump Sum	$6,086,800	$6,087,000
Acquire Right-of-Way	77	AC	$3,500	$268,000
TOTAL				***$68,466,000***

Unit Prices from January to December 2008 MDT Average Prices Catalog

The **Clearing and Grubbing** category was calculated as the area from the edge of required right-of-way to the opposite edge of required right-of-way. This category is largest for the eastern alignment because it would follows a narrow gravel county road over some portions of the corridor between MP 31.8 and 35.7, but would also traverse some undisturbed land. The western alignment would travel undisturbed territory over its entire length between points of intersection with the existing roadway, but there would be rock cuts over much of the length, reducing the amount of clearing and grubbing.

The **Unclassified Excavation Including Haul and Unclassified Borrow** categories were calculated by modeling the entire valley area based on USGS topographical maps. The western alignment would require the greatest amount of earthwork, followed by the eastern alignment and the existing alignment. While the existing MT 69 alignment is mostly flat, the eastern alignment would involve work in hilly terrain, and the western alignment would traverse mountainous terrain.

The **Base, Crushed Aggregate Course, and Plant Mix Surfacing** categories are larger for the eastern and western alignments as compared to the existing alignment due to longer roadway lengths. The eastern alignment is approximately 0.11 miles longer and the western alignment is approximately 0.52 miles longer than the existing MT 69 alignment.

There are four **bridges** along the existing MT 69 alignment, including three single-span bridges and one multi-span bridge. These bridges would be removed and replaced. Two of the existing single-span bridges would also be removed and replaced under the eastern and western alignments. Additionally, two new bridges would be required along the eastern alignment, both of which would be multi-span bridges. The cost of each multi-span bridge on the eastern alignment is higher than the cost of the multi-span bridge on the existing MT 69 alignment because they are substantially longer. The western alignment would require four new multi-span bridges in order to span several deep ravines.

The **Miscellaneous** category is estimated to be up to 25 percent for this project because of the potential for unknown factors. It includes items such as:

- Sawcutting pavement
- Fence replacement
- Riprap
- Public relations
- Topsoil
- Traffic gravel
- Seal coat
- Guardrail
- Cattle guards
- Noxious weed control
- Mail boxes
- Slope treatment
- Watering
- Ditch or channel excavation
- Shoring, cribbing, or extra excavation
- Asphalt for tack coat
- Incidental asphalt concrete pavement
- Unsuitable excavation
- Temporary striping
- Temporary water pollution/erosion control

Several cost categories are calculated as percentages of construction, including the mobilization and miscellaneous categories. Additionally, the **Planning/Survey/Design, Traffic Control, Construction Contingencies, and Construction Management** categories were calculated as percentages of the respective subtotals noted in Table 8.3. These categories were calculated using the same percentage factors for each alternative, with the exception of Traffic Control. A

smaller percentage was used to calculate Traffic Control for the eastern and western alignments due to the fact that these could be constructed while the majority of traffic remained on the existing MT 69 alignment. Reconstruction along MT 69 would require substantial traffic control and/or a detour route. The Planning/Survey/Design category does not include the cost of environmental clearance documentation. A construction contingency of 25 percent, the maximum amount recommended by MDT's cost estimation guidelines, was chosen because of the potential for higher cost of right-of-way acquisition in this area than estimated due to lack of landowner support for the project as well as rapid increases in land values in Montana, and what is considered to be a high potential for unknown factors due to the controversial nature of the project.

A larger amount of **right-of-way** would be required for the eastern alignment in comparison to the existing alignment mainly because the eastern alignment would involve an almost entirely new alignment between MP 31.8 and 35.7. There are portions of this alignment that parallel the existing county road. Typically, right-of-way along county roads in Montana consists of a 60-foot easement, with 30 feet on each side of the center line. The county road was constructed on an easement, and no right-of-way is owned by either Jefferson County or the state along this route. The total right-of-way calculated for the eastern alignment assumes that there is no existing county right-of-way owned along the county road. The western alignment would require new right-of-way along its entire length, but would involve substantial rock cuts, where right-of-way needs would be lessened due to the steep slope of the cuts.