

### Input Wanted

The draft *Paradise Valley Corridor Planning Study* will be made available for review and comment on February 21, 2014. Copies can be accessed via the study website at <http://www.mdt.mt.gov/pubinvolve/paradisevalley/>. The deadline for receiving comments is **March 14, 2014**.

Comments may be submitted in writing at the Informational Meeting, online via the study website, or by mail to Sheila Ludlow, MDT Statewide and Urban Planning, Project Manager, PO Box 201001, Helena, MT 59620-1001. Please indicate comments are for the *Paradise Valley Corridor Planning Study*. MDT will collect and consider all comments to better understand the community's view of potential issues and concerns within the study area.

### Next Steps

After the public comment period closes, comments will be reviewed, and the *Paradise Valley Corridor Planning Study* will be finalized. The ability to implement improvement options for US 89 depends on the availability of existing and future federal, state, local, and private funding sources. At the current time, there is no funding identified to complete the improvement options contained in the study.

*MDT attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program, or activity associated with this study. Alternative accessible formats of this information will be provided upon request. For further information, call (406) 447-5000, TTY (800) 335-7592, or Montana Relay at 711. Accommodation requests must be made at least 48 hours prior to the scheduled activity and / or meeting.*

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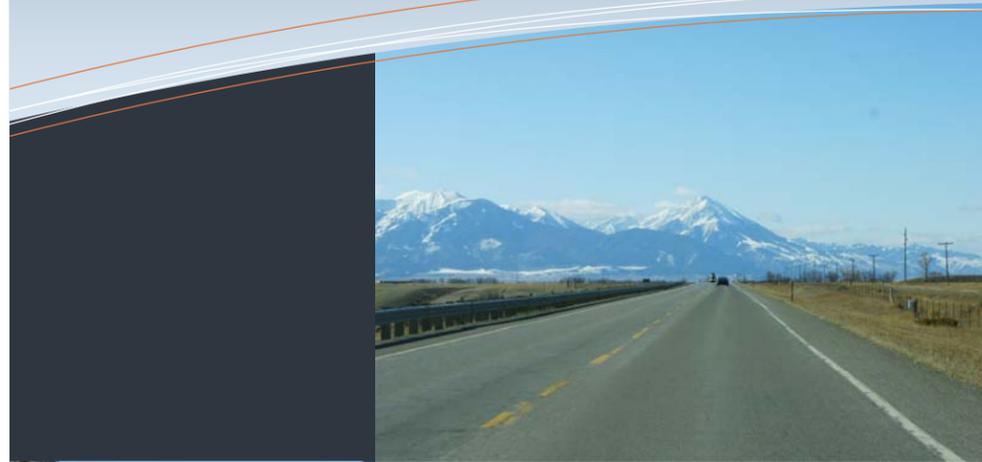
Issue

2

January  
2014

# Paradise Valley Corridor Planning Study

## US 89 (Gardiner to Livingston)



### this issue

- Corridor Planning Study Highlights **P.1**
- Corridor Needs and Objectives **P.2**
- Improvement Options and Strategies **P.2**
- Improvement Options Summary **P.3**
- Input Wanted **P.4**
- Next Steps **P.4**



### Corridor Planning Study Highlights

The Montana Department of Transportation (MDT), in partnership with the Federal Highway Administration (FHWA) and in coordination with Park County, initiated the *Paradise Valley Corridor Planning Study* to assess the US Highway 89 (US 89) corridor between Gardiner and Livingston. The US 89 corridor provides the primary surface transportation link between Livingston and Yellowstone National Park (YNP), and it is one of the major routes in Montana used to access YNP through Gardiner.

The purpose of the study is to determine potential improvement options to address safety and operations within the transportation corridor based on needs presented by the community, the study partners, and resource agencies. The study examined geometric characteristics, crash history, land uses, physical constraints, environmental resources, and existing and projected operational attributes of the US 89 corridor.

The study area included a 0.75-mile buffer on each side of US 89 beginning at Reference Point (RP) 0.0 at the YNP boundary in Gardiner. The area extended north through the communities of Corwin Springs and Emigrant to RP 52.5, just south of the City of Livingston.

This is a planning study and not a design project. MDT, Park County, and FHWA used a collaborative process to develop the study, as well as to conduct focused outreach efforts to the public, key stakeholders, and resource agencies. The agencies also evaluated known and publically available resource information. Activities completed for development of the study include the following:

- Research and analysis of existing US 89 roadway conditions
- Research and synthesis of known environmental resources and applicable regulations in the study area
- Identification and documentation of future conditions
- Identification of corridor issues and areas of concern
- Consultation and coordination with local officials, stakeholders, resource agencies, and public
- Identification of corridor needs and objectives
- Development of corridor improvement options with consideration of costs, available funding, feasibility, public input, and known environmental resource constraints
- Documentation of potential funding mechanisms for improvement options

### INFORMATIONAL MEETING 2

*Please Join Us!*

#### Livingston:

**Monday, February 24**  
6:00 PM  
Community Room  
City/County Building  
414 East Callender Street

#### Gardiner:

**Tuesday, February 25**  
7:00 PM  
Gardiner Community Center  
210 West Main Street

#### Purpose:

Informational Meeting 2 is being conducted to present the various improvement options developed for the corridor and to gather community feedback on the draft corridor planning study report.

## Corridor Needs and Objectives

Based on the analyses of existing and future conditions of the study area, the following needs and objectives were established and used in the development of improvement options.

### Need 1: Improve the safety of US 89 in the study area for all users.

#### Objectives (To the Extent Practicable):

- Improve roadway elements to meet current design standards.
- Review signing and passing opportunities based on current design standards.
- Evaluate best practice mitigation strategies as appropriate, to reduce potential animal-vehicle conflicts.
- Evaluate existing access density impacts.

### Need 2: Improve the operations of US 89 within the study area.

#### Objectives (To the Extent Practicable):

- Accommodate existing and future capacity demands within the corridor.

- Minimize future access density impacts.
- Consider access to recreational sites in the corridor.

#### Other Considerations

- Minimize the environmental resource impacts of improvement options.
- Limit disruptions during construction as much as practicable.
- Provide appropriate speeds within the study area per statutory and special speed zones established by the Montana Transportation Commission.
- Review maintenance practices.
- Recognize the environmental, scenic, cultural, recreational, and agricultural nature of the corridor.
- Consider local planning efforts.
- Consider availability and feasibility of funding.
- Consider feasibility of construction.

## Improvement Options and Strategies

Five general strategies for developing improvement options were identified in response to previously defined areas of concern. The general strategies used to develop improvement options are discussed below.

**Geometrics**—Roadway geometrics were compared to current MDT standards to determine areas that do not meet current standards. Strategies to correct or mitigate these areas included expanding roadway widths via shoulder widening, modifying sub-standard curves (with future improvements), installing advisory signs at sub-standard horizontal curves, improving intersections by adding turn bays and enhanced signage, and improving clear zones.

**Vehicle Congestion and Passing Opportunities**—A *Highway Capacity and Level of Service Analysis* was completed to document both current- and future-year congestion and levels of service. Strategies explored included reducing vehicular traffic, increasing roadway capacity by providing additional passing opportunities, reducing access density, and adding additional travel lanes. Additional passing opportunities may be provided by increasing passing zones (through pavement striping), or constructing dedicated passing lanes.

**Access Management**—Access to US 89 was explored as a strategy within the highway corridor to improve traffic flow and reduce driveway-related crashes.

**Alternative Travel Modes**—Strategies for alternative travel modes were reviewed for the corridor, including developing a separated, multi-use path between Livingston and Gardiner, increasing minimum shoulder widths along the roadway for the entire length of US 89 to at least 8 feet (each side), and installing appropriate signage.

**Wildlife-vehicle Conflicts**—Improvements were explored to help reduce the presence of wildlife-vehicle conflicts that may lead to collisions. Grade separation, fencing, advance animal detection, signing, or speed reduction strategies were reviewed as potential mitigation measures.

## Improvement Options Summary

The following table contains a summary of the potential improvement options, along with planning-level cost estimates. Implementation of any of the improvement options may necessitate close coordination with resource agencies to identify areas of sensitivity in regards to wildlife and aquatic needs.

Improvement Option		Description	Cost Estimate
<b>GEOMETRICS</b>			
1	Shoulder Widening	Consider constructing 8-foot shoulders incrementally as projects develop along the corridor. [Corridor-wide]	\$910,000 per mile
2(a)	Maiden Basin Road Intersection Advance Warning Signs	Install advance intersection warning signs along US 89. [RP 5.15]	\$600 EA
2(b)	Maiden Basin Road Intersection Right-turn Lane	Construct a northbound right-turn lane along US 89 when appropriate warrants are met. [RP 5.15]	\$270,000
4	East River Road Intersection Turn Lanes	Construct a southbound left-turn lane and a northbound right-turn lane along US 89 when appropriate warrants are met. [RP 19.8]	\$650,000 (both turn lanes)
5	Mill Creek Road Intersection Right-turn Lane	Construct a northbound right-turn lane along US 89 when appropriate warrants are met. [RP 37.2]	\$280,000
6(a)	Advance Warning Signs	Install horizontal curve warning signs for the horizontal curves located at RP 49.10 and RP 49.35.	\$600 EA
<b>VEHICLE CONGESTION AND PASSING OPPORTUNITIES</b>			
7(a)	Evaluate No-passing Zones	Evaluate existing no-passing signing and striping for compliance with current standards. [Corridor-wide]	\$45,000
7(c)	Passing Lanes at Spot Locations	Construct passing lanes at incremental locations along the corridor. [Potential Spot Locations: RP 16.6 to 19.8; RP 25.6 to 28.4; RP 40.0 to 42.0; RP 44.4 to 47.9]	\$12,400,000 EA
<b>ACCESS MANAGEMENT</b>			
9	Livingston Rural/ Urban Interface	Extend a three-lane typical section of US 89 from Merrill Lane to East River Road. Include right-turn lanes at major intersections if appropriate warrants are met. [RP 49.8 to 52.5]	\$8,500,000
<b>ALTERNATIVE TRAVEL MODES</b>			
10	Multi-use Trail	Investigate opportunities for the development of a multi-use trail between Gardiner and Livingston. [Corridor-wide]	\$390,000 per mile
11 (a)	Gardiner Area On-street Parking	Modify existing on-street parking in the Gardiner area based on MDT guidelines. [RP 0.0 to 1.0]	Labor
11 (b)	Gardiner Area Lighting Improvements	Coordinate with Gardiner Gateway Project partners to evaluate the need to upgrade existing street lighting to reflect lighting consistency with other phases of the project and to increase nighttime visibility. [RP 0.0 to 1.0]	To be determined
<b>WILDLIFE-VEHICLE CONFLICTS</b>			
13	Grade-separated Crossing Structures-overpasses	Consider grade-separated crossing structures (overpass) on a case-by-case basis during project-level design. [As needed]	\$2,800,000 EA (overpass)
	Grade-separated Crossing Structures-underpasses	Consider grade-separated crossing structures (underpass) on a case-by-case basis during project-level design. [As needed]	\$750,000 EA (underpass)
	Animal Detection System (At-grade Crossing)	Consider animal detection system installation on a case-by-case basis during project-level design. [As needed]	\$220,000 per mile
	Wildlife Signage	Consider additional wildlife signing on a case-by-case basis during project-level design. [As needed]	\$600 EA