



# BELGRADE to BOZEMAN corridor FRONTAGE ROAD study

November 1, 2016

Public Informational Meeting 2





**Welcome and  
Introductions**

# Title VI Considerations

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*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, denied the benefits of, or otherwise be subjected to discrimination on the basis of a protected status during any MDT project.*



# Meeting Format

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## Presentation

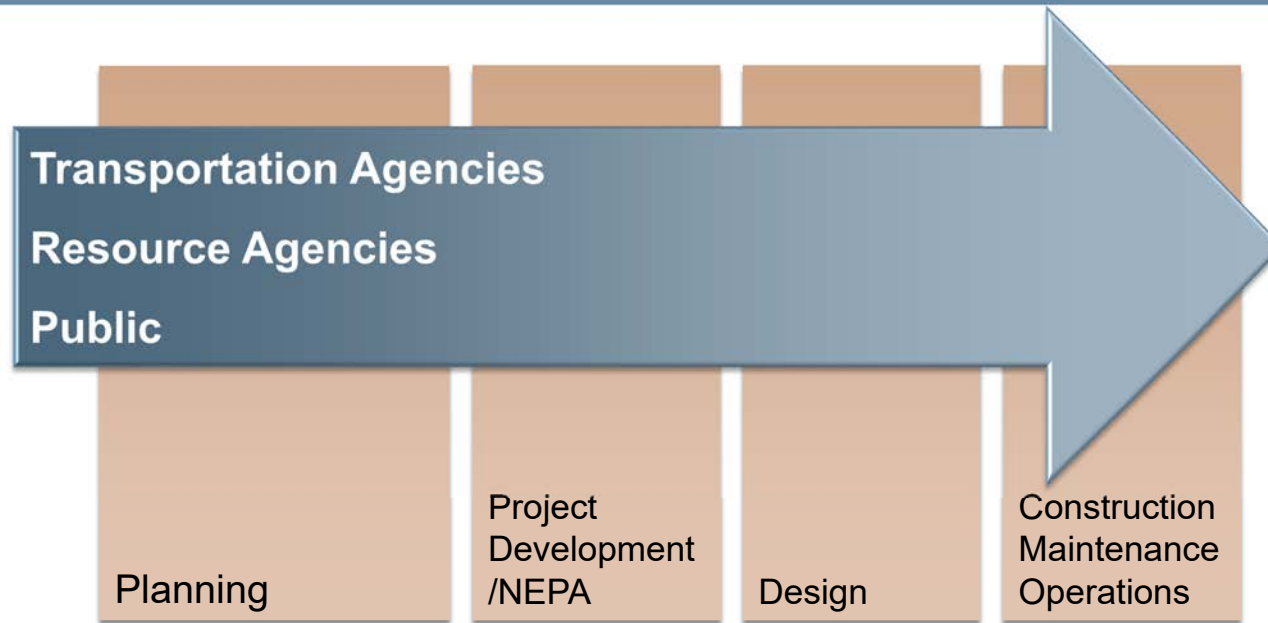
- ▣ Overview of corridor study process
- ▣ Key existing and projected condition findings
  - *Transportation System*
  - *Environmental Conditions*
- ▣ Next Steps

## Discussion Period



# What is a Corridor Study?

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**A corridor study is conducted before design, right-of-way acquisition, environmental compliance, and construction.**

# Corridor Study Overview

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- Environmental Scan
- Informational Meeting #1
- Existing and Projected Conditions
- Resource Agency Meeting
- **Informational Meeting #2**
- Needs and Objectives
- Improvement Option Identification & Screening
- Informational Meeting #3
- Draft Study Report
- Public/Agency Review Period
- Final Study Report



**We Are Here**





# Transportation System



# Physical Characteristics

## Various functional classifications

- ▣ **Principal Arterial** (National Highway System): Jackrabbit Lane to Airway Boulevard [N 205]
- ▣ **Minor Arterial** (Primary Highway System): Airway Boulevard to Springhill Road [P 205]
- ▣ **Minor Arterial** (Primary Highway System): Springhill Road to I-90 Exit 306 Ramps [P 118]

## Existing constraints

- ▣ Existing buildings (Downtown Belgrade)
- ▣ Rail infrastructure (south of roadway)
- ▣ Future private development (north of roadway)

## Two travel lanes

- ▣ 24' to 27' pavement width (in rural portion)
- ▣ Steep side slopes
- ▣ Generally no shoulders; some exceptions in recently constructed areas
- ▣ Generally “poor” overall pavement index (OPI)

## 25 to 50 mph speed limit

# Existing AADT (2015)



# Change between 2014 and 2015

Location	2014 AADT	2015 AADT	% Difference
East of Jackrabbit Lane	9,460	8,348	-11.8%
West of Broadway Street	7,210	5,250	-27.2%
East of Broadway Street	9,980	8,670	-13.1%
East of Madison Avenue	11,510	9,550	-17.0%
West of Valley Center Spur Road	11,360	7,478	-34.2%
West of Springhill Road	10,100	5,760	-43.0%
East of Springhill Road	8,370	5,300	-36.7%
North of Red Wing Drive	8,160	6,090	-25.4%
North of Griffin Drive	9,540	9,930	4.1%
South of Griffin Drive	14,410	12,520	-13.1%
<b>Average for Corridor</b>			<b>-21.2%</b>



# Projected AADT (2040)

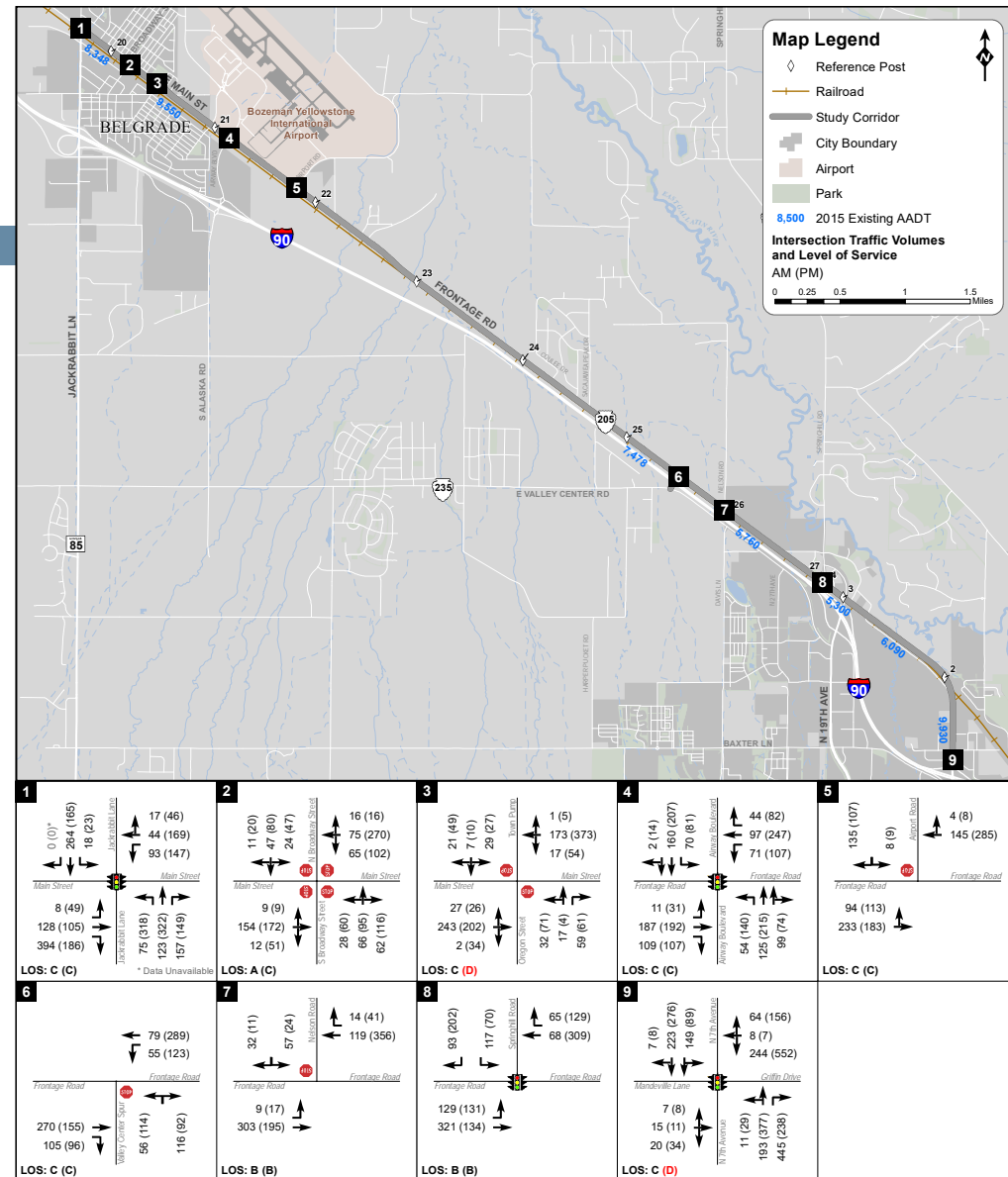




# Intersection LOS

## Existing (2016) Conditions

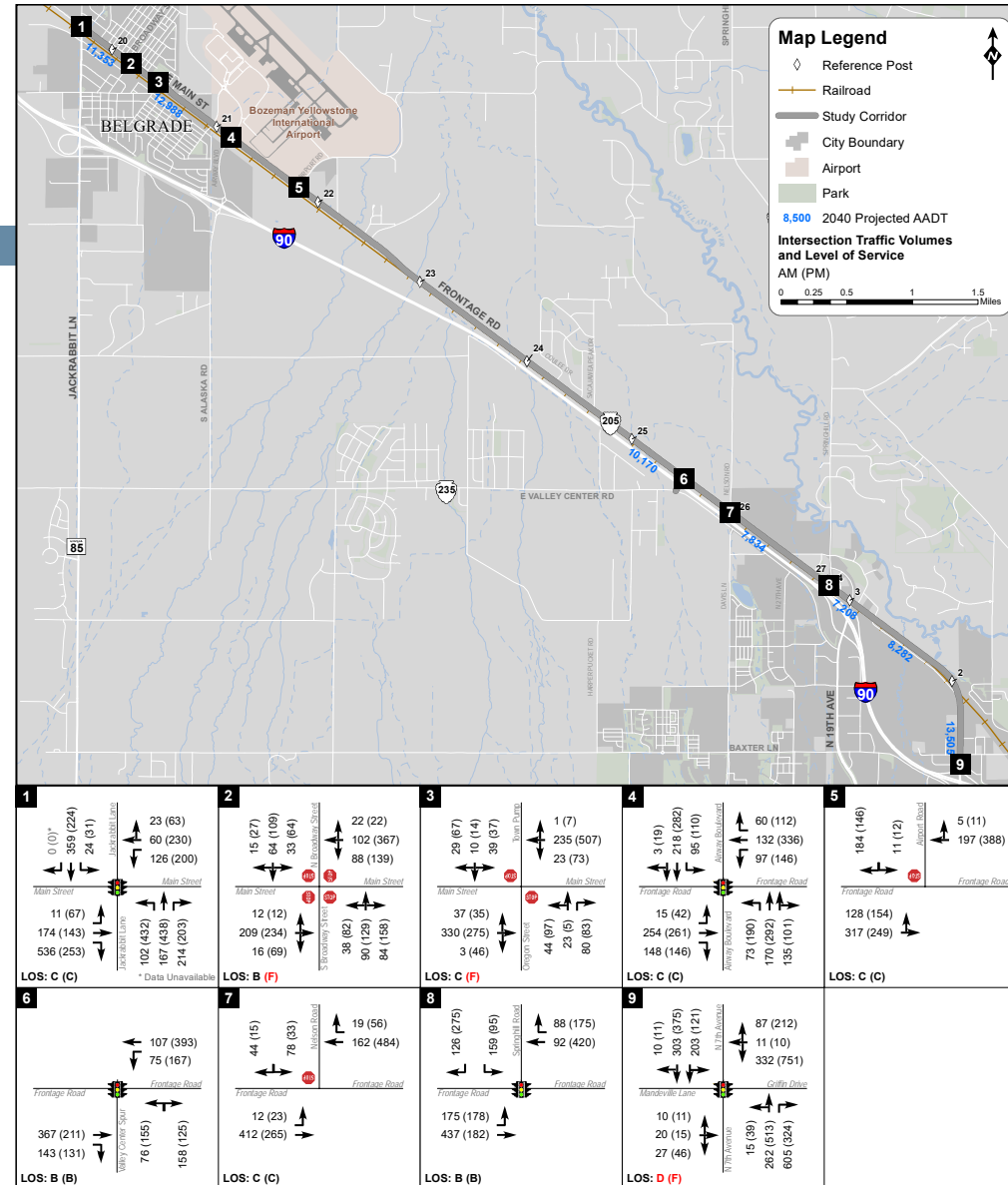
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|------------------------|----------|
| 1 – Jackrabbit Lane    | LOS C(C) |
| 2 – Broadway Street    | LOS A(C) |
| 3 – Oregon Street      | LOS C(D) |
| 4 – Airway Boulevard   | LOS C(C) |
| 5 – Airport Road       | LOS C(C) |
| 6 – Valley Center Spur | LOS C(C) |
| 7 – Nelson Road        | LOS B(B) |
| 8 – Springhill Road    | LOS B(B) |
| 9 – Griffin Drive      | LOS C(D) |



# Intersection LOS

## Projected (2040) Conditions

1 – Jackrabbit Lane	LOS C(C)
2 – Broadway Street	LOS B(F)
3 – Oregon Street	LOS C(F)
4 – Airway Boulevard	LOS C(C)
5 – Airport Road	LOS C(C)
6 – Valley Center Spur	LOS B(B)
7 – Nelson Road	LOS C(C)
8 – Springhill Road	LOS B(B)
9 – Griffin Drive	LOS D(F)



# Pavement Condition

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## Pavement Condition

- ▣ Overall Pavement Index
  - Jackrabbit Lane to Airway Boulevard – OPI 53.7
  - Airway Boulevard to Springhill Road – OPI 59.9
  - Springhill Road to I-90 – OPI 52.1
  
- ▣ OPI indicates **POOR** pavement conditions throughout

### OPI

80 to 100 - good

60 to 79.9 - fair

0 to 59.9 - poor

# Non-Motorized Facilities

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## Existing

- Limited sidewalks in Belgrade
- Trails at Cherry River FAS

## Future Recommendations

- Bozeman Area LRTP (2007 Update) – widened road shoulder
- Belgrade Transportation Plan (2002) – shared use path (on south side)
- Bozeman PROST Plan – shared use path (side not identified)
- Draft Bozeman TMP Recommendations – shared use path (on north side)

**NOTE:** Union Pacific Railroad - BNSF Railway *Railroad Design Guidelines (May 2016)* DO NOT allow any trails parallel to the track on railroad right-of-way, and do not permit the use of railroad access roads for trail use.



# Safety

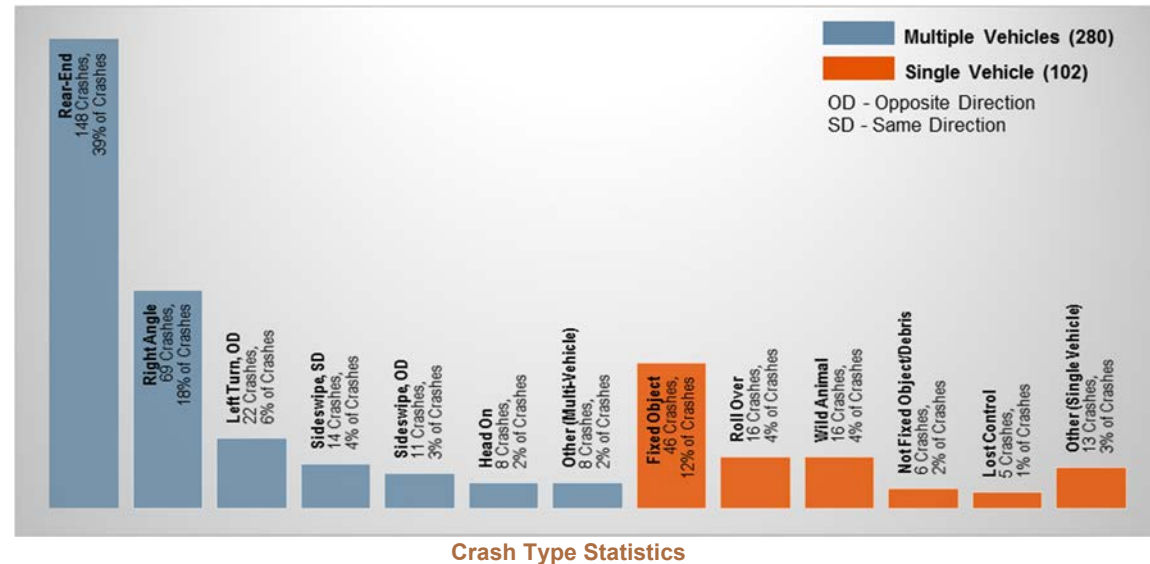
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## 6 years of data\*

- ▣ Three fatal
- ▣ Eight incapacitating injury
- ▣ 32 non-incapacitating injury

## 382 total reported crashes

- ▣ 73% multi-vehicle
- ▣ 27% single-vehicle
- ▣ No environmental trends noted



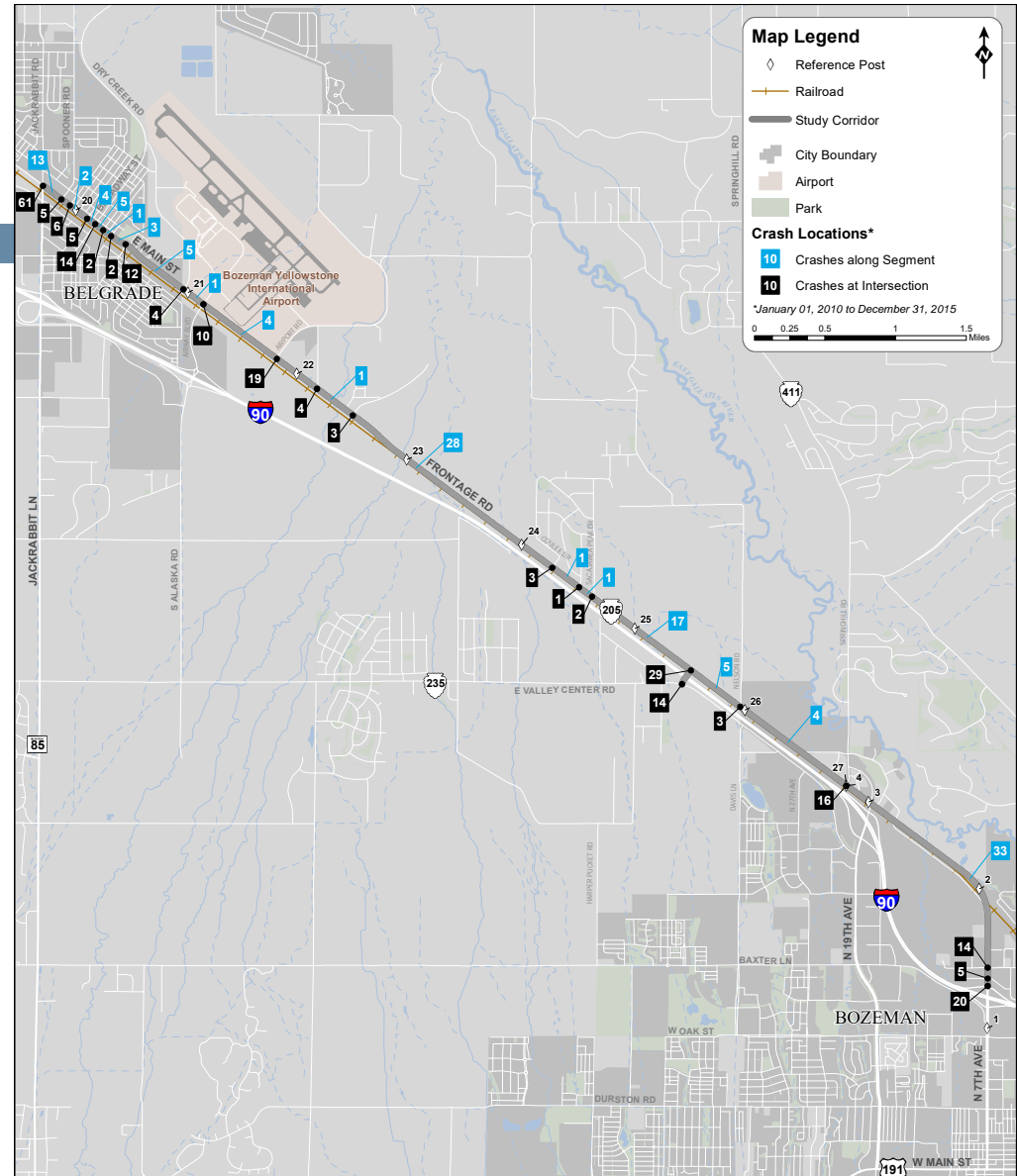
\*Jan 01, 2010 to Dec 31, 2015

# Safety

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## Noted clusters:

- ❑ Jackrabbit Lane to Oregon Street
- ❑ Valley Center Spur Road
- ❑ Springhill Road
- ❑ Griffin Drive





# Environmental Conditions

# Farmland and Soils

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## Farmland

- ▣ Some farmland of local importance
- ▣ Some farmland of statewide importance
- ▣ Some prime farmland if irrigated
  - Developed land is not subject to the FPPA

## Soils

- ▣ Gallatin Valley has an organic lean clay layer
- ▣ Zero to eight feet thick
- ▣ Can be moisture sensitive
  - Consider permanent erosion and sediment control (PESC)



# Surface Water and Floodplains/Floodways

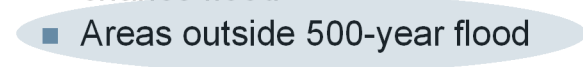
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## Stream Crossings

- Mammoth Ditch
- Spain Ferris Fork Ditch
- Dry Creek
- Hyalite Creek
- Aajker / McDonald Creek
- Baxter Creek
- Unnamed

## Floodplains/Floodways Floodplain

- Zone A: Special Flood Hazard Area (SFHA)
  - 100-Year Flood, Base Flood Elevations NOT Determined
- Zone AE: SFHA
  - 100-Year Flood, Base Flood Elevations Determined, Floodway Areas
- Zone X:
  - Areas of 0.2% annual chance flood
  - Areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile
  - Areas protected by levees from 1% annual chance flood
  - Areas outside 500-year flood



Floodplains in Study Area: None

# Groundwater and Hazardous Substances

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## Groundwater

- Public water supply wells
  - Beaumont Supper Club
  - Everybodys Gym Southwest
  - The Friendly Tavern
  - Kid Kart Sunrise Medical
  - City of Belgrade
  - Blue Basket Market
  - Pump-N-Pak
- Numerous private wells

## Hazardous Substances

- Five active UST sites
  - Two gas stations
- Two active LUST sites
  - Potential for contamination
- Two pipelines
  - One crude oil / one natural gas
  - Update location mapping if a project is forwarded
- One remediation response site (inactive)
  - 1995 fuel spill
  - “no further action” ranking

# T and E Species and Wildlife Distribution

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## Threatened and Endangered Species

- ▣ Wolverine (Proposed Threatened)
- ▣ Whitebark Pine (Candidate)
- ▣ Grizzly Bear (Threatened)
- ▣ Canada Lynx (Threatened, and Critical Habitat)
- ▣ Ute Ladies' Tresses (Threatened)

## Wildlife Distribution

- ▣ Whitetail Deer (General)
- ▣ Mule Deer (Winter)
- ▣ Black Bear (Transient)
- ▣ Moose (Transient)
- ▣ Others

# Species of Concern

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## Animal Species of Concern

- ▣ Little Brown Myotis
- ▣ Bobolink
- ▣ Bald Eagle
- ▣ Great Blue Heron
- ▣ Pacific Wren
- ▣ Veery
- ▣ Hooked Snowfly
- ▣ Western Pearlshell Mussel

## Plant Species of Concern

- ▣ Small Dropseed
- ▣ Slender Wedgegrass
- ▣ Rocky Mountain Twinpod

These species have potential to occur and breed in study area based on presence of suitable habitat



# Recreational and Cultural & Historical Resources

## Recreational Resources

- ▣ Lewis and Clark Park
  - Located at approximately RP 20.4
- ▣ Cherry River Fishing Access Site
  - Located at approximately RP 2.25

Site	Site No.	Sec.	Tsp	Rge
Northern Pacific Railway	24GA1096	Parallels Belgrade to Bozeman Frontage Road on the south		
<i>Farmers' Canal Co.</i>	24GA0998	21, 22, 27	1S	5E
<i>Spain-Ferris Ditch Co.</i>	24GA0743	17, 7, 8	1S	5E
<i>Mammoth Ditch Co.</i>	24GA0741	17	1S	5E
<i>Spain-Ferris Ditch Co.</i>	24GA0743	1, 12	1S	4E
<i>Mammoth Ditch Co.</i>	24GA0741	12	1S	4E
<i>Farmers' Canal Co.</i>	24GA0998	1	2S	5E

## Cultural & Historical Resources

- ▣ Known historic resources
- ▣ Belgrade: 39 historic-age properties face onto the Frontage Road
  - 20 are residences
  - 19 are commercial businesses
  - A historic district potentially exists along Main Street in Belgrade.

# Submit Comments

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- **Leave a comment sheet with us tonight**

- **Study website:**

[www.mdt.mt.gov/belgradetobozean](http://www.mdt.mt.gov/belgradetobozean)

- **Mail/e-mail comments to:**

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