APPENDIX A
Public and Agency Participation Materials

April 2015

Prepared for:

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Prepared by:

DOWL

Contents

Public and Agency Involvement Plan

July 2014

Prepared for:

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Prepared by:

DOWL HKM

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1.0 Introduction

The Montana Department of Transportation (MDT) has initiated a corridor planning study on MT 86. The limits of the study will begin at reference post (RP) 1.95 at the intersection of MT 86 and Story Mill Road, and extend northeasterly to the intersection of MT 86 and US 89 (RP 37.5) for an approximate length of 35.5 miles. This roadway is located in Gallatin and Park Counties beginning just east of Bozeman and ending approximately one mile north of Wilsall, MT.

This corridor planning study will examine the geometric characteristics, crash history, and existing and projected operational characteristics of the corridor, as well as physical conditions, land uses, and environmental resources within the planning corridor. The planning effort will recommend short-term and long-term improvement options to address corridor needs and objectives. These recommendations will assist MDT in targeting the most critical highway needs and allocating resources appropriately.

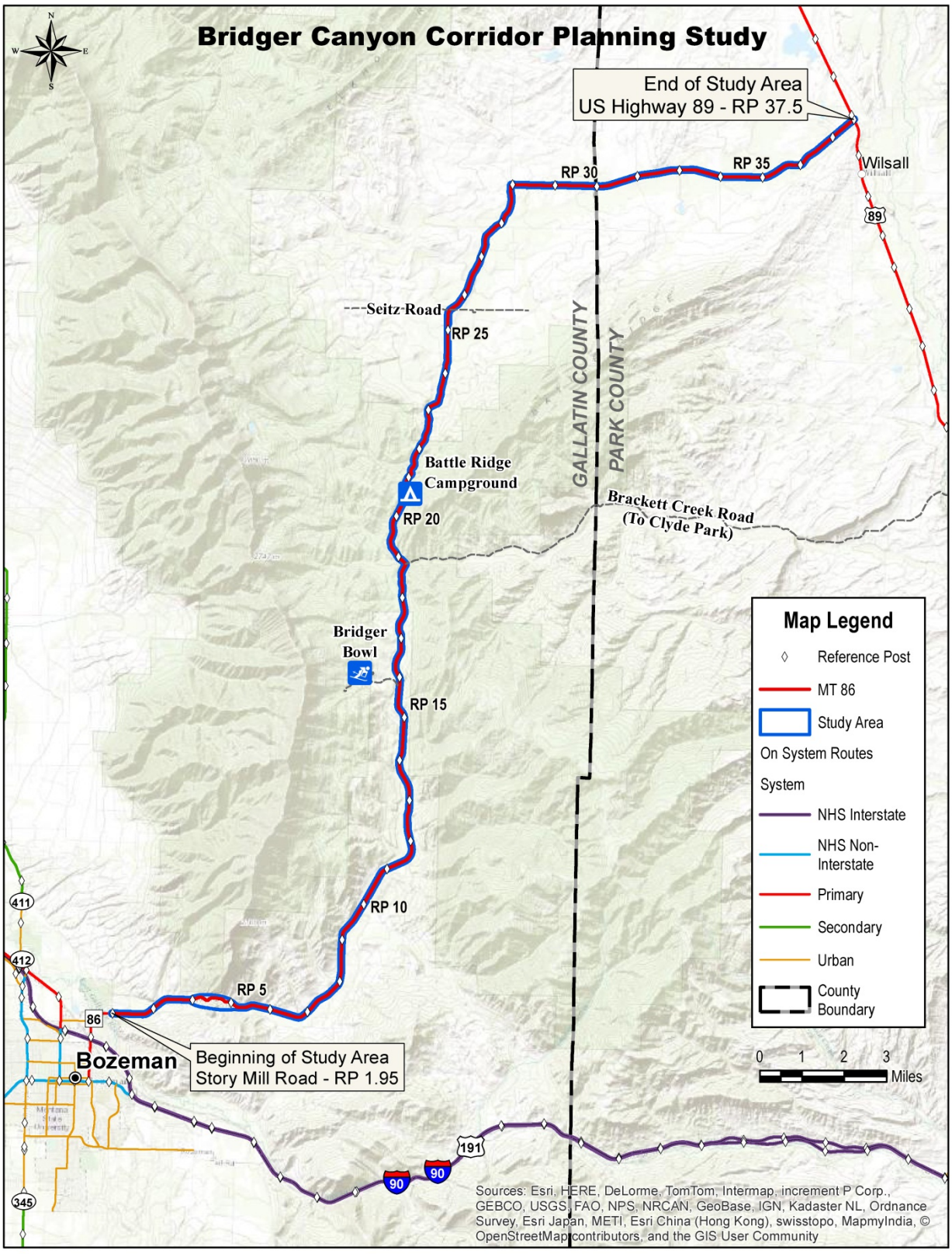
1.1. Study Area

Figure 1 illustrates the study area. The corridor includes private ranches and homes; Gallatin National Forest; amenities such as trailheads and campgrounds; the Bridger Bowl alpine ski area; Bohart Ranch cross-country ski center; and small streams. These features create a diverse travel demographic and vehicle type using the corridor. From Bozeman to Bridger Bowl (approximately 16 miles), the roadway is 25 to 30 feet wide with limited physical constraints. Beyond Bridger Bowl, the roadway narrows with roadway widths of 22 feet in some locations.

1.2. Goal of Public and Agency Involvement Plan

The primary goal of this plan is to provide opportunities for members of the public, stakeholders, and resource agency representatives to learn about the process, review information about the corridor planning study, and provide input throughout the planning effort. In support of this goal, the following sections identify procedures that will guide the public and agency involvement effort.

Figure 1 Study Area



2.0 Study Contacts

Contact information for MDT and the consultant will be provided in all published materials.

Jeff Ebert, MDT District Administrator
Montana Department of Transportation (MDT)
Butte District Office
3751 Wynne
PO Box 3068
Butte, MT 59702-3068
406.494.9625
jebert@mt.gov

Katie Potts, MDT Project Manager
Montana Department of Transportation (MDT)
Statewide and Urban Planning
2960 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001
406.444.9238
kpotts@mt.gov

Sarah Nicolai, Consultant Project Manager
DOWL HKM
1300 Cedar Street
Helena, MT 59601
406.442.0370
snicolai@dowlhkm.com

3.0 Media Coordination

Announcements will be developed by DOWL HKM and advertised by MDT at least three weeks before informational meetings. Advertisements will announce the meeting location, time, and date; the format and purpose of the meetings; and the locations where documents may be reviewed. The *Bozeman Daily Chronicle,* the *Belgrade News* and the *Livingston Enterprise* may carry display advertisements.

MDT may also issue press releases to local radio and television stations announcing informational meetings. Specific media outlets will be identified during the course of the study as appropriate.

4.0 Study Website

DOWL HKM will develop content for a website to be hosted by MDT. The website will provide a description of the planning effort, a description of public involvement opportunities, study contacts, links to available documents, and an anticipated study schedule.

5.0 Document Availability

5.1 Newsletters and Meeting Materials

DOWL HKM will develop two newsletters for the study. The first newsletter will be issued at the time of the first informational meeting and will introduce the study and describe its purpose, illustrate the study area and study components, and describe key findings from the existing and projected conditions report. The second newsletter will be distributed at the time of the second informational meeting and will present proposed improvement options and potential impacts and mitigation strategies. DOWL HKM will also develop meeting materials for each informational meeting, including agendas, static exhibits, and other presentation materials. Print copies of newsletters and meeting materials will be available at each of the two informational meetings hosted for this study. MDT will publish electronic versions of newsletters and meeting materials on the study website at http://www.mdt.mt.gov/pubinvolve/bridger/ following the meetings. Print and/or electronic copies of newsletters will also be distributed to the study mailing list.

5.2 Reports

MDT will publish electronic versions of reports on the study website. Print copies of the environmental scan report, existing and projected conditions report and the study report will be available at the MDT Rail, Transit, and Planning Division Office (2960 Prospect Avenue; Helena, MT). Print copies of these reports may also be made available at the following locations.

- MDT Bozeman Office (907 North Rouse Avenue; Bozeman, MT)
- Gallatin County Department of Planning and Community Development (Gallatin County Courthouse, 311 West Main Room 108; Bozeman, MT)
- Park County Planning Department (414 East Callender St; Livingston MT)
- Bozeman Department of Community Development (20 East Olive St #202; Bozeman, MT)
- Gallatin National Forest Field Office (3710 Fallon St., Suite C; Bozeman, MT)

6.0 Meetings

6.1 Advisory Committee Meetings

Advisory committee (AC) meetings will generally be scheduled every four weeks for the duration of the study period. AC members will discuss study progress, analysis methodologies, and any issues or concerns that arise during the study. The AC will also review study documentation before publication. Representatives from MDT, FHWA, Gallatin County, Park County, and Gallatin National Forest will be invited to participate in the advisory committee.

6.2 Informational Meetings

Two informational meetings will be held during the course of the study. The first informational meeting will be held part-way through the planning process after the consultant has evaluated environmental, social, and land use conditions and conducted

crash and operational analyses within the study area. During the first meeting, the consultant will introduce the study, present findings from the existing and projected conditions report, and discuss issues and concerns in the study area. Members of the public will be asked to provide feedback on potential improvement options at the second informational meeting.

Comments will be considered throughout the planning process. A public and agency comment period will occur following publication of the draft study report. All comments will be considered before the report is finalized.

6.3 Resource Agency Meeting

MDT will host a single resource agency meeting at the MDT offices in Helena, with conference call arrangements at the MDT Butte District Office and at the Bozeman Department of Community Development, as appropriate. The purpose of the meeting will be to present findings from the draft environmental scan report and existing and projected conditions report. Resource agencies will be asked to identify initial avoidance areas, mitigation needs, and opportunities.

6.4 Stakeholder Meetings

DOWL HKM will be available to meet with stakeholder groups as needed during the planning process.

7.0 Public, Agency, and Stakeholder Comments

Public, resource agency, and stakeholder comments are welcome throughout the planning process. Written comments may be submitted by mail to Sarah Nicolai, DOWL HKM, P.O. Box 1009, Helena, MT 59624; by email to snicolai@dowlhkm.com; or online at http://www.mdt.mt.gov/pubinvolve/missoulabridges/comments.shtml

8.0 Accessibility

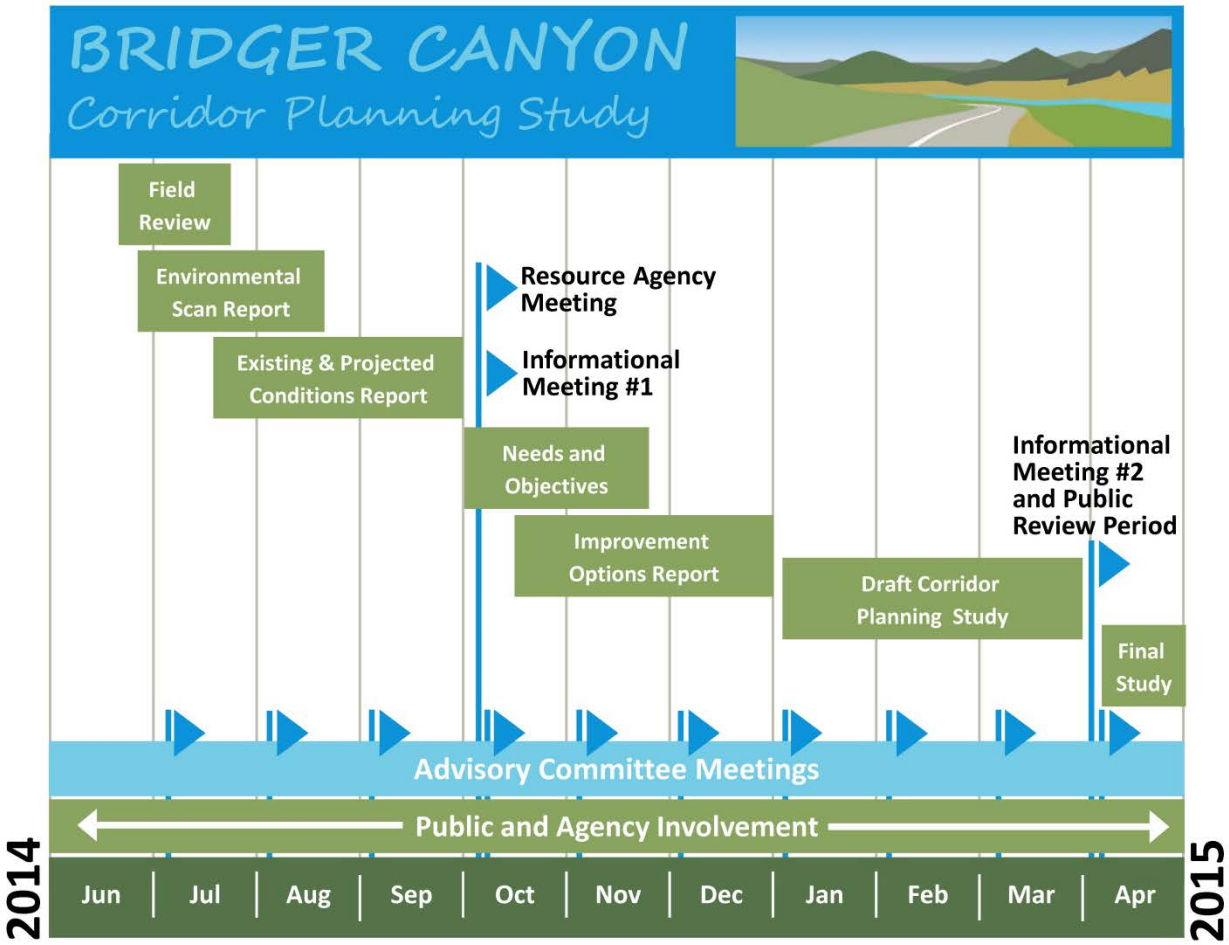
The State of Montana attempts to provide accessible information and services to all individuals. MDT will employ the following measures for the Bridger Canyon Corridor Planning Study.

- MDT will host informational meetings in locations that are accessible and compliant with the Americans with Disabilities Act (ADA).
- MDT and the consultant will confer with community leaders and representative organizations about how best to involve traditionally-underserved populations.
- MDT and the consultant will communicate effectively at the informational meetings by avoiding technical jargon and exercising appropriate conduct and judgment. Alternative accessible formats of study materials will be provided upon request.

9.0 Study Schedule

The Bridger Canyon Corridor Planning Study began in June 2014 and is expected to be completed by the end of April 2015. Figure 2 illustrates the anticipated study schedule.

Figure 2 Anticipated Study Schedule



DOWL HKM

Physical Address:
1300 Cedar Street
Helena, Montana 59601
Phone: (406) 442 - 0370

Mailing Address:
P.O. Box 1009
Helena, Montana 59624
Fax: (406) 442 - 0377

Memorandum

To: Katie Potts
MDT Project Manager

From: Sarah Nicolai
DOWL HKM Project Manager

Date: October 15, 2014

Subject: Bridger Canyon Corridor Planning Study
Resource Agency Meeting on October 15, 2014

A resource agency meeting for the Bridger Canyon Corridor Planning Study was held on October 15, 2014, at the Montana Department of Transportation (MDT) Planning Division Conference Room A in Helena at 8:30 a.m. Attendees also participated in the meeting from the MDT Butte and Bozeman District Offices. Meeting attendees are listed below.

Katie Potts	MDT – Rail, Transit and Planning Division
Jean Riley	MDT – Rail, Transit and Planning Division
Vicki Crnich	MDT – Rail, Transit and Planning Division
Deb Wambach	MDT – Environmental Services Bureau
Doug Lieb	MDT – Environmental Services Bureau
Joe Walsh	MDT – Butte District
Mike McGrath	USFWS
Julie Cunningham	MTFWP
Beau Downing	MTFWP
Chris Scott	Gallatin County Planning Department
Sarah Nicolai	DOWL HKM
Will Trimbath	DOWL HKM
David Stoner	DOWL HKM

Resource Agency Coordination

An invitation letter was sent to the resource agency distribution list on September 24, 2014. A copy of the letter is provided at the end of this memorandum. DOWL HKM conducted follow-up phone calls to the distribution list on October 9, 2014, to confirm attendance at the meeting.

Meeting Format

Sarah Nicolai, DOWL HKM Project Manager, and Will Trimbath, DOWL HKM Environmental Specialist, provided an overview of the planning study process, study area, and key findings from the Draft Existing and Projected Conditions Report and the Draft Environmental Scan Report. Meeting attendees provided comments throughout the meeting. Discussion items are noted below. A copy of the meeting presentation is provided at the end of this memorandum.

Discussion Items

- Sarah began the meeting by providing an overview of the planning study process and noting the study is a pre-NEPA, planning-level study and there are no nominated projects at this time. The study team will develop a list of needs and objectives for the corridor based on input from agencies and members of the public.

- Sarah presented key findings from the Draft Existing and Projected Conditions Report, including bridge conditions, bicycle/pedestrian facilities, drainage/pavement conditions, rockfall hazards, speed limits, geometric roadway conditions, traffic volumes and operations, and crash history.

    - Mike McGrath asked about a planned bicycle/pedestrian path from Bozeman to the "M" trail. Katie Potts explained the project is programed for 2015.

- Will presented key findings from the Draft Environmental Scan Report, including surface waters/wetlands, hazardous materials, fish and wildlife, threatened and endangered species, recreational resources, and cultural resources.

    - Chris Scott requested an explanation of Section 4(f) and Section 6(f) properties. Sarah explained that public parks, recreation areas, wildlife refuges, and historic sites are afforded protection under Section 4(f) of the Department of Transportation Act. Potential Section 4(f) sites occur within the study area. Section 6(f) refers to sites funded through the Land and Water Conservation Fund Act. No Section 6(f) sites were identified within the study area.

    - Mike asked what percentage of crashes involved a wild animal and how that percentage relates to other corridors with similar characteristics. Sarah noted approximately 10 percent of the reported crashes involved a wild animal. Deb Wambach and Julie Cunningham noted other corridors with similar characteristics have a higher percentage of wild animal crashes. Deb offered to conduct a query of other corridors to compare crash statistics. Julie responded a query would not be necessary.

    - Attendees discussed strategies for wildlife mitigation within the corridor. Mike McGrath stated a 10 percent wild animal crash statistic may justify wildlife crossing mitigation. Attendees agreed funding should be prioritized based upon corridors with the greatest need. Julie Cunningham and Deb Wambach noted other corridors including US 89 may present greater need due to greater relative wildlife/vehicle conflicts. Deb explained there are numerous wildlife mitigation strategies that may be more cost effective than a wildlife crossing structure while still improving conditions. Jean Riley noted private land abuts

the corridor and implementing wildlife mitigation on private land can be difficult. Julie noted the public may advocate for wildlife crossing structures. Julie recommended explaining the range of wildlife mitigation strategies at the informational meeting.

- Attendees discussed potential fish crossing structures in the corridor. Beau Downing explained there is a Fish, Wildlife and Parks restoration management plan to protect Yellowstone cutthroat trout in the Shields River Valley system. Beau added he would share the report and contact the authors to provide additional input for the study.

- Joe Walsh asked what the term "resolved" means in reference to the four leaking underground storage tank sites. Jean explained the term "resolved" indicates the site has been mitigated to the satisfaction of the Montana Department of Environmental Quality (DEQ).

    - Following the meeting, Will contacted DEQ personnel and confirmed that the four tanks have been removed.

- Chris noted the Western Transportation (WTI) Institute has conducted research in the corridor and it may benefit the study to include them in the planning process. Deb noted MDT and WTI have a good working relationship.

Written Responses

The U.S. Army Corps of Engineers and Montana Fish, Wildlife and Parks provided written comments, which are attached to this memorandum.

Bridger Canyon Corridor Planning Study

Resource Agency Meeting

Wednesday, October 15, 2014

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Will Trimbath	DOWL HKM	1300 CEDAR STREET	HELENA, MT 59601	wtrimbath@dowlhkm.com
VICKI ORNICH	MDT		HELENA, MT 59601	VORNICH@MT.GOV
DOUG LIEB	MDT STATEWIDE PDE		"	dlieb@MT.gov
Katie Potts	MDT		" "	kpotts@mt.gov
Sarah Nicolai	DOWL HKM	1300 Cedar Street	Helena	
David Stover	DOWL HKM	1300 Cedar Street	Helena	
Deb Wambach	MDT - Env		Helena	dwambach@mt.gov
Mike McGrath	USFWS	585 Shepard Way, Suite 1	Helena, MT 59601	mike_mcgrath@fws.gov
Jean Riley	MDT		Helena	jriley@mt.gov
Beau Downing	FWP	1420 E. 6th Ave	Helena MT 59601	bdowning@mt.gov
JULIE CUNNINGHAM				
CHRIS SCOTT				

MDT
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Michael T. Tooley, Director
Steve Bullock, Governor

September 22, 2014

To: Resource Agency Distribution

Subject: Bridger Canyon Corridor Planning Study

The Montana Department of Transportation (MDT), in partnership with the Federal Highway Administration (FHWA) and Gallatin and Park Counties, has initiated a corridor planning study to explore the potential need for improvements along Montana Highway 86 (MT 86). The study will focus on the portion of MT 86 beginning at Reference Post (RP) 1.95 at the intersection of Story Mill Road and ending at the junction with United States Route 89 (US 89) at RP 37.50. The study area includes the MT 86 corridor and a 300-foot buffer on both sides of the roadway (for a total buffer width of 600 feet) throughout the majority of the corridor. A buffer width ranging up to approximately 1,700 feet is included from approximate RP 4.0 to RP 5.0 to include a landslide and historic quarry at approximate RP 4.4.

MDT invites you to attend a resource agency meeting to discuss environmental conditions in the study area, and identify any issues or concerns regarding environmental resources that may be affected by potential future improvement options.

When: **Wednesday, October 15, 2014** from **8:30 a.m. to 12:30 p.m.**

Where:	**MDT Planning Division**		**MDT Butte District**		**MDT Bozeman Area Office**
	Conference Room A	or	Conference Room	or	Conference Room
	2960 Prospect Avenue		3751 Wynne		907 North Rouse Avenue
	Helena, MT 59601		Butte, MT 59702		Bozeman, MT 59771

Please review the draft environmental scan report in advance of the meeting. An electronic version of this document (with attachments) is provided on the enclosed CD. If you are unable to attend the resource agency meeting, please forward these files to an appropriate agency designee.

Please provide written comments on the enclosed report by **October 24, 2014,** to Katie Potts at the address indicated on the letterhead. Additional information about the study is available at the study website (http://www.mdt.mt.gov/pubinvolve/bridger/).

Please contact Sarah Nicolai, Consultant Project Manager, by **October 8, 2014,** to confirm your participation in the resource agency meeting.

Sarah Nicolai
DOWL HKM
P.O. Box 1009
Helena, MT 59624
406.324.7412
snicolai@dowlhkm.com

Thank you in advance for your agency's input.

Sincerely,

Tom Martin
MDT Environmental Services Bureau Chief

Enclosure

Resource Agency Distribution:
Julie Dalsoglio, U.S. Environmental Protection Agency
Mick McGrath, U.S. Fish and Wildlife Service
Todd Tillinger, U.S. Army Corps of Engineers
Travis Horton, MT Fish, Wildlife, and Parks
Kevin Hughes, MT Fish, Wildlife, and Parks
Howard Burt, MT Fish, Wildlife, and Parks
Mike Vaughn, MT Fish, Wildlife, and Parks
Scott Opitz, MT Fish, Wildlife, and Parks
Julie Cunningham, MT Fish, Wildlife, and Parks
Karen Loveless, MT Fish, Wildlife, and Parks
Mike Inman, Park County Planning Department
Chris Scott, Gallatin County Planning Department
William Inman, Park County Planning Department
Robert Ray, MT Department of Environmental Quality
Paul Skubinna, MT Department of Environmental Quality
Beau Downing, MT Fish, Wildlife, and Parks
Allan Kuser, MT Fish, Wildlife, and Parks
Lisa Stoeffler, U.S. Forest Service

Copies (without enclosure):
Katie Potts, MDT
File

Bridger Canyon Corridor Planning Study

Resource Agency Meeting

October 2014

DOWL HKM

MONTANA MDT DEPARTMENT OF TRANSPORTATION

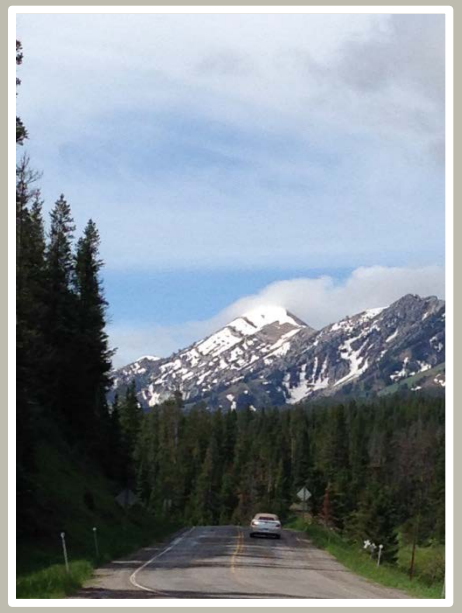


Welcome and Introductions

Meeting Format

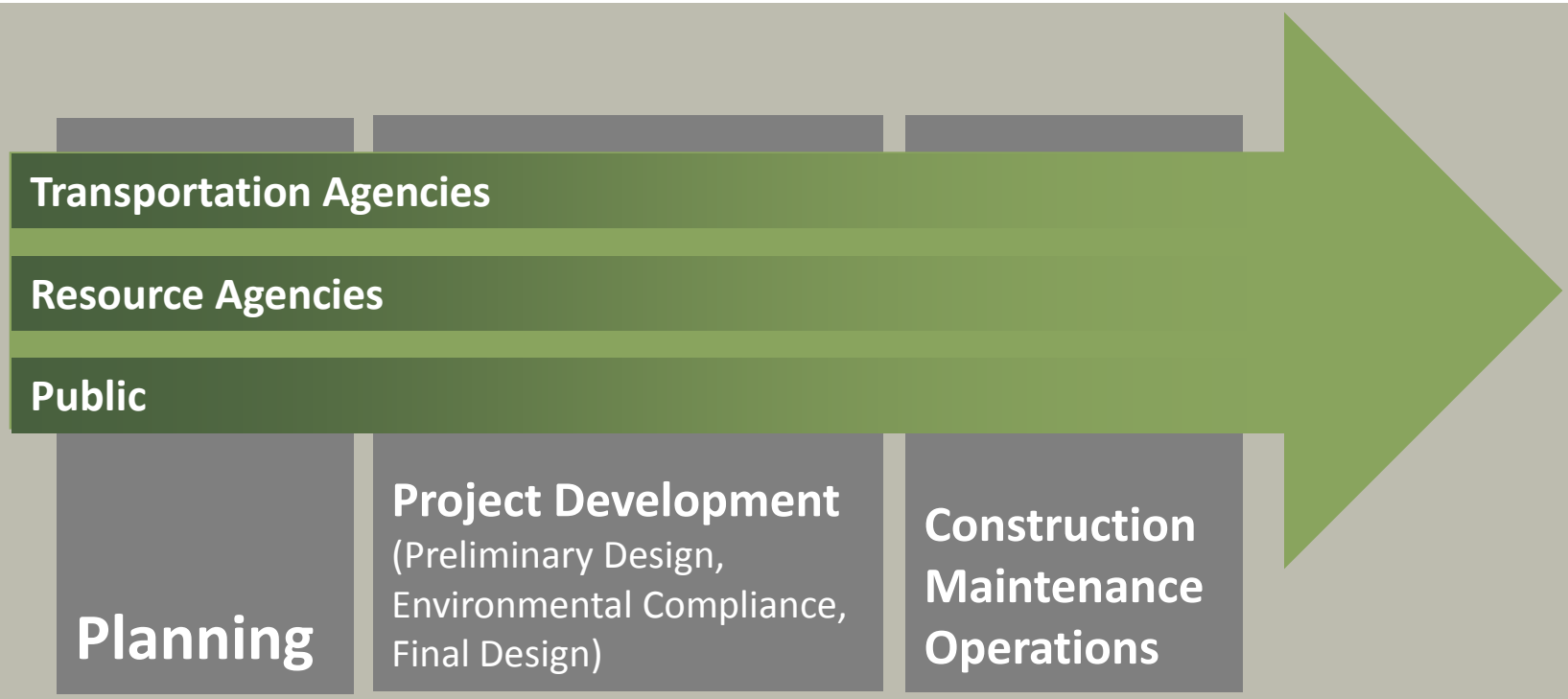
Presentation

- Overview of planning study process
- Key findings from draft existing and projected conditions report
  - Transportation Conditions
  - Environmental Conditions



Discussion Period

What is a Planning Study?

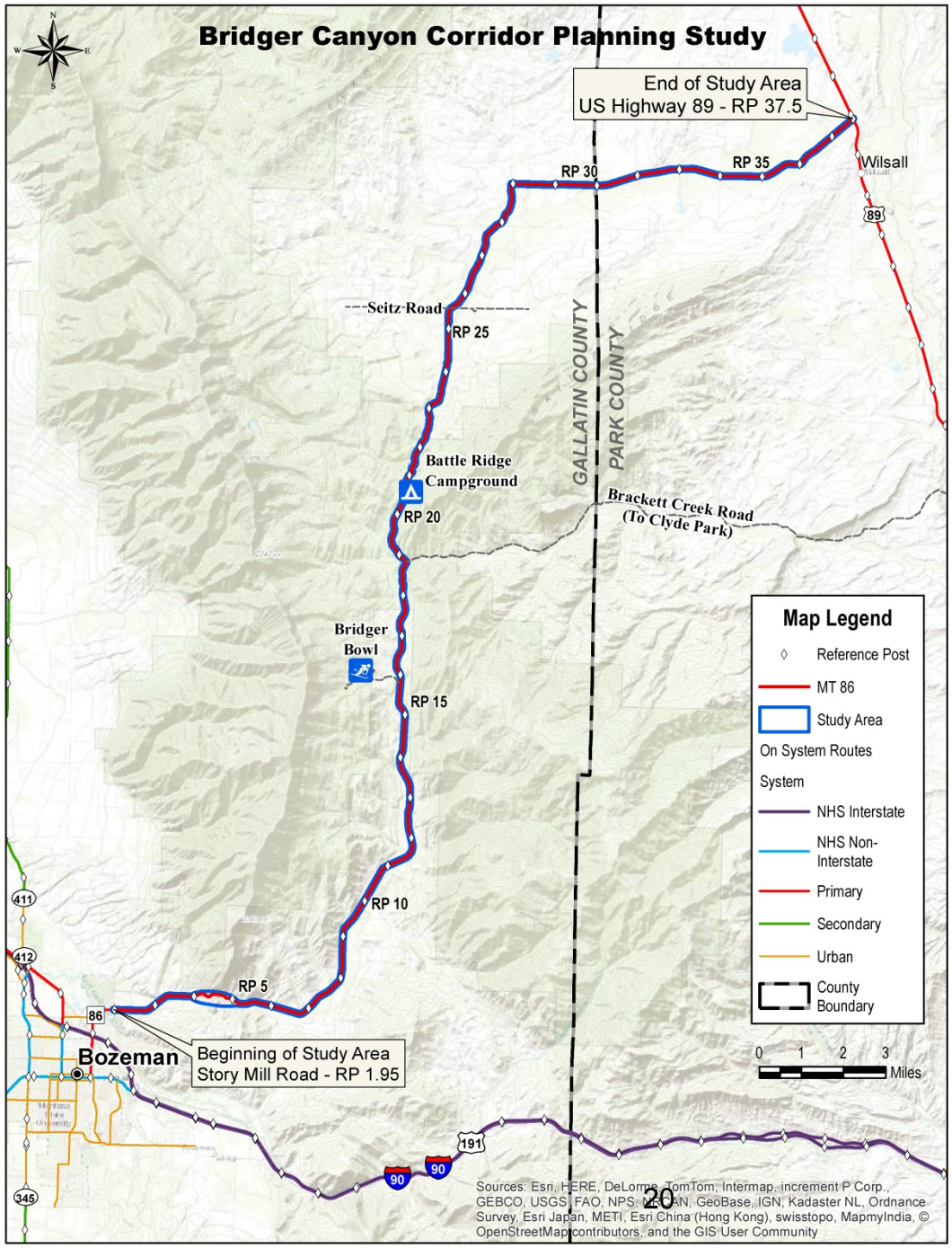


A planning study is conducted before design, right-of-way acquisition, and construction for an individual project.

Planning Study Overview

- Existing and Projected Conditions
- **Resource Agency Meeting**
- Informational Meeting # 1
- Needs and Objectives
- Improvement Options
- Draft Study Report
- Informational Meeting # 2
- Public/Agency Review Period
- Final Study Report

We Are Here



Study Area

Start: Story Mill Road (RP 1.95)

End: US 89 (RP 37.5)





Transportation System

MT 86 Overview

- Two-lane highway
- Rural minor arterial
- Paved width varies from 24 feet to 35 feet
- Right-of-way widths vary from 30 feet to 200 feet from centerline
- Rolling and mountainous terrain

Bridges

RP	Feature Crossed	Year Built	Structure Condition
3.1	Bridger Creek	2005	Good
6.7	Drainage	1939	Good
7.8	Stock Pass	1939	Fair
8.1	Drainage	1939	Good
8.9	Drainage	1939	Good
9.5	Stock Pass/Drainage	1939	Good
18.8	Brackett Creek	1953	Good
24.4	Cache Creek	1939	Fair
26.8	Carrol Creek	1986	Fair
28.0	Flathead Creek	1939	Good

3 of 10 bridges are candidates for repair (Fair Condition)

Bicycle/Pedestrian Facilities

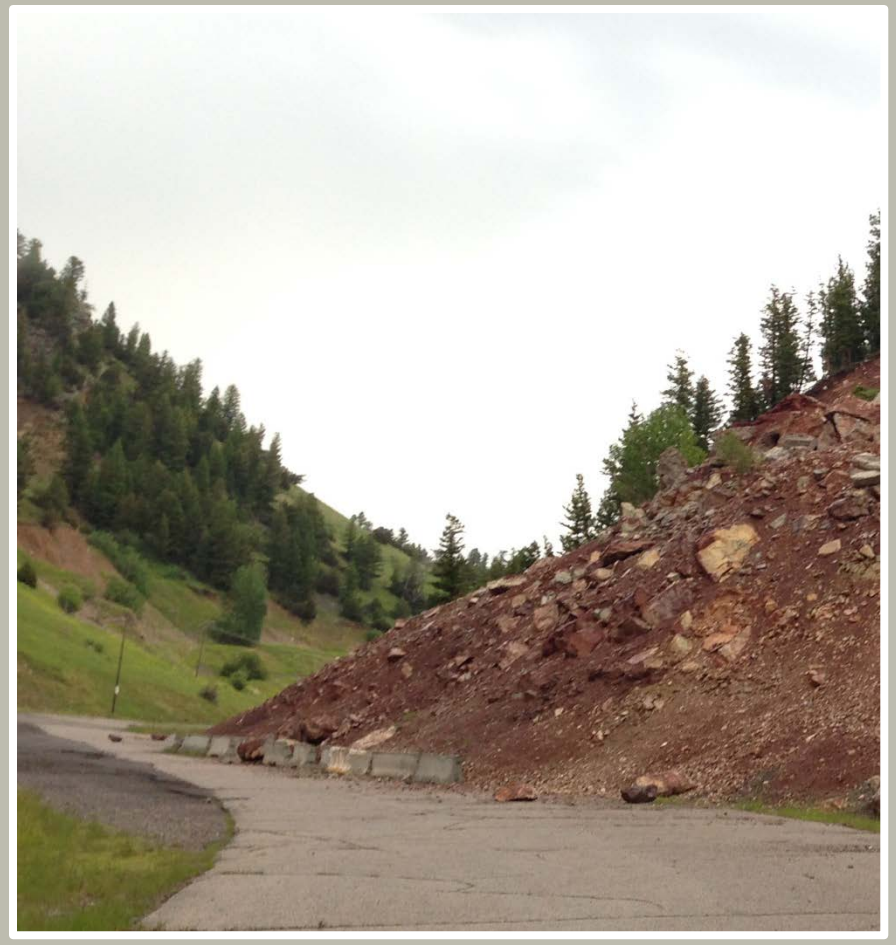
- MT 86 provides connections to “M” Trail System and Drinking Horse Mountain Trails
- No dedicated facilities on MT 86
- Shoulders range from 0 feet to 5 feet

Drainage/Pavement Conditions

- Pavement deterioration due to saturated subgrade on MT 86.
- Areas with standing water near roadway, plugged culverts
- Areas with cracking and pavement failure

Rockfall Hazard

- 1975 slide covered portion of MT 86 near RP 4.4
- MT 86 rerouted to north
- Slide area unstable; earthquake or precipitation could trigger another event



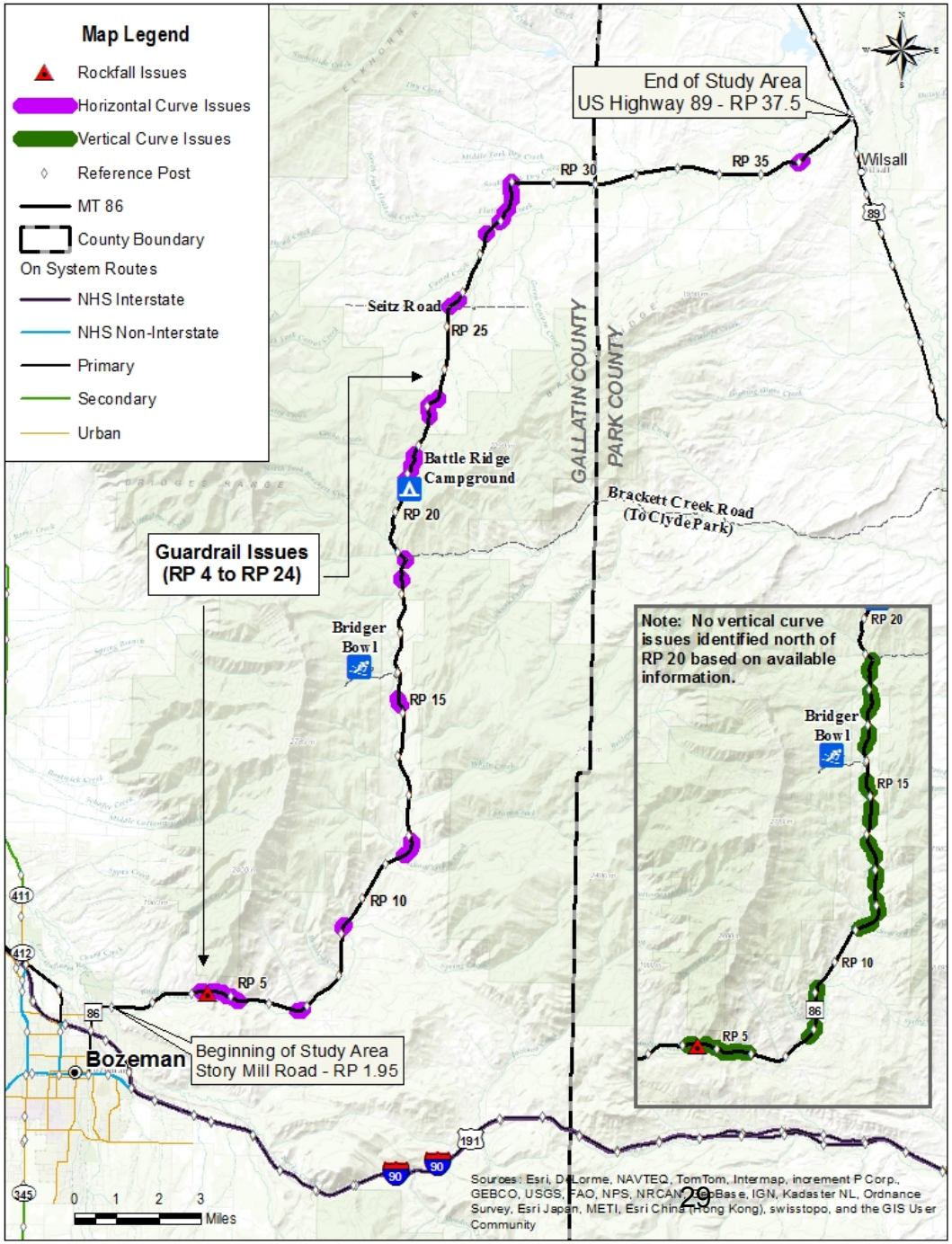
Speed

- Statutory speed limit is 70 mph
- Posted/advisory speeds range from 25 mph to 60 mph
  - Speeds reflect recommendations from 2014 speed study requested by Gallatin County
- Our study <u>will not</u> result in changes to speeds in the corridor

Geometrics

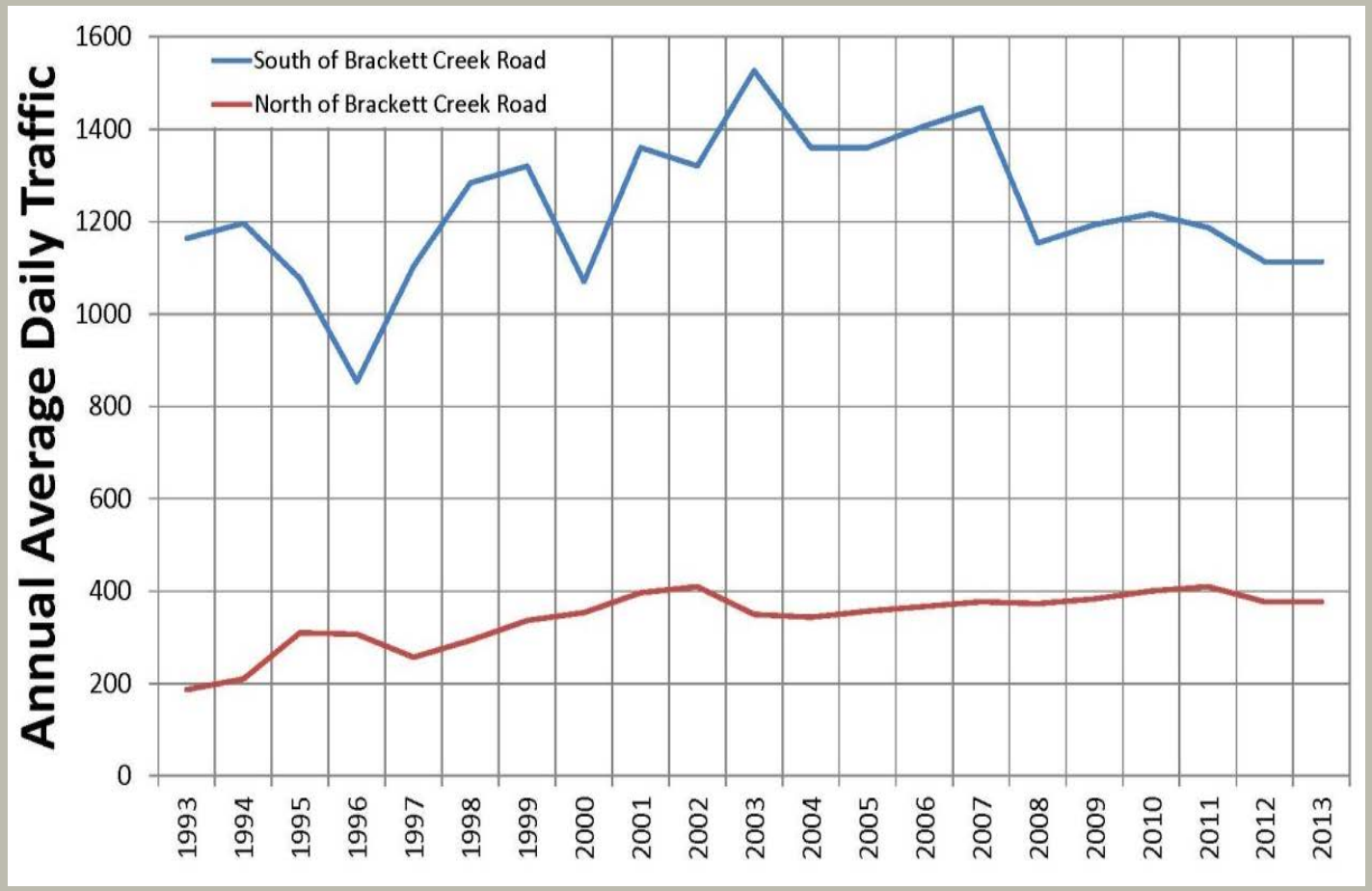
Areas not meeting current MDT design criteria:

- 36 of 120 horizontal curves
- 38 of 95 vertical curves
- RP 4.0 to RP 24.0 lacks slope protection


Map Legend
Rockfall Issues
Horizontal Curve Issues
Vertical Curve Issues
Reference Post
MT 86
County Boundary
On System Routes
NHS Interstate
NHS Non-Interstate
Primary
Secondary
Urban
End of Study Area
US Highway 89 - RP 37.5
Wilsall
RP 30
RP 35
Seitz Road
RP 25
GALLATIN COUNTY
PARK COUNTY
Battle Ridge
Campground
RP 20
Brackett Creek Road
(To Clyde Park)
Guardrail Issues
(RP 4 to RP 24)
Bridger
Bowl
RP 15
RP 10
RP 5
Bozeman
Beginning of Study Area
Story Mill Road - RP 1.95
Note: No vertical curve issues identified north of RP 20 based on available information.
0 1 2 3
Miles
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

Geometrics

Traffic Volumes



Higher volumes south of Brackett Creek Road (RP 18.8)

Traffic Operations

	Northbound Segment	Start RP	End RP	Segment Length (mi)	Peak Hour Volume 2014	Peak Hour Volume 2035	LOS 2014	LOS 2035
1	Story Mill Rd to Bridger Bowl Rd	1.95	15.7	13.75	77	95	B	B
2	Bridger Bowl Rd to Seitz Rd	15.7	25.3	9.6	54	67	A	A
3	Seitz Rd to US 89	25.3	37.5	12.2	29	60	A	A
	Southbound Segment	**Start RP**	**End RP**	**Segment Length (mi)**	**Peak Hour Volume 2014**	**Peak Hour Volume 2035**	**LOS 2014**	**LOS 2035**
1	Story Mill Rd to Bridger Bowl Rd	15.7	1.95	13.75	72	89	B	B
2	Bridger Bowl Rd to Seitz Rd	25.3	15.7	9.6	56	69	A	B
3	Seitz Rd to US 89	37.5	25.3	12.2	27	56	A	A

Desirable level of service (LOS) for minor arterial:

Rolling terrain: **LOS B** Mountainous terrain: **LOS C**

Crash History (2009-2013)

- 173 crashes, 59 injuries, and 6 fatalities
- Roll-over and fixed-object type crashes were highest number of crashes and injuries
- Head-on crashes resulted in 50% of fatalities





Environmental Conditions

Surface Water/Wetlands

- 18 named streams in study area
- Bridger Creek, East Gallatin River, and Stone Creek listed as impaired by DEQ
- Wetlands observed throughout the study area
- Five mapped floodplain zones exist within the study area

Hazardous Materials

- 4 leaking underground storage tank (LUST) sites within corridor
- Abandoned quarry at RP 4.4
- 1 hazardous waste handler (USFWS Fish Technology Center)

Fish and Wildlife

- Elk observed on road in winter months
- Whitetail and mule deer are common throughout corridor
- Moose and black bear habitat (RP 5 to RP 22)
- Streams support multiple fish species; Brackett Creek and Flathead Creek contain genetically-pure Yellowstone cutthroat trout

Threatened/Endangered & Species of Concern

Threatened/Endangered Species		Federal Status
Wildlife Species	Greater sage-grouse	Candidate
	Sprague's pipit	Candidate
	Grizzly bear	Threatened
	Canada lynx	Threatened
Plant Species	Whitebark pine	Candidate
	Ute ladies'-tresses	Threatened

- Bald eagles and other raptors may occur in study area

- Only known habitat for Warm Spring Zaitzevian riffle beetle occurs along Bridger Creek within the USFWS Bozeman Fish Technology Center property

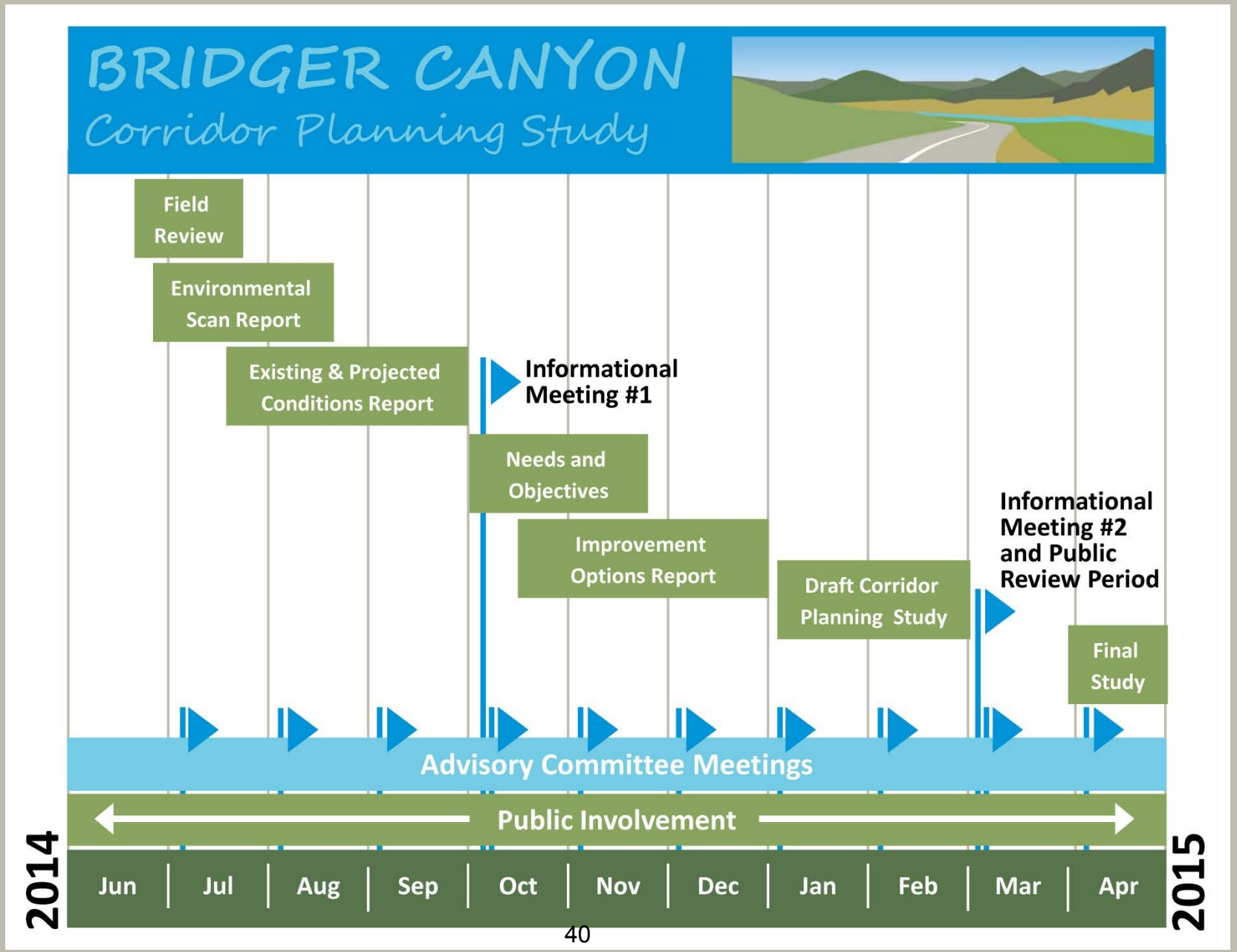
- 21 species of concern may occur in study area

Recreational Resources

- Numerous recreational opportunities
- Several potential Section 4(f) recreational sites within corridor
- No Section 6(f) sites

Cultural/Archeological Resources

- 2 sites listed on the National Register of Historic Places
- Unrecorded sites likely occur within corridor


BRIDGER CANYON
Corridor Planning Study
Field Review
Environmental Scan Report
Existing & Projected Conditions Report
Informational Meeting #1
Needs and Objectives
Improvement Options Report
Draft Corridor Planning Study
Informational Meeting #2 and Public Review Period
Final Study
Advisory Committee Meetings
Public Involvement
2014
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
2015

Submit Comments

- **Please submit comments by October 24, 2014**
- **Mail/e-mail comments to:**

Katie Potts
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena, MT 59620-1001
kpotts@mt.gov



Discussion Period

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
HELENA REGULATORY OFFICE
10 WEST 15TH STREET, SUITE 2200
HELENA MT 59626

REPLY TO
ATTENTION OF

October 9, 2014

Regulatory Branch
Montana State Program
Corps No. NWO-2014-02266-MTH

Subject: Bridger Canyon Corridor Planning Study M86 - Various Waters

Sarah Nicolai
DOWL HKM
P.O. Box 1009
Helena, Montana 59624

Dear Ms. Nicolai:

We have reviewed your letter requesting information concerning the above-referenced project, which was delivered to our Helena office and dated September 22, 2014. The proposed work is located in Section 33, Township 1 South, Range 6 East, in Gallatin County, Montana.

The mission of the U.S. Corps of Engineers (Corps) Regulatory Program is to protect the Nation's aquatic resources while allowing reasonable development through fair, flexible and balanced permit decisions. In particular, under Section 404 of the Clean Water Act, we work to protect the biological, physical, and chemical integrity of the Nation's aquatic resources. Projects are evaluated on a case-by-case basis to determine the potential benefits and detriments that may occur as a result of the proposal. In all cases an applicant must avoid and minimize impacts to aquatic resources to the greatest extent practicable.

Under the authority of Section 404 of the Clean Water Act, Department of the Army (DA) permits are required for the discharge of fill material into waters of the U.S. Waters of the U.S. include the area below the ordinary high water mark of stream channels and lakes or ponds connected to the tributary system, and wetlands adjacent to these waters. Isolated waters and wetlands, as well as man-made channels, may be waters of the U.S. in certain circumstances, which must be determined on a case-by-case basis. If no waters of the U.S. will be impacted by the project, no DA permit is required.

Waters of the U.S. appear to be present in or near the project area identified on the map provided. The Corps offers the following comments in planning your project:

a. Make every reasonable effort to prosecute the construction or work authorized herein in a manner so as to minimize any adverse impacts on the aquatic environment.

b. All dredged or excavated materials shall be placed above the ordinary high water line in an upland area to prevent the return of such materials to the waterway.

c. Limit clearing of riparian or wetland vegetation to the absolute minimum necessary. Where temporary riparian or wetland vegetation impacts are unavoidable, it must be mowed or cut off above the ground and the topsoil and root mass must be left intact. The ground must then be restored to its original contours. Utilize seeding and planting as necessary to re-establish desirable vegetative cover, utilizing native species in areas where native species were impacted.

d. All new culverts, bridges, structures, and adjacent channels in waters of the U.S. must not disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the water body, including those species that normally migrate through the area.

Note that this letter only informs you of your need to obtain a DA permit if dredged or fill material will be discharged in waters of the U.S. It is not an authorization to proceed. Any other applicable Federal, tribal or local permits should be obtained as required.

The project area identified on the map provided should be evaluated for the presence of wetlands or waters of the U.S. If wetlands are identified within the project area, they must be delineated in accordance with the Corps' 1987 Wetland Delineation Manual and appropriate Regional Supplement. The wetland delineation report and mapping should be prepared in accordance with the enclosed Wetland Delineation Checklist.

Thank you for the opportunity to provide comments on this proposed activity. Please contact me at (406) 441-1365 if you have questions and reference Corps File Number NWO-2014-02266-MTH.

Sincerely,

Jess J. Davies
Natural Resources Specialist

Enclosure:

Wetland Delineation Checklist

US Army Corps of Engineers
BUILDING STRONG®

Montana Wetland Boundary Verification Checklist

Montana Regulatory Program - Updated November 2013

Montana Regulatory Program

All applications for Permits from the U.S. Army Corps of Engineers must include a delineation of special aquatic sites, including delineations of wetland boundaries. The content of acceptable wetland delineations is listed below. The same information is required if you are requesting verification of a wetland boundary in conjunction with pre-application reviews.

1. Contact information for the property owner and written permission from the property owner for the Corps to enter the property.
2. Contact information for the individual(s) performing the wetland delineation.
3. Location of the site:
    1. Latitude/Longitude
    2. Written directions
    3. Location map showing the limits of the study area
4. Reference Information
    1. Color photographs with labels
    2. Aerial photograph with study area shown
    3. National Wetland Inventory (NWI) maps (where available) with study area shown
    4. Soil Surveys with study area shown
    5. Topographic maps/USGS Quadrangle maps
    6. Floodplain/FEMA Flood Insurance Rate Maps maps if applicable
5. Describe methodologies used, including Regional Delineation Supplements, and the rationale for the choice of methodology (routine, comprehensive, difficult wetland situations).
6. Completed data forms for wetland and upland sampling points
7. Results of field investigation and summary of findings
    1. Name each aquatic resource and provide size in acres or square feet of wetlands, as well as lakes, ponds, and linear feet of stream/tributary (i.e. Wetland A, Pond B, Trib-1, Miller Creek).
8. Site map with clearly marked wetland boundaries and all other aquatic resources (streams, ponds, lakes, ditches, etc.)
    1. Appropriate scale (1"=50' or 1"=100' is recommended)
    2. Wetland boundary flag numbers
    3. Title block with north arrow, date, scale, legend, drawing name, revision dates
9. Stream drainage area at the site, stream size, qualitative environmental assessment of aquatic resources on site, Cowardin classification of wetland areas, etc.
10. In the Field:
    1. Wetland boundaries marked with numbered flags corresponding to numbers on the map.
    2. Recommend all other aquatic resources are marked in the field with flagging.

Contact:

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Wednesday, November 05, 2014 7:37 PM
To: Nicolai, Sarah
Subject: FW: Bridger Canyon Cooridor Study

From: Downing, Beau [mailto:bdowning@mt.gov]
Sent: Monday, October 27, 2014 12:17 PM
To: Potts, Katie
Cc: Trimbath, William; Opitz, Scott; Wambach, Deborah
Subject: Bridger Canyon Cooridor Study

FWP Bridger Canyon Corridor Planning Study Comments

There are a number of streams that support Yellowstone cutthroat trout populations in the Bridger Canyon Corridor Study area. These include Brackett Creek (including the North, Middle, and South Forks), Cache Creek, Fairy Creek, Carrol Creek, and Flathead Creek. FWP does not have enough fisheries information on Dry or Muddy Creeks to verify if Yellowstone cutthroat are present or use these streams, however they do have the potential to support aquatic life within the study area.

The upper Shields River Basin represents a highly valuable conservation area for Yellowstone cutthroat trout both in Montana as well as the multi-state range of Yellowstone cutthroat. All of the streams listed above lie within a conservation priority area for the Yellowstone Geographical Management Unit (GMU) and are listed as a conservation priority in FWP's State-wide Fisheries Management Plan.

Yellowstone cutthroat trout conservation measures in the Upper Shields are being developed and evaluated on a continual basis. At this time FWP cannot predict individual site priorities (improve or maintain fish passage or create a migration barrier) for each stream crossing included in the Bridger Canyon Corridor Study. As such FWP would like to make a general comment that as projects within the corridor are developed we may request either option (passage or barrier) based on conservation priorities within this GMU.

Thank you for the opportunity to comment.

Beau Downing
Stream Protection Act Coordinator
Montana Fish, Wildlife & Parks
Fisheries Division
1420 East 6th Ave
PO Box 200701
Helena, MT 59620
(406) 444-3175
(406) 475-2511 (cell)

"We must let the river teach us.
Not just a few of us.
Let the river teach all of us."
~ Luna Leopold

DOWL HKM

Physical Address:
1300 Cedar Street
Helena, Montana 59601
Phone: (406) 442 - 0370

Mailing Address:
P.O. Box 1009
Helena, Montana 59624
Fax: (406) 442 - 0377

MEMORANDUM

To: Katie Potts
MDT Project Manager

From: Sarah Nicolai
DOWL HKM Project Manager

Date: December 15, 2014

Subject: Bridger Canyon Corridor Planning Study
Informational Meeting – October 23, 2014

Introduction

An informational meeting for the Bridger Canyon Corridor Planning Study was held on October 23, 2014, at the Bridger Canyon Fire Hall located at 8081 Bridger Canyon Road, Bozeman, MT. The following MDT representatives and advisory committee members attended the meeting.

Katie Potts	MDT – Rail, Transit and Planning Division
Rob Bukvich	MDT – Butte District
Joe Walsh	MDT – Butte District
Jeff Patten	FHWA – Operations Engineer
Steve White	Gallatin County Commissioner
Chris Scott	Gallatin County Planning Department
Sarah Nicolai	DOWL HKM
Cody Salo	DOWL HKM
Will Trimbath	DOWL HKM
David Stoner	DOWL HKM

Forty-seven (47) members of the public attended the informational meeting. Meeting attendees included Karen Loveless, Wildlife Biologist for Montana Fish, Wildlife & Parks; Randy Elliott, Vice President of Operations for Bridger Bowl; Dylan Taylor, Vice President of the Gallatin Valley Bicycle Club; Renee Callahan, Attorney for Center for Large Landscape Conservation (CLLC)/Montanans for Safe Wildlife Passage (MSWP); Tomm Fiddaman, Chair of the Bridger Canyon Property Owners' Association (BCPOA); John Shellenberger, Member of the BCPOA; Eunie Guentzel, Member of the BCPOA, Anne Trygstad, Member of the BCPOA; Cindy Crayton, Member of the BCPOA; Dennis Guentzel, Firefighter for the Bridger Canyon Rural Fire Department (BCRFD); Stephanie Adams, Yellowstone Program

Coordinator for the National Parks Conservation Association (NPCA); and Lance Craighead, Conservation Director for the Criaghead Institute.

Media Coordination and Newsletter

The informational meeting was advertised on October 5 and October 19, 2014, in the Bozeman Daily Chronicle. A news release was emailed to the Belgrade News; the Meagher County News; chambers of commerce for Bozeman, Belgrade, and White Sulphur Springs; as well as radio stations and other local media outlets on October 14, 2014. The study newsletter was posted to the study website. Copies of the display advertisement, press release, and newsletter are provided at the end of this memorandum.

Presentation

Sarah explained the corridor planning study process and benefits, emphasizing public involvement is an important component. The presentation continued with an overview of the study area. Sarah highlighted existing transportation system conditions from the existing and projected conditions report. Will highlighted existing environmental conditions from the environmental scan report. A copy of the presentation is provided at the end of this memorandum.

Discussion Period

A discussion period was held following the presentation. Discussion items are summarized below.

Geometrics and Roadway Elements
Attendees noted bringing curves up to current design criteria may result in increased speeds in the corridor. An attendee asked if regulations require MDT to address curves. Sarah explained that MDT would design curves to meet current criteria as part of a new reconstruction or major rehabilitation project, as funding is available, although curve improvements are not dictated by regulation. Centerline, shoulder, and transverse rumble strips, and left-turn bays at the intersections of Kelly Canyon Road, Jackson Creek Road, Bridger Bowl Road, and Brackett Creek Road were suggested. Attendees noted motorists can feel constrained within portions of the corridor with guardrail due to lack of shoulder width.

Safety
Meeting attendees noted near-miss crashes are a frequent occurrence in the corridor. Several attendees stated they perceive the posted speed limit in the corridor is too high and commented on unsafe driver behavior within the corridor. Sarah explained posted speed limits reflect 2014 speed study recommendations, which were approved by the Montana Transportation Commission on July 31, 2014. Suggestions were made to increase law enforcement through additional highway patrol, install additional highway signage (including advisory signs), and consider speed bumps in the corridor. An attendee asked how safety performance on MT 86 compares to other highway corridors. Sarah explained that MDT has modeled the MT 86 corridor, and identified areas with higher numbers of crashes and more severe crashes compared to similar facilities. These areas present high potential for crash reduction. An attendee asked about MDT's position regarding distracted driving in the corridor as cell coverage improves. Sarah noted MDT recognizes that distracted driving is a safety concern, although ordinances restricting use of mobile devices while driving are advanced at the local level. An

attendee requested that MDT pave a distance 20 feet back from MT 86 intersections because it is difficult to accelerate quickly to reach highway speeds from an intersecting gravel or dirt roadway. Attendees noted safety concerns at the MT 86 intersections with Kelly Canyon Road, Jackson Creek Road, and Brackett Creek Road; at the entrance to Bridger Bowl; and at the entrance to the Fire Station. In particular, drivers making left-turn movements worry about rear-end or side-swipe collisions caused by vehicles speeding or attempting to pass. Attendees noted that drivers behave as if there are three lanes near Story Mill Road, and pass inappropriately.

Wildlife and Livestock Conflicts

Meeting attendees noted wild animals cross the corridor in multiple locations, resulting in unsafe conditions for motorists and wildlife. An attendee noted that elk herds did not historically overwinter in Bridger Canyon, but that private development may now provide refuge. Additionally, open-range conditions in the northern portion of the corridor create potential conflicts with livestock; several head of cattle have been killed in recent years after being struck by a vehicle. Mitigation strategies were discussed including wildlife crossing structures, fencing, and additional signage. An attendee noted that the Gallatin Valley Land Trust conducted a wildlife study that may be relevant to the MDT planning study.

Bicycle Facilities

Safety concerns were expressed for cyclists in the corridor. Attendees explained that the presence of guardrail adjacent to narrow or non-existent roadway shoulders contributes to motorist/cyclist conflicts. Maintenance and roadway design strategies to mitigate glass and other debris along shoulders were discussed.

Oil and Gas Exploration

Meeting attendees expressed concern regarding impacts associated with potential oil and gas exploration. Advisory committee members stated they were not aware of any potential oil and gas exploration that would affect the corridor.

Written Comments

One written comment was received at the informational meeting, and 22 written comments were received following the meeting. Comment topics included concerns regarding bicycle and pedestrian safety, the rural character of the corridor, oil and gas development and potential growth in traffic volumes, mobile device usage, intersection safety, the slide area at RP 4.4, traffic speeds, guardrail, rumble strips, shoulders, wildlife movement and connectivity, and noise. A copy of the written comments is provided at the end of this memorandum.

Bridger Canyon Corridor Planning Study

Informational Meeting #1

Thursday, October 23, 2014

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Nick Cooper		9999 Bridger Canyon Rd	Bozeman, MT 59715	wyodog@mac.com
Tom Fiddaman	BCPOA	1070 Bridger Woods Rd	"	tom@metasd.com
Stephanie Adams	NPCA	321 E main st Ste B	Bozeman MT 59715	SAdams@npca.org
Eunice Duentzel	BCPOA	1640 Place Creek Rd	"	dguentzel@latmt.com
John Shellenberger	BCPOA	14541 Kelly Canyon Rd	Bozeman 59715	Jshell@ecaginc.com
Danielle Scharf		1311 Wildflower Way	Bozeman MT 59715	dscharf@sandersstewart.com
Lance Craighead	ChI	201 S. Wallace Ave.	Bozeman MT 59715	lance@craigheadinstitute.org
Anne Trygstad	BCPOA	7890 BCR, BOZ.	Bozeman 59715	annetrygstad@gmail.com
Cyndi Clayton	BCPOA-Resident	14027 Bridger Canyon	Boz 59715	Cyndi@bridgebnd.com
Robyn Steele	BC-Resident	4026 Bridger Canyon Rd	Bozeman 59715	rsteele@steele4wmt.com
Dennis Guentzel	BCRFD	1640 Place Creek Rd	Bozeman 59715	dguentzel@latmt.com

Bridger Canyon Corridor Planning Study

Informational Meeting #1

Thursday, October 23, 2014

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Cathy & Rick Anderson		6560 Tepee Ridge Rd.	Bozeman	iamabusy2talk@gmail.com
ROB BUKVICH		MDT		
Jeff Patten		FHWA		
Mason Grahl / Charlene Krygier			Bozeman	mgrahl@earthlink.net
Paul Birkland		8191 Bridger Canyon Rd.		paulb@montana.edu
Mark Theisen		7050 Bridger Can	Bozeman	
ADDIE THEISEN		7850 Bridger Can.	Bozeman	atpockets@hotmail.com
JODY CHRISTIANSON		P.O Box 3007	Bozeman 59772	
Ted & Phyllis Mather		10109 BC Rd	Bozeman 59715	
Dave & Peggy Foster		1775 Bridger Shadow Rd	Bozeman 59715	dcfoster1MT@yahoo.com
Mary Martha Bahn		3185 Jackson Cr. Rd	Boz. 59715	
Mike Conn		1433 Badger Woods Rd	BZN 59715	mconn47@gmail.com
DAVID KACK		7007 JACKSON CR RD	BZN 59715	
JIM NALLICK		1410 CHERRY DRIVE	BZN 59715	

Bridger Canyon Corridor Planning Study

Informational Meeting #1

Thursday, October 23, 2014

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Ann and Lee Chase		7300 Teepee Ridge Rd	Bozeman MT 59715	anna7300@yahoo.com
~~Sharon Cerkvenik~~ Kent Madin				
Jeni Hodgson				
Karen Loveless	FWP			
Randy Elliott	Bridger Bowl			re@bridgerbowl.com
Dylan Taylor	Gallatin Valley Bike Club			dylanwtaylor@gmail.com
Lauren Beeson				
Bob Bellows				
GARY SAGER				
Chris Scott	Gallatin County Planning			
Dan Tyler				
Renée Callahan, CLLC/MSWP		Bozeman, MT		Renee@largelandscapes.org
Katie Potts		Helena, MT		
Holly Woosley Vennes		30900 Bridger Canyon Rd Wilsall, MT 59086		
SERRA / TALUS		99 RUNNING HORSE TRAIL -		
[illegible]		15870 Bridger Canyon Rd. Bozeman, MT 59715		

Informational Meeting

Discuss Bridger Canyon Corridor Planning Study
Thursday, October 23, 2014 6:00 P.M.
Bridger Canyon Fire Hall
8081 Bridger Canyon Road
Bozeman, MT

The Montana Department of Transportation (MDT) will discuss the proposal to identify issues, constraints, and opportunities within the Bridger Canyon Corridor Planning Study. The study area begins at the MT 86 intersection with Story Mill Road at Reference Post (RP) 1.95 just east of Bozeman, and ends at the intersection with U.S. 89 at RP 37.5 near Wilsall, MT.The Bridger Canyon Corridor Planning Study is a pre-environmental study that allows for early planning-level coordination with community members, stakeholders, environmental resource agencies, and other interested parties. The study will identify potential improvement options, if any, which will assist in facilitating a smooth and efficient transition from transportation planning to future project development/environmental review. Potential improvement options will be based on need and funding availability. The Bridger Canyon Corridor Planning Study is a planning-level study and is not a design or construction project.

The purpose of the meeting is to inform the public of the study process and solicit public input.

The meeting is open to the public and attendance is encouraged. MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of our department. If you require reasonable accommodations to participate in this meeting, please call Sarah Nicolai at (406) 442-0370 at least two days before the meeting. For the hearing impaired, the TTY number is (406) 444-7696 or 1-800-335-7592, or call Montana Relay at 711. Alternative accessible formats of this information will be provided upon request.

Comments may also be submitted in writing at the meeting; by mail to Sarah Nicolai, DOWL HKM, P.O. Box 1009, Helena, MT 59624; by email to snicolai@dowlhkm.com ; or online at www.mdt.mt.gov/pubinvolve/bridger

Please indicate comments are for the Bridger Canyon Corridor Planning Study.
Interested parties are encouraged to join the study mailing list by submitting their name and contact information to Sarah Nicolai at snicolai@dowlhkm.com

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, October 14, 2014 7:51 AM
To: BOZEMAN CHAMBER OF COMMERCE; Bozeman Daily Chronicle; communicationsnewsfeeds@aashto.org; Exponent; KBOZ - FM - Dia Johnson; KBOZ-AM/KBOZ-FM/KOBB-AM-FM/KPKX-FM/KOZB-FM/KZLO-FM/BOZEMAN; KBZK TV; KBZK-TV; KBZM; KGLT-FM; KKQX-FM/KBZM/K-SKY; KMMS-FM/KMMS-AM/KISS/KISN/KXLB-FM/KXMY-FM/KZMY-FM; KTVM-TV BOZEMAN; MAX MONTANA; Belgrade Chamber of Commerce; KGVW-AM/KCMM-FM; KISN-FM; MANHATTAN CHAMBER OF COMMERCE; The Belgrade News; All Seasons Inn & Suites (info@allseasonsinnandsuites.net); Meagher County News; Meagher County Public Television, Inc; pres@meagherchamber.org; WHITE SULPHUR SPRINGS CHAMBER OF COMMERCE
Cc: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol; Riley, Jean; Grant, Paul; Marosok, Lauren; O'Brien, Anna; Ryan, Lori; David Fowler; Gallatin County Commissioners; Park County Commissioners
Subject: MDT schedules an informational meeting to discuss Bridger Canyon Corridor Planning Study No UPN

Categories: Filed by Newforma

October 14, 2014

FOR IMMEDIATE RELEASE

For more information:
Lori Ryan, Public Information, MDT, (406) 444-6821

MDT schedules an informational meeting to discuss Bridger Canyon Corridor Planning Study

Bozeman - The Montana Department of Transportation (MDT) is conducting an informational meeting to discuss the Bridger Canyon Corridor Planning Study. The intent of the study is to identify issues, constraints, and opportunities within the study area. The study area begins at the MT 86 intersection with Story Mill Road at Reference Post (RP) 1.95 just east of Bozeman, and ends at the intersection with U.S. 89 at RP 37.5 near Wilsall, MT. The meeting will start at 6:00 pm on Thursday, October 23, 2014 at the Bridger Canyon Fire Hall, 8081 Bridger Canyon Road, Bozeman, MT 59715.

The Bridger Canyon Corridor Planning Study is a pre-environmental study that allows for early planning-level coordination with community members, stakeholders, environmental resource agencies, and other interested parties. The study will identify potential improvement options, if any, which will assist in facilitating a smooth and efficient transition from transportation planning to future project development/environmental review. Potential improvement options will be based on need and funding availability.

The purpose of the meeting is to explain the planning study process, present information about existing and projected conditions, and gather public feedback on issues and concerns within the Bridger Canyon Corridor.

Public participation is a very important part of the process, and the public is encouraged to attend. Comments may also be submitted in writing at the meeting; by mail to Sarah Nicolai, DOWL HKM, P.O. Box 1009, Helena, MT 59624; by email to snicolai@dowlhkm.com; or online at
www.mdt.mt.gov/pubinvolve/bridger

Please indicate comments are for the Bridger Canyon Corridor Planning Study. Interested parties are encouraged to join the study mailing list by submitting their name and contact information to Sarah Nicolai at
snicolai@dowlhkm.com

MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of our department. If you require reasonable accommodations to participate in this meeting, please call Sarah Nicolai at (406) 442-0370 at least two days before the meeting. For the hearing impaired, the TTY number is (406) 444-7696 or 1-800-335-7592, or call Montana Relay at 711. Alternative accessible formats of this information will be provided upon request.

---------END----------

Project name: Bridger Canyon Corridor Planning Study Gallatin/Park counties

Issue One | October 2014

Bridger Canyon Corridor Planning Study

STUDY DESCRIPTION

The Montana Department of Transportation (MDT) has initiated the Bridger Canyon Corridor Planning Study to identify potential improvement options for the Montana Highway 86 (MT 86) corridor north of Bozeman.

The goal of the study is to identify short-term and long-term improvements that meet the needs and objectives identified for the corridor. The study process will document existing and projected conditions; analyze potential impacts; identify constraints and mitigations; gather public, resource agency and stakeholder input; and provide recommendations for corridor improvements.

This study is a planning-level evaluation of the corridor. It is not a design, maintenance, or construction project. Depending on need and funding availability, improvement options may be forwarded from this study and developed into projects at a later date.

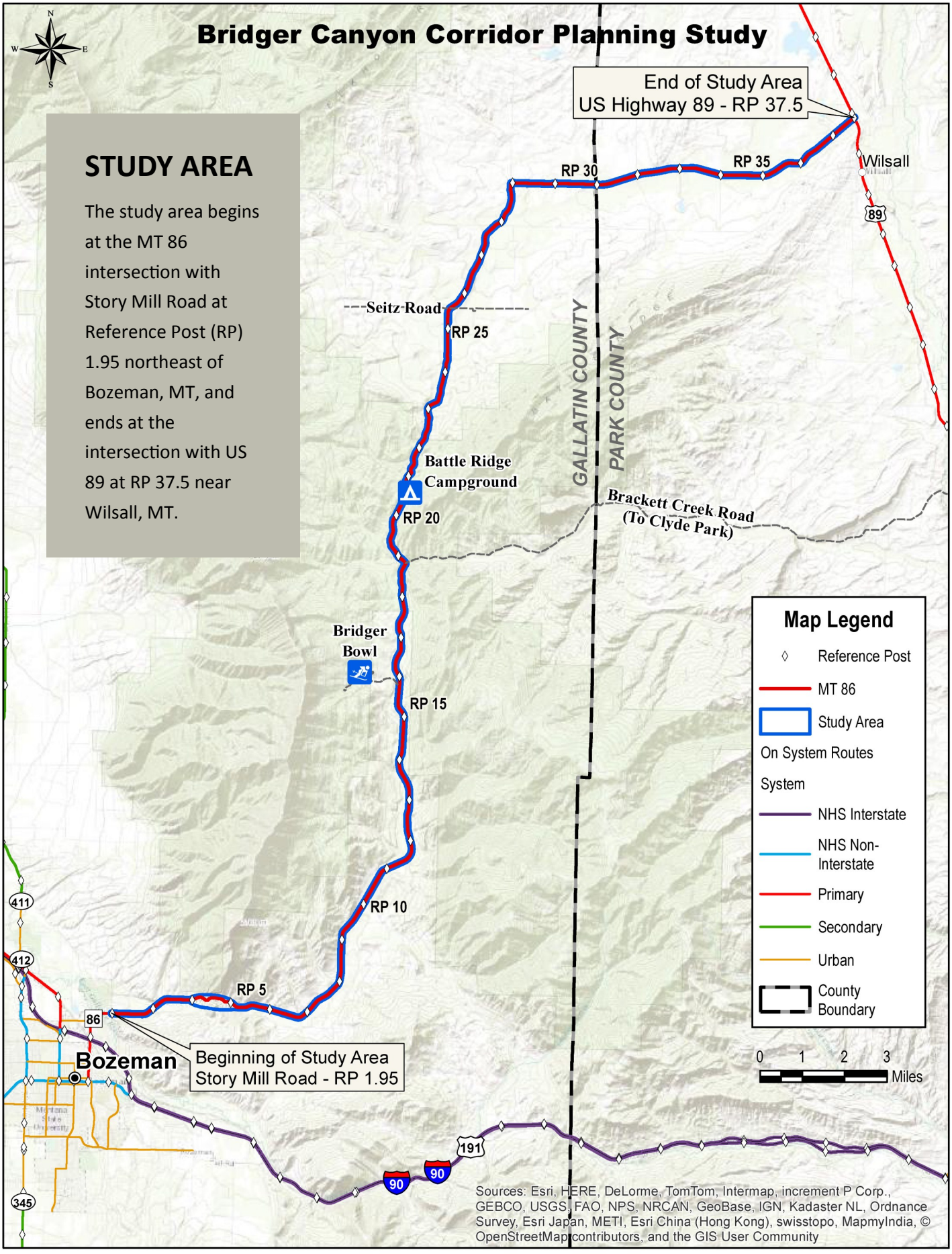
INSIDE THIS ISSUE

PLEASE JOIN US FOR AN INFORMATIONAL MEETING!

Thursday, October 23, 2014 at 6:00 p.m.
Bridger Canyon Fire Hall
8081 Bridger Canyon Rd.
Bozeman, MT

DOWL HKM

MONTANA MDT DEPARTMENT OF TRANSPORTATION


Bridger Canyon Corridor Planning Study
STUDY AREA
The study area begins at the MT 86 intersection with Story Mill Road at Reference Post (RP) 1.95 northeast of Bozeman, MT, and ends at the intersection with US 89 at RP 37.5 near Wilsall, MT.
End of Study Area
US Highway 89 - RP 37.5
Wilsall
RP 30
RP 35
89
Seitz Road
RP 25
GALLATIN COUNTY
PARK COUNTY
Battle Ridge
Campground
RP 20
Brackett Creek Road
(To Clyde Park)
Bridger
Bowl
RP 15
RP 10
RP 5
411
412
86
Bozeman
Beginning of Study Area
Story Mill Road - RP 1.95
345
191
90
90
Map Legend
Reference Post
MT 86
Study Area
On System Routes
System
NHS Interstate
NHS Non-Interstate
Primary
Secondary
Urban
County Boundary
0 1 2 3
Miles
Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

EXISTING AND PROJECTED CONDITIONS

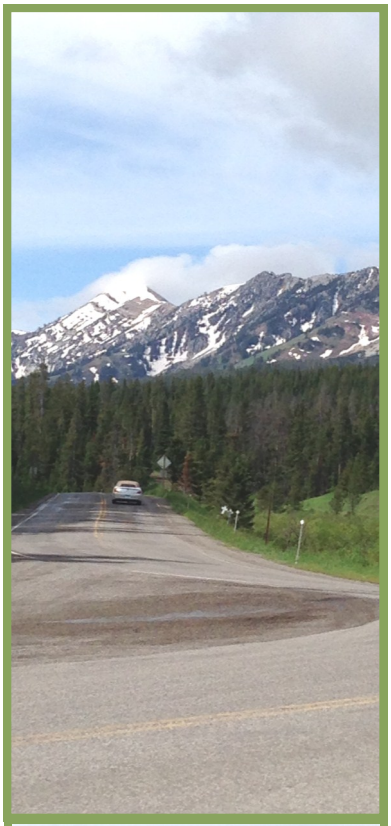
Findings presented in the tables below are drawn from the draft existing and projected conditions report and the draft environmental scan report for this study. Please visit the study website (http://www.mdt.mt.gov/pubinvolve/bridger) for more information.

Transportation System

Findings	
Bridges	• Three of the 10 bridges in the corridor are candidates for repair.
Bicycle/Pedestrian Facilities	• MT 86 provides connections to trail systems in the corridor; no dedicated bicycle/pedestrian facilities are provided adjacent to MT 86. • Shoulders range from 0 to 5 feet.
Drainage/Pavement Conditions	• Areas of pavement deterioration due to excess water on roadway, poor drainage, and saturated subgrade.
Rockfall Hazard	• Slide near RP 4.4 is unstable; earthquake or heavy precipitation could trigger another event.
Speed & Geometrics	• 2014 speed study recommended reduced speeds ranging from 45 mph to 60 mph in some areas. • 36 horizontal curves and 38 vertical curves do not meet current MDT design criteria. • RP 4.0 to RP 24.0 lacks slope protection.
Crash History	• From 2009 to 2013, 173 crashes resulted in 59 injuries and 6 fatalities. • Areas with high potential for crash reduction occur near RP 5, 9, 19, 21, 29, 30, and 36.
Traffic Volumes & Operations	• MT 86 has adequate roadway capacity to serve current and projected future traffic volumes.

Environmental Resources

Findings	
Surface Waters/ Wetlands, & Floodplains	• 18 named streams in study area. • Bridger Creek, East Gallatin River, and Stone Creek are classified as impaired by DEQ. • Wetlands/floodplain zones occur within study area.
Fish & Wildlife	• Elk and deer observed crossing roadway. • Moose and black bear habitat within the corridor. • Streams support multiple fish species.
Sensitive Species	• Multiple federally-listed species may occur in study area. • Only known habitat for Warm Spring Zaitzevian riffle beetle along Bridger Creek.
Recreational Resources	• Numerous recreational opportunities. • Several potential Section 4(f) resources.
Cultural Resources	• Two sites listed on National Register of Historic Places. • Unrecorded sites likely occur within corridor.



STUDY CONTACTS

Jeff Ebert
MDT Butte District
Administrator
406-494-9625
jebert@mt.gov

Katie Potts
MDT Project Manager
406-444-9238
kpotts@mt.gov

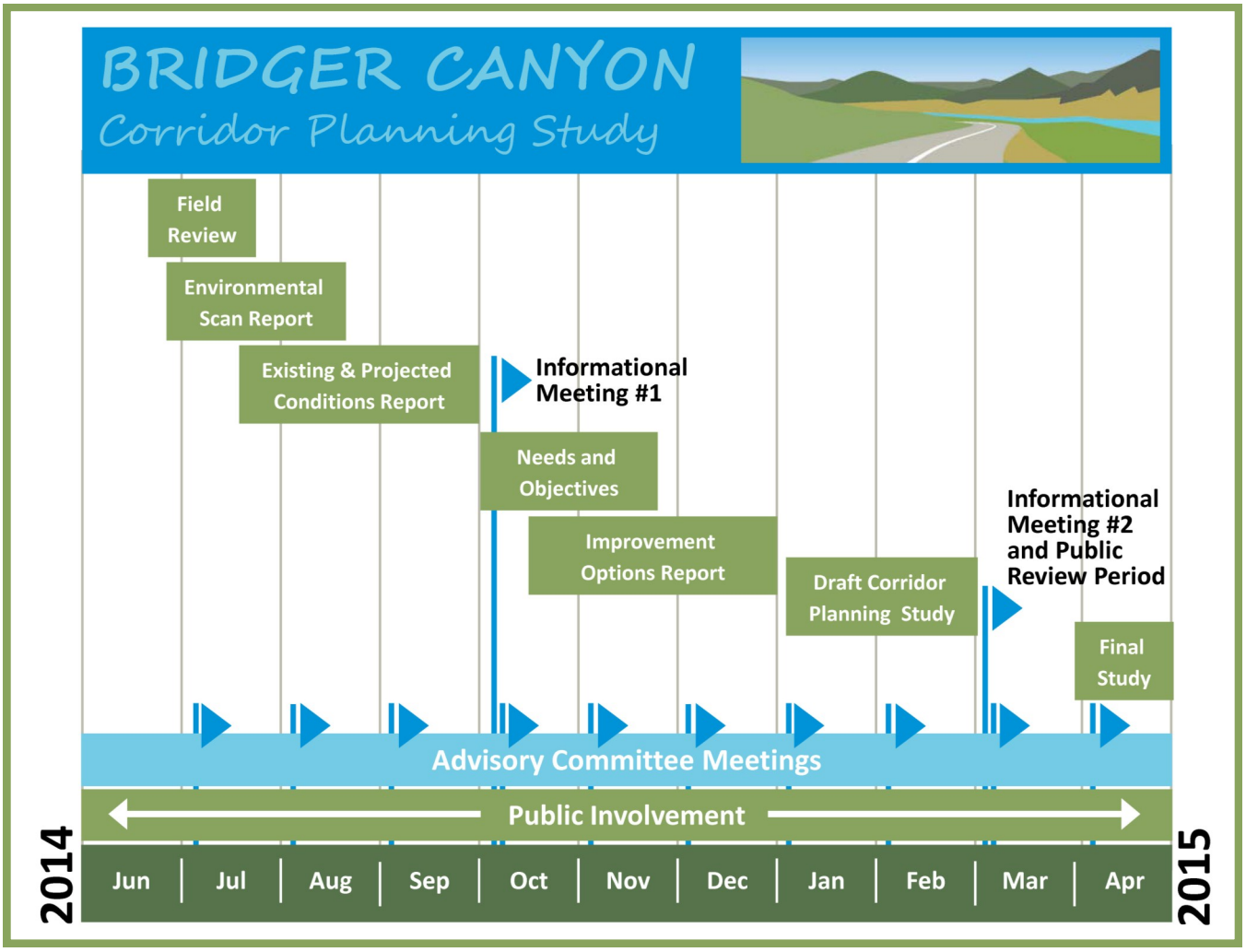
Sarah Nicolai
DOWL HKM
Project Manager
406-324-7412
snicolai@dowlhkm.com

INVOLVEMENT OPPORTUNITIES

An informational meeting is scheduled for **Thursday, October 23, 2014,** at the Bridger Canyon Fire Hall, 8081 Bridger Canyon Road, from 6:00 p.m. to 8:00 p.m. We encourage you to attend and provide feedback about your issues and concerns for the corridor.

Please visit the study website (http://www.mdt.mt.gov/pubinvolve/bridger) for more information on upcoming involvement opportunities.

MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of the department. Alternative accessible formats of this information will be provide upon request. For more information, please call Sarah Nicolai at (406) 324-7412 or Montana Relay at 711.



Bridger Canyon Corridor Planning Study

Informational Meeting #1

October 2014

DOWL HKM

MONTANA MDT DEPARTMENT OF TRANSPORTATION



Welcome and Introductions



Title VI Considerations

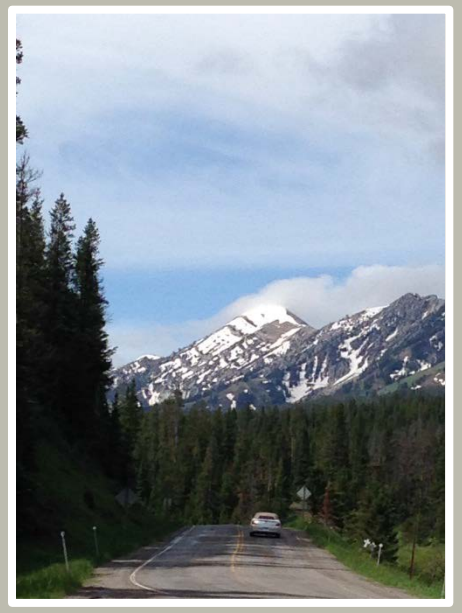
This meeting is held pursuant to Title VI of the 1964 Civil Rights Act, which ensures that no person shall be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination on the basis of a protected status under any MDT program or activity.

Additional information is provided in Title VI pamphlets at the sign-in table.

Meeting Format

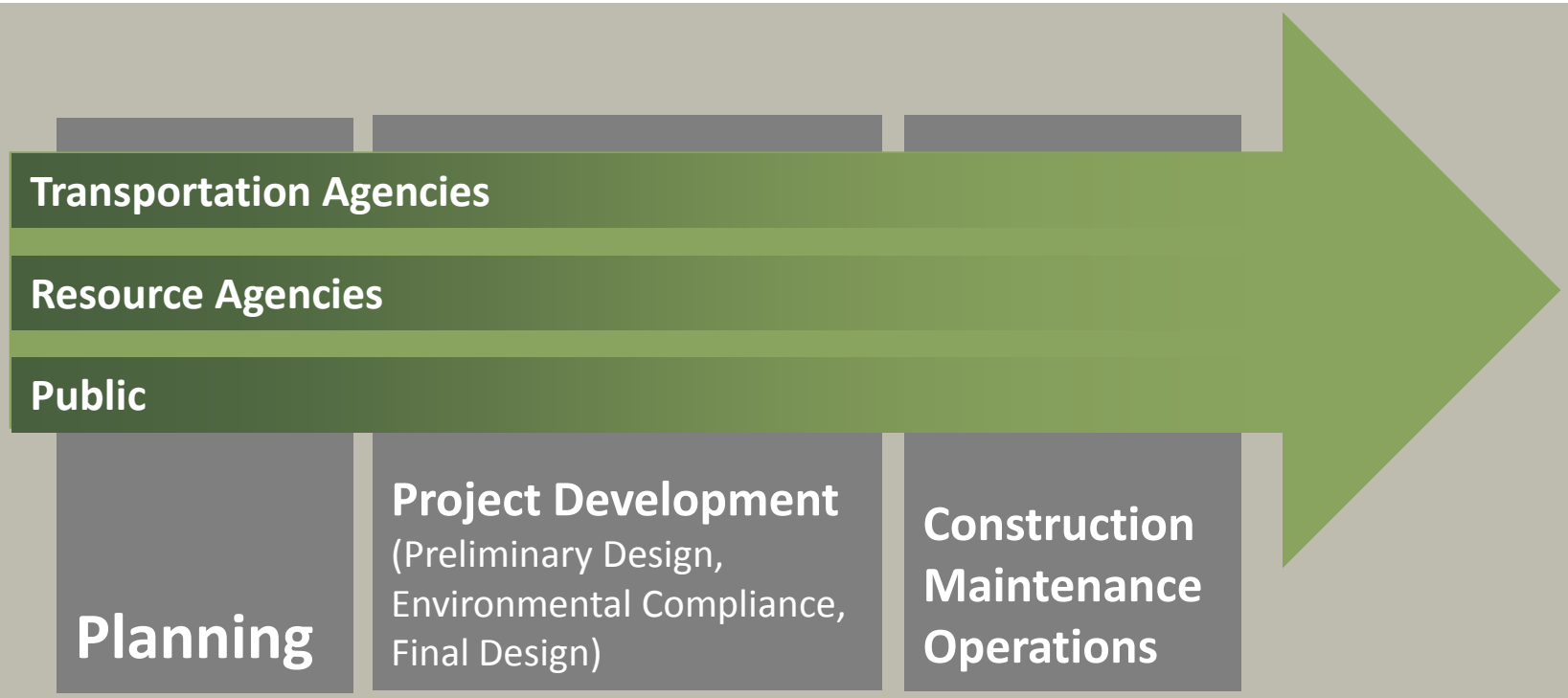
Presentation

- Overview of planning study process
- Key findings from draft existing and projected conditions report
  - Transportation Conditions
  - Environmental Conditions



Discussion Period

What is a Planning Study?

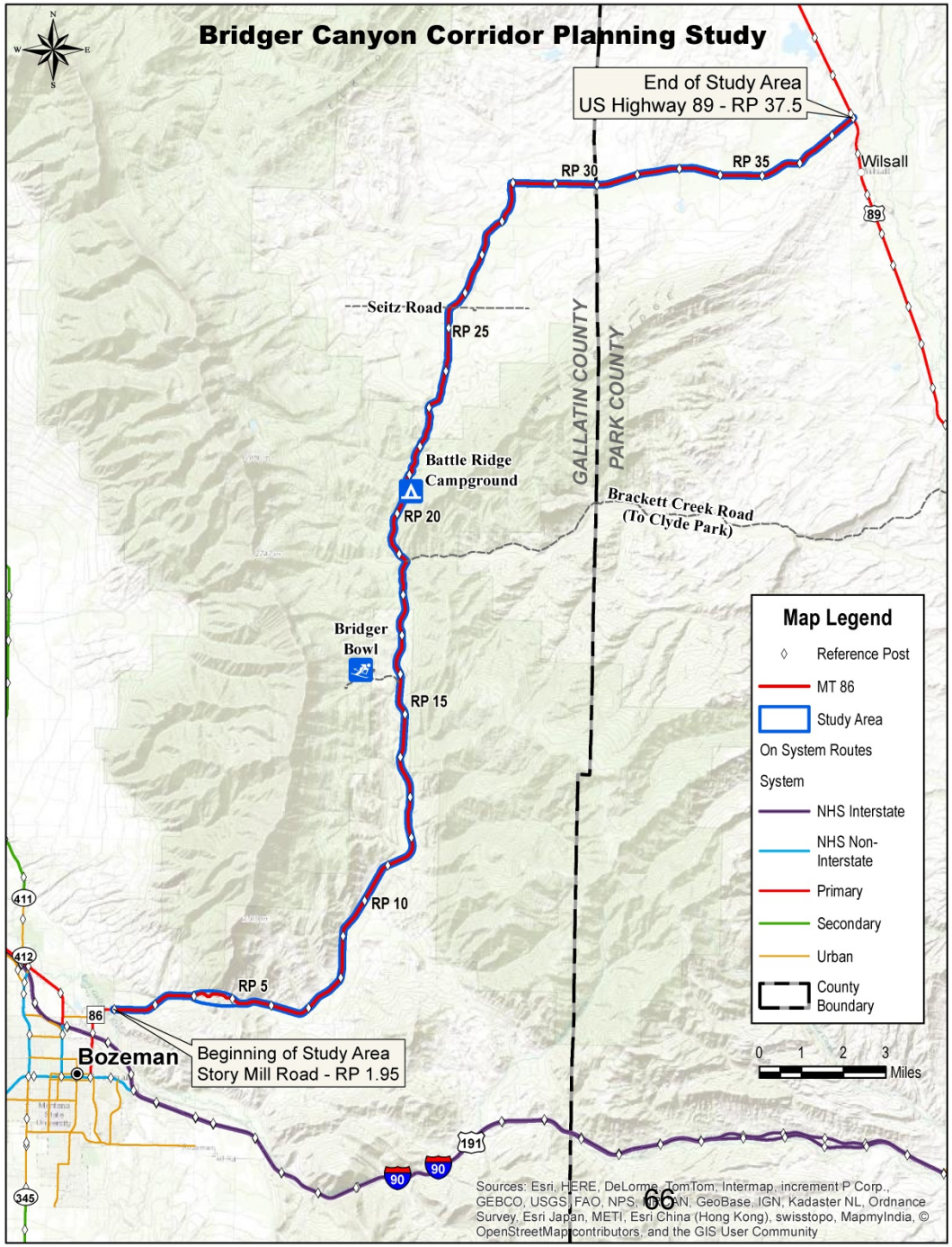


A planning study is conducted before design, right-of-way acquisition, and construction for an individual project.

Planning Study Overview

- Existing and Projected Conditions
- Resource Agency Meeting
- **Informational Meeting # 1**

- Needs and Objectives
- Improvement Options
- Draft Study Report
- Informational Meeting # 2
- Public/Agency Review Period
- Final Study Report



Study Area

Start: Story Mill Road (RP 1.95)

End: US 89 (RP 37.5)





Transportation System

MT 86 Overview

- Two-lane highway
- Rural minor arterial
- Paved width varies from 24 feet to 35 feet
- Right-of-way widths vary from 30 feet to 200 feet from centerline
- Rolling and mountainous terrain
- Mostly private land ownership; some state and federal lands

Bridges

RP	Feature Crossed	Year Built	Structure Condition
3.1	Bridger Creek	2005	Good
6.7	Drainage	1939	Good
7.8	Stock Pass	1939	Fair
8.1	Drainage	1939	Good
8.9	Drainage	1939	Good
9.5	Stock Pass/Drainage	1939	Good
18.8	Brackett Creek	1953	Good
24.4	Cache Creek	1939	Fair
26.8	Carrol Creek	1986	Fair
28.0	Flathead Creek	1939	Good

3 of 10 bridges are candidates for repair (Fair Condition)

Bicycle/Pedestrian Facilities

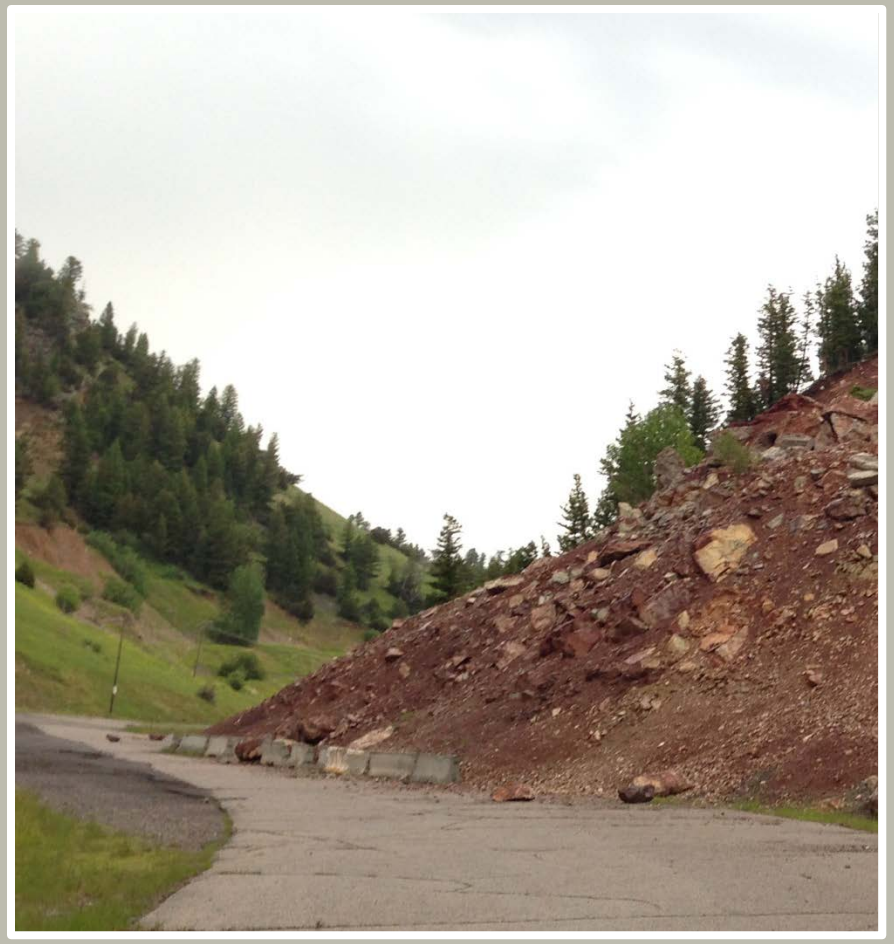
- MT 86 provides connections to “M” Trail System and Drinking Horse Mountain Trails
- No dedicated facilities on MT 86
- Shoulders range from 0 feet to 5 feet

Drainage/Pavement Conditions

- Pavement deterioration due to saturated subgrade on MT 86.
- Areas with standing water near roadway, plugged culverts
- Areas with cracking and pavement failure

Rockfall Hazard

- 1975 slide covered portion of MT 86 near RP 4.4
- MT 86 rerouted to north
- Slide area unstable; earthquake or precipitation could trigger another event



Speed

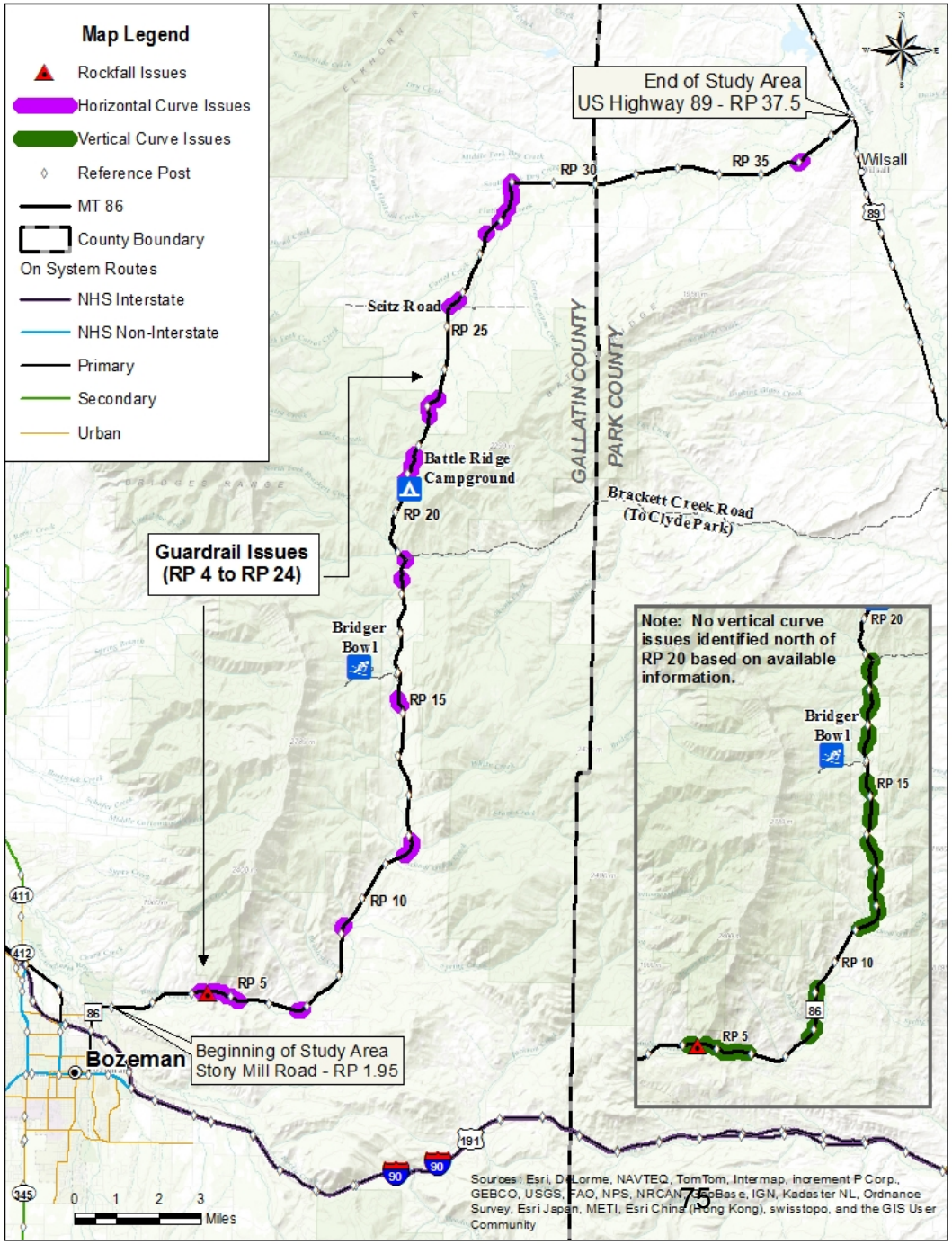
- Statutory speed limit is 70 mph
- Posted/advisory speeds range from 25 mph to 60 mph
  - Speeds reflect recommendations from 2014 speed study requested by Gallatin County
- Our study will not result in changes to speeds in the corridor

Geometrics

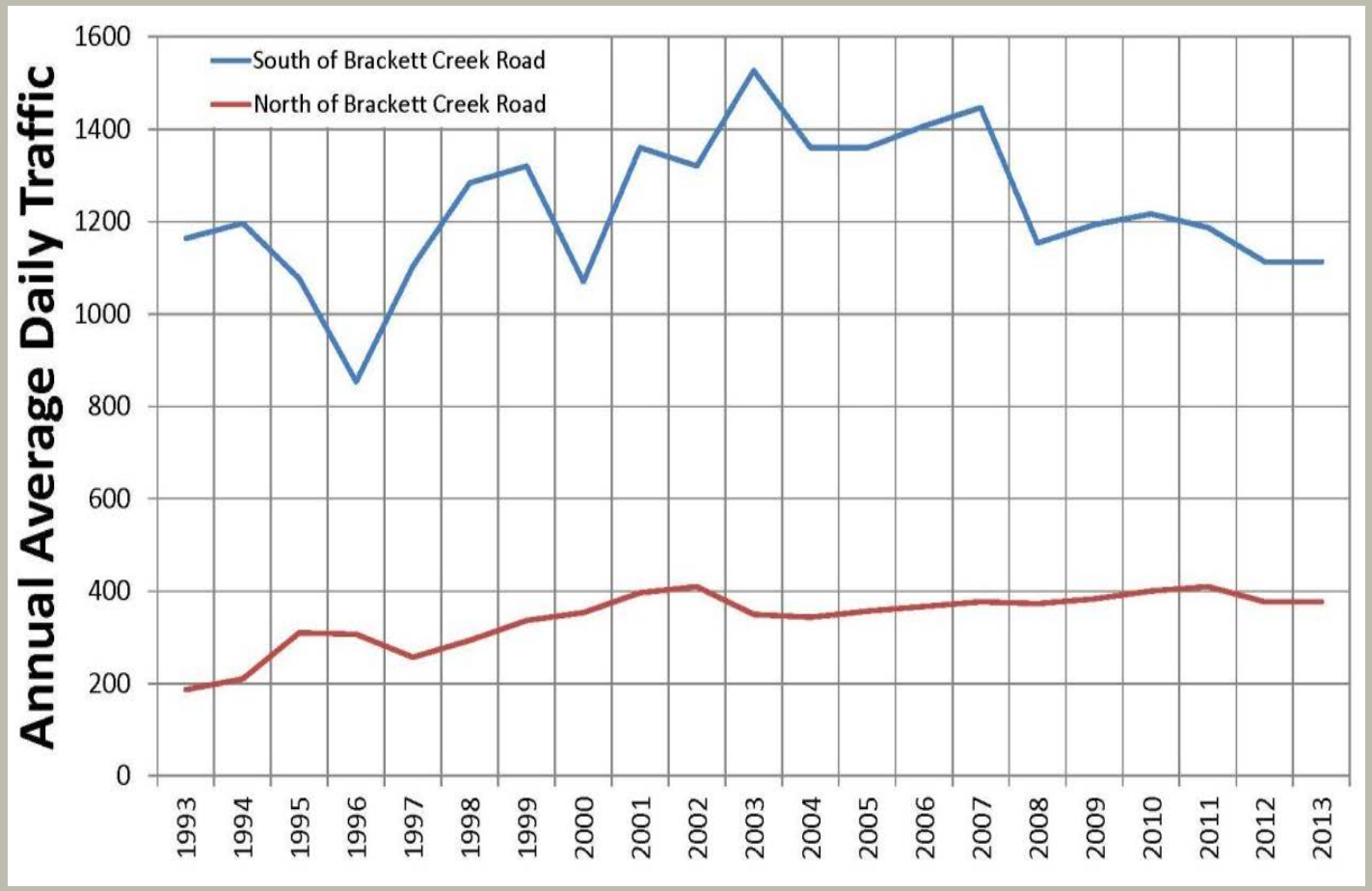
Areas not meeting current MDT design criteria:

- 36 of 120 horizontal curves
- 38 of 95 vertical curves
- RP 4.0 to RP 24.0 lacks slope protection

Geometrics


Map Legend
Rockfall Issues
Horizontal Curve Issues
Vertical Curve Issues
Reference Post
MT 86
County Boundary
On System Routes
NHS Interstate
NHS Non-Interstate
Primary
Secondary
Urban
End of Study Area
US Highway 89 - RP 37.5
Wilsall
RP 30
RP 35
Seitz Road
RP 25
GALLATIN COUNTY
PARK COUNTY
Battle Ridge
Campground
RP 20
Brackett Creek Road
(To Clyde Park)
Guardrail Issues
(RP 4 to RP 24)
Bridger
Bowl
RP 15
RP 10
RP 5
Bozeman
Beginning of Study Area
Story Mill Road - RP 1.95
Note: No vertical curve issues identified north of RP 20 based on available information.
0 1 2 3
Miles
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

Traffic Volumes



Higher volumes south of Brackett Creek Road (RP 18.8)

Traffic Operations

	Northbound Segment	Start RP	End RP	Segment Length (mi)	Peak Hour Volume 2014	Peak Hour Volume 2035	LOS 2014	LOS 2035
1	Story Mill Rd to Bridger Bowl Rd	1.95	15.7	13.75	77	95	B	B
2	Bridger Bowl Rd to Seitz Rd	15.7	25.3	9.6	54	67	A	A
3	Seitz Rd to US 89	25.3	37.5	12.2	29	60	A	A
	Southbound Segment	**Start RP**	**End RP**	**Segment Length (mi)**	**Peak Hour Volume 2014**	**Peak Hour Volume 2035**	**LOS 2014**	**LOS 2035**
1	Story Mill Rd to Bridger Bowl Rd	15.7	1.95	13.75	72	89	B	B
2	Bridger Bowl Rd to Seitz Rd	25.3	15.7	9.6	56	69	A	B
3	Seitz Rd to US 89	37.5	25.3	12.2	27	56	A	A

Desirable level of service (LOS) for minor arterial:

Rolling terrain: **LOS B** Mountainous terrain: **LOS C**

Crash History (2009-2013)

- 173 crashes, 59 injuries, and 6 fatalities
- Roll-over and fixed-object type crashes were highest number of crashes and injuries
- Head-on crashes resulted in 50% of fatalities
- Wild animals involved in 18 of 173 (10%) reported crashes; 10 of 18 occurred from RP 8 to 10





Environmental Conditions

Surface Water/Wetlands

- 18 named streams in study area
- Bridger Creek, East Gallatin River, and Stone Creek listed as impaired by DEQ
- Wetlands observed throughout the study area
- Five mapped floodplain zones exist within the study area

Hazardous Materials

- 4 leaking underground storage tank (LUST) sites within corridor
- Abandoned quarry at RP 4.4
- 1 hazardous waste handler (USFWS Fish Technology Center)

Fish and Wildlife

- Elk observed on road in winter months
- Whitetail and mule deer are common throughout corridor
- Moose and black bear habitat (RP 5 to RP 22)
- 44 animal carcasses collected from 2009-2013, concentrated from RP 1.75 to RP 12
- Streams support multiple fish species; Brackett Creek and Flathead Creek contain genetically-pure Yellowstone cutthroat trout

Threatened/Endangered & Species of Concern

Threatened/Endangered Species		Federal Status
Wildlife Species	Greater sage-grouse	Candidate
	Sprague's pipit	Candidate
	Grizzly bear	Threatened
	Canada lynx	Threatened
Plant Species	Whitebark pine	Candidate
	Ute ladies'-tresses	Threatened

- Bald eagles and other raptors may occur in study area

- Only known habitat for Warm Spring Zaitzevian riffle beetle occurs along Bridger Creek within the USFWS Bozeman Fish Technology Center property

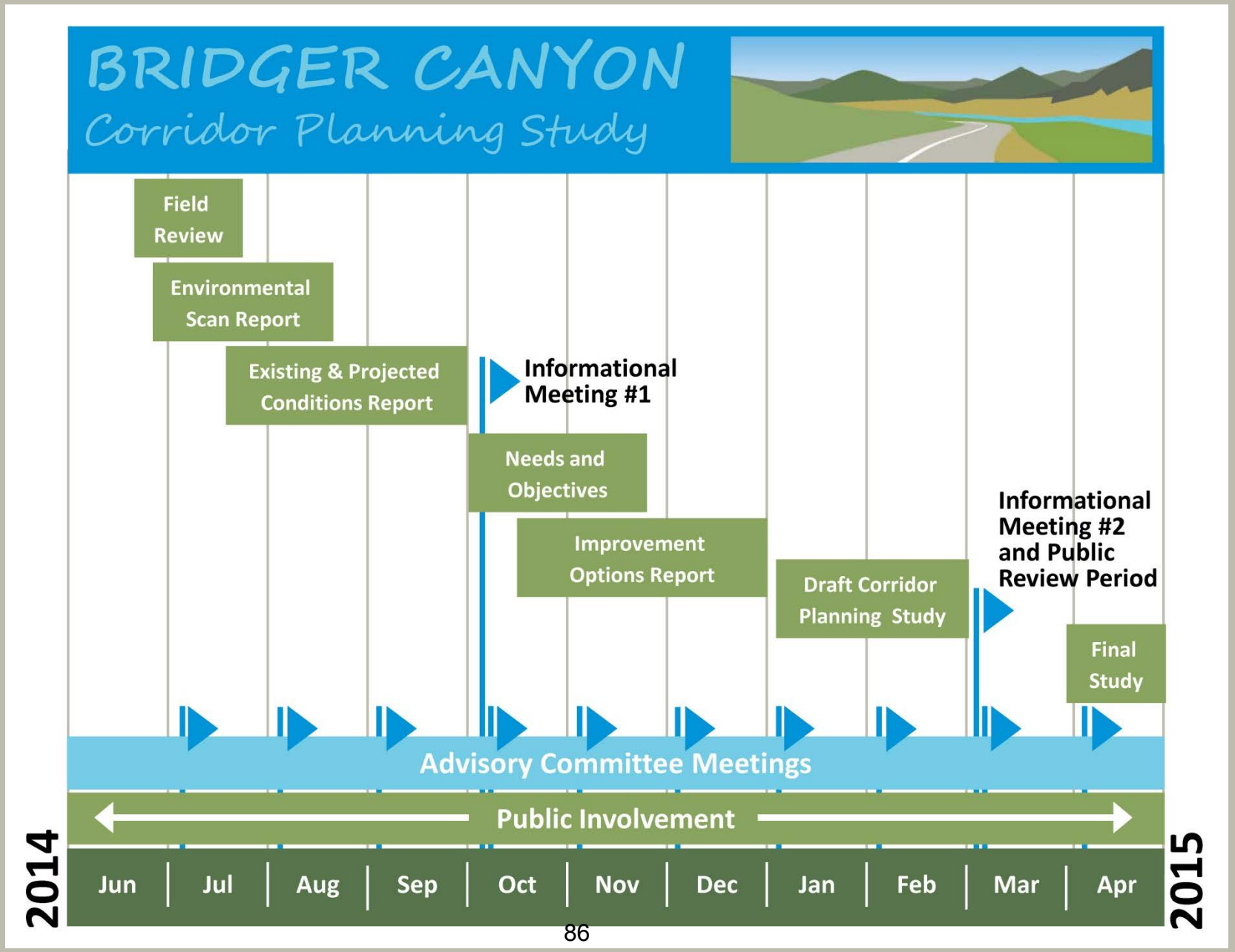
- 21 species of concern may occur in study area

Recreational Resources

- Numerous recreational opportunities
- Several potential Section 4(f) recreational sites within corridor
- No Section 6(f) sites

Cultural/Archeological Resources

- 2 sites listed on the National Register of Historic Places
- Unrecorded sites likely occur within corridor


BRIDGER CANYON
Corridor Planning Study
Field Review
Environmental Scan Report
Existing & Projected Conditions Report
Informational Meeting #1
Needs and Objectives
Improvement Options Report
Draft Corridor Planning Study
Informational Meeting #2 and Public Review Period
Final Study
Advisory Committee Meetings
Public Involvement
2014
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
2015

Submit Comments

- **Leave a comment sheet with us tonight**
- **Please submit comments by December 1, 2014**
- **Website** (http://www.mdt.mt.gov/pubinvolve/bridger)
- **Mail/e-mail comments to:**

Sarah Nicolai
DOWL HKM
PO Box 1009
Helena, MT 59624
snicolai@dowlhkm.com



Discussion Period

Nicolai, Sarah

From: Gleason, Rebecca <rebecca.gleason@coe.montana.edu>
Sent: Thursday, July 17, 2014 4:25 PM
To: Nicolai, Sarah
Subject: Bridger Canyon Rd Corridor Study

Hi Sarah,
I'm interested in staying informed on the Bridger Canyon Rd Corridor study. This road receives high use for road biking and some mountain bikes, where people ride sections of Hwy 86 between trails. I hope the study can consider the safety of people that bike on this road. Please add me to the email list for project updates and meeting.
Thank you,
Rebecca

Rebecca Gleason, MS, PE
Research Engineer II

Small Urban and Rural Livability Center
Western Transportation Institute
Montana State University – Bozeman
PO Box 174250
Bozeman, MT 59717-4250
(406)-994-6541
Rebecca.Gleason@coe.montana.edu

Nicolai, Sarah

From: Taylor Lonsdale <bznbybike@gmail.com>
Sent: Friday, July 18, 2014 9:04 AM
To: Nicolai, Sarah
Subject: Bridger Canyon Corridor Planning Study

Categories: Public/Stakeholder Email

Please include me in the project mailing list for this corridor study. I have concerns regarding the accommodation of people on bicycles along this corridor and want to see the study address this directly. Thanks for including me.

Taylor Lonsdale
426 N 9th Ave
Bozeman

Nicolai, Sarah

From: Renee Callahan <renee@largelandscapes.org>
Sent: Thursday, July 24, 2014 9:29 PM
To: Nicolai, Sarah
Subject: Bridger Canyon Corridor Study - request to join mailing list

Dear Ms. Nicolai,

Would it be possible to add me to the mailing list for the Bridger Canyon Corridor Study?

Thank you very much!
Renee Callahan

Renee Callahan, MESM, JD
Senior Policy Officer
Center for Large Landscape Conservation
www.largelandscapes.org | 406.586.8082

Please note my new email address: renee@largelandscapes.org

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Monday, October 06, 2014 12:16 PM
To: 'Jim Nallick'
Cc: 'Potts, Katie'; Stoner, David
Subject: RE: Bridger Canyon Corridor Planning Study
Attachments: NO-UPN-#-BRIDGER-CANYON-STUDY-DA-FINAL-09242014.PDF

Thanks Jim. We will add you to our contact list.

The first informational meeting is scheduled for Thursday, October 23rd. Please see the attached file for more information.

Thanks for your interest in this study.

Sarah

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

DOWL HKM
406-442-0370 | 406-442-0377 (Fax) | 1300 Cedar Street | Helena, Montana 59601 | www.dowlhkm.com
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From: Jim Nallick [mailto:jnallick@sandersonstewart.com]
Sent: Wednesday, October 01, 2014 12:19 PM
To: Nicolai, Sarah
Subject: Bridger Canyon Corridor Planning Study

Sarah,
Please add me to your contact list for this project. Has the first public meeting been scheduled yet?
Thanks,
Jim

SANDERSON STEWART

JIM **NALLICK** PE
SENIOR TRANSPORTATION ENGINEER

BILLINGS | BOZEMAN | PLAINS | DENVER | WILLISTON
DIRECT | 406.922.4321 PHONE | 406.522.9876
WWW.**SANDERSONSTEWART**.COM


2014
Blue Ribbon
HOTFIRM
winner

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Monday, October 06, 2014 12:54 PM
To: 'Lonsdale, Taylor'
Cc: Robert Bukvich (rbukvich@mt.gov); Gleason, Rebecca; Bill Cochran; Tom Keck (nrsoilandwater@gmail.com); 'Potts, Katie'
Subject: RE: Bridger Canyon Corridor study

Hi Taylor.

We will briefly summarize historic crash data for the corridor during the informational meeting on October 23rd. Additional information will be provided in the draft existing and projected conditions (E&P) report, which will be published on the MDT website following the informational meeting. The E&P report will outline crash type, resulting injuries and fatalities, and contributing factors for recorded crashes in the corridor during the analysis period.

Thanks again for your interest in the study.

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

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From: Lonsdale, Taylor [mailto:taylor.lonsdale@coe.montana.edu]
Sent: Monday, October 06, 2014 10:17 AM
To: Nicolai, Sarah
Cc: Robert Bukvich (rbukvich@mt.gov); Gleason, Rebecca; Bill Cochran; Tom Keck (nrsoilandwater@gmail.com)
Subject: Bridger Canyon Corridor study

Hi Sarah. I plan to attend the public meeting scheduled for the 23rd. I am interested to know if the crash data for the corridor is or will be available for the study area. If so, how is it broken down? Crash type? Severity? Contributing factors? Mile maker ranges? Thank you and I look forward to hearing from you and attending the meeting.

Taylor Lonsdale, PE
Research Engineer

Small Urban and Rural Livability Center
Western Transportation Institute
Montana State University
(406) 994-7031

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, October 14, 2014 11:14 AM
To: Potts, Katie; Nicolai, Sarah
Cc: Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Ask MDT A Question Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Tuesday, October 14, 2014 11:04 AM
To: MDT Comments - Ask MDT
Subject: Ask MDT A Question Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Ask MDT A Question
Submitted: 10/14/2014 11:04:16
Name: Mitch Miller
Email Address: chugachpowder@gmail.com

Comment or Question:
I would like to join the Bridger Canyon study mailing list.
Email is preferable.

Reference Number = askmdt_612060546875

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Tuesday, October 14, 2014 12:30 PM
To: 'Holley Woosley Vennes'
Cc: Potts, Katie
Subject: RE: mailing list about Bridger Canyon Study
Attachments: NO-UPN-#-BRIDGER-CANYON-STUDY-DA-FINAL-09242014.PDF

We have scheduled a single informational meeting at the Bridger Canyon Fire Hall on October 23rd. I am attaching the meeting announcement with additional information.

Thank you,

Sarah

From: Holley Woosley Vennes [mailto:askihunny@gmail.com]
Sent: Tuesday, October 14, 2014 12:08 PM
To: Nicolai, Sarah
Subject: Re: mailing list about Bridger Canyon Study

IS there still a meeting planned in Wilsall or is the one at the BC fire station the only one now?

On Tue, Oct 14, 2014 at 12:02 PM, Nicolai, Sarah <snicolai@dowlhkm.com> wrote:

Thanks Holley. We will add you to our contact list. Thanks for your interest in this study.

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

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From: Holley Woosley Vennes [mailto:askihunny@gmail.com]
Sent: Tuesday, October 14, 2014 11:54 AM

To: Nicolai, Sarah
Subject: mailing list about Bridger Canyon Study

I would like to be added to the mailing list about the Bridger Canyon Highway study. Thanks.

--

Holley Woosley Vennes

30900 Bridger Canyon Rd

Wilsall, MT 59086

--
Holley Woosley Vennes
30900 Bridger Canyon Rd
Wilsall, MT 59086

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Thursday, October 16, 2014 11:24 AM
To: 'renee@largelandscapes.org'
Cc: 'Potts, Katie'; Carol Strizich (cstrizich@mt.gov)
Subject: RE: Bridger Canyon Corridor Planning Study - Newsletter #1

Hi Renee.

Thanks for your e-mail.

We have prepared draft versions of the two reports you mention. We expect to post the reports to the study website by early next week. I will send an announcement to the study contact list once they are posted.

Sarah

From: Renee Callahan [mailto:renee@largelandscapes.org]
Sent: Wednesday, October 15, 2014 11:03 AM
To: Nicolai, Sarah
Subject: RE: Bridger Canyon Corridor Planning Study - Newsletter #1

Hi Sarah,

I noticed that the schedule says the Environmental Scan and Existing & Projected Conditions reports are done, but I can't find either on the website. Do you know whether they are available? Also, any chance there will be paper copies available to the public at the Bozeman MDT office on Rouse?

Thanks in advance for your help with this inquiry!

Best,
Renee

Renee Callahan, MESM, JD
Senior Policy Officer
Center for Large Landscape Conservation
www.largelandscapes.org | 406.586.8082

Please note my new email address: renee@largelandscapes.org

From: Nicolai, Sarah [mailto:snicolai@dowlhkm.com]
Sent: Tuesday, October 14, 2014 12:39 PM
To: Nicolai, Sarah
Cc: Potts, Katie
Subject: Bridger Canyon Corridor Planning Study - Newsletter #1

Good afternoon.

I am attaching our first newsletter for the Bridger Canyon Corridor Planning Study. Please view the study website (http://mdt.mt.gov/pubinvolve/bridger/default.shtml) for additional information.

Thank you for your interest in the study.

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

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Nicolai, Sarah

From: Nolan Campbell <nolan@purewestproperties.com>
Sent: Wednesday, October 15, 2014 8:43 AM
To: Nicolai, Sarah
Subject: Bridger canyon

Can you add me to the email list please.

Nolan S. Campbell -Realtor
PureWest Christie's International Real Estate
1612 W Main St
Bozeman, MT 59715
(406)-209-2386

http://www.purewestproperties.com/

Nicolai, Sarah

From: Potts, Katie <kpotts@mt.gov>
Sent: Wednesday, October 15, 2014 12:06 PM
To: Nicolai, Sarah
Subject: FW: Bridger canyon drive

FYI

From: Diana Thornbrough [mailto:dianathornbrough@bellsouth.net]
Sent: Wednesday, October 15, 2014 12:05 PM
To: Potts, Katie
Subject: Bridger canyon drive

Hello,
We are part time residents of the canyon but will not be there for the meeting. One issue I would like for all to keep in mind – we have returned home in white outs on several occasions and feel we might not have made it without the aid of the reflectors on each side of the road. We literally pick our way from one to the next to make sure we stay between right and left and on the road. Under these conditions one cannot even pull over to wait it out because you don't know where you are and how much room there is on the shoulder. Feels safer to keep going. Thank you for keeping these shining, you have saved many lives!

Diana Thornbrough

Diana Stanton-Thornbrough
dianathornbrough@bellsouth.net
6007 Sunny Hillside Lane
Bozeman, Montana 59715

Nicolai, Sarah

From: Kent Madin <rett139@yahoo.com>
Sent: Thursday, October 16, 2014 2:02 PM
To: Nicolai, Sarah
Cc: Tom Fiddaman
Subject: MDT /Bridger Canyon Meeting

Dear Ms. Nicolai,

I'm a board member of the Bridger Canyon Property Owners Association (BCPOA) and have been asked by several residents in the canyon to contact you prior to the meeting and express some areas of concern.

First let me say that it is central to the spirit and practical application of the Bridger Canyon Zoning Regulations and the values they preserve that Highway 86 remain, forever, a two lane highway. That said, there are concerns that development of mining and gas and oil exploration taking place east of Bridger Canyon could create pressure to widen Highway 86. Please be prepared to address questions from the community around that subject.

Second, there are questions about whether or not fiber optic is going to be run up through the Canyon and potentially over to the areas of mineral exploration. There will be questions on that.

Third, (and this is my own Quixotic cause), please be prepared to address the question of MDT's support (in conjunction with the County Commission) of a law that makes use of a cellphone while driving, in any format, illegal from the "M" to Brackett Creek. Bridger Canyon, by virtue of its geography, has virtually no cell coverage which logically makes Highway 86 a safer roadway. However, cell coverage is coming fairly soon and my personal feeling is that all government agencies and elected officials charged with public safety need to address how to mitigate the increase in distracted driving that will occur.

Thanks and looking forward to meeting you on the 23rd.
(And thanks to MDT for the wireless flashing light system at the Firehouse!)
Kent Madin
406-587-4732

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Tuesday, October 21, 2014 10:41 AM
To: 'Renee Callahan'
Cc: Potts, Katie
Subject: RE: Bridger Canyon Corridor Planning Study - Draft Reports

Renee,

MDT is only posting the draft reports electronically on the study website at this time. No printed reports will be produced.

Thanks,

Sarah

From: Renee Callahan [mailto:renee@largelandscapes.org]
Sent: Tuesday, October 21, 2014 8:59 AM
To: Nicolai, Sarah
Subject: RE: Bridger Canyon Corridor Planning Study - Draft Reports

Hi Sarah,

Do you know whether paper copies will be available at MDT's Bozeman office (on Rouse)?

Thanks,
Renee

Renee Callahan, MESM, JD
Senior Policy Officer
Center for Large Landscape Conservation
www.largelandscapes.org | 406.586.8082

Please note my new email address: renee@largelandscapes.org

From: Nicolai, Sarah [mailto:snicolai@dowlhkm.com]
Sent: Monday, October 20, 2014 1:44 PM
To: Nicolai, Sarah
Cc: Potts, Katie
Subject: Bridger Canyon Corridor Planning Study - Draft Reports

Good afternoon.

Draft versions of the Environmental Scan Report and the Existing and Projected Conditions Report are now posted to the study website: http://www.mdt.mt.gov/pubinvolve/bridger/documents.shtml. Please submit any comments on these draft reports to me by e-mail (snicolai@dowlhkm.com) or standard mail (P.O. Box 1009, Helena, MT 59624) by Monday, December 1, 2014.

Thank you,

Sarah

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

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Nicolai, Sarah

From: Taylor Lonsdale <bznbybike@gmail.com>
Sent: Wednesday, October 22, 2014 1:15 PM
To: Nicolai, Sarah
Cc: Robert Bukvich; dylanwtaylor@gmail.com; Rebecca Gleason; Bill Cochran; David Kack
Subject: Re: Bridger Canyon Corridor Planning Study - Draft Reports

Good afternoon Sarah. Thank you for sending out this report ahead of the meeting tomorrow night. I have a few questions/comments. Unfortunately I do not believe I will be able to attend the meeting.The crash analysis in the report does not break the crashes down by the focus areas in MDT's CHSP. Such things as occupant restraint usage, impairment, or road departure crashes. It seems critical that the crash analysis provide reference the to CHSP particularly if the study is to identify objectives for improving safety for all road users. I believe the MT 86 is on a list of roadway to receive centerline only rumble strips and hopefully that is based on a prevalence of crashes that can be influenced with the use of centerline rumble strips. A minor note, I believe that it is the Gallatin Valley Bicycle Club and not the Gallatin Valley Land Trust that organizes the bicycle rides. Why are only three segments analyzed for access density? I would think the corridor has at least 4 segments with relatively unique access densities. It seems to me that perhaps segmenting it by speed zones would make sense. Additionally, is access type considered in this analysis? It makes sense to me that an access such as the "M" Trail parking lot or Bridger Bowl should be a larger consideration than a driveway to a single home. Bozeman's CTSP contains a focus area on bicycle and pedestrian safety. While none of the strategies directly mention Bridger Canyon Drive a focus on bicycle and pedestrian safety is crucial to note for this corridor study. I see this is noted under the section on the Bozeman Area Transportation Plan. Thanks for your time on this,

Taylor Lonsdale
426 N 9th Ave
Bozeman, MT

On Mon, Oct 20, 2014 at 1:43 PM, Nicolai, Sarah <snicolai@dowlhkm.com> wrote:

Good afternoon.

Draft versions of the Environmental Scan Report and the Existing and Projected Conditions Report are now posted to the study website: http://www.mdt.mt.gov/pubinvolve/bridger/documents.shtml. Please submit any comments on these draft reports to me by e-mail (snicolai@dowlhkm.com) or standard mail (P.O. Box 1009, Helena, MT 59624) by Monday, December 1, 2014.

Thank you,

Sarah

Sarah W. Nicolai, P.E.
Manager, Planning and Environmental Services
Direct: (406) 324-7412

DOWL HKM
406-442-0370 | 406-442-0377 (Fax) | 1300 Cedar Street | Helena, Montana 59601 | www.dowlhkm.com
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Bridger Canyon Corridor Planning Study
Informational Meeting #1

Thursday, October 23, 2014

MDT Invites Your Comments:

The Kelly Canyon intersection with Highway 86 is very dangerous and must be given a turn lane.

Traffic of bicycles is a major hazard throughout the Canyon, but dangerously so from Jackson Creek and Kelly Canyon, both directions.

With Bridger Bowl expansion and proposed major expansion of residences Condos, etc. the traffic load for 86 will be much greater than some prepared models indicate.

The landslide area at the Canyon mouth must be dealt with to eliminate the very dangerous curve at the Big Rock.

To receive further study information, please provide your name and address:

Name: Robert Bellows

Address: 15139 Kelly Canyon Rd
Bozeman, MT 59715

Email: rabimb@dishmail.net

Please leave your comments with staff at the meeting, or mail to:

Sarah Nicolai
DOWL HKM
PO Box 1009
Helena, MT 59624

Please indicate comments are for the Bridger Canyon Corridor Planning Study and submit comments by **December 1, 2014.**

DOWL HKM

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Monday, December 01, 2014 10:28 AM
To: Nicolai, Sarah
Subject: FW: Planning Contact Us

From: ggettler@gmail.com [mailto:ggettler@gmail.com]
Sent: Monday, October 27, 2014 8:47 AM
To: Chris Saunders
Subject: Planning Contact Us

PlanningContactUsID: 278

First Name: Gail

Last Name: Gettler

Phone: (406) 586-3244

Email: ggettler@gmail.com

Message: Please consider a cross walk at Headlands and Northwoods crossing Bridger Drive. This is highly used for Headlands families to cross over to use the trail system in the Legends. Speed limit there is 45 mph, so a painted cross walk would be very helpful. Thank you.

Form inserted: 10/27/2014 8:46:47 AM

Form updated: 10/27/2014 8:46:47 AM

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Thursday, November 13, 2014 8:49 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Wednesday, November 12, 2014 6:38 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/12/2014 18:37:39
Project/Study Commenting On:Bridger
Name: Joe Anderson
Email Address: joe.topeka@gmail.com

Comment or Question:
I just became aware that the Dept. of Transportation is presently studying the Bridger Canyon corridor. I am a resident of Bozeman and a frequent user of the canyon highway as both a motorist and a cyclist.

As safety is my chief concern, both in the car and on the bicycle, I find the speed limit of 70 mph to be too fast through the canyon.

In addition, I believe that the particular speed limit increase, when departing Bozeman but before entering the canyon, presents a danger. This forces vehicles to increase their speed when passing by "The M," a popular summer hiking area, and when entering the tight turn into the canyon.

My secondary concerns are as a cyclist. The following present unnecessary hazards to cyclists: (1) Narrow and, at times, inconsistent shoulder widths, (2) Presence of rumble strips, and
(3) Guardrails without shoulders (for instance, when leaving Bozeman but before entering the canyon). Each of these hazards can, at times, present the cyclist with a choice - to either veer to the edge of the shoulder, if present, or veer onto the road and enter into the flow of traffic. The latter is usually the safer. That is not to say that the latter option is safe.
Generally, it is not.

I am grateful that the state is taking time to investigate this dangerous roadway and is listening to the concerns of the public. My hope is that the final results of this review will enhance safety for all users, including non-motorized users.

Reference Number = prjcomment_238983154296875

Nicolai, Sarah

From: Marosok, Lauren <lmarosok@mt.gov>
Sent: Friday, November 14, 2014 10:57 AM
To: Nicolai, Sarah
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Wednesday, November 12, 2014 6:22 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/12/2014 18:22:10
Project/Study Commenting On:Bridger
Name: Paul Gingras
Email Address: spgingras@earthlink.net
Other Details: MT 86

Comment or Question:
Dear Sir or Madam:
I understand your department is studying improvements to the Bridger Canyon Road (MT 86) from Bozeman to north of Wilsall. I frequently ride a bicycle from Bozeman to the Bridger Ski Basin and back in the warm months and a few times a year all the way to Wilsall and return. As a cyclist my biggest conserns
are:
1. A lack of shoulders for cyclists along many areas of the road. Existing shoulders are not of a uniform width and are not cleaned of debris on a regular basis, especially in the spring when large amount of gravel accumulate which makes travel on the shoulder difficult.
2. Some guardrails have been placed in areas without any shoulder (by the fish hatchery outside of Bozeman) and this is really dangerous to cyclists. Trucks pass me going 60-70 mph in this area and it is very scary and dangerous. Something needs to be done there to improve safety before deaths occur.
3. Placing rumble strips on the shoulder is a bad idea for
cyclists. We can't ride on these things and if forces us onto
the main roadway and this is very dangerous. Think about all the uses on your roads before you do things like this. Remove existing rumble strips.
Thanks for allowing comments.

Reference Number = prjcomment_325286865234375

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Thursday, November 13, 2014 8:32 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Wednesday, November 12, 2014 7:36 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/12/2014 19:36:09
Project/Study Commenting On:Bridger
Name: Ross Snider
Email Address: rksnider@ece.montana.edu
Other Details: Bridger Canyon Corridor Planning Study

Comment or Question:
As a cyclist that rides Bridger Canyon keep in mind that the road should be safe for cyclists (wide shoulders, guardrails with shoulders, etc.)

Thanks,

Ross

Reference Number = prjcomment_826019287109375

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Friday, November 14, 2014 9:33 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol; Ebert, Jeff; Rouse, Dustin; Walsh, Joe
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Thursday, November 13, 2014 10:32 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/13/2014 10:31:37
Project/Study Commenting On:Bridger
Name: John Preston
Email Address: jpreston345@gmail.com

Comment or Question:
I am pleased to hear that MDT is looking at the Bridger Canyon roadway. The road has seen increased bicycle use in recent years despite becoming less safe for motorists as well as cyclist. I feel that the current speed limit is too high and that lowering it would add to the overall safety of the road.
The new guardrail near the "M" has made for a very dangerous situation for cyclist, especially considering the speed limit on that stretch. I hope MDT can avoid creating any more situations where a guardrail exists without the safety of a shoulder.
I would also ask MDT to avoid putting rumble strips in locations that make it difficult or impossible for cyclist to ride to the right of the "fog line."
Thank you for the opportunity to comment on this project.

Reference Number = prjcomment_1365966796875

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Thursday, November 13, 2014 9:31 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Thursday, November 13, 2014 8:38 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/13/2014 08:37:53
Project/Study Commenting On:Bridger
Name: Dillon Warn
Email Address: dillon.warn@gmail.com
Other Details: HWY 86

Comment or Question:
I'm writing about the Bridger Canyon Corridor Planning Study. I am a frequent user of this road, both in my car, and on my bicycle. It is a fantastic road biking route, and I would encourage you to keep that foremost in mind! I know you'll need to consider all users, but in particular, could you please make sure of a few things as you redevelop this road:

My "dream come true" would be for a separated "bike highway"
about 10 feet off the side of the road, such as is present along Hwy 93 between Missoula and Hamilton. That would be incredible if we could install that infrastructure everywhere!

Having a consistent, wide shoulder for the entire road would improve cyclist safety and comfort a great deal. Places where there is no shoulder, i.e. from Brackett Creek to Fairy Lake, are dicey dicey dicey! Lots of blind corners and fast moving cars, makes it a little sketchy for cyclists. I tend not to ride that far because of this.

Many bridges, culverts, etc, have narrow guardrails and no shoulder. Crossing these areas makes cyclists travel far too close to highway-speed vehicles. I'm sure there are other areas where guardrails are present without shoulders, as well.

If you put in rumble strips on the shoulder, could you put them right on the "white line" marking the edge of the lane? When they are in the shoulder, it's very uncomfortable to ride, and makes the road less safe for cyclists, as we either have to crowd to close to the edge, or too close to the traffic.

Anyways, thanks for your work. It's exciting to see new projects and improvements on our highways.

Kindest regards,

~Dillon Warn
406-431-7941

P.S. My father, Stephen Warn, was a road engineer for MDT for 30 years, so I'm definitely on your side. I know how hard it can be to balance need, interests, and cost-effectiveness! Thanks for your work.

Reference Number = prjcomment_29473876953125

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Friday, November 14, 2014 7:17 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol; Ebert, Jeff; Rouse, Dustin; Walsh, Joe
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Friday, November 14, 2014 7:00 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/14/2014 07:00:29
Project/Study Commenting On:Bridger
Name: David Hoffman
Email Address: david.swick.hoffman@gmail.com
Other Details: Bridger Canyon Road (MT86)

Comment or Question:
I am writing to comment on the Bridger Canyon Road (MT86) corridor.

My primary means of transportation is a bicycle. It is therefor very important to me that you consider the safety of all vehicles, including bicycles, when planning upgrades to this road. Please leave reasonable shoulders that are safe for cyclists. Rumble-strips force cyclists to ride out in the lane, which can be dangerous when cars are passing in both directions.

Guard rails with no shoulder, such as the one on the hill near the 'M' trailhead, put cyclists in extreme danger and should be avoided. Such guard rails set up a very dangerous situation for cyclists and pedestrians, and are likely to cause an accident.

The current guard rail near the 'M' trail actually sticks out into the travel lane, impeding the flow of traffic. It should be removed as soon as possible to resolve the public safety hazard that has been created.

Best regards,

David Hoffman

Reference Number = prjcomment_13153076171875

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Monday, November 17, 2014 7:39 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol; Ebert, Jeff; Rouse, Dustin; Walsh, Joe
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, November 17, 2014 6:35 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/17/2014 06:35:00
Project/Study Commenting On:Bridger
Name: Linda Crump
Email Address: lkcrump@gmail.com

Comment or Question:
I am commenting on the Bridger Canyon road project. The speed limit that is gummed downed to 45 miles an hour, heading into Bozeman is ridiculous. There are several places in Bozeman proper that use the 45 mile an hour speed limit. West Main St,, Oak St. and others. To have a limited speed limit on an open highway is unnecessary. If one is looking for an improvement, perhaps a good look at the sweeping turn, right past mile 7 heading up the canyon would be a wonderful idea. There is a passing zone there, going around a sweeping curve to the right.
There is NO WAY that you can see on coming traffic, coming around that curve when you are passing. This is exasperated when the trees are full. The no passing zone should be included in this whole section. A good look at this section of road would be worth someones time.

Reference Number = prjcomment_26885986328125

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, November 18, 2014 9:25 AM
To: Nicolai, Sarah; Potts, Katie; Strizich, Carol; Zanto, Lynn (MDT); Ebert, Jeff; Rouse, Dustin; Walsh, Joe
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, November 17, 2014 8:00 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/17/2014 20:00:13
Project/Study Commenting On:Bridger
Name: george thompson
Email Address: gthompson.bozmt@gmail.com

Comment or Question:
There are hundreds of people riding their bikes on the Bridger Canyon road. The existing guard rails are placed tight to the traffic lanes with no paved shoulder for bike riders.
Paved shoulders are needed for bike riders.

Post signs stated Bike Riders on roads.

The partial paving of the Brackett Creek road (to the Gallatin/Park County line helps for bike riding, please consider paved extension over to Clyde Park.
thanks,
George Thompson
12 Hill St
Bozeman

Reference Number = prjcomment_592376708984375

Nicolai, Sarah

From: Nicolai, Sarah
Sent: Tuesday, November 18, 2014 5:06 PM
To: 'Carol Fifer'
Cc: 'Potts, Katie'
Subject: RE: Bridger Canyon Road Corridor

Hi Carol.

Katie Potts is the MDT project manager for this study. I spoke with Katie this morning before replying to your e-mail. She conveyed that MDT will consider comments at any time during the study. The December 1st deadline for initial public comments is intended to allow us to keep moving forward with upcoming tasks and maintain the overall study schedule.

You are welcome to contact Katie directly at 406.444.9238 or kpotts@mt.gov.

Thank you,

Sarah

From: Carol Fifer [mailto:catfifer@gmail.com]
Sent: Tuesday, November 18, 2014 4:57 PM
To: Nicolai, Sarah
Subject: Re: Bridger Canyon Road Corridor

Hi Sarah,
Kindly advise, whom on MDT's staff would we approach about an official extension of the December 1st deadline?
The public data we are collecting will be of great value to MDT's plans.

Thank you,

Carol Fifer
Bridger Canyon

On Tue, Nov 18, 2014 at 2:04 PM, Nicolai, Sarah <snicolai@dowlhkm.com> wrote:

Carol,

Thank you for your e-mail. We held a resource agency meeting on October 15, 2014, and requested comments from resources agencies by October 24, 2014.

We are requesting public comments on the draft environmental scan and the draft existing and projected conditions report by December 1, 2014. Although MDT will accept comments at any time during the study, comments received by December 1st will be considered as we develop the draft improvement options report for review by our advisory committee.

Please let me know if I can answer any additional questions.

Thank you,

Sarah

From: Carol Fifer [mailto:catfifer@gmail.com]
Sent: Tuesday, November 18, 2014 9:03 AM
To: Nicolai, Sarah
Subject: Bridger Canyon Road Corridor

Good morning Sarah,
I have a few questions about your time table for input by resource agencies and additional facts as provided by local residents.
There are a number of factors which are not included thus far in your study and we are working on compiling a survey for resident observations.

Kindly advise, what is the cutoff date for input by the public so the facts are included in the options analysis presented to your Advisory Board?

What is the.cutoff date for input by resource agencies so their review and comments are included in the options analysis presented and considered by your Advisory Board?

Thank you very much,

Carol Fifer
Bridger Canyon
Bozeman, Mt

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Thursday, November 20, 2014 8:04 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol; Ebert, Jeff; Rouse, Dustin; Walsh, Joe
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Wednesday, November 19, 2014 4:22 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/19/2014 16:22:18
Project/Study Commenting On:Bridger
Name: Crowell Herrick
Email Address: jackstraw92@gmail.com

Comment or Question:
I am a road cyclist who currently uses Bridger Canyon Road. I, however, access Bridger Canyon by way of Kelly Canyon due to the inherent hazards of the "lower" portion of the study area. That being Bridger Drive to the M Trailhead and the landslide detour due to the fact there is no shoulder whatsoever. I will ride down this section only because I have greater speed, and while I am not going the speed limit I don't impede vehicle traffic when
I ride in the roadway. Additionally the relative speed in the
event of an accident is lessened going down as opposed to up and I therefore have a greater chance of surviving.

It would always be nice to have a wide shoulder however regardless of the width I will ride close to the traffic lane because there is less gravel there. So this becomes a maintenance issue and unless there is going to be a dedicated bike path I will continue to ride where my path is smoothest.
Clearly there are a number of drainage crossings on Bridger Canyon where I have to share the road because there is no shoulder. Providing a shoulder will eliminate my risk of being involved in an accident if a shoulder is provided at these crossings.

I ride to Battleridge and beyond and found the traffic to be less of an issue. No doubt it would be very nice to have a shoulder on the stretch between Brackett Creek and the top. It is my understanding that Brackett Creek will in the near future be paved and the traffic to that point will increase
substantially. I have noticed a fair amount of heavy truck
traffic using the canyon to between construction sites and gravel pits, wherever they may be located. Consequently a shoulder and improved road quality from Bridger Bowl to Brackett Creek is necessary.

Thank you.

Reference Number = prjcomment_43865966796875

Nicolai, Sarah

From: Jo Giese <jogiese.jogiese@gmail.com>
Sent: Sunday, November 30, 2014 10:20 PM
To: Nicolai, Sarah
Subject: Bridger canyon

Public comment.

Two deer ran into the front of my 1998 Tahoe early one morning the summer of 2013. It was still dark, I was on my way to the airport, there was almost no traffic, and as I was traveling south on Bridger Canyon and rounded the curve, almost at the M, one deer and then another charged into my headlights. Luckily, my car was heavy and stable and I kept steady on the road. When I returned from my trip my headlights were replaced and the front of my car was repaired. That was way more than a close call with wildlife.

I can also say without qualifications that I have never driven from town out to Bridger Hills, where we live, or from where we live into town, that I have not been passed by someone speeding by. It happens every every time--even on the curves where visibility is limited.

Jo Giese
Jo@jogiese.com
jogiese.com

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Monday, December 01, 2014 10:34 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Sunday, November 30, 2014 8:42 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 11/30/2014 20:42:01
Project/Study Commenting On:Bridger
Name: Ruth Hall
Email Address: cowgirlruth@gmail.com

Comment or Question:
I have lived directly on Bridger Canyon Road for 15 years. Over that time I have had "near misses" with wildlife and careless
(speeding) drivers countless times. Frankly, I think it is ludicrous that the posted speed limits are so high for this rural roadway and wildlife corridor. It's a winding road at high elevation. I think it would be wise to reduce the speed limits all along Bridger Canyon. Given that it is a popular route for cyclist furthers my safety concerns. Please lower the posted speed limits all along 86. Thank you.

Reference Number = prjcomment_974395751953125

Nicolai, Sarah

From: Gabor Benda <gabendamd@yahoo.com>
Sent: Monday, December 01, 2014 6:56 AM
To: Nicolai, Sarah
Subject: Comment on Bridger Canyon Corridor

Dear Ms. Nicolai,

I would like to comment on the Bridger Canyon Corridor as a resident of Bridger Canyon (mile marker 8), a cyclist who commutes to town on this road, and as a physician, who has worked in the ER in the past and has seen the consequences of motor vehicle accidents. I had written an objection to the plan to build a railing along the stretch of road approaching the M before it was built. I explained that without widening the road, that railing would have the effect of crowding 2 way traffic too much, and increasing the risk of head on collisions, especially on icy roads. Beyond that, it is very dangerous for cyclists when there are cars going both ways, and there is a cyclist they are passing by. Many people will wait to pass a cyclist in that situation, but not all. It will just be a matter of time before a biker gets clipped and pushed off into the ditch, or gets squeezed against the guardrail. I know there is a bike path planned, but the situation is dangerous even for cars alone.

Please do what you can to ensure a generous shoulder for as much of the corridor as possible since the entire corridor is heavily used by many bikers. Please do not let them make those rumble strips which negates the benefit of shoulders for the bikers. Thank you very much.

Sincerely,

Gabor

Gabor Benda, MD
The Bozeman Clinic
931 Highland Blvd Suite 3360
Bozeman, MT 59715
406.587.4242
gabendamd@yahoo.com

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, December 02, 2014 8:37 AM
To: Ebert, Jeff; Walsh, Joe; Rouse, Dustin; Potts, Katie; Zanto, Lynn (MDT); Nicolai, Sarah; Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, December 01, 2014 3:44 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 12/01/2014 15:44:10
Project/Study Commenting On:Bridger
Name: Bill Costigan
Email Address: bill@poindexters.com
Other Details: Bridger Canyon Hwy, future expanshion - suggest a noise / vibration study be conducted before expansion work begins.

Comment or Question:
I appreciate this opportunity to send a voice out for potential concerned consideration. It's with regard to the possibility of future expansion of Bridger Cyn Hwy. I truly appreciate the service MTC provides us MT folk each day and night, especially when the roads are snowy and icy as they are currently and much of the year. The snow plow drivers are heroes to us...

With limited knowledge of how Bridger Cyn Rd. may be modified in the future, my concern is that of noise. Sound and noise is often an area that slips under the radar screen of detection until it's too late or too expensive to properly or effectively deal with it. Living within a world of sound, music, acoustics and vibration, seeing how it impacts the quality of life of people especially within our community is of great interest to me, sound is my passion and business. In talking with my neighbors, it's something that concerns others as well. My feeling is a "noise and vibration study" must be completed prior to any drastic change to the Hwy that would invite heavy hauling truck traffic in to use this road. The goal of the study would be to determine the potential impact of increased traffic of this nature would have Bridger Cyn. residences.

Thanks for your time, keep up the excellent work. Bill Costigan

Reference Number = prjcomment_9320068359375

Nicolai, Sarah

From: Carol Fifer <catfifer@gmail.com>
Sent: Monday, December 01, 2014 12:59 PM
To: Nicolai, Sarah; Potts, Katie; Ebert, Jeff
Subject: Bridger Canyon Road, State Rd 86 Corridor Study

Sara, Katie and Jeff,

The recent corridor analysis of State Road 86 from Bozeman to Wilsall was
well done, however there are several areas of concern which I would like to have
included in your planning and implemented during construction.

Deer have often been seen crossing SR 86 from E. Griffin Road thru the "M." Those are areas near the creeks, which tend to attract wildlife.

For a number of years during the time span referenced in the study, as a matter of safety, the local volunteer fire department removed carcasses from
Bridger Canyon Road. This resulted in a lower than actual carcass count provided to MDT.
Very few, if any, of the motor vehicle/wildlife accidents were reported to authorities.

There are many places along SR 86 where large elk herds have been encountered standing on the road pavement, but those places were not indicated
on the study maps. These areas are known to many locals and are a major safety concern for people and wildlife.
Locations I have personally observed are from Kelly Canyon thru Jackson Creek.
Many times it has been necessary to stop to avoid a collision.

In addition to the elk, quite a number of road kill deer have been near the Stallion Station and Bridger Canyon Tree Farm.

The Bridgers are known to have wolverine activity. They are a species of concern, along with the lynx and grizzly bear.
Recent scientific research points to the importance of providing a continuing corridor for wildlife to navigate from the Yellowstone Ecosystem
to the Yukon Ecosystem. One of the vital links in that corridor is thru the Gallatin Mountains, then thru Bozeman Pass, over Green Mountain, across Bridger Canyon Road into the Bridger Mountain range, and extending to points beyond. This connection is critical to
maintain the survival and genetic diversity of any number of species, but especially important to the endangered and species of concern.

While considering the needed repairs to Bridger Canyon Road I would urge you to address the importance of providing safe passage for wildlife
via tunnels, or bridges. A tunnel along the creek by the Boys and Girls Club could reduce the likelihood of a collision in that area. With the planned park at Story Mill there will be more traffic and also more wildlife.

An overpass or tunnel near the "M" and Drinking Horse Trailhead will benefit hikers, bikers, and wildlife. A land bridge connecting the mountain tops would serve to enhance safety and create an attractive feature. They have worked well in other states.

A large tunnel, such as the one under SR 86 and currently in private use for horses and cattle near the Bridger Canyon Fire Station, should be constructed in the vicinity of MM 9. There are any number of bridges in that area which must be repaired or replaced.
The cost for the work would be incremental. Along with the necessity of providing for wildlife, this work
will further offer some measure of increased safety for people. The value of a human life can't possibly be calculated.

Bridger Canyon is a unique agricultural and historic area. I would draw your attention to items 8 and 9 in the Bridger Canyon Zoning documents which
.."insist on attention to vegetation, sanitation, wildlife habitat, erosion, and public safety.....as well as ...elements of community design
(roads, utilities, etc.) should be planned to include environmental factors in addition to usual safety and engineering considerations. "

Local residents can give further specifics which will be of great help to you in this project. With the expected population increase, thus
traffic increase, it is critical that MDT includes the valuable resources of local observations in your decision making process.

You many contact me at any time should you have questions.

Sincerely,
Carolyn A. Fifer
4750 Meadow Lane
Bozeman, Mt 59715

406-451-3880

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, December 02, 2014 10:51 AM
To: Ebert, Jeff; Rouse, Dustin; Walsh, Joe; Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Tuesday, December 02, 2014 9:56 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 12/02/2014 09:56:05
Project/Study Commenting On:Bridger
Name: jeff kack
Email Address: kack@montana.net

Comment or Question:
1. the biggest and main problem in the canyon has been the "curves" in the slide area. I have lived here since the slide and always thought the "detour" was going to be fixed. over the
years this has proven to be the most accident prone area in the canyon. straightening and re grading need to be done in order to make this short section safe again.
2. bring back the speed limits from last year. the new 45mph from the end of bridger drive to far past the detour curves is not necessary, especially if the detour problems are addressed.
3. the guardrail that was installed on the way from Bozeman to the "M" is a disaster waiting to happen. major development needs to be done to widen the road opposite the new rail in order to accommodate bikes and people. the installation of the guardrail without addressing adequate shoulder area was reckless to say the least.
thank you

Reference Number = prjcomment_40362548828125

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Monday, December 01, 2014 10:43 AM
To: Potts, Katie; Nicolai, Sarah; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Ask MDT A Question Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, December 01, 2014 5:24 AM
To: MDT Comments - Ask MDT
Subject: Ask MDT A Question Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Ask MDT A Question
Submitted: 12/01/2014 05:24:29
Name: Ron Lerner
Email Address: lerner.ron@gmail.com

Comment or Question:
I am told today is the last day for comments regarding the highway study for Bridger Road thru the canyon. while there are many issues that cannot be resolved due the constraints of nature or common sense, there is one thing that is certain.
Reducing the speed limits to winter levels on a year round basis will provide for cyclists increased safety, time to enjoy the scenery and help save animal and drivers' lives. This suggestion is cost effective and lets MOT move on to the next problem area.

Reference Number = askmdt_995697021484375

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Monday, December 01, 2014 10:44 AM
To: Potts, Katie; Zanto, Lynn (MDT); Nicolai, Sarah; Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, December 01, 2014 6:28 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 12/01/2014 06:28:26
Project/Study Commenting On:Bridger
Name: John Rogers
Email Address: jrogers@daqsystems.com

Comment or Question:
It would be a major construction project but given the popularity of MT86 for cyclists, what is really needed is a separate bike path. The new guard rail just before the "M" is really, really bad. Someone is going to get killed. There is no room for two trucks and a cyclist to pass each other. Anchorage has miles of separate bike lanes, including along the Glenn highway.

Reference Number = prjcomment_12322998046875

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Monday, December 01, 2014 11:02 AM
To: Nicolai, Sarah; Zanto, Lynn (MDT); Potts, Katie; Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, December 01, 2014 9:58 AM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 12/01/2014 09:58:08
Project/Study Commenting On:Bridger
Name: linda svendsen
Email Address: linda@boojum.com

Comment or Question:
We love the lower speed limits on Bridger Canyon, no problem there. As to wildlife, most people know to drive slower in the fall/winter months and don't mind doing so, so as to make it a safe place for wildlife as well as humans. If there was ever extra money, a couple tunnels for wildlife crossings would be great. Same thing applies to ski season...most people know to drive slower and hopefully keep in mind the reason the canyon is so packed at 9am and 4-5pm. Great snow!

Cyclists who are going to town on Bridger are not a huge problem. The big concern is bicyclists who are cycling north(east), away from town. In some places, there's just no room. So the slower speed limits are great (safe) for just about everything.

Keep the canyon 2 lanes. We all love it. Thanks!
p.s. Please don't put my name/email on any mailing lists - thanks again.

Reference Number = prjcomment_397857666015625

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Tuesday, December 02, 2014 8:30 AM
To: Nicolai, Sarah; Potts, Katie; Zanto, Lynn (MDT); Strizich, Carol
Subject: FW: Comment on a Project or Study Submitted

-----Original Message-----
From: www@mdt.mt.gov [mailto:www@mdt.mt.gov]
Sent: Monday, December 01, 2014 9:49 PM
To: MDT Comments - Project
Subject: Comment on a Project or Study Submitted

A question, comment or request has been submitted via the "Contact Us" web page.

Reason for Submission: Comment on a Project or Study
Submitted: 12/01/2014 21:48:39
Project/Study Commenting On:Bridger
Name: Ellen Trygstad
Email Address: eltjupiter@gmail.com

Comment or Question:
Thank you for the excellent presentation in October on the Bridger Canyon road review by MDT. As you review comments and begin to prioritize projects, please arrange for additional public input. This may save MDT time and money as residents continue to provide input from their experience of the road.

I suggest priortizing bridger repair and assisting animal crossings as these projects would immediately address potential accidents. Adding turn lanes is a waste of public money.
Distracted driving is not something MDT can prevent now that
cell towers have access in the Canyon. Eliminating beer at the
ski area would help accidents, but again outside MDT's province.
The reduced speeds near Kelly Canyon will likely help turning
there. Perhaps a follow up speed study will facilitate this
much cheaper solution for turning at Jackson Creek as well as Bridger Bowl.

Bridger Canyon has five buildings on the National Registry for
Historic Preservation. Lewis and Clark travelled Kelly Canyon;
John Bozeman plied his trade down BC Road. Fort Ellis was built from timber slid along a road from the Bohart Ranch area and
around Green Mountain. This is a historic area. The two lane
road and the curves in the road are part of its rural charm and history, therefore also part of its tourist draw. Any changes to the road should be limited and specific, such as bridges and over/underpasses for wildlife. Thank you for your time.
Hopefully, a future speed study will provide MDT with the authorization to reduce the 70mph areas to 60 mph which is more compatible with this road overall and creates the optimal safety situation.
Thank you very much.

Reference Number = prjcomment_8917236328125

Nicolai, Sarah

From: Renee Callahan <renee@largelandscapes.org>
Sent: Monday, December 01, 2014 4:55 PM
To: Nicolai, Sarah
Cc: kelly@gvlt.org; renee@largelandscapes.org; meredith@largelandscapes.org; jerry@future-west.org; bill@poindexters.com; catfifer@gmail.com; flyboy700@gmail.com; hamlins@littleappletech.com; eltjupiter@gmail.com; kirk.loftsgaarden@dot.gov; lstoeffler@fs.fed.us; cpoissant@bozeman.net; MTrail@dot.gov; John.Pierce@dfw.wa.gov
Subject: Bridger Canyon Corridor Planning Study, Montana Highway 86
Attachments: MSWP Hwy 86 Corridor Study Comments 12-01-14 FINAL.pdf

Importance: High

Dear Ms. Nicolai,

On behalf of the Gallatin Valley Land Trust, Montanans for Safe Wildlife Passage, and the undersigned residents of Bridger Canyon, we appreciate the opportunity to provide input on the Bridger Canyon Corridor Planning Study regarding potential improvement options for Montana Highway 86, an approximately 35-mile corridor from Story Mill Road in the City of Bozeman, to the intersection with US Highway 89 in Wilsall, Montana. As detailed in the attached comments, we urge the Montana Department of Transportation to consider the effects of any proposed improvements on ecological connectivity, and to commit to affirmatively exploring opportunities to maintain this critical linkage between the Greater Yellowstone and Crown of the Continent ecosystems, as part of any future highway improvement projects.

If you have any questions regarding our comments or the information we have provided, please do not hesitate to contact me.

Respectfully submitted,
Renee Callahan

On behalf of:

Gallatin Valley Land Trust

Kelly Pohl, Associate Director, PO Box 7021, Bozeman, MT 59771, kelly@gvlt.org

Montanans for Safe Wildlife Passage

Renee Callahan & Meredith McClure: *Center for Large Landscape Conservation*, renee@largelandscapes.org, meredith@largelandscapes.org
Jerry Grebenc, *Future West*, jerry@future-west.org
People's Way Partnership, http://www.peopleswaywildlifecrossings.org/

Residents of Bridger Canyon

Bill Costigan, bill@poindexters.com
Carolyn A. Fifer & John E. Lee IV, catfifer@gmail.com, flyboy700@gmail.com
Candace Hamlin & Gerald Meyers, hamlins@littleappletech.com
Ellen Trygstad & Richard Burke, eltjupiter@gmail.com

Renee Callahan, MESM, JD
Senior Policy Officer
Center for Large Landscape Conservation
www.largelandscapes.org | 406.586.8082

December 1, 2014

Via email: snicolai@dowlhkm.com

Sarah Nicolai
Consultant Project Manager
DOWL HKM
1300 Cedar Street
Helena, MT 59601

Re: ***Bridger Canyon Corridor Planning Study, Montana Highway 86***

Dear Ms. Nicolai,

Gallatin Valley Land Trust (GVLT), Montanans for Safe Wildlife Passage (MSWP), and the undersigned residents of Bridger Canyon appreciate the opportunity to provide input on the Bridger Canyon Corridor Planning Study (Study) regarding potential improvement options for Montana Highway 86 (MT 86), an approximately 35-mile corridor from Story Mill Road in the City of Bozeman, to the intersection with US Highway 89 in Wilsall, Montana. As described below, we urge the Montana Department of Transportation (MDT) to consider the effects of any proposed improvements on ecological connectivity and to commit to affirmatively exploring opportunities to maintain this critical linkage between the Greater Yellowstone and Crown of the Continent ecosystems, as part of any future highway improvement projects.

Background on GVLT, MSWP and Residents of Bridger Canyon

GVLT connects people, communities, and open lands through conservation of working farms and ranches, healthy rivers, and wildlife habitat, and the creation of trails in the Montana headwaters of the Missouri and Upper Yellowstone Rivers. Since our founding in 1990, we have helped conserve more than 42,800 acres of land in partnership with 90 families, including 12 conservation easements in the Bridger Canyon and Bozeman Pass critical wildlife corridor, protecting nearly 4,200 acres from the I-90 corridor north to Battle Ridge.

MSWP formed in 2011 to bring individuals and conservation groups together to advocate for innovative solutions to provide safe passage for Montana's people, fish, and wildlife and improve or maintain habitat connectivity across Montana's roads. Our members include people who have been working on improving safe passage for wildlife and aquatic species for over 15 years, including research, mapping, monitoring, policy work, and on-the-ground projects.

Several individuals who reside in the Bridger Canyon study area, some of whom have lived in the area more than 15 years and are intimately familiar with the corridor, also support these comments. Their names and contact information appear in the signature block below.

I. The Western Governors' Association's Crucial Habitat Assessment Tool confirms that MT 86 bisects a predicted link critical to maintaining broad-scale connectivity.

a. Connectivity across the Bangtail and Bridger Mountains, over MT 86

The Western Governors' Association (WGA) has produced a west-wide Crucial Habitat Assessment Tool (CHAT) as part of its Wildlife Corridors and Crucial Habitat Initiative. The CHAT is a cooperative effort of 16 Western states to provide the public and industry a high-level overview of "crucial habitat" across the West. "Crucial habitats" are places that are likely to provide the natural resources important to aquatic and terrestrial wildlife, including species of concern, as well as hunting and fishing species. The west-wide CHAT is intended to help users in the pre-planning of energy corridors and transmission routes, or in comparing fish and wildlife habitat, by establishing a common starting point across the West for the intersection of development and wildlife. As part of the WGA's CHAT effort, connectivity among large intact blocks of habitat was modeled throughout the West. This model identifies connectivity flowlines, or corridor routes, that are predicted to be crucial for maintaining broad-scale connectivity of several major biomes (Figure 1). The model is not species-specific; instead, it serves as a coarse-filter approach to identifying areas expected to support the movement of a wide range of species as well as continuity of ecological processes. A centrality score is calculated for each flowline, which represents its relative importance to maintaining connectivity across the region as a whole, and all lines are buffered by 1 mile on each side to account for various sources of uncertainty in the model.

As illustrated in Figure 1, a corridor with the highest connectivity value assigned by the model (1.0 on a standardized scale of 0.0 to 1.0) crosses MT 86, roughly between miles 10-12. This area also coincides with the highest carcass count along the study corridor, outside of miles 1-2 immediately adjacent to Bozeman, based on MDT's own Carcass Database.[1]

b. The corridor crossing MT 86 is a crucial link between the Greater Yellowstone Ecosystem and the Crown of the Continent Ecosystem.

The U.S. Northern Rockies span three relatively intact ecosystems: (1) the Crown of the Continent (Crown) centered around Glacier-Waterton National Parks, (2) the Salmon-Selway wilderness areas of central Idaho, and (3) the Greater Yellowstone Ecosystem (GYE). These intact ecosystems still host a full complement of native wildlife that includes wolf, bison, lynx, wolverine, fisher, marten, goshawk, eagle, grizzly and black bear, and mountain lion. With increasing human development, and accompanying increases in daily traffic loads on surrounding roads, wildlife habitat between these protected areas is becoming fragmented.

[1] Although this analysis was conducted throughout the west, individual states adopted it at their own discretion. Because some states selected alternative methods for modeling connectivity (e.g., Montana), and many states chose not to make connectivity layers public via the CHAT, this layer is not available for download from the WGA CHAT website. Instead, please direct questions concerning access to and use of this dataset to John Pierce (360.902.2511, John.Pierce@dfw.wa.gov).

Carcass Counts and WGA Connectivity Analysis for MT 86

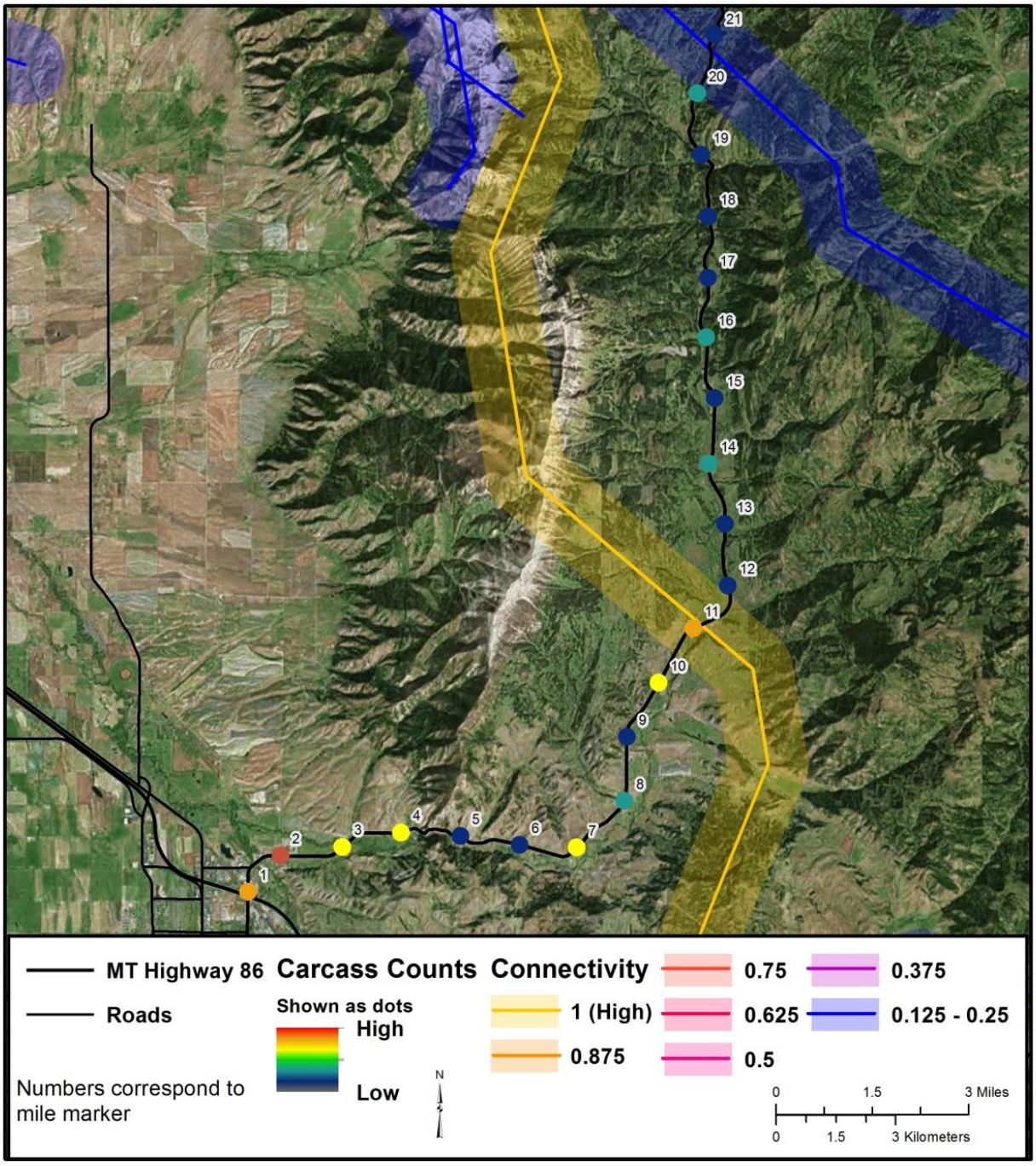


Figure 1. Carcass counts and WGA connectivity flowlines overlaid on MT 86 corridor study area. Sources: MDT Carcass Database, WGA Wildlife Corridors and Crucial Habitat connectivity analysis.

WGA Connectivity Analysis for U.S. Northern Rockies

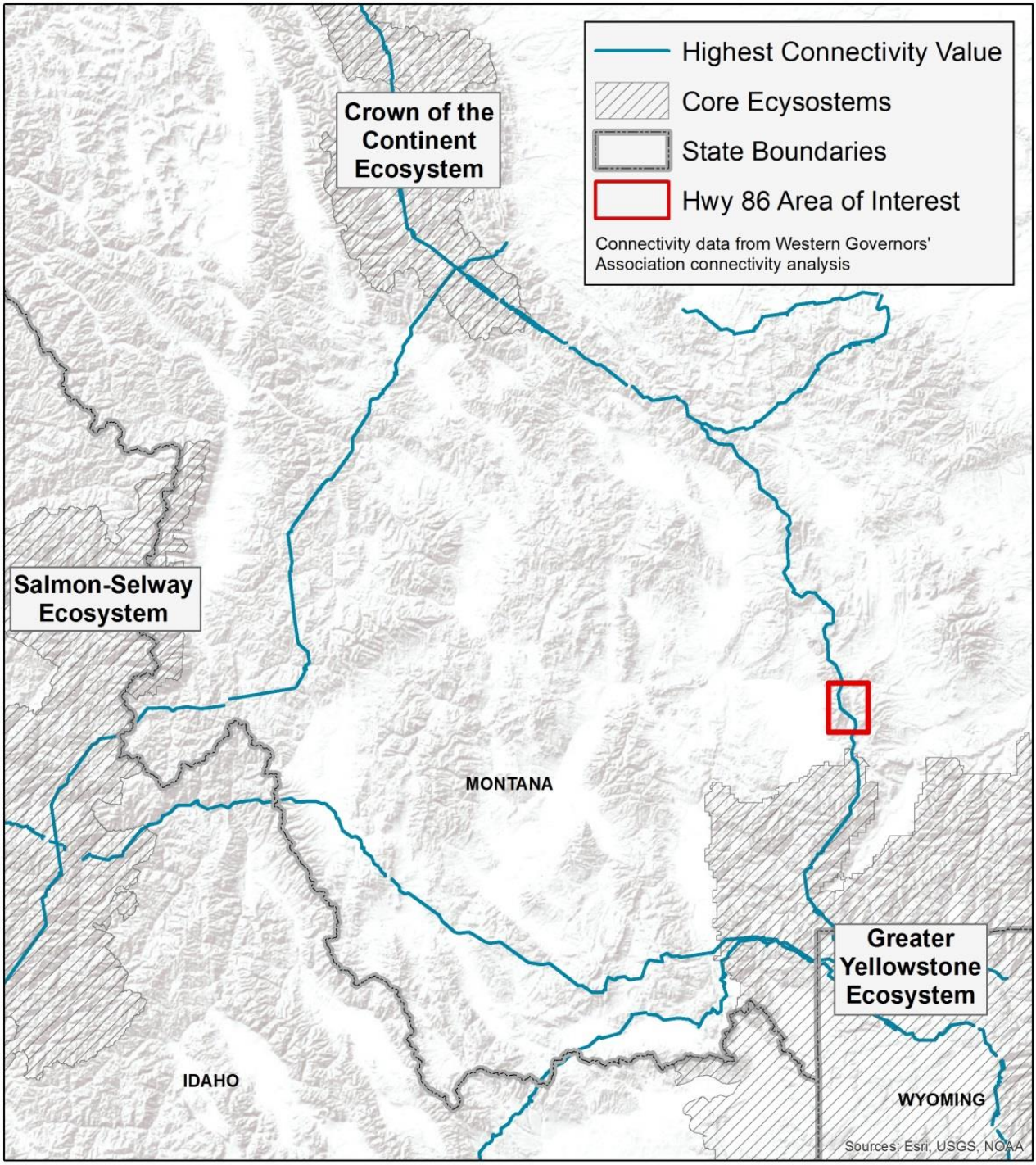


Figure 2. Highest connectivity value flowlines between major ecosystems of the U.S. Northern Rockies. Source: WGA Wildlife Corridors and Crucial Habitat connectivity analysis.

The WGA connectivity analysis identifies the best potential linkages among these three remaining relatively intact systems. As depicted in Figure 2, the high centrality linkage crossing MT 86 is expected to be the most crucial connection between the Greater Yellowstone and Crown ecosystems; it first runs north from the GYE, across I-90, along the Bangtail Mountains and **across MT 86 – the study area** – into the Bridger Mountains, and northwest to the Crown Ecosystem.

c. Any future improvements must preserve or improve ecological connectivity.

It is critical that any future improvements consider the importance of this region to broad-scale connectivity, and take steps to protect against further fragmentation. By considering wildlife early in the process, it is likely that relatively minor modifications, such as widening replacement culverts or bridges to allow for both terrestrial and aquatic passage, may be incorporated at minimal cost, while substantially maintaining or improving connectivity.

II. The Bozeman Pass Wildlife Corridor study provides a surrogate for those species likely to use the GYE to Crown Ecosystem linkage.

Although we are not aware of any connectivity studies focused on the Bridger Canyon corridor, the Craighead Institute, American Wildlands, and their partners studied another link, near Bozeman Pass, in the chain connecting the GYE to the Crown Ecosystem. Specifically, study partners applied a least-cost model to delineate routes across the landscape that provide the best opportunities for successful travel between habitat areas. They focused on three species (grizzly bear, elk, and cougar) and four variables (habitat suitability, habitat complexity, weighted road density, and building density). Field workers also compiled road-kill data, track surveys, and remote camera data to confirm wildlife use. They found that Bozeman Pass was used not only by the three focal species, but by many other species as well, including wolf, red fox, deer, marmot, mink, and weasel. As a result, the study delineated the Bozeman Pass Wildlife Corridor, located about 40 miles north of Yellowstone National Park between the towns of Livingston (to the east) and Bozeman (to the west). The corridor, which links the Bridger and Bangtail mountains (to the north) with the GYE (to the south) and encompasses approximately 908 km^2 or 223,917 acres, effectively serves as a surrogate for those species likely to use the remainder of the corridor and, therefore, to encounter MT 86.

As part of that effort, a variety of mitigation activities were undertaken, including:

- *Transportation corridor*. Highway I-90 and Montana Rail Link bisect the area. Taking advantage of a scheduled resurfacing and bridge replacement project, MDT agreed to rebuild a highway bridge across the railroad tracks and install fencing and moose guards to redirect wildlife under the interstate through existing bridges and culverts.
- *Wildlife-vehicle collisions*. MDT worked to deploy changeable message signs and highway radio advisories to inform motorists of wildlife movement in an effort to reduce wildlife collisions and maintain and improve wildlife movement.
- *Land development*. Homes and the potential of increased land development were additional sources of fragmentation. To protect the land within the corridor from further

development, over 2,000 acres are under conservation easements; county zoning restrictions limit further housing development on 20,000 acres; and coalbed methane development has been prohibited on 18,000 acres.

By taking wildlife into consideration during future improvements, MDT will be building upon existing efforts to reweave this landscape in a way that re-connects the GYE, currently an ecological island, with the Crown Ecosystem and other intact lands in the northern U.S. and southern Canada.

III. MDT should take steps to incorporate wildlife mitigation as part of any improvements that increase the operational speed of MT 86.

Certain improvements – in particular, straightening out horizontal or vertical curves – will likely increase the speed at which motorists will be able to drive on MT 86. (This is known as the "operating speed," which should not be confused with the legally posted speed limit, the subject of recent changes along the corridor.)

Numerous studies indicate that the operating speed of a highway is one of the most significant predictors of wildlife-vehicle collisions (e.g., Newman et al. 2012), as the driver's reaction time is reduced to a fraction of the time s/he would have to react at slower speeds. Found & Boyce's (2011) models suggest that lowering legally posted speed limits on roads traveling through areas with a high deer-vehicle collision risk may also lead to a reduction in collisions. Lowering posted speed limits has also been shown to reduce vehicle collision rates with bighorn sheep and elk (Bertwhistle 1999). Two of these species are abundantly present in the study area, with deer (87%) and elk (6.5%) being involved in the overwhelming majority of reported wildlife-vehicle crashes (Draft E-Scan, Table 5, at 11).

Although the posted (legal) speed may be higher or lower than the operating speed, at least one study of traffic speeds in Yellowstone National Park concluded that "[a]ctual speeds averaged 16 mph higher than the [55 mph] posted speed limits on road segments where design and condition did not act to slow vehicle speeds" (Gunther *et al*. 1998). Other studies similarly conclude that road improvements, including straightening out curves, increasing lane and shoulder widths and paving gravel surfaces, are associated with an increase in wildlife-vehicle collisions (Vokurka & Young 2008; Leblond *et al*. 2007; Jones 2000; Gunther *et al.* 1998).

To the extent MDT proposes any improvements that will increase the operational speed of MT 86, it should recommend specific, tangible actions to reduce the effect of such modifications on the ability of wildlife to safely cross MT 86.

IV. MDT should coordinate with the Bozeman to Bridger Mountain Trail Project to identify win-win-win opportunities to improve safe passage for bicyclists, pedestrians and wildlife.

The City of Bozeman, Federal Highway Administration-Western Federal Lands (FHWA), Gallatin National Forest, and MDT have jointly undertaken a project to design and construct a 2-mile bicycle-pedestrian path along an overlapping portion of the MT 86 study area, from Story Mill Road in Bozeman to the "M" trailhead parking lot. Based on MDT's Carcass Database, this 2-mile stretch coincides with relatively high carcass counts along the corridor.

As depicted in Figure 3, among other improvements, the project is actively considering a possible bicycle-pedestrian crossing under MT 86 to connect the "M" parking lot with the Drinking Horse Mountain trailhead. GVLT, MSWP, and the undersigned residents of Bridger Canyon urge MDT to work with project stakeholders to determine whether it is feasible to develop a multi-use overpass or underpass that would accommodate bicycle, pedestrian and wildlife passage (both large and small wildlife, and possibly aquatic, as well, depending upon location).

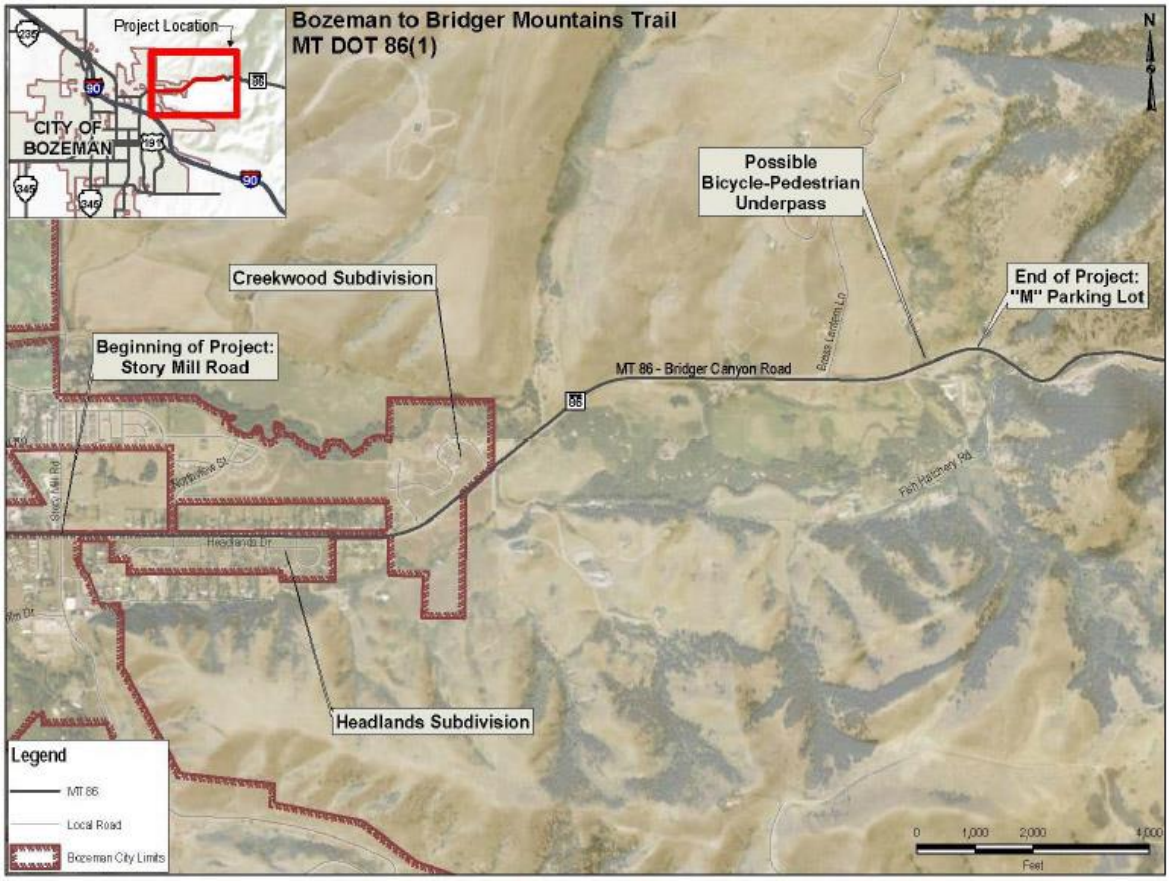


Figure 3. Proposed Bozeman to Bridger Mountains Trail project, comprising a 2.1-mile bike path adjacent to MT 86. The project starts at the Story Mill Road intersection and ends at the "M" parking lot, and includes a possible bicycle-pedestrian underpass. Available on the internet: http://www.wfl.fhwa.dot.gov/projects/mt/mtrail/.

Conclusion

Thank you for the opportunity to comment on the Study. We respectfully request that you consider these comments as you develop options for short- and long-term improvements along the MT 86 corridor. If you have any questions regarding our comments or the information we have provided, please do not hesitate to contact us.

Respectfully submitted,

Gallatin Valley Land Trust
Kelly Pohl, Associate Director, PO Box 7021, Bozeman, MT 59771
kelly@gvlt.org

Montanans for Safe Wildlife Passage
Renee Callahan & Meredith McClure: *Center for Large Landscape Conservation*
renee@largelandscapes.org, meredith@largelandscapes.org
Jerry Grebenc, *Future West*, jerry@future-west.org
People's Way Partnership, http://www.peopleswaywildlifecrossings.org/

Residents of Bridger Canyon

Bill Costigan, bill@poindexters.com
Carolyn A. Fifer & John E. Lee IV, catfifer@gmail.com, flyboy700@gmail.com
Candace Hamlin & Gerald Meyers, hamlins@littleappletech.com
Ellen Trygstad & Richard Burke, eltjupiter@gmail.com

cc: Kirk Loftsgaarden, FHWA, kirk.loftsgaarden@dot.gov
Lisa Stoeffler, Gallatin National Forest, lstoeffler@fs.fed.us
Carolyn Poissant, City of Bozeman, cpoissant@bozeman.net
Bozeman to Bridger Mountain Trail Project Comments, MTrail@dot.gov
John Pierce, Washington Department of Fish and Wildlife, John.Pierce@dfw.wa.gov

Literature Cited

Bertwhistle, J. 1999. The effects of reduced speed zones on reducing bighorn sheep and elk collisions with vehicles on the Yellowhead Highway in Jasper National Park. *In: Proceedings of the International Conference on Wildlife Ecology and Transportation*, Missoula, MT, p. 727-735.

Found, R. & M.S. Boyce. 2011. Predicting deer-vehicle collisions in an urban area. *Journal of Environmental Management* 92: 2486-2493. Doi:10.1016/j.jenvman.2011.05.010

Gunther, K.A., M.J. Biel, H.L. Robison. 1998. Factors Influencing the Frequency of Road-killed Wildlife in Yellowstone National Park. *In: Proceedings of the 1998 International Conference on Wildlife Ecology & Transportation*, Fort Myers, Florida. http://www.icoet.net/downloads/98paper05.pdf

Jones, M.E. 2000. Road updgrade, road mortality and remedial measure: impacts on a population of eastern quolls and Tasmanian devils. *Wildlife Research* 27: 289-296. Doi: 10.1071/WR98069

Leblond, M., C. Dussault, J. Ouellet, M. Poulin, R. Courtois, & al., e. 2007. Electric fencing as a measure to reduce moose-vehicle collisions. *Journal of Wildlife Management* 71(5): 1695-1703.

Neumann, W., G. Ericsson, H. Dettki, N. Bunnefeld, N.S. Keuler, D.P. Helmers, V.C. Radeloff. 2012. Difference in spatiotemporal patterns of wildlife road-crossings and wildlife-vehicle collisions, *Biological Conservation* 145: 70–78. Doi:10.1016/j.biocon.2011.10.011.

Vokurka, C.S. & R.K. Young. 2008. Relating Vehicle-Wildlife Crashes to Road Reconstruction. *In: Transportation Research Board, 86th Annual Meeting*, Washington, DC.

Western Governors' Association. 2008. Wildlife corridors initiative: June 2008 report. Western Governors' Association. Denver, CO. Available on the internet: http://www.westgov.org/wildlife

DOWL

1300 Cedar Street
Helena, Montana 59601
(406).442-0370

MEMORANDUM

To: Katie Potts
MDT Project Manager

From: Sarah Nicolai
DOWL Project Manager

Date: April 9, 2015

Subject: Bridger Canyon Corridor Planning Study
Informational Meeting – April 2, 2015

Introduction

An informational meeting for the Bridger Canyon Corridor Planning Study was held on April 2, 2015, at the Bridger Canyon Fire Hall located at 8081 Bridger Canyon Road, Bozeman, MT. The following MDT representatives and advisory committee members attended the meeting.

Katie Potts	MDT – Rail, Transit and Planning Division
Rob Bukvich	MDT – Butte District
Joe Walsh	MDT – Butte District
Sarah Nicolai	DOWL
Cody Salo	DOWL
Will Trimbath	DOWL

Twenty-two (22) members of the public attended the informational meeting. Meeting attendees included Renee Callahan, Attorney for Center for Large Landscape Conservation (CLLC)/Montanans for Safe Wildlife Passage (MSWP); Dennis Guentzel, Firefighter for the Bridger Canyon Rural Fire Department (BCRFD); Eunie Guentzel, Member of the Bridger Canyon Property Owners Association (BCPOA); and Anne Trygstad, Member of the BCPOA. Copies of the sign-in sheets are provided at the end of this memorandum.

Media Coordination and Newsletter

The informational meeting was advertised on March 15 and March 29, 2015, in the Bozeman Daily Chronicle. A news release was emailed to the Belgrade News; Meagher County News; the Livingston Enterprise; chambers of commerce for Bozeman, Belgrade, Manhattan, Gardiner, White Sulphur Springs, Livingston, and Meagher County; as well as radio stations and other local media outlets on March 20, 2015. The study newsletter was posted to the study website and e-mailed to the study

mailing list on March 23, 2015. Copies of the display advertisement, press release, and newsletter are provided at the end of this memorandum.

Presentation

Sarah provided an overview of the corridor planning study process and benefits, the study area, and existing environmental and transportation system conditions. Sarah also discussed the needs and objectives identified for the corridor planning study. Cody reviewed the improvement options outlined in the draft improvement options report. A copy of the presentation is provided at the end of this memorandum.

Discussion Period

Several comments were received during the presentation, and a discussion period was held following the presentation. Discussion items are summarized below.

Muddy Creek Intersection
Multiple comments were received in response to Option 4.b, which identifies realignment of the Muddy Creek intersection. Concern was raised that a larger intersection radius would increase driver speed. Members of the public noted that the approximately 90-degree turn currently limits speed in this location. Attendees asked if options were available to reduce speed in this area such as rumble strips, signage, or decreased speed limits. The agricultural nature of this segment was noted and attendees stated lower speeds would be preferred.

Signage
Attendees requested that a sign be erected at the entrance to Bridger Canyon from Bozeman indicating that motorists were entering a mountainous corridor with varying conditions. MDT replied that signage must adhere to applicable Federal Highways Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD) standards, and that Montana relies heavily on federal funds for roadway improvements. Projects constructed with federal funds must comply with FHWA standards.

Meeting attendees asked if a sign could be installed informing motorists that they are responsible for damage caused to livestock. Advisory committee members were not aware of a sign option for this message. "Open Range" signs were requested by attendees as an alternative.

A sign was requested at the exit of Bridger Bowl to thank people for visiting and request they travel home safely and slowly.

Attendees asked if they could purchase and install signage in the corridor. Advisory committee members replied that the corridor is within MDT right-of-way and only signs approved by MDT could be installed.

Corridor Study Planning Process
Attendees inquired about the details of the planning process. A question was raised asking why the study was being performed. Sarah and Katie replied that the study was being performed to identify improvement options in the corridor when funding becomes available for future projects. Identifying

areas of improvement allows MDT to incorporate these options into future projects in a more cost-efficient manner. A question was raised regarding the prioritization of improvement options and how this related to the short-term, mid-term, and long-term implementation timeframes. Cody replied that the implementation timeframes defined the amount of time and effort associated with each improvement option, and did not dictate the prioritization of improvement options. Sarah explained that the improvement options provide MDT with a "toolbox" of options to use in future projects and that none of the projects are guaranteed to be constructed.

Attendees asked how they would be made aware of selected improvement options. Joe and Katie replied that any future projects would follow MDT's standard public involvement process. Resources available for disseminating MDT information include the MDT website and local newspapers.

An attendee asked how this study considered other planning efforts in the study area. Sarah replied by directing attendees to the multiple planning studies that were considered and referenced in the corridor planning study.

Project Implementation

A question was raised regarding why some of the improvement options were not implemented during past construction efforts when the roadway was under construction. Katie explained that previous projects were constructed prior to the planning study; however, any future projects may include improvement options outlined in the report.

Attendees asked if survey stakes in the corridor were associated with this study. Rob replied that no, any existing stakes were for a separate MDT project. This planning study is not associated with any individual projects.

Attendees asked how MDT prioritizes road projects. Rob replied that MDT requests public input on transportation needs on an annual basis through the Statewide Transportation Improvement Plan (STIP), and that a comment period is currently open for the 2015 STIP.

Turning Lanes

In response to Option 4.c – Turn Lanes, concern was raised about forcing oncoming traffic to navigate around oncoming turn lanes. Cody replied that the lane taper rates are very slight for oncoming traffic and would not feel like a sharp turn. The turn lanes proposed would be consistent with standard MDT turn lane design.

A question was asked about the capacity for vehicles making a left turn into Bridger Bowl. Cody replied that the turn lane capacity would be designed on a basis of traffic metrics to allow for deceleration and needed vehicle storage.

Wildlife Mitigation Efforts

An attendee requested if a statewide comparison could be included to relate animal-vehicle collisions in the Bridger Canyon corridor with other roadways in the state to provide a reference for the degree of wildlife collision severity on MT 86.

Oil and Gas Exploration
Meeting attendees expressed concern regarding impacts associated with potential future oil and gas exploration. Sarah reiterated that the corridor planning study was not conducted in response to any potential oil and gas development.

Speed Limit Issues
Meeting attendees emphasized motorists travel too fast through the corridor and that posted speed limits are too high. Sarah emphasized the goal of the corridor planning study was to improve the physical aspects of MT 86 and that speed limit issues are handled separately through the legislative process or as a result of a special speed study requested by local governments. Concerns about speed limits were encouraged to be directed to elected representatives. Rob discussed the recent speed limit study performed by MDT in 2014, and highlighted the process of reviewing speed limits on Montana roadways.

A comment was made requesting whether or not an improvement option could be to lower speed limits. Katie replied that this study deals with the physical aspects of the road, and that speed studies are handled separately.

An attendee asked if the Bridger Canyon Zoning District could request a speed study. Rob relayed MDT's formal process for conducting speed studies.

Miscellaneous Comments
A question was posed asking what the width of Forest Service Road 6607 would be after intersection realignment. Currently long trailers (stock trailers) need to turn around in the Bangtail Ridge Trail parking area along Brackett Creek Road. It was explained that determining the width of the road would be a design function and was not specifically analyzed in this planning process.

It was recommended that the Bridger Bowl entrance include paving further towards the ski area to avoid tracking gravel onto MT 86.

General comments were made requesting "traffic calming" measures throughout the corridor.

Written Comments

One written comment was received at the informational meeting, and __ written comments were received during the comment period, which closed on April 17, 2015. Comment topics included concerns about the Bridger Bowl intersection, the need for turnouts, speed issues, and ____. A copy of the written comments is provided at the end of this memorandum.

Bridger Canyon Corridor Planning Study

Informational Meeting #2

Thursday, April 2, 2015

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Katie Potts	MDT			kpotts@mt.gov
Will Trimbath	DOWL	1300 CEDAR ST	HELENA, MT 59601	wtrimbath@dowl.com
Cody Salo	DOWL	"	"	csalo@dowl.com
Ashley Woodley Vennas		50900 Bridger Canyon	Wilsall, MT 59086	askihonny@gmail.com
Mary + Ken Danhof BC		6570 Jackson Cr. Rd	Boz, MT 59715	Kend@3riversdbs.net
Richard Burke				
Ellen Trygstad		4801 Aspen Lane	Bozeman MT 59715	richjburke@gmail.com
Dan Stratford		16628 BCR	Boz MT 59715	
Dennis + Ennie Quentzel		1640 Place Creek Rd	Boz 59715	dquentzel@latmt.com
Sonja Berg		5670 Thorpe	Belgrade 59714	none
Richard Rowdell		1050 Skunk Creek Rd.	Bozeman, MT 59715	rdowdell@gmail.com
Brian Gerlitzen		10680 Bridger Cny Rd		brian@bridgerheating.com
[illegible]		411 N. Third Ave.	Bozeman 59715	nrsai/andwater@gmail.com
Deborah Gertis		10680 BCR	5971J	dvgertis@yahoo.com
Jim Nallick		1410 CHERRY DR.	59715	jnallick@sandersonstewart.com
CHARLES PAPKE		5911 BRIDGER RD	"	NONE
PAPKE				

Bridger Canyon Corridor Planning Study

Informational Meeting #2

Thursday, April 2, 2015

Name	Organization/Title	Address	City, State, ZIP Code	E-mail
Margie Kankrlik		1555 Place Creek Rd	Bozeman 59715	margie.kankrlik@gmail.com
DAVID KACK	WTI / MSU	PO Box 174250	BOZEMAN 59717	DKACK@COE.MONTANA.EDU
Ellen Trygstad		PO Box 4467	Bozeman 59772	ettjupiter@gmail.com
Ann Chase (and Lee)		7300 Teepee Ridge Rd	Bozeman 59715	
Anne Trygstad		7890 Bridger Canyon	Bozeman 59715	annetrygstad@gmail.com
JOHN & LINDA KENSEY		8891 BRIDGER CANYON RD	BZN 59715	JOHN@ARACA.COM
Renee Callaren		717 N Rouse	Bzn 59715	Renee@largelandscapes.org
Ralph W. Steele		4026 Bridger Canyon Rd.	BZN 59715	rsteele@steelelawmt.com
John Goodman		4790 Aspe Ln	Boz 715	

2nd Informational Meeting

Discuss Bridger Canyon Corridor Planning Study
Thursday, April 2, 2015 6:00 P.M.
Bridger Canyon Fire Hall
8081 Bridger Canyon Rd, Bozeman, MT

The Montana Department of Transportation (MDT), in coordination with Gallatin County and FHWA, will present and discuss the Draft Bridger Canyon Corridor Planning Study. The intent of the study is to identify issues, constraints, and potential opportunities for improvements within the study area. The study area begins at the MT 86 intersection with Story Mill Road at Reference Post (RP) 1.95 just east of Bozeman, and ends at the intersection with U.S. 89 at RP 37.5 near Wilsall, MT. The Bridger Canyon Corridor Planning Study is a pre-environmental study that allows for planning-level coordination with community members, stakeholders, environmental resource agencies, and other interested parties. The study identifies potential improvement options, which will assist in facilitating a smooth and efficient transition from transportation planning to future project development/environmental review. Implementation of potential improvement options is dependent on funding availability. The Bridger Canyon Corridor Planning Study is a planning-level study and is not a design or construction project.

The purpose of the meeting is to explain the planning study process, and, also, present and discuss the Draft Bridger Canyon Corridor Study.

The meeting is open to the public and attendance is encouraged. MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of our department. If you require reasonable accommodations to participate in this meeting, please call Sarah Nicolai at (406) 324-7412 at least two days before the meeting. For the hearing impaired, the TTY number is (406) 444-7696 or 1-800-335-7592, or call Montana Relay at 711. Alternative accessible formats of this information will be provided upon request.

Comments may also be submitted in writing at the meeting; by mail to Sarah Nicolai, DOWL, 1300 Cedar Street, Helena, MT 59601; by email to snicolai@dowl.com ; or online at www.mdt.mt.gov/pubinvolve/bridger

Please indicate comments are for the Bridger Canyon Corridor Planning Study.
Interested parties are encouraged to join the study mailing list by submitting their name and contact information to Sarah Nicolai at snicolai@dowl.com

Nicolai, Sarah

From: Grant, Paul <pgrant@mt.gov>
Sent: Friday, March 20, 2015 7:26 AM
To: BOZEMAN CHAMBER OF COMMERCE; Bozeman Daily Chronicle; communicationsnewsfeeds@aashto.org; Exponent; KBOZ - FM - Dia Johnson; KBOZ-AM/KBOZ-FM/KOBB-AM-FM/KPKX-FM/KOZB-FM/KZLO-FM/BOZEMAN; KBZK TV; KBZK-TV; KBZM; KGLT-FM; KKQX-FM/KBZM/K-SKY; KMMS-FM/KMMS-AM/KISS/KISN/KXLB-FM/KXMY-FM; KTVM-TV BOZEMAN; MAX MONTANA; TYSON FISHER; Belgrade Chamber of Commerce; KGVW-AM/KCMM-FM; KISN-FM; MANHATTAN CHAMBER OF COMMERCE; The Belgrade News; GARDINER CHAMBER OF COMMERCE; LIVINGSTON CHAMBER OF COMMERCE; Livingston Enterprise; Livingston Enterprise (E-mail); All Seasons Inn & Suites (info@allseasonsinnandsuites.net); Meagher County News; Meagher County Public Television, Inc; pres@meagherchamber.org; WHITE SULPHUR SPRINGS CHAMBER OF COMMERCE
Cc: Potts, Katie; Nicolai, Sarah; Ebert, Jeff; Rouse, Dustin; Walsh, Joe; Zanto, Lynn (MDT); Strizich, Carol; Patten, Jeff; Riley, Jean; Grant, Paul; Marosok, Lauren; O'Brien, Anna; Ryan, Lori; David Fowler; Gallatin County Commissioners; Park County Commissioners
Subject: MDT schedules second informational meeting for Bridger Canyon Corridor Planning Study

March 20, 2015

FOR IMMEDIATE RELEASE

For more information:
Lori Ryan, MDT Public Information Officer, (406) 444-6821

MDT schedules second informational meeting for Bridger Canyon Corridor Planning Study

Bozeman - The Montana Department of Transportation (MDT), in coordination with Gallatin County and FHWA, is conducting an informational meeting to present and discuss the Draft Bridger Canyon Corridor Planning Study. The intent of the study is to identify issues, constraints, and potential opportunities for improvements within the study area. The study area begins at the MT 86 intersection with Story Mill Road at Reference Post (RP) 1.95 just east of Bozeman, and ends at the intersection with U.S. 89 at RP 37.5 near Wilsall, MT. The meeting will be held on Thursday, April 2, 2015, at the Bridger Canyon Fire Department, 8081 Bridger Canyon Road, Bozeman, MT. A presentation will begin at 6:00 p.m., followed by an informal discussion.

The Bridger Canyon Corridor Planning Study is a pre-environmental study that allows for planning-level coordination with community members, stakeholders, environmental resource agencies, and other interested parties. The study identifies potential improvement options, which will assist in facilitating a smooth and efficient transition from transportation planning to future project development/environmental review. Implementation of potential improvement options is dependent on funding availability. The Bridger Canyon Corridor Planning Study is a planning-level study and is not a design or construction project.

The purpose of the meeting is to explain the planning study process, present and discuss the Draft Bridger Canyon Corridor Study.

Public participation is a very important part of the process, and the public is encouraged to attend. Comments may be submitted at the meeting; by mail to Sarah Nicolai, DOWL, 1300 Cedar Street, Helena, MT 59601; by email to snicolai@dowl.com; or online at

http://www.mdt.mt.gov/pubinvolve/bridger/

Please indicate comments are for the Bridger Canyon Corridor Planning Study.

Interested parties are encouraged to join the study mailing list by submitting their name and contact information to Sarah Nicolai at

snicolai@dowl.com

MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of the department. If you require reasonable accommodations to participate in this meeting, please call Sarah Nicolai at (406) 324-7412 at least two days before the meeting. For the hearing impaired, the TTY number is (406) 444-7696 or 1-800-335-7592, or call Montana Relay at 711. Alternative accessible formats of this information will be provided upon request.

---------END----------

Project name: Bridger Canyon Corridor Planning Study Gallatin and Park counties

Issue Two | March 2015

Bridger Canyon Corridor Planning Study

STUDY DESCRIPTION

The Montana Department of Transportation (MDT) has completed the Bridger Canyon Corridor Planning Study to identify issues, constraints, and potential opportunities for improvements within the Montana Highway 86 (MT 86) corridor north of Bozeman.

WHAT ARE THE CORRIDOR NEEDS?

Needs and objectives for the Bridger Canyon Corridor Planning Study were developed based on existing and projected conditions within the corridor, input from the public and resource agencies, and coordination with the study advisory committee.

Need 1: **Improve the safety of MT 86 for all users.**

Need 2: **Maintain infrastructure assets in the corridor.**

View the full list of corridor needs and objectives online at **www.mdt.mt.gov/pubinvolve/bridger**

INSIDE THIS ISSUE

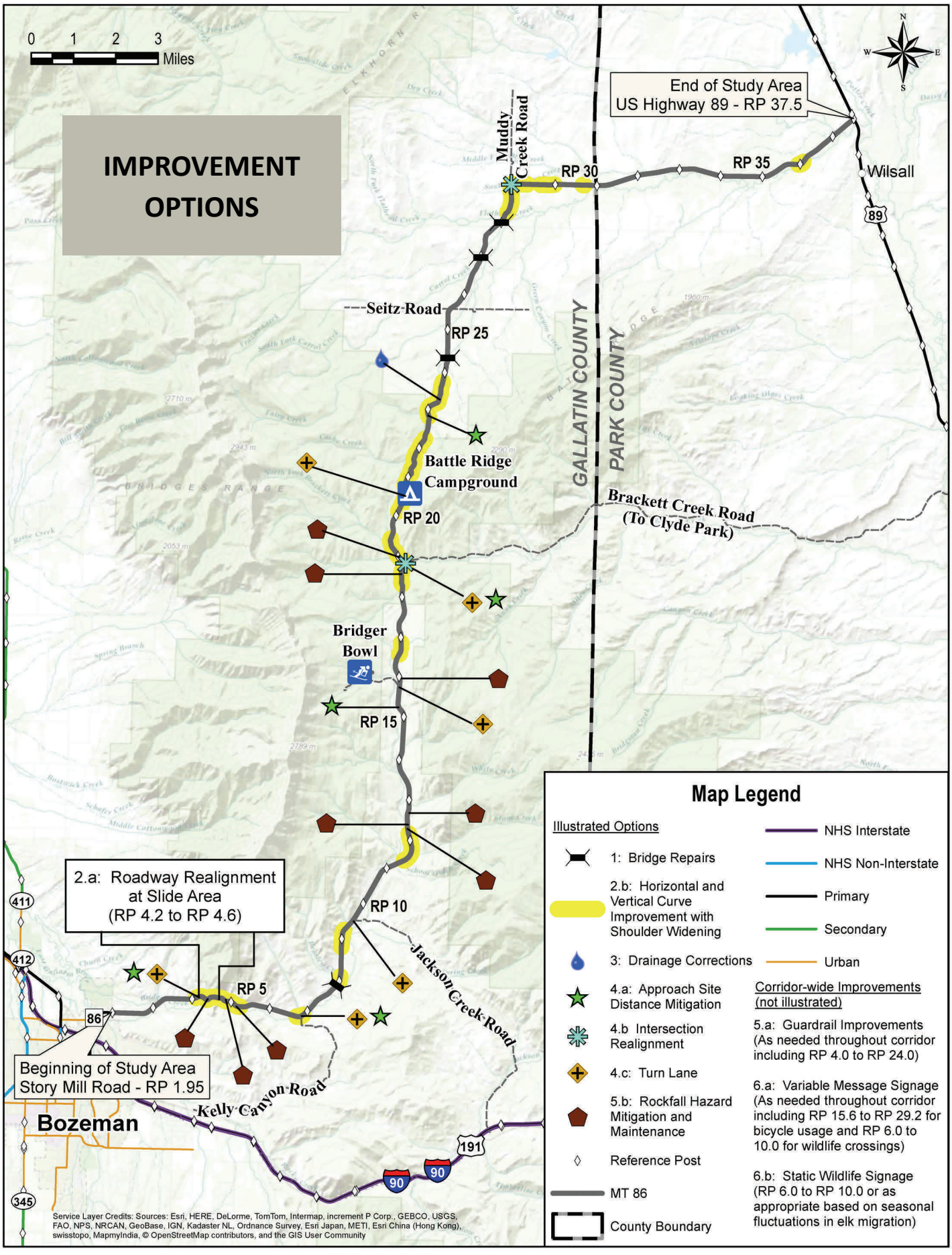
PLEASE JOIN US FOR AN INFORMATIONAL MEETING!

Thursday, April 2, 2015
at 6:00 p.m.
Bridger Canyon Fire Hall
8081 Bridger Canyon Rd.

The purpose of the meeting is to present the draft corridor study.

DOWL

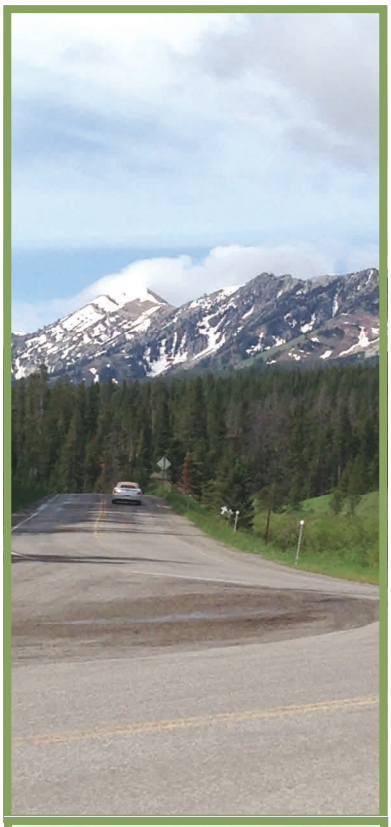
MONTANA MDT DEPARTMENT OF TRANSPORTATION


IMPROVEMENT OPTIONS
0 1 2 3 Miles
End of Study Area
US Highway 89 - RP 37.5
Muddy Creek Road
RP 30
RP 35
Wilsall
89
Seitz Road
RP 25
GALLATIN COUNTY
PARK COUNTY
Battle Ridge Campground
RP 20
Brackett Creek Road (To Clyde Park)
Bridger Bowl
RP 15
RP 10
Jackson Creek Road
2.a: Roadway Realignment at Slide Area (RP 4.2 to RP 4.6)
RP 5
411
412
86
Beginning of Study Area
Story Mill Road - RP 1.95
Bozeman
Kelly Canyon Road
191
90
345
Map Legend
Illustrated Options
1: Bridge Repairs
2.b: Horizontal and Vertical Curve Improvement with Shoulder Widening
3: Drainage Corrections
4.a: Approach Site Distance Mitigation
4.b Intersection Realignment
4.c: Turn Lane
5.b: Rockfall Hazard Mitigation and Maintenance
Reference Post
MT 86
County Boundary
NHS Interstate
NHS Non-Interstate
Primary
Secondary
Urban
Corridor-wide Improvements (not illustrated)
5.a: Guardrail Improvements (As needed throughout corridor including RP 4.0 to RP 24.0)
6.a: Variable Message Signage (As needed throughout corridor including RP 15.6 to RP 29.2 for bicycle usage and RP 6.0 to 10.0 for wildlife crossings)
6.b: Static Wildlife Signage (RP 6.0 to RP 10.0 or as appropriate based on seasonal fluctuations in elk migration)
Service Layer Credits: Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

IMPROVEMENT OPTIONS

The table below lists a range of options MDT may consider for implementation in the MT 86 corridor in the future. MDT may elect to implement a single option or combine multiple options at the time a project is nominated. Improvements are not listed in order of priority. In some cases, minor improvements (such as cleaning culverts to improve drainage) may be accomplished through routine maintenance activities as funds become available. Additionally, MDT may incorporate select study recommendations into projects that are currently programmed for design and construction. At this time, no funding has been dedicated to corridor improvements identified in this study.

Number	Description	Location
Option 1	**Bridge Repairs**	RP 7.8 (Stock Pass) RP 24.4 (Cache Creek) RP 26.8 (Carrol Creek) RP 28.0 (Flathead Creek)
Option 2.a	**Roadway Realignment at Slide Area**	RP 4.3 to RP 4.6 (slide area)
Option 2.b	**Horizontal and Vertical Curve Improvements with Shoulder Widening**	Various locations from RP 4.1 to RP 35.8
Option 3	**Drainage Corrections**	RP 23.4
Option 4.a	**Approach Sight Distance Mitigation**	RP 4.2 (“M” Trailhead) RP 6.7 (Kelly Canyon Road)[3] RP 15.2 (Private Approach) RP 18.8 (Brackett Creek)[3] RP 22.7 (Private Approach)
Option 4.b	**Intersection Realignment**	RP 18.8 (Brackett Creek) RP 28.8 (Muddy Creek Road)
Option 4.c	**Turn Lanes**	RP 4.2 (“M” Trailhead) RP 6.7 (Kelly Canyon Road) RP 9.5 (Jackson Creek Road) RP 15.7 (Bridger Bowl) RP 18.8 (Brackett Creek) RP 20.5 (Battle Ridge Campground)
Option 5.a	**Guardrail Improvements**	As needed throughout corridor
Option 5.b	**Rockfall Hazard Mitigation and Maintenance**	RP 4.4 12.7 RP 4.8 16.0 RP 5.2 18.6 RP 12.3 19.0 RP 12.4
Option 6.a	**Variable Message Signage**	As needed throughout corridor
Option 6.b	**Static Wildlife Signage**	RP 6.0 to 10.0 or where needed



STUDY CONTACTS

Jeff Ebert
MDT Butte District Administrator
406-494-9625
jebert@mt.gov

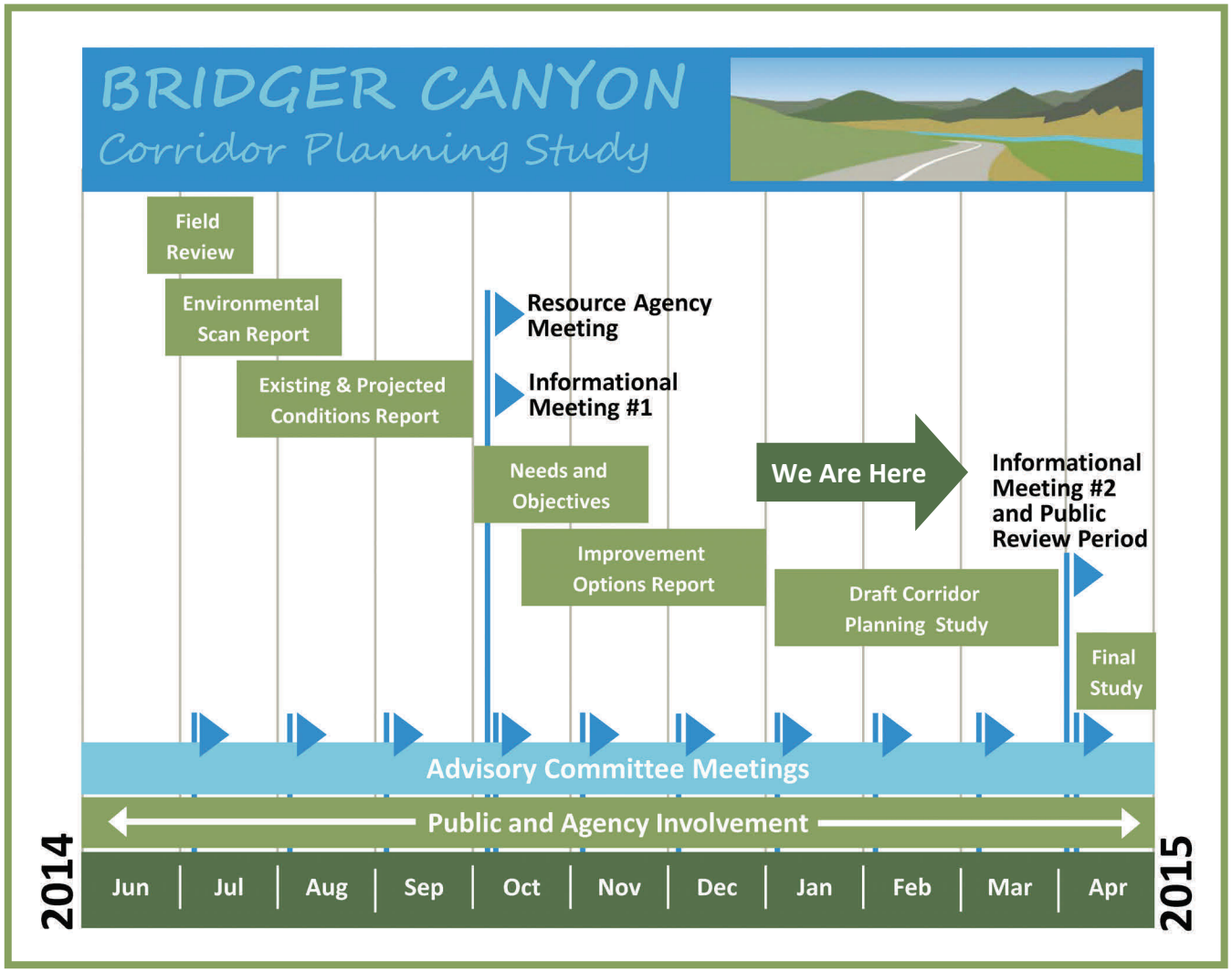
Katie Potts
MDT Project Manager
406-444-9238
kpotts@mt.gov

Sarah Nicolai
DOWL Project Manager
406-324-7412
snicolai@dowl.com

INVOLVEMENT OPPORTUNITIES

An informational meeting is scheduled for **Thursday, April 2, 2015,** at the Bridger Canyon Fire Hall, 8081 Bridger Canyon Road, from **6:00 p.m. to 8:00 p.m**. The purpose of the meeting is to present the draft corridor study, discuss recommended improvement options, and request feedback. We encourage you to attend and **provide comments by April 17, 2015**. Please visit the study website to view the draft corridor study report (**www.mdt.mt.gov/pubinvolve/bridger**).

MDT attempts to provide accommodations for any known disability that may interfere with a person's participation in any service, program or activity of the department. Alternative accessible formats of this information will be provided upon request. For more information, please call Sarah Nicolai at (406) 324-7412 or Montana Relay at 711.



Bridger Canyon Corridor Planning Study

Informational Meeting #2

April 2015

DOWL

MONTANA MDT DEPARTMENT OF TRANSPORTATION



Welcome and Introductions



Title VI Considerations

This meeting is held pursuant to Title VI of the 1964 Civil Rights Act, which ensures that ***no person shall be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination*** on the basis of a protected status under any MDT program or activity.

Additional information is provided in Title VI pamphlets at the sign-in table.

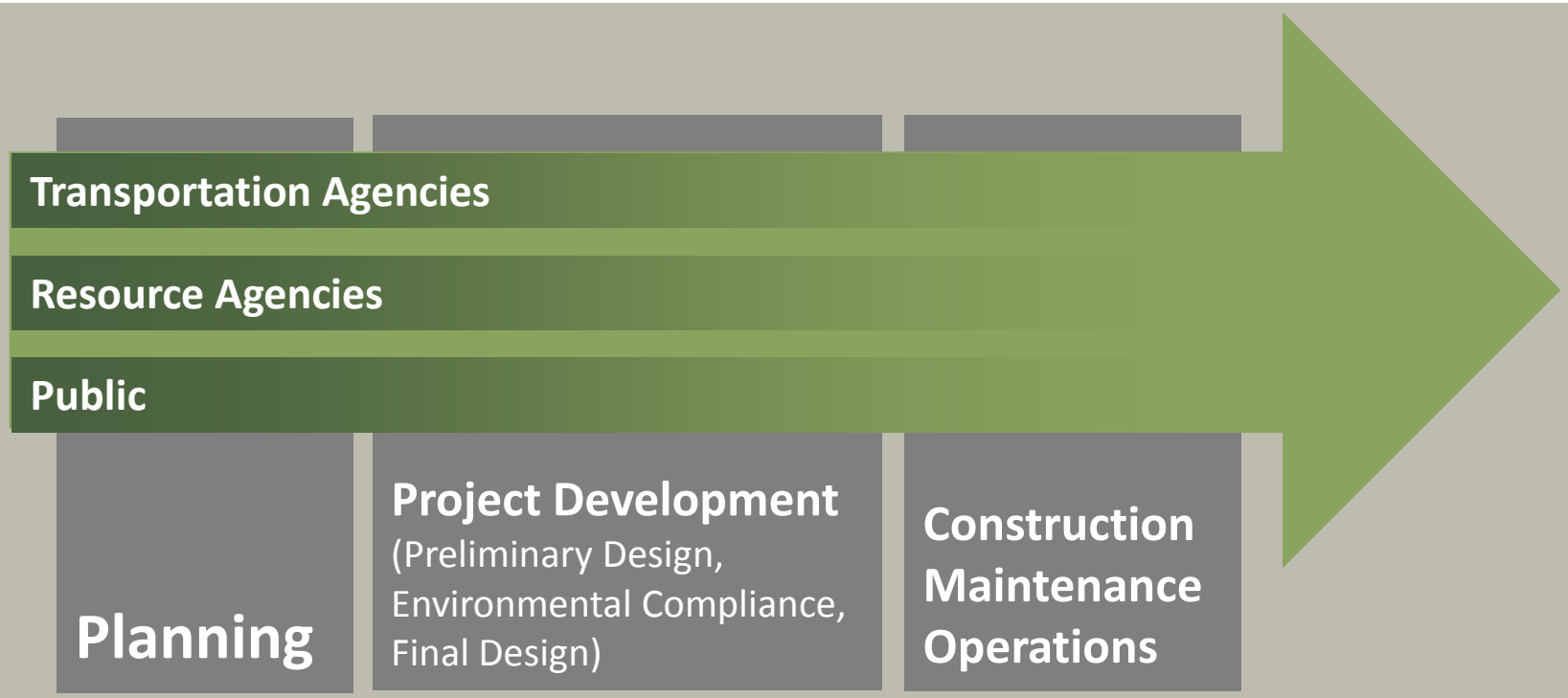
Meeting Format

Presentation

- Overview of Planning Study Process
- Existing and Projected Conditions
- Summary of Informational Meeting #1
- Needs and Objectives
- Improvement Options

Discussion Period

What is a Planning Study?

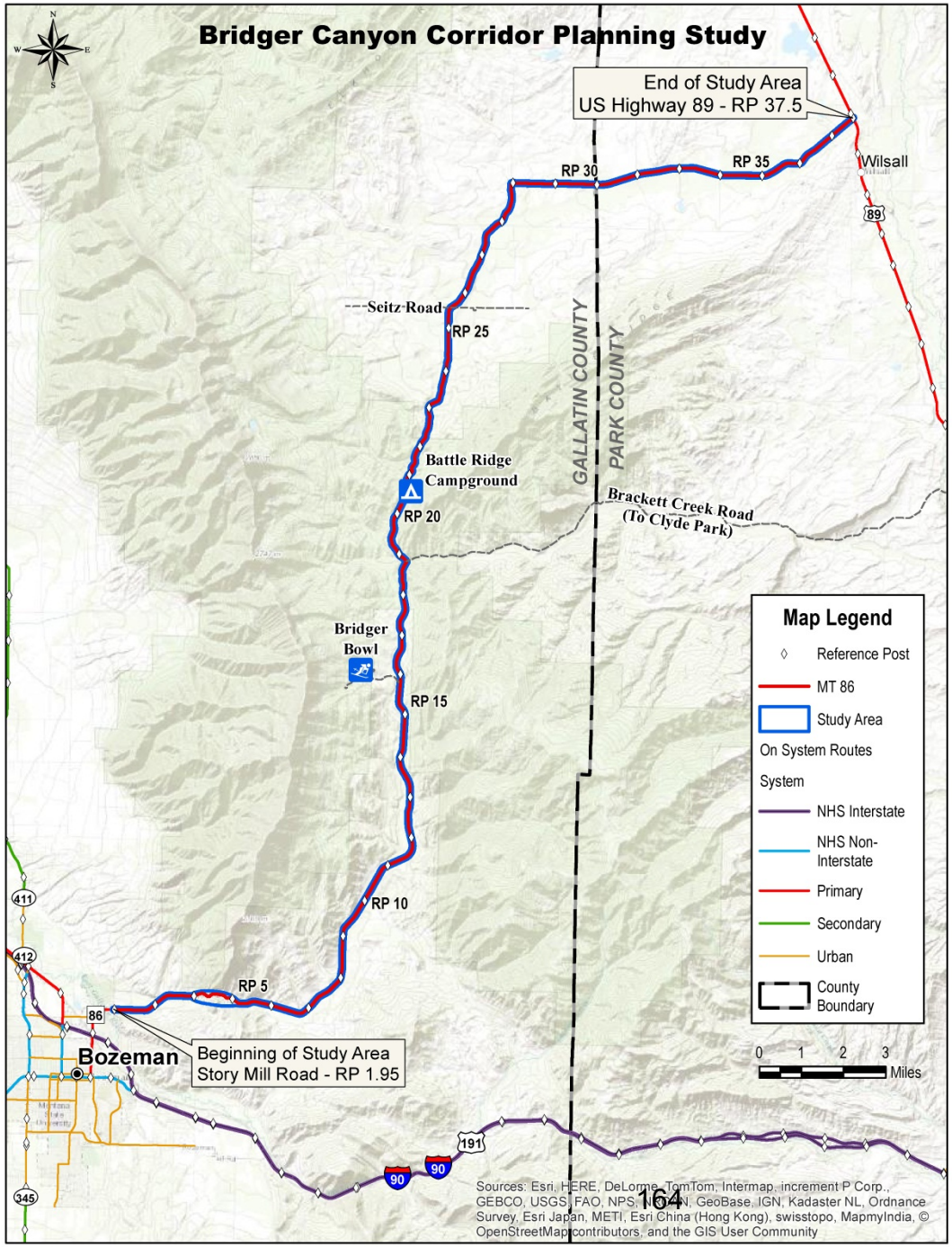


A planning study is conducted before design, right-of-way acquisition, and construction for an individual project.

Planning Study Overview

- Existing and Projected Conditions
- Resource Agency Meeting
- Informational Meeting # 1
- Needs and Objectives
- Improvement Options
- Draft Study Report
- **Informational Meeting # 2**

- Public/Agency Review Period
- Final Study Report



Study Area

Start: Story Mill Road (RP 1.95)

End: US 89 (RP 37.5)





Existing and Projected Conditions

Bridges

RP	Feature Crossed	Year Built	Structure Condition
3.1	Bridger Creek	2005	Good
6.7	Drainage	1939	Good
7.8	**Stock Pass**	1939	**Fair**
8.1	Drainage	1939	Good
8.9	Drainage	1939	Good
9.5	Stock Pass/Drainage	1939	Good
18.8	Brackett Creek	1953	Good
24.4	**Cache Creek**	1939	**Fair**
26.8	**Carrol Creek**	1986	**Fair**
28.0	Flathead Creek	1939	Good

3 of 10 bridges are candidates for repair (Fair Condition)

Bicycle/Pedestrian Facilities

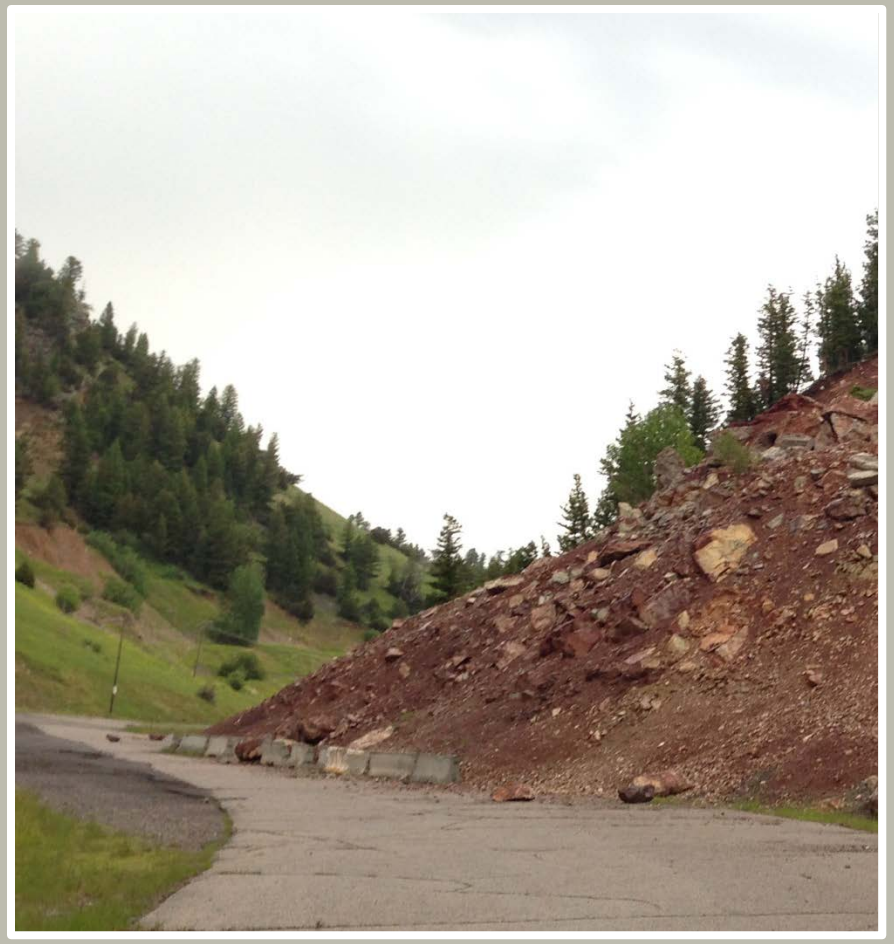
- MT 86 provides connections to “M” Trail System and Drinking Horse Mountain Trails
- No dedicated facilities on MT 86
- Shoulders range from 0 feet to 5 feet

Drainage/Pavement Conditions

- Pavement deterioration due to saturated subgrade on MT 86.
- Areas with standing water near roadway, plugged culverts
- Areas with cracking and pavement failure

Rockfall Hazard

- 1975 slide covered portion of MT 86 near RP 4.4
- MT 86 rerouted to north
- Slide area unstable; earthquake or precipitation could trigger another event



Geometrics

Areas not meeting current MDT design criteria:

- 38 of 120 horizontal curves
- 128 of 229 vertical curves
- RP 4.0 to RP 24.0 lacks slope protection

Crash History (2009-2013)

- 173 crashes, 59 injuries, and 6 fatalities
- Wild animals involved in 18 of 173 (10%) reported crashes; 10 of 18 occurred from RP 8 to 10
- High potential for crash reduction near RP 5, 9, 19, 21, 29, 30, and 36 - Level of Service of Safety (LOSS) IV

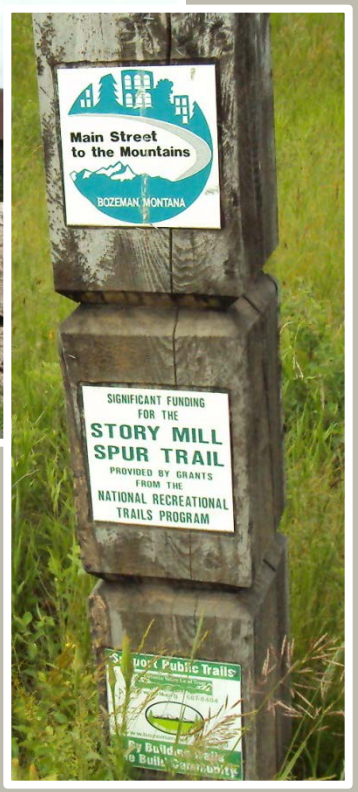
Surface Water/Wetlands

- 18 named streams in study area
- Bridger Creek, East Gallatin River, and Stone Creek listed as impaired by DEQ
- Wetlands observed throughout the study area
- Five mapped floodplain zones exist within the study area

Fish and Wildlife

- **Elk** observed on road in winter months; whitetail and mule **deer** are common
- **Moose** and **black bear** habitat (RP 5 to RP 22)
- 44 **animal carcasses** collected from 2009-2013, concentrated from RP 1.75 to RP 12
- Brackett Creek and Flathead Creek contain genetically-pure **Yellowstone cutthroat trout**
- Only known habitat for **Warm Spring Zaitzevian riffle beetle** occurs along Bridger Creek within USFWS Bozeman Fish Technology Center property

Recreational Resources



- Numerous recreational opportunities
- Several potential Section 4(f) recreational sites within corridor
- No Section 6(f) sites





Informational Meeting #1

Comment Topics

- **Geometric and Roadway Elements** (curves, rumble strips, turn bays, shoulders)
- **Safety** (near-miss crashes, posted speed limits, distracted driving)
- **Wildlife and Livestock Conflicts** (open range, wildlife mitigation)
- **Bicycle Facilities** (safety, guardrail location, road maintenance)
- **Oil and Gas Exploration** (potential future development)





Needs and Objectives

Need 1

Improve the safety of MT 86 for all users.

Objectives:

To the extent practicable:

- Improve roadway elements to meet current MDT design criteria.
- Identify strategies to address locations with high potential for crash reduction and other areas of safety concern.

Need 2

Maintain infrastructure assets in the corridor.

Objectives:

To the extent practicable:

- Address areas with inadequate drainage.
- Conduct appropriate maintenance and repair activities.

Other Considerations

- **Local planning efforts** for all modes, planned projects, and potential future development in the corridor.
- **Wildlife movement and animal-vehicle conflicts**.
- **Scenic character** of the corridor and potential adverse impacts to **environmental resources** that may result from improvement options.
- **Funding** availability.
- Temporary **construction impacts**.
- **Construction feasibility** and **physical constraints**.

Improvement Options

- **Consider During Project Development:**
  - local planning documents for all modes,
  - measures to minimize adverse environmental impacts,
  - appropriate wildlife mitigation,
  - context-sensitive design,
  - the scenic nature of the corridor, and
  - anticipated future development.

Improvement Options

- **Potential Wildlife Mitigation Strategies** (during project development):
  - **Fencing modifications** (including wildlife-friendly fencing and/or barrier fencing)
  - **Seasonal/variable message signage**
  - **Wildlife crossing structures** (where opportunistically feasible)

Improvement Options

- Toolbox of options for MDT
- Not listed in order of priority
- Implementation
  - Short-term: 1 to 3 years
  - Mid-term: 3 to 6 years
  - Long-term: 6 to 20 years





Option 1

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Bridge Repairs	RP 7.8 (Stock Pass) RP 24.4 (Cache Creek) RP 26.8 (Carrol Creek) RP 28.0 (Flathead Creek)	$50,000 to $110,000 (per bridge)	Short-term to mid-term	Yes/ No

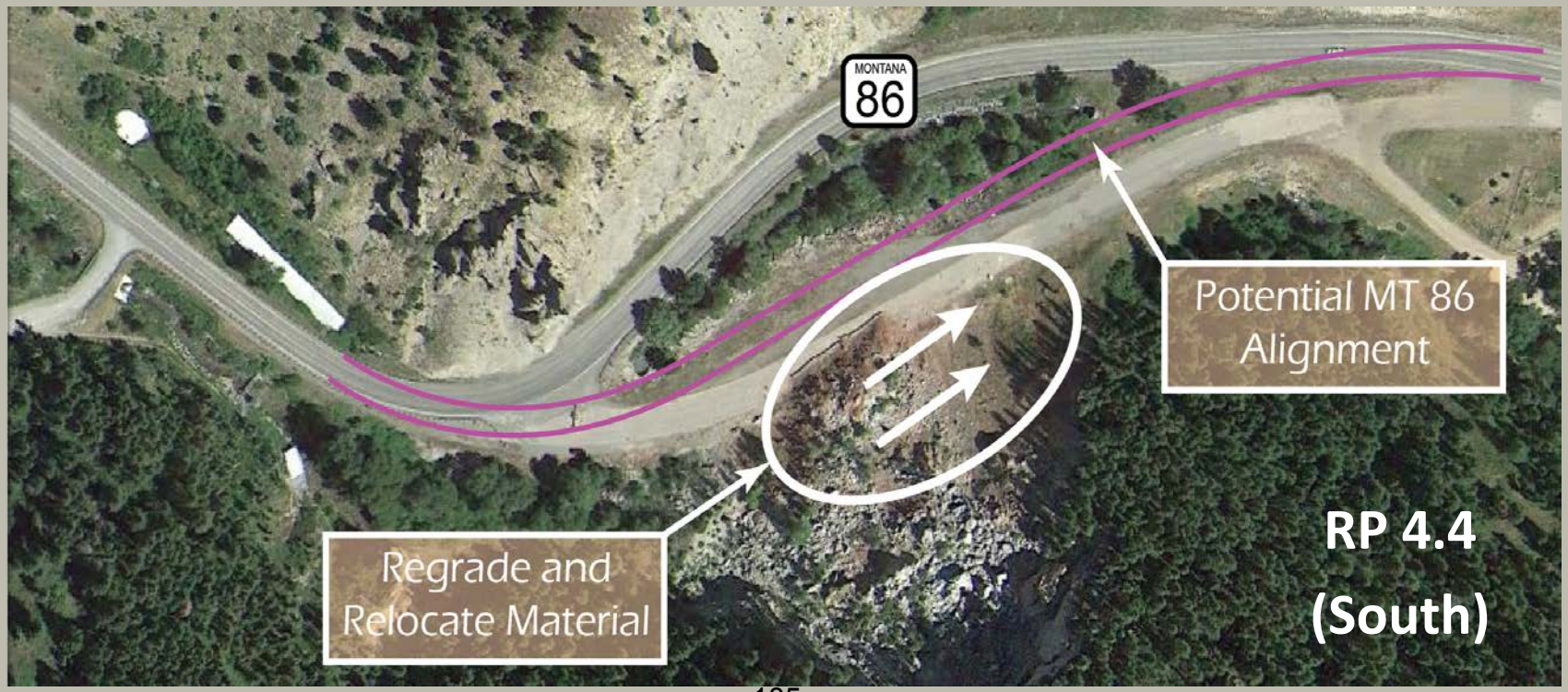




Option 2.a

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Roadway Realignment at Slide Area	RP 4.3 to RP 4.6	$1.1M to $1.2M	Long-term	Yes/No

Option 2.a


MONTANA
86
Potential MT 86 Alignment
Regrade and Relocate Material
RP 4.4
(South)





Option 2.b

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Horizontal and Vertical Curve Improvements with Shoulder Widening	Various locations from RP 4.1 to RP 35.8 at LOSS IV areas	$360,000 to $390,000 per 0.1 mile	Mid-term to Long-term	Yes/Yes





Option 3

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Drainage Corrections	RP 23.4	$48,000 to $51,000	Short-term	Yes/No





Option 4.a

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Approach Sight Distance Mitigation	RP 4.2 ("M" Trailhead)* RP 6.7 (Kelly Canyon Rd)* RP 15.2 (Private Approach) RP 18.8 (Brackett Creek)* RP 22.7 (Private Approach)	$40,000 to $390,000 (per approach)	Mid-term	Yes/Yes

*LOSS IV Location

Option 4.a

Brackett Creek Intersection

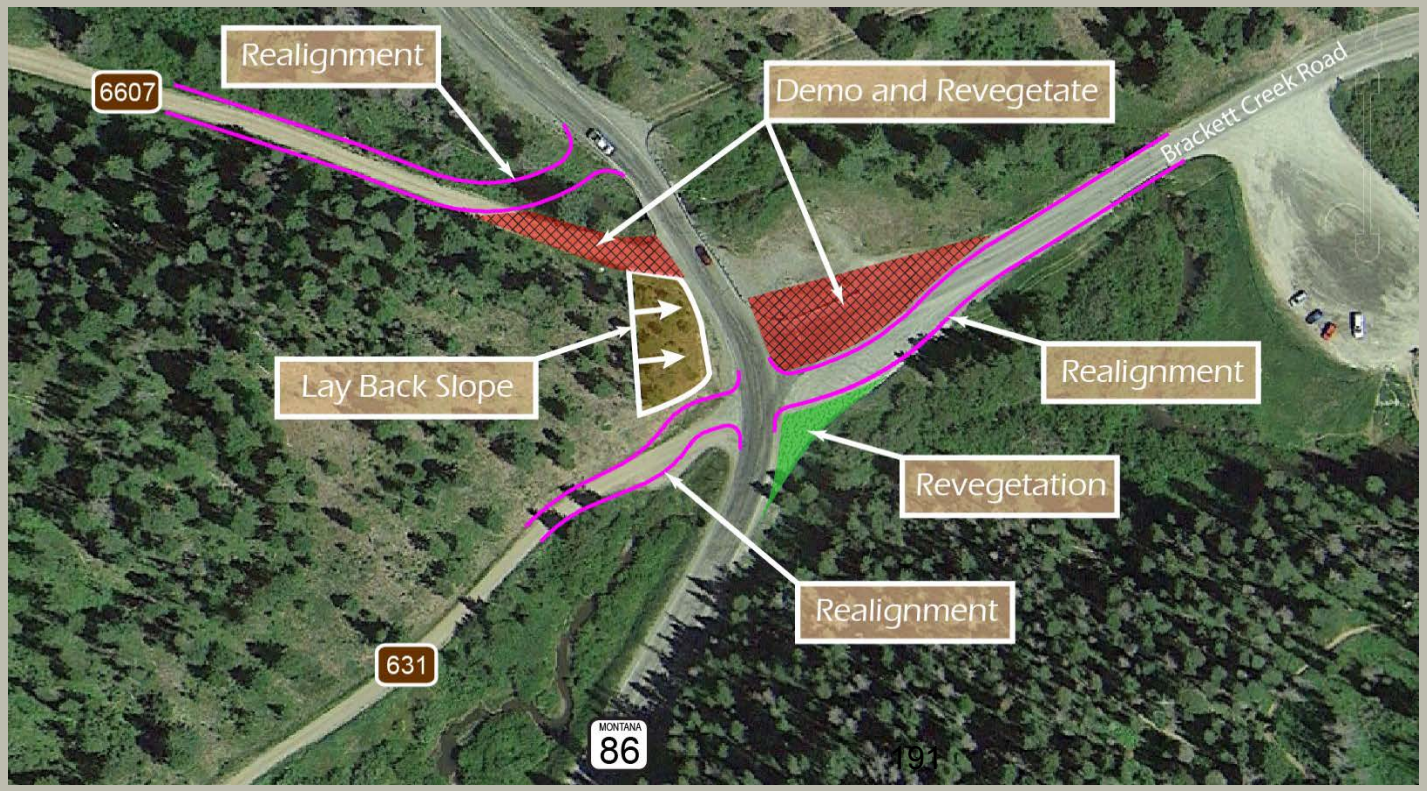




Option 4.b

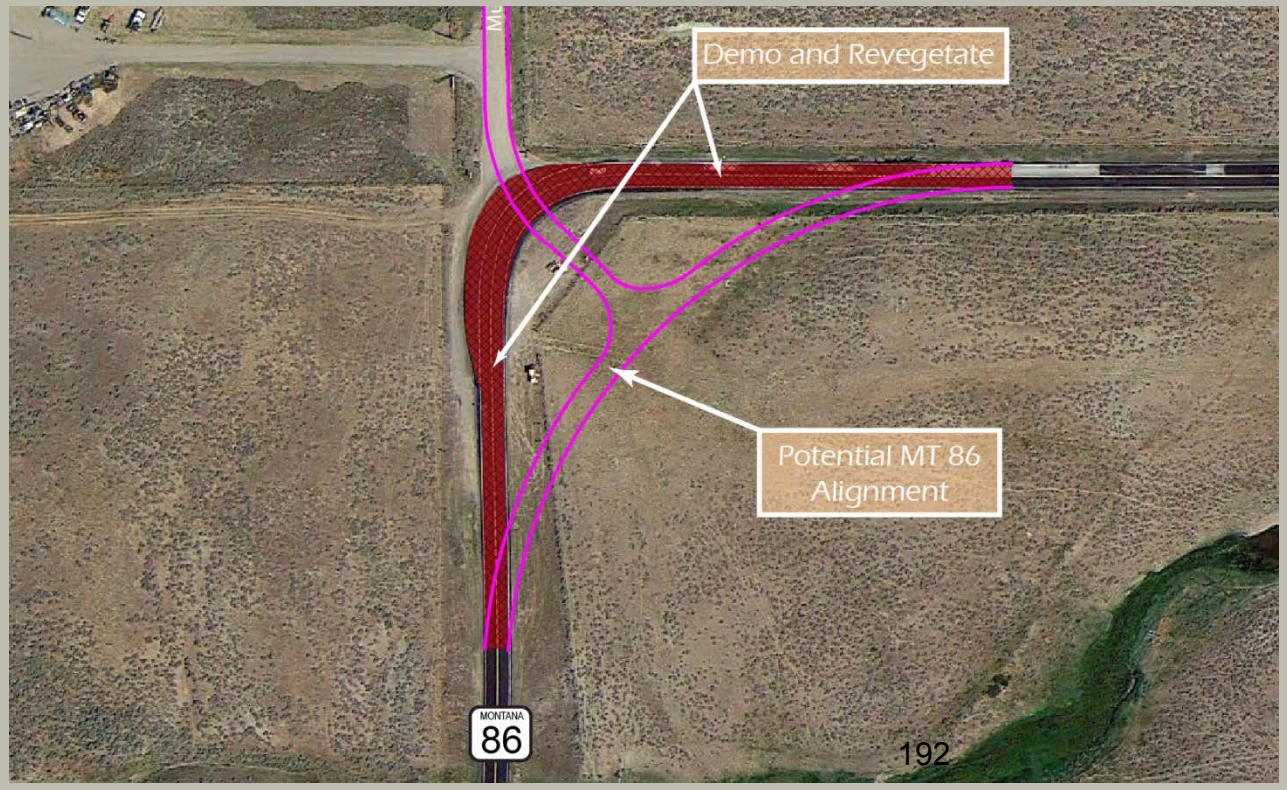
Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Intersection Realignment	RP 18.8 (Brackett Crk) RP 28.8 (Muddy Crk Rd)	$340,000 to $790,000 (per location)	Mid-term to Long-term	Yes/Yes

Option 4.b



Brackett Creek Intersection

Option 4.b



Muddy Creek Intersection





Option 4.c

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Turn Lanes*	RP 4.2 – "M" Trailhead RP 6.7 – Kelly Canyon Road RP 9.5 – Jackson Creek Road RP 15.7 – Bridger Bowl RP 18.8 – Brackett Creek RP 20.5 – Battle Ridge Campground	$900,000 to $1.1M (per location)	Mid-term to Long-term	Yes/Yes

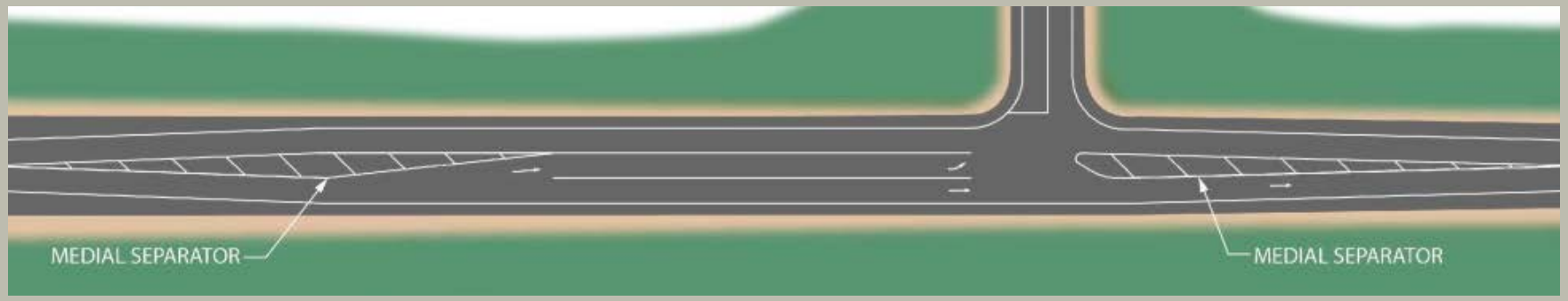
*LOSS IV Location





Option 4.c

Left-turn Lane







Option 5.a

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Guardrail Improvements	As needed throughout corridor (including intermittently from RP 4.0 to RP 24.0)	Varies	Short-term and as needed	Potentially Yes





Option 5.b

Description	Location		Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Rockfall Hazard Mitigation	RP 4.4 RP 4.8 RP 5.2 RP 12.3 RP 12.4	RP 12.7 RP 16.0 RP 18.6 RP 19.0	$800,000 (RP 4.4) Others Unknown	Mid-term to Long-term	Yes/Yes

Option 5.b

RP 4.4

(North)





Option 6.a

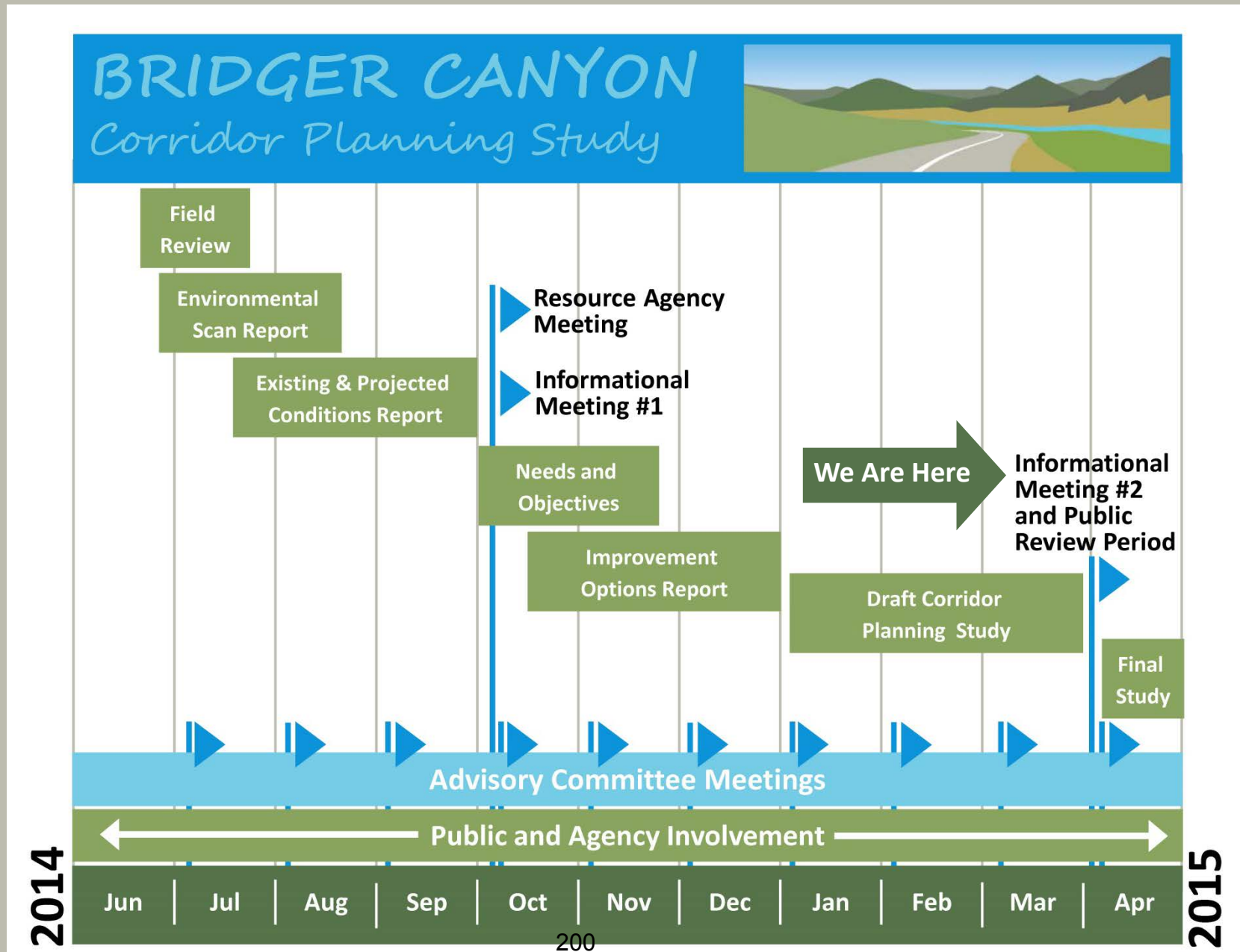
Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Variable Message Signage	As needed throughout corridor (including RP 15.6 to RP 29.2 for bicycle usage and RP 6.0 to 10.0 for wildlife crossings)	$15,000 to $35,000 (each)	Short-term	No/No





Option 6.b

Description	Location	Cost Estimate	Potential Implementation Timeframe	Potential Impacts to Resources/ ROW
Static Wildlife Signage	RP 6.0 to 10.0 or as appropriate based on seasonal fluctuations in elk migration	$500 (per sign)	Shot-term	No/No


BRIDGER CANYON
Corridor Planning Study
Field Review
Environmental Scan Report
Existing & Projected Conditions Report
Resource Agency Meeting
Informational Meeting #1
Needs and Objectives
Improvement Options Report
We Are Here
Informational Meeting #2 and Public Review Period
Draft Corridor Planning Study
Final Study
Advisory Committee Meetings
Public and Agency Involvement
2014
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan
Feb
Mar
Apr
2015

Submit Comments

- **Leave a comment sheet with us tonight**
- **Please submit comments by April 17, 2015**
- **Website** (http://www.mdt.mt.gov/pubinvolve/bridger)
- **Mail/e-mail comments to:**

Sarah Nicolai
DOWL
1300 Cedar Street
Helena, MT 59601
snicolai@dowl.com



Discussion Period

Comment #1	MDT Response #1
1	1 Thank you for your comment.

Nicolai, Sarah

From: Ellen <eltjupiter@gmail.com>
Sent: Monday, March 23, 2015 10:31 AM
To: Nicolai, Sarah
Subject: Re: Bridger Canyon Corridor Planning Study - Draft Report and Informational Meeting #2

Thank you very much, Sarah, for your email. We look forward to the opportunity to review the revisions and attend the public input meeting. The MDT/public interface opportunity is greatly appreciated and I hope will result in a successful (as in everyone being satisfied) project. Bridger Canyon is an unofficial, but very historical area. When I first visited, more than 25 years ago, it's natural beauty and agricultural aspects captured me immediately. Since then, I have studied as much of the social and natural history as I have time for, because I have come to realize this is a remarkable gem in the region, not just for BC residents, but particularly for the community at large, as well as tourists. The BC community here feels a strong sense of identity with the land and its history, even though visually, our houses look like ""just buildings dotting land."

Bridger Canyon appears to be a sleepy place, but within the community much conversation and action is occurring regarding the care taking of this area. Older maps excluded BC and Bozeman Pass from the Greater Yellowstone Ecosystem, but now, the thinking has changed to recognize the actual, more expanded geographic biodiversity and connectivity needs of the Yellowstone ecosystem. This is demonstrated in the recent National Geographic map and University of Oregon "The Atlas of Yellowstone" maps, among others, which now include the Bridgers and Bangtails as an integral part of the ecosystem. Residents, too, recognize this role BC plays ecologically and feel a responsibility to guide land planning accordingly, whether through personal property use choices, or through the zoning.

Interest in furthering and preserving the historical and agricultural qualities of the Canyon is also active among residents. While there is likely zero chance of Bridger Canyon Road becoming a "scenic highway", in practice, it serves this purpose regionally. This quality is a tourist draw as well as a great pleasure to residents of the larger community.

It is wonderful there is/may be funds available to address structural safety issues such as identified bridges and areas lacking road shoulder. I hope the staff at MDT doesn't feel personally put down if they find the BC residents less warm to other ideas which may be engineering ideals. I hope that my description above of the connectedness residents feel for the area sets some context for explaining residents' viewpoints should they differ from the MDT road plan. I hope, too, that MDT can share in the appreciation of the uniqueness of BC and the aesthetic role it serves for the larger community, and in doing so, can help preserve what is a truly special place while providing expertise for select road safety concerns.

Thank you, again.

Sincerely, Ellen Trygstad, Bridger Canyon resident

Sincerely, Ellen Trygstad

On Mar 23, 2015, at 8:49 AM, Nicolai, Sarah wrote:

Good morning.

The Montana Department of Transportation (MDT) has initiated a public review period for the Bridger Canyon Corridor Planning Study. The review period will extend until April 17, 2015.

An electronic version of the draft report may be viewed on the MDT website (http://www.mdt.mt.gov/pubinvolve/bridger/documents.shtml). Beginning on Thursday, March 26, 2015, print copies of the draft report may be viewed at:

- MDT Rail, Transit, and Planning Division Office (2960 Prospect Avenue; Helena, MT);

1

Comment #2	MDT Response #2
2-A	2-A Thank you for your comment. MDT is responsible for maintaining the roadway within MDT-owned right-of-way. Paving farther east towards the ski area would be the responsibility of Bridger Bowl.

Bridger Canyon Corridor Planning Study
Informational Meeting #2

Thursday, April 2, 2015

MDT Invites Your Comments:

1.) IMProve intersection w/ Bridger Bowl. Have them pave full width of intersection and deepen to reduce/prevent the excessive rock carry over onto Hwy 86. This is a significant Hazard as it is today. This should include necessary barriers/impediments to prevent driving on gravel shoulders.

To receive further study information, please provide your name and address:

Name:

Address:

Email:

Please leave your comments with staff at the meeting, or mail to:

Sarah Nicolai
DOWL
1300 Cedar Street
Helena, MT 59601

Please indicate comments are for the Bridger Canyon Corridor Planning Study and submit comments by April 17, 2015.

DOWL

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Comment #3	MDT Response #3
Nicolai, Sarah **From:** Ray Pratt <drray340@gmail.com> **Sent:** Friday, April 03, 2015 8:07 AM **To:** Nicolai, Sarah **Subject:** Comment on Bridger Canyon Corridor. 3 As a long-time Bozeman resident and regular user of Bridger Canyon, the main concern I have is the lack of turn-outs and high-speed drivers who tail-gate and create extremely dangerous situations. As a senior (75) I prefer to drive about 60mph and find vehicles lining up behind me anywhere along the path from Battle Ridge pass to the Bozeman City limits. Please, please create a few turn-outs along the highway! I literally fear for my life on this road, which I drive several times a week to hike in the N.Bridgers. Ray Pratt, Bozeman Emeritus Professor, Montana State University 406-587-3232 drray340@gmail.com 1	3 Thank your comment. The study now includes Option 5.c to construct pullouts at feasible locations within the corridor.

Comment #4	MDT Response #4
Nicolai, Sarah **From:** Kent Madin <rett139@yahoo.com> **Sent:** Thursday, April 09, 2015 9:06 PM **To:** Nicolai, Sarah; kpotts@mt.gov **Cc:** Deb Stratford; Tom Fiddaman; Ellen Trygstad **Subject:** Re: Automatic reply: Bridger Canyon Corridor study comments. And there is this: The case for lower speed limits 4-A  The case for lower speed limits Many states are raising their speed limits. Re search says they should do the opposite. View on www.vox.com Preview by Yahoo On Thursday, April 9, 2015 6:34 PM, Kent Madin <rett139@yahoo.com> wrote: Since Ms. Potts is out of town. Kent Madin Ms. Potts, I'd like to weigh in with some comments: 4-B 1. As a resident of 25 years who uses the entirety of the study area, I don't see any major changes needed in the shape, angle, width, etc. of the highway. 2. I do support fixing areas of chronic pavement "heaves" which adversely affect driving control. 4-C 3. I support repairs to bridges that are in dire need of repair for safety and strongly encourage that when those repairs are made they are engineered to include wildlife underpasses. 4-D 4. I support more aggressive signage at the hairpin turn over the pass going to Wilsall. I do NOT support spending money to make that a smoother and faster curve. 4-E 5. I support LOWER speed limits through the study area. 4-F 6. Finally, something that should be done soon, so that no one has a death on their conscience, would be to add signage reminding people of cyclist's rights to use the highway and improvement of the shoulder between the "M" and the bridge where the road flattens out going to town (at least on the north side where there is room). The guardrail on the south side has, at least psychologically, put the squeeze on cyclists. Before there was a guardrail, a cyclist at least had the option of bailing off down a grassy, if steep, slope. Now they are pinched 1	4-A Speed limits for highways within the state are set by the Montana Legislature and are detailed in the Montana Code Annotated (MCA) § 61-8-303. MDT conducted a speed study for the Bridger Canyon corridor and implemented the recommendations from that study in 2014. This Bridger Canyon Corridor Planning Study does not address speed limits in the corridor. Speed enforcement is the responsibility of the Montana Highway Patrol. 4-B Thank you for your comment. 4-C Option 1 identifies bridge repairs within the corridor. MDT will assess bridges and culverts on an individual basis and evaluate the possibility of incorporating wildlife crossings where opportunistically feasible. 4-D Thank you for your comment. This study identified realignment of the Muddy Creek intersection (Option 4.b) for this corridor based on higher-than-expected crash frequency and severity in this location. 4-E Please refer to Response 4-A.

between a guardrail and traffic which is, IMHO, more intimidating than how it was before the guardrail. The shoulder on the north side of the road is maybe 14 inches wide and usually has 1-6 inches of loose gravel on it. Expanding that shoulder to a reasonable width and periodically cleaning it would make that whole nerve-wracking stretch safer.

4-G

Finally, is anyone on the "study" team a road cyclist?

Thanks very much,

Kent Madin
14543 Kelly Canyon Road
Bozeman, MT 59715
On Thursday, April 9, 2015 6:29 PM, "Potts, Katie" <kpotts@mt.gov> wrote:

I will be out of the office from 4/6-4/10. If you need immediate assistance, please contact Carol Strizich at cstrizich@mt.gov or 444-9240.

Thanks,
Katie

2

4-F

Western Federal Lands Highway Division (WFLHD) prepared a study in January 2015 describing potential alternatives for the Bozeman to Bridger Mountains Trail project, which would provide a separated bicycle/pedestrian path between Bozeman and the "M" trailhead.

4-G

The advisory committee for this study was comprised of representatives from MDT, FHWA, and county officials. Input was requested and received from multiple interest groups, including road cyclists.

Comment #5	MDT Response #5
Nicolai, Sarah **From:** Deb Stratford <Debsplace@latmt.com> **Sent:** Friday, April 10, 2015 11:27 AM **To:** 'Kent Madin'; Nicolai, Sarah; kpotts@mt.gov **Cc:** 'Deb Stratford'; 'Tom Fiddaman'; 'Ellen Trygstad' **Subject:** RE: Automatic reply: Bridger Canyon Corridor study comments. 5 Nice Job Kent; I concur. BTW did I mention that it was suggested by an attorney friend that we ought to consider having the corridor declared a scenic by-way; evidently there have been some rule changes that may make it possible. deb 1	5 Thank you for your comment.

Comment #6	MDT Response #6
Nicolai, Sarah **From:** Sara Goulden <rockymountainwoman451@gmail.com> **Sent:** Sunday, April 12, 2015 11:22 AM **To:** Nicolai, Sarah **Subject:** Bridger Canyon Corridor Planning Study Ms. Dowl: 6-A 6-B The most important issue that should be addressed in the Bridger Canyon Corridor Planning Study is *Safety*. Constructing *Turnout areas* would mitigate the problem of dangerous passing of cars and allow slower traffic to pullover. *Reduced speed zones* and *yellow flashing signs* might also be useful tools to make Highway 86 safer given the population increase on Highway 86, and the fact that Hwy 86 is a *wildlife corridor* which can result in fatalities of animals and humans at higher speeds. In areas of heavy wildlife migration, slower speeds are warranted. In closing, let the improvements on Hwy 191 be a model for change. The Montana Department of Transportation has done an amazing job in making 191 safer! Thank you for your public service, Sara Goulden 702 S 7th Ave Bozeman, MT 59715 406-587-3232 saratgoulden@hotmail.com 1	6-A Please see Response 3 regarding pullout areas. 6-B Please see Response 4-A regarding speed limits. Option 6.a recommends variable message signing that can be tailored for temporary hazards such as wildlife movement, traffic conditions, road conditions, and cyclists.

Comment #7	MDT Response #7
7-A 7-B 7-C 7-D	7-A Thank you for your comment. 7-B Thank you for your comment. MDT will work with Fish, Wildlife & Parks (FWP) and the United States Fish & Wildlife Service (USFWS) regarding wildlife passage associated with future projects in the corridor. 7-C Thank you for your comment. Please see Response 4-A regarding speed issues. 7-D Thank you for your comment. MDT does not have jurisdiction over law enforcement presence in the Bridger Canyon corridor.

Nicolai, Sarah

From: Ellen <eltjupiter@gmail.com>
Sent: Thursday, April 16, 2015 10:50 AM
To: Nicolai, Sarah
Subject: Re: Bridger Canyon Corridor Planning Study - Draft Report and Informational Meeting #2

Hello Sarah,

First off, you and your fellow engineers were wonderful! Clear presentation of information, an upbeat energy, great courtesy to the public, and clearly an engineering report that reflected skill and hard work. People came away very impressed. I'm making a point of saying this because I rather think you all went away feeling the focus of the frustration of the people at the meeting. It is my observation that the format of the meeting could have been different and thus, you would have not been trying to field questions beyond your task. It would have gone more effectively if MDT presented themselves right at the first, honestly talked about funding and the true reasons BC Road was on the radar, and then introduced you three/four to present the engineering part, to receive comments on engineering specifics. THEN, I feel MDT should have stepped back in and talked about the larger picture, process and procedures, and addressed the larger issues such as the apparent conflict in vision between that of whomever who is wanting a straight road engineered to "standards", and that of many of the attendees of the meeting, representing the zoning district in essence if not in fact, wanting this region to remain rural and well protected due to its ecological importance as part of the Great Yellowstone Ecosystem, as a wildlife corridor and as its own intact, still, wildlife ecosystem.

This area is under assault by development. This has been true for forty plus years, and only zoning and people's commitment and awareness of its fragility have successfully kept it open as a wildlife area and corridor. All over the globe, communities are becoming ecologically aware and struggle to achieve what has been achieved HERE. We have preserved a rural community, a historic community of 120 years, and an ecosystem. And unless everyone works in partnership, the tipping point is near. It will not take much in the way of development, road design change, housing, mining, construction etc. to sever this wildlife corridor. It has always been a critical corridor, and becomes increasingly so when the region suffers drought or other climate conditions.

As an economic force, development, whether housing or mining or other, has financial interests as priority. Generally, therefore, it runs roughshod and communities and landscape are changed, and generally ruined forever. While it may seem subtle, I believe the issue of straightening the road, or retaining the curves is hugely significant. Straightening the road definitely favors, even if it is not being driven by, development interests. Keeping the curves is a significant component in preserving the historical and rural quality of this area.

As far as speed, I recommend that the MDT contact the State of Washington Highway Patrol. I have been in Washington MANY times, and the drivers are VERY conscious of controlling their speed because there are patrol cars ever present. The urban studies field, in describing vehicular speed, describes curves as a primary way to control speed. But, no matter straight or curved, if people aren't driving a reasonable speed, they can't break for a bear suddenly appearing on the road for example. If they are texting, they will hit something. If they have been drinking (consider that beer is sold at Bridger Ski Area and all HS kids know that drinking and drugs are part of the ski culture), straight or curved isn't going to prevent any accidents. The presence of Highway Patrol does.

I would like to request that straightening Bridger Canyon Road be removed as one of the proposed construction projects. It is cheaper and more effective for agencies of the State to work together. MDT wants to prevent accidents and thus should enlist Highway Patrol to be more present. I realize that the "FUNDING" probably is just for physical construction. But, if we could truly make government work by departments working with each other, lives would be saved by HYW patrols, and funds would be freed for more critical life saving projects elsewhere on the Montana highways.

1

Comment #7, continued	MDT Response, #7, continued
7-E, 7-F, 7-G, 7-H, 7-I, 7-J, 7-K	7-E Thank you for your comment. 7-F Thank you for your comment. 7-G Thank you for your comment. 7-H Thank you for your comment. Variable message signing can be adapted for changing road, wildlife, and traffic conditions. 7-I For any future projects involving wildlife fencing, MDT will work closely with FWP to determine historical areas of wildlife crossing throughout the corridor. 7-J Please refer to attachments 3, 4, and 5 of the environmental scan, which is included as Appendix C of this corridor study report. These attachments address geologic issues within the corridor. 7-K Thank you for your comment.

I am glad bridges are being studied. I hope their rebuilds are for normal traffic and not multi-ton construction trucks, as the former has a light footprint, and the latter does NOT.

I am appreciative of the attention to shoulders. I recommended to one of your engineers that solar heaters be attached to the side posts so that when the snow sticks to the posts, making them invisible, the heat would melt the snow and reveal a reflector or color or something so that people can actually have a guide. Of course, it is best for people to NOT be on the road during a white out and in that situation, one doesn't even know where the shoulders are.

That said, the suggestion of guard rails at limited spots sounds good. I understand there have been instances where they have skewered the car rather than just buffering it, but maybe that is a rare instance, or poor construction. There are definitely drop offs that quite concerning.

Electronic signs sometimes are more distracting than helpful, depending. I suppose if you put one at the west end of Bridger Drive and could keep it absolutely current, it might inform people of white out conditions,, for example, but given that the conditions change so frequently sometimes, and can be bad in one mile and not bad in another, I'm not sure such a feature would truly be useful.

I have some reservations about fences for wildlife as they could divert wildlife from one favorite crossing to another, or keep them from accessing needed places they deem important. Basically, people need to be going slowly enough to watch because animals are necessarily unpredictable We could spend tons of money, but the basic point doesn't change - slower speeds and watchfulness save lives. It is sad that cell service will likely happen, as this consciously adds yet another factor into the list of hazards that presently does not exist.

Finally, could you forward to me any Geologic Information about the "M" curves that MDT/engineers is reviewing for assessing road issues at that location.

MDT has a huge responsibility and is struggling, apparently, with the same issue of funding that other government departments have. The state should deal with this as I am sure it is stressful and difficult to plan and carry out needed projects. Not straightening BC Road would save millions of dollars that could be diverted to other projects. Similarly, turn lanes are not needed for the volume and use of the road. Accidents will happen if people are distracted, speeding or DUI, and turn lanes won't stop that. Speed constraints and Highway Patrol will definitely help.

Thank you very much for all your hard work and consideration!
Sincerely, Ellen Trygstad
Bridger Canyon resident

On Mar 23, 2015, at 8:49 AM, Nicolai, Sarah wrote:

Good morning.

The Montana Department of Transportation (MDT) has initiated a public review period for the Bridger Canyon Corridor Planning Study. The review period will extend until April 17, 2015.

An electronic version of the draft report may be viewed on the MDT website (http://www.mdt.mt.gov/pubinvolve/bridger/documents.shtml). Beginning on Thursday, March 26, 2015, print copies of the draft report may be viewed at:

- MDT Rail, Transit, and Planning Division Office (2960 Prospect Avenue; Helena, MT);
- MDT Bozeman Office (907 North Rouse Avenue; Bozeman, MT);
- Gallatin County Department of Planning and Community Development (Gallatin County Courthouse, 311 West Main Room 108; Bozeman, MT);

2

Comment #8	MDT Response #8

DEQ
Montana Department of Environmental Quality

April 16, 2015

Katie Potts
2701 Prospect Avenue
Po Box 201001
Helena MT, 59620

RE: Bridger Canyon Corridor Planning Study

Dear Ms. Potts:

Thank you for providing the opportunity to comment on the Bridger Canyon Corridor Planning Study. The Department of Environmental Quality's (DEQ's) Water Quality Planning Bureau has compiled comments for your consideration. Please see the tables and links below for more detail.

Bridger Creek, from the headwaters to the mouth, is listed as impaired on the 2014 Montana List of Impaired Waters. A Total Maximum Daily Load (TMDL) was completed for Bridger Creek in 2013 to address Nitrate/Nitrite pollution. A copy of the TMDL may be accessed on the DEQ web page at: http://www.deq.mt.gov/wqinfo/TMDL/LowerGallatin/LGTMDL_FNL.pdf. Probable causes and sources for the Bridger Creek impairments are listed in the table below.

Probable Cause	Probable Sources	Associated Uses	TMDL Completed
Chlorophyll-a	Unspecified Unpaved Road or Trail, Impacts from Resort Areas (Winter and Non-winter Resorts), Grazing in Riparian or Shoreline Zones	Primary Contact Recreation	No
Nitrate/Nitrite (Nitrite + Nitrate as N)	Grazing in Riparian or Shoreline Zones, Impacts from Resort Areas (Winter and Non-winter Resorts)	Aquatic Life, Primary Contact Recreation	Yes

The lower end of Stone Creek is located within the Bridger Canyon Corridor. Stone Creek, from the headwaters to the mouth, is listed as impaired on the 2014 Montana List of Impaired Waters. A Total Maximum Daily Load (TMDL) was completed for Stone Creek in 2013 to address sedimentation/siltation pollution. A copy of the TMDL may be accessed on the DEQ web page at: http://www.deq.mt.gov/wqinfo/TMDL/LowerGallatin/LGTMDL_FNL.pdf Probable causes and sources for the Stone Creek impairments are listed in the table below.

Comment #8, continued	MDT Response #8, continued

Probable Cause	Probable Sources	Associated Uses	TMDL Completed
Sedimentation/Siltation	Unspecified Unpaved Road or Trail, Silviculture Harvesting, Residential Districts	Aquatic Life	Yes
Alteration in Stream-side or Littoral Vegetative Covers	Grazing in Riparian or Shoreline Zones	Aquatic Life	No

8-A

The East Gallatin River does not appear to be located within the Bridger Canyon Corridor. However, it is immediately downstream of the Corridor, and receives a substantial amount of flow from Bridger Creek. The known water quality impairments in the East Gallatin River are not likely to be affected by the recommendations found in the Draft Bridger Canyon Corridor Study. However, caution should be exercised to avoid creating new or worsened water quality conditions in Bridger Creek that could, in turn, damage water quality in the East Gallatin River.

8-B

When planning for shoulder widening and road realignment, please avoid unnecessary impingement and hardening (e.g. rip-rapping) of the Bridger Creek and Stone Creek floodplains. Please use bank stabilization and revegetation techniques that support natural stream processes, vegetation communities, and aquatic habitat.

8-C

If any of the bridges identified in *Section 7.2 Bridge Repairs* have decks that discharge runoff directly to the stream, please include diversion and dispersal of bridge deck runoff in the planned upgrades.

Thank you again for the opportunity to comment on the Bridger Canyon Corridor Planning Study. If you have any further questions or concerns regarding DEQ's comments in this letter, please contact our Water Quality Planning Bureau at 406 444 6697 or online www.deq.mt.gov.

Sincerely,

Bonnie Lovelace

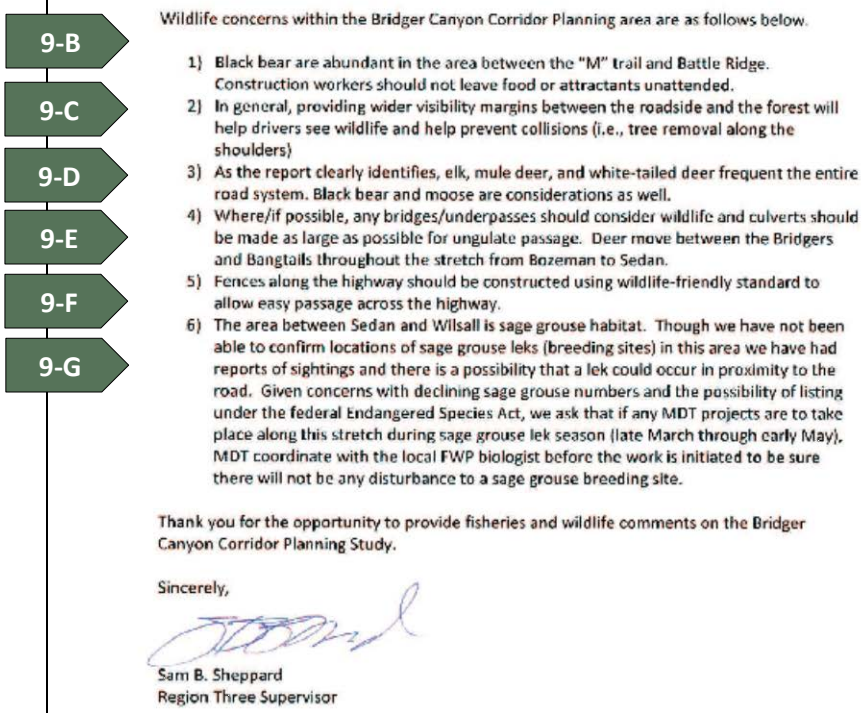
Bonnie Lovelace
Regulatory Affairs Manager
Director's Office
406-444-1760

8-A MDT will employ best management practices (BMPs) during construction to prevent discharges of pollutants into Bridger Creek and the East Gallatin River.

8-B Any in-stream work would be permitted through the DEQ and FWP. MDT will work closely with both agencies to ensure natural stream design to the extent practicable.

8-C Thank you for your comment. MDT will develop appropriate designs to address bridge deck runoff for any future projects.

Comment #9	MDT Response #9
 Region 3, 1400 S. 19th Avenue, Bozeman, MT 59718 Phone: 406-994-4042; Fax: 406-994-4090; Web: fwp.mt.gov Montana Dept. of Transportation Attn: Katie Potts PO Box 201001 Helena, MT 59620-1001 Katie Potts, Wildlife and Fisheries staff from Region 3 have reviewed the Bridger Canyon Corridor Planning Study. Our regional comments are provided below. There are a number of streams that support Yellowstone cutthroat trout populations in the Bridger Canyon Corridor Study area. These include Brackett Creek (including the North, Middle, and South Forks), Cache Creek, Fairy Creek, Carrol Creek, and Flathead Creek. FWP does not have enough fisheries information on Dry or Muddy Creeks to verify if Yellowstone cutthroat are present or use these streams, however they do have the potential to support aquatic life within the study area. The upper Shields River Basin represents a highly valuable conservation area for Yellowstone cutthroat trout both in Montana as well as the multi-state range of Yellowstone cutthroat. All of the streams listed above lie within a conservation priority area for the Yellowstone Geographical Management Unit (GMU) and are listed as a conservation priority in FWP's State-wide Fisheries Management Plan. Yellowstone cutthroat trout conservation measures in the Upper Shields are being developed and evaluated on a continual basis. At this time FWP cannot predict individual site priorities (improve or maintain fish passage or create a migration barrier) for each stream crossing included in the Bridger Canyon Corridor Study. As such FWP would like to make a general comment that as projects within the corridor are developed we may request either option (passage or barrier) based on conservation priorities within this GMU as part of the 124 permit process. 9-A	9-A MDT will apply for SPA 124 permits for the replacement of bridges and applicable culverts, and coordinate with FWP concerning potential fish passage/barrier options for future projects.

Comment #9, continued	MDT Response #9, continued
	9-B Thank you for your comment. 9-C Thank you for your comment. Option 4.a identifies approach sight distance mitigation improvement in multiple locations within the corridor. 9-D Thank you for your comment. 9-E MDT will evaluate the potential to enlarge culverts and/or bridge openings to facilitate wildlife passage as part of Option 1. 9-F MDT will consider fencing modifications in conjunction with future projects implemented in the Bridger Canyon corridor. 9-G MDT will coordinate with FWP on any future projects in the Bridger Canyon corridor.

Wildlife concerns within the Bridger Canyon Corridor Planning area are as follows below.

1) Black bear are abundant in the area between the "M" trail and Battle Ridge. Construction workers should not leave food or attractants unattended.
2) In general, providing wider visibility margins between the roadside and the forest will help drivers see wildlife and help prevent collisions (i.e., tree removal along the shoulders)
3) As the report clearly identifies, elk, mule deer, and white-tailed deer frequent the entire road system. Black bear and moose are considerations as well.
4) Where/if possible, any bridges/underpasses should consider wildlife and culverts should be made as large as possible for ungulate passage. Deer move between the Bridgers and Bangtails throughout the stretch from Bozeman to Sedan.
5) Fences along the highway should be constructed using wildlife-friendly standard to allow easy passage across the highway.
6) The area between Sedan and Wilsall is sage grouse habitat. Though we have not been able to confirm locations of sage grouse leks (breeding sites) in this area we have had reports of sightings and there is a possibility that a lek could occur in proximity to the road. Given concerns with declining sage grouse numbers and the possibility of listing under the federal Endangered Species Act, we ask that if any MDT projects are to take place along this stretch during sage grouse lek season (late March through early May), MDT coordinate with the local FWP biologist before the work is initiated to be sure there will not be any disturbance to a sage grouse breeding site.

Thank you for the opportunity to provide fisheries and wildlife comments on the Bridger Canyon Corridor Planning Study.

Sincerely,

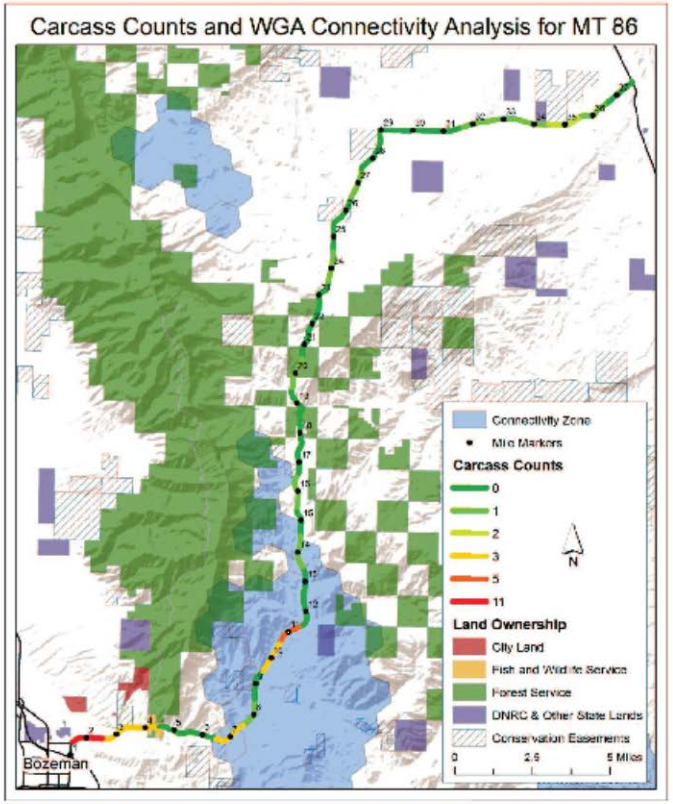
Sam B. Sheppard
Region Three Supervisor

Comment #10	MDT Response #10
 DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, OMAHA DISTRICT BILLINGS REGULATORY OFFICE 2602 FIRST AVENUE NORTH, ROOM 309 POST OFFICE BOX 2256 BILLINGS, MONTANA 59103-2256 RECEIVED APR 14 2015 ENVIRONMENTAL REPLY TO ATTENTION OF April 9, 2015 Regulatory Branch Montana State Program Corps No. **NWO-2015-00576-MTB** MASTER FILE COPY Subject: Bridger Canyon Corridor Planning Study Mr. Tom Martin Montana Department of Transportation 2701 Prospect Avenue P.O. Box 201001 Helena, Montana 59620 Dear Mr. Martin: Reference is made to your request for comments regarding the Bridger Canyon Corridor Planning Study located on Montana Highway 86 (MT 86) between the intersection of Story Mill Road and the junction with United States Route 89 (US 89) in Gallatin & Park County, Montana. Under the authority of Section 404 of the Clean Water Act, Department of the Army permits are required for the discharge of fill material into waters of the United States. Waters of the United States include the area below the ordinary high water mark of stream channels and lakes or ponds connected to the tributary system, and wetlands adjacent to these waters. Isolated waters and wetlands, as well as man-made channels and ditches, may be waters of the United States, which must be determined on a case-by-case basis. 10 It is unclear from the information provided what jurisdictional waters, if any, will be impacted. If your final design prescribes the placement of fill material in any of the jurisdictional areas described above, please submit an application form prior to doing any work. The application can be found at http://www.nwo.usace.army.mil/Missions/RegulatoryProgram/Montana.aspx. We will determine the type, if any, of permit required. Work in an aquatic site should be shown on a map identifying the Quarter Section, Township, Range and County. Latitude and Longitude, Decimal Degrees (datum NAD 83), and the dimensions of work in each aquatic site. Include a delineation of special aquatic sites such as wetlands or pool and riffle complexes that will be impacted. Any loss of an aquatic site may require mitigation. Mitigation requirements will be determined during the Department of the Army permitting review. Printed on Recycled Paper	10 Thank you for your comment. MDT will coordinate with the USACE if any impacts to aquatic resources are determined unavoidable during future project design phases.

Comment #10, continued	MDT Response #10, continued
-2- If you have any questions, please call me at (406) 657-5910, and reference File No. NWO-2015-00576-MTB. Sincerely, SMITH.BRIAN.R.1085 310085 Brian R. Smith Project Manager Printed on Recycled Paper	

Comment #11	MDT Response #11
 April 17, 2015 *Via e-mail to* snicolai@dowl.com Sarah Nicolai DOWL 1300 Cedar Street Helena, MT 59601 Re: Comments on *Draft Bridger Canyon Corridor Planning Study* *MT Highway 86* (Bozeman to Wilsall) Dear Ms. Nicolai: We appreciate the opportunity to provide input on the Draft Bridger Canyon Corridor Planning Study (Draft). As described below, we urge you to revise the Draft to include additional, concrete steps that the Montana Department of Transportation (MDT) could take during any future implementation of the recommended Improvement Options to reduce collisions between motorists and wildlife, which account for 10% of reported crashes, and improve connectivity in this critical linkage between the Greater Yellowstone and Crown of the Continent ecosystems. We also request that MDT develop a statewide system for identifying and prioritizing roads with the highest incidence of collisions involving wildlife. Doing so will not only clarify where MT 86 falls on the spectrum of mitigation needs from a statewide perspective, but will also aid in optimizing investment of Montana's limited transportation dollars. 11-A **I. Montanans for Safe Wildlife Passage (MSWP), Bridger Canyon residents, the North Sapphires Elk Study Group and the Bitterroot-Sapphire Corridor Coalition support these comments.** MSWP formed in 2011 to bring individuals and conservation groups together to advocate for innovative solutions to provide safe passage for Montana's people, fish, and wildlife and to improve or maintain habitat connectivity across Montana's roads. Our members include people who have been working on improving safe passage for wildlife and aquatic species for over 15 years, including research, mapping, monitoring, policy work, and on-the-ground projects. *For a list of MSWP members, visit: http://www.montanans4wildlife.org/contact/* These comments are also supported by local residents of Bridger Canyon, some of whom have lived in the area more than 30 years and are intimately familiar with the corridor, as well as the North Sapphires Elk Study Group and the Bitterroot-Sapphire Corridor Coalition. Their names and contact information appear in the signature block below.	11-A Thank you for your comment.

Comment #11, continued	MDT Response #11, continued
11-B **II. The Draft should be revised to include specific wildlife- and aquatic-related mitigation opportunities for each recommended Improvement Option.** As explained and depicted in Figures 1-2 of our December 2014 comments, the Western Governors' Association (WGA) west-wide Crucial Habitat Assessment Tool (CHAT) predicts that a corridor with the highest connectivity value assigned by the model (1.0 on a standardized scale of 0.0 to 1.0) crosses MT 86, roughly between mile markers 10-12. As depicted in Map 1 below, based on MDT's own Carcass Database, this area also coincides with the highest carcass count along the study corridor, outside of miles 1-2 immediately adjacent to Bozeman. This corridor, which travels north from the Greater Yellowstone Ecosystem, across I-90, along the Bangtail Mountains and **across MT 86 – the study area** – into the Bridger Mountains, and then northwest, is also predicted to be the most crucial connection between the Greater Yellowstone and the Crown of the Continent ecosystems. Public comments echo the importance of wildlife along the corridor. A word search of Appendix A, which details all "Public and Agency Participation" received thus far in this proceeding, reveals that wildlife are mentioned 89 times by commenters; in contrast, one of the other hot topic issues – speed – is only mentioned 66 times. Clearly, wildlife are a key consideration along this rural corridor. We applaud the Draft's recognition of the importance of this region to broad-scale connectivity and the need to consider corridor-wide wildlife-related mitigation strategies, where appropriate, during any future project development processes. Depending upon the scope and location of a particular project, the Draft (at 38) indicates the following mitigation strategies may be appropriate: (1) potential fencing modifications (both wildlife-friendly to accommodate passage and barrier fencing to preclude passage); (2) seasonal/variable signage (RP 6.0 to 10.0 for wildlife movement, including seasonal fluctuations in elk migration); and (3) wildlife crossing structures (opportunistically where topography is favorable or as an add-on by installing an "oversized" culvert to allow or improve wildlife and aquatic passage). At the same time, we urge the Draft authors to recommend and associate specific wildlife mitigation options with each proposed Improvement Option. In particular, location-specific opportunities to incorporate mitigation strategies should be expressly identified where a future improvement implicates wildlife and/or aquatic resources. As detailed in our December 2014 comments, this includes but is not limited to any proposed Improvement Options that will effectively increase the operational speed of MT 86, such as straightening out vertical or horizontal curves or adding turn lanes. One possible way of doing so is illustrated below: **Option Category** / **Option ID** / **Option Description** / **Locations** / **Planning-level Cost Estimate** / **Potential Implementation Timeframe** / **Potentially impacted Resources** / **Anticipated ROW** **Curve Geometry and Roadway Width** / Option 2.a / Roadway Realignment at Slide Areas / RP 4.3-4.6 (slide area) / $1.1-1.2 million / Long-term / Yes Consider wildlife/aquatic crossing structures / No **Curve Geometry and Roadway Width** / Option 2.b / Horizontal & Vertical Curve Shoulder Improvements / Location: RP 4.1 to RP 5.1 (Horizontal: √, Vertical: √); RP 6.7 (√); RP 8.0 (Vertical: √); RP 8.7 to RP 8.8 (Vertical: √); RP 9.0 to RP 9.1 (√, √); RP 11.7 to RP 11.8 (√, √); RP 12.0 (Vertical: √) / $360,000 to $390,000 per 0.1 mile / Mid-term to long-term / Yes RP 6 to PR 15: Consider wildlife/aquatic crossing structures / Yes *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 2	11-B Thank you for your comment. This study identifies potential strategies for improvement along MT 86 at a conceptual planning level. During the project development process for future projects, MDT will determine the need for and feasibility of including wildlife mitigation strategies based on the scope and location of a particular project. Specific wildlife mitigation measures will be identified during project design and environmental compliance phases.

Comment #11, continued	MDT Response #11, continued
 **Map 1.** Carcass counts over five years, WGA connectivity analysis corridor, land ownership, and conservation easements overlaid on MT 86 corridor study area. *Sources:* MDT Carcass Database (2008-2012), WGA Wildlife Corridors and Crucial Habitat connectivity analysis. MT Conservation Easements (http://geoinfo.msl.mt.gov/). Although the WGA analysis was conducted throughout the west, some states, including Montana, selected alternative methods for modeling connectivity and chose not to make their WGA connectivity layers public. Accordingly, this layer is not available for download from the WGA CHAT website. Please direct questions concerning access to and use of this dataset to John Pierce (360.902.2511, John.Pierce@dfw.wa.gov). To view (but not download) the WGA connectivity model, visit: http://databasin.org/datasets/00902177710a4abcbb1682c6804310d3 *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 3	

Comment #11, continued	MDT Response #11, continued
11-C **III. MDT should formulate a wildlife hazard rating, classification and mitigation system for identifying, reporting and prioritizing wildlife-vehicle collision hot spots to fulfill its mission to ensure safe travel for the motoring public.** The record in this proceeding provides extensive evidence that wildlife pose a safety hazard to motorists along MT 86. As detailed below, this evidence, in combination with the existence of proven solutions for reducing wildlife-vehicle collisions (WVCs), provide ample support for the creation of a wildlife hazard rating, classification and mitigation system for identifying, reporting and prioritizing wildlife-vehicle collision hot spots. In addition to improving highway safety, such a system would aid in optimizing investment of Montana's limited transportation dollars on the highest priority WVC corridors in the state, thereby saving the public money in the long run. **Based on the data made available to the public, collisions involving wildlife contribute significantly to accidents along MT 86.** From 2009 to 2013, MDT indicates that wildlife were involved in 18 crashes, or 10%, of the total number of 173 collisions reported to the Montana Highway Patrol along the study corridor (Draft at 15). In contrast, the most frequently identified categories of crashes are characterized as "roll-over and fixed-object crashes" (108 of 173, or 63%) and "crashes without an identified contributing factor" (51 of 173, or 29%). The Draft does not disclose sufficient detail to further analyze the data. Moreover, because MDT treats collision data as confidential, the number of collisions due to other contributing factors, such as alcohol or drugs, driving too fast, driving carelessly or failing to yield, cannot be discerned. That said, collisions with wildlife present a significant hazard to motorists along MT 86. Other items in the record further support this conclusion. During an October 15, 2014 resource agency meeting, US Fish and Wildlife Service personnel asked what percentage of crashes involve wildlife, how that percentage relates to other corridors with similar characteristics, and whether wildlife crossings are warranted along the corridor. In response, MDT staff offered to conduct a query of other corridors to compare crash statistics. Although ultimately not conducted, such a query is precisely the sort of tool that would allow MDT to identify, report, and, in conjunction with the motoring public, prioritize those corridors for which wildlife-related mitigation measures will result in the proverbial "biggest bang for the buck."[1] **Collisions with wildlife cost Americans life, limb, and property.** Approximately 6 million collisions occur each year in the United States. It is currently estimated that 1-2 million of these collisions occur between vehicles and large animals, and this figure has been on the rise (Huijser *et al.* 2007). Wildlife-vehicle collisions cause hundreds of human deaths, over 25,000 injuries, and cost Americans over $8 billion annually, not to mention the harm to native wildlife, including game species. Between vehicle repair costs, medical bills, towing fees, accident attendance and investigation costs, monetary value of road-killed game species, and the cost of animal carcass removal and disposal, the total costs for the average collision with a large ungulate in the United States and Canada have been estimated at over $6,000 per deer or bighorn sheep, $17,000 per elk, and $30,000 per moose (in 2007 USD) (Huijser *et al.* 2009). [1] No pun intended; deer constitute the largest number of roadkilled carcasses in Montana, including along MT 86 during the study period (2009-2013). The Draft refers to an analogous system for identifying and mitigating rockfall hazards, which could be used as a template to inform a similar system for wildlife. *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 4	11-C Thank you for your comment.

Comment #11, continued	MDT Response #11, continued
Mitigation measures can drastically reduce wildlife-vehicle collisions (WVCs). Over forty potential measures aimed at mitigating wildlife-vehicle collisions have been developed, with variable rates of effectiveness (reviewed in Huijser *et al.* 2009). As shown in Table 1 below, most demonstrate less than a 50% reduction in WVCs (*e.g.*, wildlife warning signs, vegetation removal to improve visibility); some are highly effective but prohibitively expensive (elevated roadways or road tunnels); and others are only effective by completely obstructing crucial movement of wildlife (continuous fencing). In contrast, wildlife under- and overpasses (accompanied by fencing and jump-outs that prevent animals from entering the roadway and allow them to escape if they do) and animal detection systems (ADS), which warn drivers when animals approach the road, have been observed to reduce WVCs by 79-97%,[2] while allowing wildlife to access crucial habitat. **Mitigation at WVC hotspots can be cost-effective.** Despite their upfront costs, these measures have been shown to pay for themselves over time by preventing collisions – and their associated costs – when installed at collision hotspots, saving taxpayer dollars in the long run. Huijser and colleagues (2009) conducted a comprehensive cost-benefit analysis of wildlife under- and overpasses, ADS, and other mitigation measures, establishing break-even points, corresponding to the benefit (in avoided collision costs) that each measure would need to generate over time to exceed the measure's cost. These break-even points were then converted into simple benchmarks regarding the number of wildlife-vehicle collisions per mile per year that would have to occur for installation of a mitigation measure to be cost-effective. For example, if a road segment experiences 7 or more deer collisions per mile per year, then the benefits of installing wildlife underpasses (combined with fencing and jump-outs) are expected to exceed the costs of installing and maintaining those crossings.[3] For elk and moose, which are much larger and therefore cause more damage, the benchmarks are even lower: 2.6 elk/mile/year and 1.5 moose/mile/year. ***At sites where these thresholds are met, it may actually cost taxpayers more to do <u>nothing</u> to prevent collisions with wildlife than it costs to do <u>something</u>.*** In short, where mitigation is determined to make sense, taking steps to prevent collisions and provide safe passage is predicted to save human lives, reduce wildlife deaths, and save money – creating a rare win-win-win situation. We urge MDT to work with the authors to take the first step in this process and include within the revised Draft a WVC hazard rating, classification and mitigation system that identifies the state's highest priority highway segments, with the goal of advising the public where MT 86 falls on the spectrum of mitigation needs viewed from a statewide perspective. [2] Under- and overpasses with fencing and jumpouts: 94%-97% (Woods 1990), 80% (Clevenger *et al.* 2001), 87% (Dodd *et al.* 2007), 90% (Ward 1982). ADS: 82% (Mosler-Berger and Romer 2003), 91% (Dodd and Gagnon 2008). [3] Benchmarks listed and utilized here are based on a discount rate (which enables correct comparison of cost and benefit values that are distributed asymmetrically over the life of the mitigation measure) of 3%, the median value presented in Huijser *et al.* 2009. *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 5	

Comment #11, continued	MDT Response #11, continued
11-D **IV. Studies show that use of static wildlife warning signs are less than 50% effective at reducing wildlife-vehicle collisions.** The Draft (at 49) recommends consideration of static wildlife signage along RP 6.0 to 10.0 or, as appropriate, based on seasonal fluctuations in elk migration. Although static wildlife warning signs are one of the most frequently used mitigation measures, as depicted below in Table 1 (reproduced from Huijser *et al.* 2009), most studies conclude they are ineffective in reducing WVCs (*see also* Pojar *et al.* 1975; Coulson 1982; Rogers 2004; Meyer 2006; Bullock *et al.* 2011). **Table 1.** The estimated effectiveness, present value costs (in 2007 US$, 3% discount rate), and costs per percent reduction of mitigation measures aimed at reducing collisions with large ungulates over a 75-year time period. The measures are ordered based on their estimated effectiveness. If a measure is estimated to be 86% effective, it means that ungulate–vehicle collisions are estimated to reduce by 86% as a result of the implementation of that mitigation measure (e.g., a reduction from 100 collisions to 14 collisions). 	Mitigation measure	Effectiveness	Crossing opportunity?	Source	Present value costs (US$)	Costs per percent reduction (US$)
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Seasonal wildlife warning sign	26%	Yes	Sullivan et al. (2004): 51%; Rogers (2004): 0%	$3728	$143
Vegetation removal	38%	Yes	Jurek et al. (1991): 50%; Lavsund and Sandegren (1991): 30%	$16 272	$428
Fence, gap, crosswalk	40%	Yes	Lehnert and Bissonette (1997): 42%, 37%	$300 668	$7512
Population culling	50%	Yes	Review in Huijser et al. (2007a)	$94 809	$1896
Relocation	50%	Yes	Review in Huijser et al. (2007a)	$391 870	$7837
Anti fertility treatment	50%	Yes	Review in Huijser et al. (2007a)	$2 183 207	$43 664
Fence (incl. dig barrier)	86%	No	Reed et al. (1982): 79%; Ward (1982): 90%; Woods (1990): 94%–97%; Clevenger et al. (2001): 80%; Dodd et al. (2007): 87%	$157 246	$3177
Fence, underpass, jump-out	86%	Yes	Reed et al. (1982): 79%; Ward (1982): 90%; Woods (1990): 94%–97%; Clevenger et al. (2001): 80%; Dodd et al. (2007): 87%	$538 273	$6239
Fence, under- and overpass, jump-out	86%	Yes	Reed et al. (1982): 79%; Ward (1982): 90%; Woods (1990): 94%–97%; Clevenger et al. (2001): 80%; Dodd et al. (2007): 87%	$729 667	$8368
Animal detection system (ADS)	87%	Yes	Meese-Berger and Romer (2003): 82%; Dodd and Gagnon (2008): 91%	$1 099 370	$12 636
Fence, gap, ADS	87%	Yes	Meese-Berger and Romer (2003): 82%; Dodd and Gagnon (2008): 91%	$136 113	$1640
Elevated roadway	100%	Yes	Review in Huijser et al. (2007a)	$82 855 696	$828 555
Road tunnel	100%	Yes	Review in Huijser et al. (2007a)	$147 954 696	$1 479 547 | In contrast, variable message signs, which are also identified as an Improvement Option in the Draft (at 49), and temporal warning signs, have proven more effective. New studies analyzing effectiveness are emerging all the time, and any future proposals to deploy wildlife warning signs should be thoroughly vetted to ensure that the signage type has proven effective. *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 6	11-D MDT will consider both variable and static signage for wildlife mitigation measures as identified in Options 6.a and 6.b, respectively.

Comment #11, continued	MDT Response #11, continued
Conclusion **11-E** Thank you for the opportunity to comment on the Draft. We respectfully request that you consider and incorporate material responsive to these comments as you finalize your report. If you have any questions regarding our comments or the information we have provided, please do not hesitate to contact MSWP member Renee Callahan at renee@largelandscapes.org. Respectfully submitted, *Montanans for Safe Wildlife Passage* *North Sapphires Elk Study Group & Bitterroot-Sapphire Corridor Coalition* Don Burgess, Chair North Sapphires Elk Study Group & Spokesperson, Bitterroot-Sapphire Corridor Coalition, burgess425@aol.com *Bridger Canyon Residents* Carolyn A. Fifer & John E. Lee IV, catfifer@gmail.com, flyboy700@gmail.com Candace Hamlin & Gerald Meyers, hamlins@littleappletech.com Ellen Trygstad & Richard Burke, eltjupiter@gmail.com Peggy & Jim Jensen, jrjensen1945@gmail.com Steve Gipe & Patricia Godvin, windriverwy@yahoo.com Anne Trygstad cc: Kirk Loftsgaarden, FHWA, kirk.loftsgaarden@dot.gov Lisa Stoeffler, Gallatin National Forest, lstoeffler@fs.fed.us Carolyn Poissant, City of Bozeman, cpoissant@bozeman.net Bozeman to Bridger Mountain Trail Project Comments, MTrail@dot.gov John Pierce, Washington Department of Fish and Wildlife, John.Pierce@dfw.wa.gov *Bridger Canyon Draft Corridor Study* *MSWP & Resident Comments, April 2015* Page 7	**11-E** Thank you for your comments and interest in this study.

Comment #11, continued	MDT Response #11, continued

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Comment #12	MDT Response #12
Nicolai, Sarah **From:** Carol Fifer <catfifer@gmail.com> **Sent:** Friday, April 17, 2015 6:28 PM **To:** Nicolai, Sarah **Subject:** Bridger Canyon MDT Project Dear Ms Nicolai, Thank you for the opportunity to comment about the proposed improvements to State Rd 86. I have read your study and definitely agree there are many enhancements needed to improve conditions along SR 86. The MDT proposal is anticipated to cover the next 20 years so what we plan and implement now will have lasting consequences. Road width and drainage have been adequately addressed in the study so I will focus on an equally important matter. The high risk of motor vehicle/wildlife collisions. We are all aware that the occurrence of these accidents are greatly under reported and take a toll on both the vehicle, driver, passengers, and wildlife. The past few months I have made an effort to track the incidents personally observed on SR 86 between Jackson Creed Rd and Bozeman. Deer at Brass Lantern subdivision (species unidentified...probably white tail) Deer, whitetail, at Story Mill Rd and Bridger Canyon Rd 2/10/15 Deer, whitetail, at Fish Hatchery Rd and Bridger Canyon Rd Skunk at Fish Hatchery Rd and Bridger Canyon Rd Vehicle within inches of going over extreme embankment at Jackson Creek Rd and Bridger Canyon Rd, a location well 1	

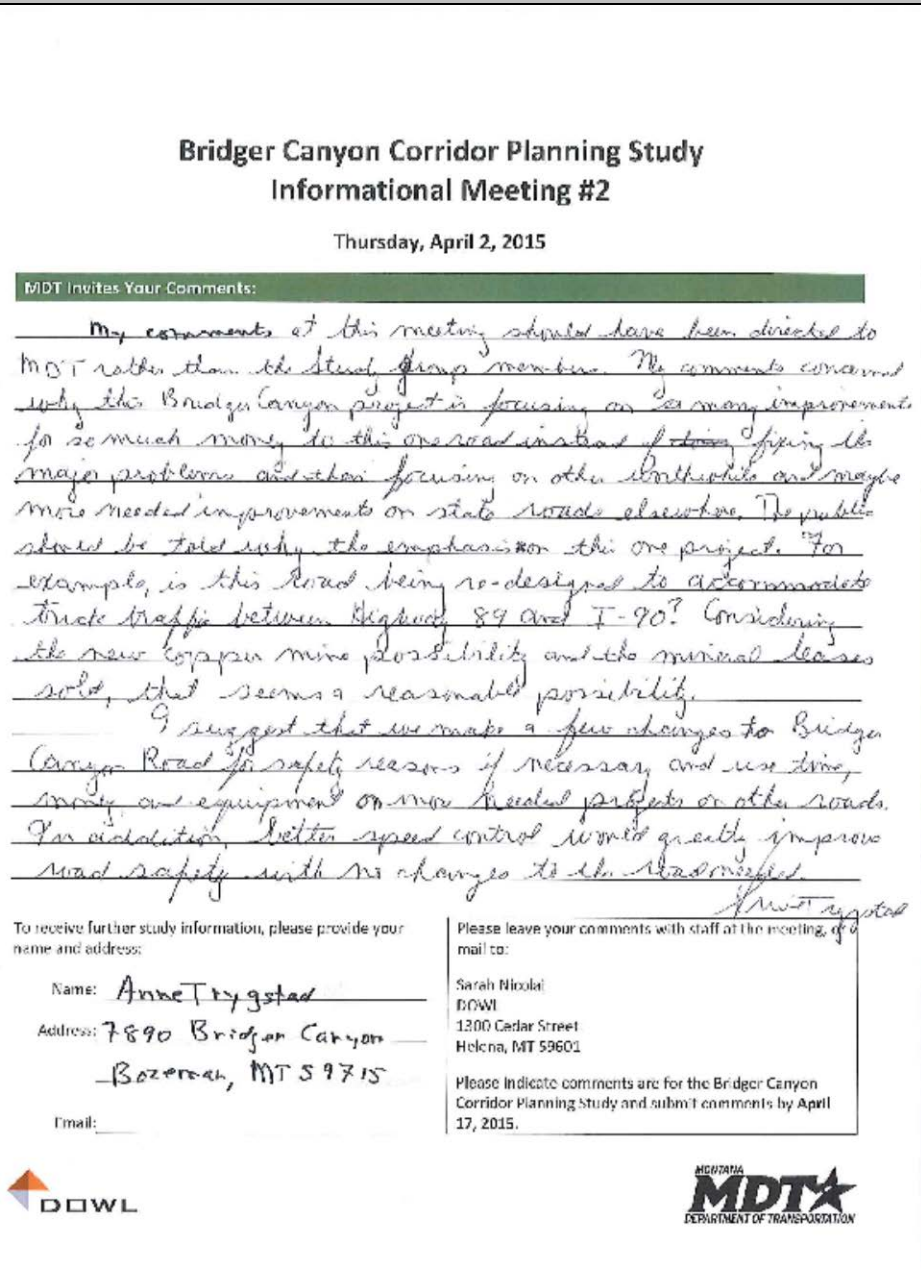
Comment #12, continued	MDT Response #12, continued
known for wildlife crossing. (I have photos) These are only the incidents I observed and there were most likely many more animals that were hit and fled off the roadway to die. Using current statistics I calculated the cost of MV/W accidents for the next 20 years. I estimated, using your recorded carcass count and values of wildlife as a deer at $6,000, elk at $17,000, moose at $30,000 and deer at roughly 75% of the accidents, elk at 20%, and moose at 5%. One can not begin to estimate the cost or value of a threatened or endangered species. (ie., grizzly bear, wolverine, lynx), nor can they put a cost on the value of a human life. Using the average rate of inflation for the past 14 years at 2.78% one arrives at a staggering amount of approximately $900,000. Since we are all well aware that carcass counts are at least 25% underreported, and Bridger Canyon is expected to double in population in 10 years, I am sure you can see where this is heading. The cost of installing wildlife friendly over passes and under passes, especially concurrent with other road improvements, will be more than recouped in savings. It is vitally important to ensure the survival of our wildlife and maintain an open corridor from the Yellowstone ecosystem to the Yukon ecosystem. We now possess the knowledge that a main link between these systems passes immediately thru Bozeman Pass, over Drinking Horse and Green Mountains, 12 and thru Bridger Canyon, crossing Bridger Canyon Road between MM 9 and MM 11. I urge you to place this matter as a high priority in the 2	12 Thank you for your comment. Please refer to Responses 4-C and 7-I.

Comment #12, continued	MDT Response #12, continued
execution of any upcoming road improvements. As always, many residents of Bridger Canyon, including myself, remain willing to assist you in identifying critical passages. Sincerely, Carolyn A. Fifer 4750 Meadow Lane Bozeman, Mt 59715 406-451-3880 – C 3	

Comment #13	MDT Response #13
April 17, 2015 Sarah Nicolia DOWLW Project Manager snicolai@ dowl.com Katie Potts MDT Project Manager kpotts@mt.gov Re: Bridger Canyon Corridor Planning Study Dear Sarah and Katie, Thank you for this opportunity to comment on the current planning study for Bridger Canyon. The number one need identified by the Montana Department of Transportation (MDT) for the planning study was to "Improve the safety of MT 86 for all users". All of my comments that follow are focused on Need #1. Overall, I believe much of what has been proposed in the planning study is positive. My primary concern, however, relates to the connection between some of the road improvements recommended in the study and traffic speeds. I am especially concerned given MDT's reluctance, and/or inability based on Montana statutes, to control speed limits after road improvements have been made. Given the above, please consider traffic calming features discussed in the second half of this letter. They are intended to provide some ideas on how design features associated with road improvements can also function as reasonable traffic controls. There consistently seems to be a tension associated with highway improvements that pits the safety of one user group against another. Bridger Canyon Highway 86, does not just function as a transportation route. It also serves as a major recreational corridor and at the north end provides road access for local agricultural lands. User groups on this road include commuters, local commerce/truck traffic, recreationists, local farmers and ranchers, residents who live in Bridger Canyon, tourists passing through the area, bicycles and pedestrians. These groups combined represent the "all users" referred to in Need #1. Improvements suggested in this study if viewed from a safety perspective will likely benefit commuters and local commerce through Bridger Canyon even though some speed limits will be increased. For other user groups, those same improvements will be of less of a benefit and may well create greater hazards associated with increased traffic speed. Increased traffic speed increases the hazard to local residents and recreationists when they attempt to turn onto the highway from side roads or driveways. It increases the hazard to bicyclists pedaling along the highway and pedestrians who need to cross the road. It increases the hazard to slow moving farm equipment entering the roadway or driving along the road in the northern section, as well as to livestock on the road and to wildlife in general. It is anybody's guess at the current time if the proposed changes would have a net positive or negative effect on safety overall but it does make a difference which user group is being considered whether that impact will be positive or negative. Speed affects highway safety. Higher speeds result in longer stopping distances and reduced reaction time available to avoid hazards. It takes less time for a driver to cross the center line or run off the road	

Comment #13, continued	MDT Response #13, continued
at higher speeds and there is less time to take corrective actions. Perhaps most importantly, it results in greater speed differentials among users on the roadway. 13-A It is my opinion after serious consideration of this issue, that the appropriate maximum speed limit for safe travel through Bridger Canyon should be 55 mph. My rational for this is the multiple functions the highway serves and the wide range of users who travel along it. Any added safety feature that results in higher speeds overall will likely have a negative impact on safety, at least for certain user groups. Traffic behavior on the highway is already crazy at times, especially when the lifts close at Bridger Bowl. It is not uncommon, at that time, to see individual drivers passing 6 or 7 vehicles at once in the race to get home. It is also my opinion that we can have the both the needed safety improvements outlined in the Planning Study and a reasonable speed limit throughout full length of Bridger Canyon Highway. Meeting this goal will require some additions to the plan. The traffic calming features listed below represent an attempt at a more comprehensive approach to safety along Bridge Canyon Highway encompassing recommendations from the Planning Study but also including traffic speed as an important variable in road safety. Please note, not all of the items listed are within direct control of MDT but they all need to be part of a larger discussion of safety along the Bridger Canyon Highway. Also, some of the items on the list will not make sense except when viewed in context with other items on the list. 13-B **Traffic Calming Features:** ➢ Passing should be prohibited in Bridger Canyon except where a passing lane is provided. ➢ Associated with the above, add sections of passing lane on one side of the road or the other at appropriate locations along straight sections in the canyon corridor. ➢ Add rumble strips along the highway centerline instead of along the side of the road. ➢ Narrow the width of the traffic lanes slightly. ➢ Correspondingly , increase the width of shoulder areas. ➢ Provide turn-outs for slow vehicles to leave the roadway and allow faster vehicles to pass. These turn-outs will also provide convenient locations for the Highway Patrol to pull over speeding drivers. ➢ Adopt a rule, such as on the Olympic Peninsula (WA), that "Slow vehicles must use the turn-out if 5 or more vehicles are behind them". ➢ Maintain a maximum speed limit of 55mph throughout Bridger Canyon all the way to Wilsall except where slower speed limits are dictated by road conditions. ➢ Add turning lanes where appropriate as per the Planning Study. ➢ Make fines for traffic violations double in pedestrian or recreational areas. ➢ Increase the presence of Highway Patrol during specific times such as when the lifts at Bridger Bowl close. ➢ Engage Bridger Bowl to play a more pro-active role in driver safety of their clientele. ➢ Include all other options noted in the Planning Study that will improve driver safety without creating a substantial increase in driving speed.	13-A Thank you for your comment. Please see Response 4-A. 13-B Thank you for your comment. Traffic calming measures are typically more appropriate for urban areas as opposed to rural highways. • Passing opportunities are provided in areas with adequate sight distance. • This study did not identify the need for passing lanes based on current and projected traffic volumes and characteristics. • A future project is programmed to include rumble strips in the corridor. • MDT will consider appropriate lane and shoulder widths as part of future projects. • Please see Response 3 regarding pullouts. • Enforcement issues are within the jurisdiction of the Montana Highway Patrol.

Comment #13, continued	MDT Response #13, continued
Implementation versus Value of Life 13-C As with the Planning Study recommendations, implementation and costs of any traffic calming measures would be amortized over time. They are not going to happen any time soon but they do need to be part of an overall long-range plan to improve safety along Bridger Canyon Highway. There will be additional costs associated with many of the ideas listed. This is not a question of cost versus cost savings. Rather, it is the cost of safety versus the cost of a human life. To provide context, the U. S. Environmental Protection Agency set the value of a human life at $9.1 million dollars in 2011 (New York Times 2011). The U. S. Department of Transportation in 2012 followed suit and based on empirical studies and also set the value of a human life at $9.1 million in current (2012) dollars as well as establishing a range of low and high values ($5.2.million to $12.9 million) against which the analysis of projects should be based (U.S. DOT 2013). Thanks again for considering the ideas expressed in this correspondence. I appreciate all your efforts on behalf of improving the safety of our public roadways. Respectfully yours, *Thomas J. Keck* Thomas J. Keck 411 N. Third Ave. Bozeman, MT 59715	13-C Thank you for your comment.

Comment #14	MDT Response #14
	14-A Thank you for your comment. MDT typically conducts several planning studies each year to identify potential improvements for highway corridors throughout Montana. MDT uses these studies to help prioritize future projects based on identified needs and funding availability. 14-B Please refer to Response 4-A regarding speeds in the corridor.

Bridger Canyon Corridor Planning Study
Informational Meeting #2

Thursday, April 2, 2015

MDT Invites Your Comments:

14-A

My comments at this meeting should have been directed to MDT rather than the Study Group members. My comments concerned why the Bridger Canyon project is focusing on so many improvements for so much money to this one road instead of fixing the major problems and then focusing on the Bozeman and maybe more needed improvements on state roads elsewhere. The public should be told why the emphasis on this one project. For example, is this Road being re-designed to accommodate Truck traffic between Highway 89 and I-90? Considering the new Copper mine possibility and the mineral leases sold, that seems a reasonable possibility.

14-B

I suggest that we make a few changes to Bridger Canyon Road for safety reasons if necessary and use time, money and equipment on more needed projects on other roads. For circulation, better speed control would greatly improve road safety with no changes to the Roads specified.

Anne Trygstad

To receive further study information, please provide your name and address:

Name: Anne Trygstad

Address: 7890 Bridger Canyon
Bozeman, MT 59715

Email:

Please leave your comments with staff at the meeting, or mail to:

Sarah Nicolai
DOWL
1300 Cedar Street
Helena, MT 59601

Please indicate comments are for the Bridger Canyon Corridor Planning Study and submit comments by April 17, 2015.

DOWL

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Comment #15	MDT Response #15
15-A 15-B	15-A Thank you for your comment. Projects funded through federal programs must adhere to the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices. 15-B Thank you for your comment. Wildlife violations are enforced through FWP. Future projects will be coordinated with FWP.

Nicolai, Sarah

From: Ellen <eltjupiter@gmail.com>
Sent: Friday, April 17, 2015 11:13 AM
To: Nicolai, Sarah
Subject: additional comment

Hello Sarah,
TWO THOUGHTS:

1) We discussed the fixed repertoire of signage nationally when I mentioned that it would be efficacious to have a printed sign on Bridger Drive intended for young drivers or those unfamiliar with mountain conditions. While there may not be that is all encompassing, I think multiple phrases could be cobbled together to make a useful, fixed sign which would draw on the fixed signage wording such as:

CAUTION!
Entering high accident area
Road ahead for 30 miles can have changing/unpredictable/variable conditions year round
- Open Range/free range cattle
- Blowing snow
- Icy conditions
- (unpredictable) Wildlife crossings
- Steep curves
- Slow moving equipment
- Falling rocks
- Bicyclists and runners
- Blind and unmarked driveways (access roads)

Be alert! Drive with Caution!
Thank you for safe driving!

I know these are not all the exact words, but I do think a list would be very effective because non-local/experienced people don't think of these things. The sign could look like rustic with a picture of a deer or something. Alerting the brain, followed up with the visuals of existing cautionary signage would certainly shake up an overly casual attitude about driving HYW 86. I think it would be very, very effective, cheaper than an electronic sign, more attractive, and much more comprehensive and in some ways, accurate.

2) In thinking further about wildlife, I have concerns for fences which impede places animals feel are optimal crossings and simply divert crossings to other parts of the road (though locations of better driver visibility has an argument). Using bridge reconstruction to also serve a double purpose of an underpass is very attractive as long as hunters are prohibited from standing at the other end and shooting off the animals. This hunting behavior has been observed here in the Canyon. I have no doubt nearly all proper hunters would find that despicable, but such behavior has been. Maybe cameras installed would at least help catch people who engage in such practices, but it doesn't keep the animals from being killed.

Again, vigilance on the part of drivers, and Slower Speeds which enable controlled braking in time, will be far more effective than anything. Besides, small animals can get around fences - or large animals can trot along fence lines - I've seen this a number of times
- and so, a lot of $ spent for not so much success, I fear.

Thank you, again. Ellen Trygstad

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Comment #16	MDT Response #16
Nicolai, Sarah **From:** Carol Fifer <catfifer@gmail.com> **Sent:** Saturday, April 18, 2015 3:23 PM **To:** Nicolai, Sarah **Subject:** Bridger Canyon Rd MDT Study Sorry...forgot to attach the article in previous email! MSWP.jpg 16 Dear Ms. Nicolai, Just received my issue of Sunset Magazine today and this article was on page 16. Good work! Very nice to see concern for safety of people and wildlife. Maybe we can do this along State Rd 86, Bridger Canyon Road, since the Y2Y corridor crosses the road. Regards, Carol Fifer 4750 Meadow Lane Bozeman, Mt 59715 406-451-3880 – C 1	16 Thank you for your comment.

Comment #17	MDT Response #17
Nicolai, Sarah **From:** Thom Hughes <thughesgfp@mac.com> **Sent:** Sunday, April 19, 2015 8:44 PM **To:** Nicolai, Sarah **Subject:** Bridger canyon study. Dear Montana Department of transportation, 17-A As a resident of bridger canyon, I have strong concerns about the impact of any future projects. We currently have far too many accidents, and these will get significantly worse if your "improvements" involve a bigger road capable of cars at higher speeds. As I'm writing this tonight, over a hundred elk are crossing the road. This happens daily, often at curves, and it is a part of life that we enjoy in the canyon. We need lower speed limits, not higher ones! Virtually every stretch of our road has seen fatal accidents, some of which could have been prevented with lower speed limits. We need stoplights at bracket creek, at kelly canyon, and in front of the fire station. 17-B Bridger canyon has a remarkable mixture of use, including horse drawn wagons, bicyclists, haying equipment, long distance runners, and high powered motorcycles and SUVs. We need to accommodate all of this safely, which means slower, better controlled roads, not faster, bigger, straighter ones. 17-C sincerely, Thomas Hughes 8653 bridger canyon road Bozeman, MT. 59715 Sent from my iPad 1	**17-A** Please refer to Response 4-A regarding speed concerns. **17-B** Thank you for your comment. An engineering and traffic study of the physical characteristics and traffic conditions is necessary to determine whether a traffic signal installation is justified at a particular location. Based on a planning-level review of the corridor, this study did not identify the need for traffic signals on MT 86. **17-C** Thank you for your comment.

Comment #18	MDT Response #18
Nicolai, Sarah **From:** Nicolai, Sarah **Sent:** Tuesday, April 21, 2015 9:14 AM **To:** Nicolai, Sarah **Subject:** FW: 04/02/2015 Bridger Canyon Corridor Meeting / 7520000SF109 GR NE Bozeman Right-of-Entries **From:** Iwaniak, Therese [mailto:tiwaniak@mt.gov] **Sent:** Tuesday, April 21, 2015 8:20 AM **To:** Nicolai, Sarah **Cc:** Potts, Katie; Iwaniak, Therese **Subject:** RE: 04/02/2015 Bridger Canyon Corridor Meeting / 7520000SF109 GR NE Bozeman Right-of-Entries I received the following calls & comments during process of obtaining ROEs.: 1) Marie Christie, 6800 Bridger Canyon Rd, Bozeman MT 59715, (406) 586-2829: Recommends that the bridge at Place Creek is replaced. She resides on S side near RP 6 2) Adelaide Theisen, 301 Interlachen Dr, Winter Park FL 32789, (407) 782-888: Hopes something can be done about sharp curve by Fire Station. She owns property on E side between RP 8 & RP 9 Therese Iwaniak, R/W Supervisor MT Dept of Transportation - Butte District o: (406) 494-9618 c: (406) 490-0538 e: tiwaniak@mt.gov 1	**18-A** Thank you for your comment. MDT regularly assesses the condition of its bridges throughout the state. Based on MDT inspection reports and a June 2014 field review for the Bridger Canyon corridor, this study did not identify the need to replace the bridge at Place Creek. **18-B** This location is included in Option 2.b, which recommends improvements to horizontal and vertical curves that do not meeting current MDT design criteria.