BAKER CORRIDOR
PLANNING STUDY

APPENDIX A: Consultation, Coordination, and Community Involvement

Baker Corridor Planning Study

September 2015

Memorandum

Project:	Baker Corridor Planning Study
Subject:	**Informational Meeting #1 Summary**
Date:	Tuesday, March 10, 2015
To:	Corrina Collins, MDT Project Manager
From:	Jon Schick, HDR Project Manager

Introduction:

The Baker Corridor Planning Study Informational Meeting #1 was held in Baker, MT at the Fallon County Fairgrounds Exhibit Hall on March 5th, 2015 from 6 PM to 8 PM. The following team members and MDT representatives were present at the meeting:

Team Member	Affiliation
Corrina Collins	MDT – Planning Division
Vicki Crnich	MDT – Planning Division
Shane Mintz	MDT – Glendive District Administrator
Jim Frank	MDT – Glendive District
Tom Roberts	MDT – Glendive District
Bill Randash	Fallon County Commissioner
Steve Baldwin	Fallon County Commissioner
Chuck Lee	Fallon County DES/911 Coordinator
Faron Henderson	Fallon County/City of Baker Contract Planner
Jon Schick	HDR Engineering
Mick Johnson	HDR Engineering

Seven (7) community members attended the informational meeting and provided information on the meeting sign-in sheet. Copies of the meeting sign-in sheets are attached to this memorandum.

Media Coordination and Newsletter:

A press release advertising the March 5th Informational Meeting was developed and submitted to various media outlets on February 20th, 2015. Media outlets included the Baker Chamber of Commerce, Miles City Chamber of Commerce, Fallon County Times, Miles City Star, and several area television and radio stations. The Informational Meeting #1 was advertised in the Fallon County Times on February 20th and again on February 27th prior to the meeting. Copies of the press release and distribution email are attached to this memorandum.

A study newsletter was developed and hard copies were distributed to Fallon County (75 copies) as well as mailed to project stakeholders. The newsletter was posted on the study website several weeks prior to the meeting and is currently available on the website.

Presentation:

A presentation and discussion was facilitated by Jon Schick. The presentation began at approximately 6:15 PM. A PowerPoint presentation was provided to the meeting attendees followed by a question/answer and discussion period. A copy of the presentation is attached to this memorandum. The presentation agenda included the following topics:

Presentation

- Title VI Considerations
- Introduction of the Project Team
- Introduction of the Corridor Planning Process
- Discussion of the public involvement process
- Study area boundary
- Study schedule
- Identified stakeholders
- Existing conditions within the study area
    - Socio-economics
    - Transportation
    - Environmental
- Overview of Quantm alignment planning software
- Next steps and conclusion

Discussion Period

Discussion:

An open discussion was held following the PowerPoint presentation. Topics of concern are listed below.

Truck Traffic Volumes

- Truck traffic volumes have seemingly increased in the study area in recent years, particularly following the recent reconstruction of Highway 323 south of Baker.
- Large loads are permitted on MT 7 and travel north from Ekalaka.
- The 3 traffic growth rate scenarios were briefly discussed. It was concluded that the project team is comfortable with the high growth scenario representing a 'worst case' scenario which would accommodate system wide traffic volume increases throughout the study area.

Traffic

- The traffic analysis is based on current 2013 traffic volumes.

Oil and Gas Development

- Clarification was made that all of the documented oil/gas wells, as shown on the map in the presentation, would be accounted for in the Quantm model through developing a buffer distance around each well. The wells and associated footprints vary in size. A representative buffer distance has been applied to each well. For larger footprints, aerial imagery will be used to delineate the well footprint.

- The Bakken News is a publication that can provide insight and background for regional oil and gas trends and developments.

Environmental Considerations

- The presence of Greater Sage-grouse within the Study Area was discussed. It was noted that spatial data on their breeding/nesting areas, if available, will be considered in the Quantm model. Also, it was noted that the topic would be discussed and considered by the resource agencies at the upcoming resource agency meeting.

Project Development Process

- Clarification was made that, in addition to examining alternate alignments, the study will examine short- and long-term improvement options that address the identified needs of the transportation system.
- The study is currently at the stage of documenting existing conditions and determining overall needs. There is currently no new alignment option under consideration. Consideration of any new alignment options will undergo a detailed screening process to ensure all potential locations within the study area are examined.

Stakeholder Involvement

- A suggestion was made to reach out to the safety representatives of the oil companies for future coordination. They are in a position to disseminate relevant information to the applicable entities within their respective companies.
- An organization of landowners has been established in the region in order to more effectively negotiate with oil companies seeking easements on private property. It was suggested to include this group, although a name of the organization was not provided.

Area Development

- A new subdivision is currently in the approval process and is located at the southwest boundary of the Baker city limits.
- The City has annexed an area to include this new subdivision and the study area maps need to be updated to show the new city limit boundary.

Written Comments:

One (1) written comment was received at the meeting. It contained four suggested stakeholders (Continental Resources, Nalco Chemical, Farmers Elevator, and Prairie Fuels) and a comment regarding language used on future advertising.

Meeting attendees were encouraged to take home the comment forms and submit to the project team at a later date. The comment form contains the request to submit comments by March 19th, 2015.

Informational Meeting

Discuss the Baker Corridor Planning Study
Thursday, March 5, 2015 6:00 P.M.
Fallon Co. Fairgrounds Exhibit Hall
3440 Montana 7, Baker, MT

The Montana Department of Transportation (MDT) will introduce the Baker Corridor Planning Study and request public feedback. The study will identify potential improvement options for the study area, which includes the city of Baker. The purpose of the meeting is to inform the public about the scope and purpose of the corridor study, present information about existing and projected conditions, and request feedback about opportunities and constraints affecting potential transportation improvement options within the study area.

The Baker Corridor Planning Study is a pre-environmental study that allows for early planning-level coordination with the public, stakeholders, environmental resource agencies, and other interested parties. The study will assist in facilitating a smooth and efficient transition from transportation planning to future project development and environmental review, if any, based on need and funding availability. This is a planning-level study and will not include design or construction.

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 department service, program or activity. For reasonable accommodations to participate in this meeting, please contact Jon Schick at (406) 532-2231 at least two days before the meeting. For the hearing impaired, the TTY number is (406) 444-7696 or (800) 335-7592, or Montana Relay at 711. Alternative accessible formats of this information will be provided upon request.

Comments may be submitted in writing at the meeting, by mail to Jon Schick, HDR Engineering, 1715 South Reserve St, Suite C, Missoula, MT 59801; by email to jon.schick@hdrinc.com; or online at www.mdt.mt.gov/mdt/comment_form.shtml Please indicate comments are for the Baker Corridor Planning Study.

From: Grant, Paul <pgrant@mt.gov>
Sent: Friday, February 20, 2015 7:31 AM
To: ASHTO; Baker Chamber of Commerce; Fallon County Times; KFLN-AM/KJJM-FM; KFLN-AM/KJJM-FM; KXGN; TYSON FISHER; CITY CHAMBER OF COMMERCE MILES (milescitychamber@milescitychamber.com); KATL-AM; KIKC-AM-FM; kkry hot country 92.5; Miles City Star
Cc: Collins, Corrina; Schick, Jon; Strizich, Carol; Zanto, Lynn (MDT); Mintz, Shane; Frank, James; Heidner, Steven; Grant, Paul; Marosok, Lauren; O'Brien, Anna; Ryan, Lori; Fallon County Commissioners; Road Supervisors
Subject: MDT schedules an informational meeting to discuss the Baker Corridor Planning Study

February 20, 2015

FOR IMMEDIATE RELEASE

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

MDT schedules an informational meeting to discuss the Baker Corridor Planning Study

Baker - The Montana Department of Transportation (MDT), in coordination with Fallon County and the City of Baker, and in partnership with the Federal Highway Administration (FHWA), is conducting an informational meeting to introduce the Baker Corridor Planning Study and request public feedback. The study will identify potential improvement options for the study area, which includes the city of Baker. The purpose of the meeting is to inform the public about the scope and purpose of the corridor study, present information about existing and projected conditions, and request feedback about opportunities and constraints affecting potential transportation improvement options within the study area. The meeting will be held on Thursday, March 5, 2015, at the Fallon County Fairgrounds Exhibit Hall, 3440 Montana 7, in Baker, MT. A presentation will begin at 6:00 p.m.

The Baker Corridor Planning Study is a pre-environmental study that allows for early planning-level coordination with the public, stakeholders, environmental resource agencies, and other interested parties. The study will assist in facilitating a smooth and efficient transition from transportation planning to future project development and environmental review, if any, based on need and funding availability. This is a planning-level study and will not include design or construction.

Community participation is a very important part of the process, and the public is encouraged to attend. Verbal and written comments may be presented at the meeting. Written comments may also be submitted by mail to Jon Schick, HDR Engineering, 1715 South Reserve St, Suite C, Missoula, MT 59801; by email to jon.schick@hdrinc.com; or online at

http://www.mdt.mt.gov/mdt/comment_form.shtml

Please indicate comments are for the Baker Corridor Planning Study.

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 Jon Schick at (406) 532-2231 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.

Informational Meeting

Thursday, March 5th, 2015
Fallon County Fairgrounds Exhibit Hall, Baker, MT

NAME:	TITLE:	ADDRESS:	CITY, STATE, ZIP CODE:	EMAIL:
Corrina Collins	MDT Planning	2701 Prospect	Helena MT	ccollins@mdt.gov
Shane Mintz	MDT Glendive	Glendive	Glendive, MT	smintz@mt.gov
Randy Hanson	Farmer	Box 94	Willard, MT.	Willard@midrivers.com
Bill Randall	Commissioner	Box 1002	BAKER, MT	~~Fallon~~ fallonccc@midrivers.com
Tom Roberts	MDT Miles City	Miles City	Miles City, MT 59303	troberts@mt.gov
Faron Henderson	Contract Planner	~~Baker~~ 8 Badger Drive	Townsend, MT	farnh@outlook.com
Steve Baldwin	Fallon County	POBox 640	Baker MT	baldwins@fallowcounty.net
Chuck Lee	DES/911 Coordinator	Po Box 106	— —	chucklee mt@hotmail.com
VICKI CRNICH	MDT PLANNING	2760 PROSPECT	HELENA, MT	VCRNICH@mt.gov
Brenda Dietz		PO Box 239	Baker	cbdietz@midrivers.com
Nicole Schuler	Executive Director Chamber	PO Box 849	Baker	bakerchamber@midrivers.com
Marmi Lord		PO Box 105	Willard MT	tmr@midrivers.com
Mick Johnson	HDR	2973 Millenium Circle	Billings, MT	mick.johnson@hdrinc.com

Informational Meeting

Thursday, March 5th, 2015
Fallon County Fairgrounds Exhibit Hall, Baker, MT

NAME:	TITLE:	ADDRESS:	CITY, STATE, ZIP CODE:	EMAIL:
Pam Nelson		PO Box 1304	Baker, MT 59313	pnelson@midrivers.com
Travis Mashak	Farmers Union Oil	PO Box 1060	Baker MT 59313	conexgm@midrivers.com
Mary Grube	Planner Secretary	PO Box 1134	Baker-59313	mgrube@fallonconty.net
Jon Schick	HDR	Missoula MT		jon.schick@hdrinc.com

Informational Meeting

Thursday, March 5th, 2015
Fallon County Fairgrounds Exhibit Hall, Baker, MT

MDT Invites Your Comments:

CONTINENTAL RESOURCES
NALCO CHEMICAL
FARMERS ELEVATOR PRAIRIE FUELS TRUCK
LANGUAGE FROM CORRIDOR STUDY to BYPASS STUDY or ?
DETAIL ON ADVERTISING traffic problems ?
Feasability

To receive further study information, please provide your contact information:

Name: Steve Baldwin
Address: PO Box 913
Baker MT 59313
Email: baldwins@FallonCounty.NET

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

Jon Schick
HDR Engineering, Inc.
1715 South Reserve Street, Ste. C
Missoula, MT 59801

Please indicate comments are for the Baker Corridor Planning Study. **Please submit your comments by March 19th, 2015.**

HDR

MONTANA MDT DEPARTMENT OF TRANSPORTATION

Informational Meeting

Thursday, March 5th, 2015
Fallon County Fairgrounds Exhibit Hall, Baker, MT

MDT Invites Your Comments:

This is the third "oil Boom" Baker has experienced, after the production phase has been completed, 5 to 10 years, Baker will revert to a sleepy, small town life style.
A truck by-pass road west side of Hwy #7 would divert trucks off Highway #7 and allow #12 truck traffic a straight shot to turn North or South at the Westside bypass.
This would also allow a new Railroad Crossing which is needed while trains block the City Crossing.
Small towns had away with their bypasses the City areas. The natives have invested their time and money, its necessary to have an increase in traffic to build our town. I have lived in Baker for 92 years, its not build shit.

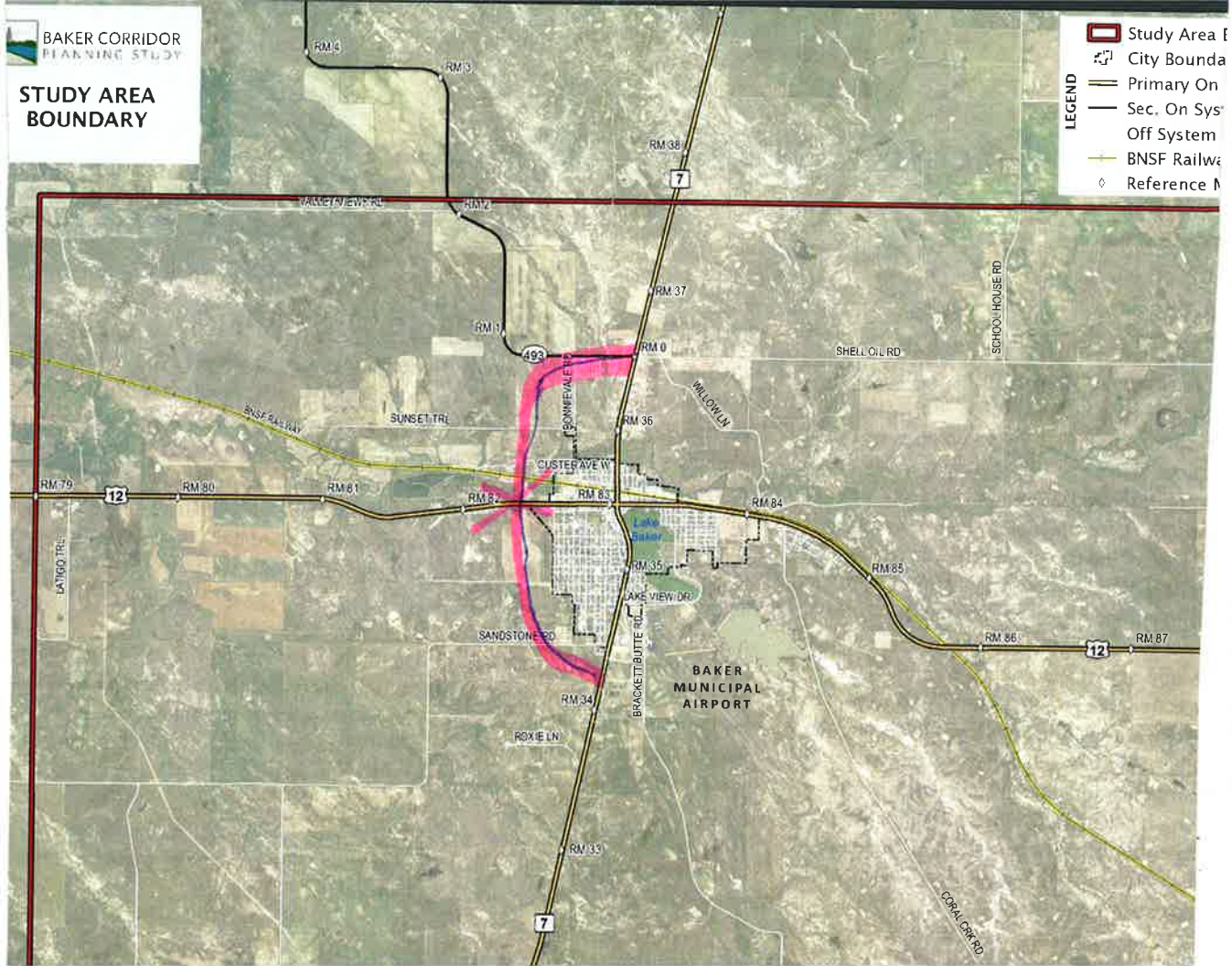
To receive further study information, please provide your contact information:

Name: DRURY G. PHEBUS
Address: P.O. Box 901
Baker, MT 59313
Email: dfebus@midrivers.com.

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

Jon Schick
HDR Engineering, Inc.
1715 South Reserve Street, Ste. C
Missoula, MT 59801

Please indicate comments are for the Baker Corridor Planning Study. **Please submit your comments by March 19th, 2015.**


BAKER CORRIDOR PLANNING STUDY
STUDY AREA BOUNDARY
LEGEND
Study Area B
City Bounda
Primary On
Sec. On Sys
Off System
BNSF Railwa
Reference M
RM 4
RM 3
RM 38
7
LAKE VIEW DR
RM 2
RM 37
RM 1
493
RM 0
SHELL OIL RD
SCHOOL HOUSE RD
BONNEVALE RD
WILLOW LN
SUNSET TRL
BNSF RAILWAY
RM 36
CUSTER AVE W
RM 79
12
RM 80
RM 81
RM 82
RM 83
RM 84
Lake Baker
RM 35
RM 85
LAKE VIEW DR
LATIGO TRL
SANDSTONE RD
RM 86
12
RM 87
BAKER MUNICIPAL AIRPORT
BRACKETT BUTTE RD
RM 34
ROXIE LN
RM 33
7
CORAL CRK RD

BAKER CORRIDOR PLANNING STUDY

INFORMATIONAL MEETING NO. 1

Fallon County Fairgrounds
Exhibit Hall
March 5, 2015
6:00 PM – 8:00 PM

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 race, color, or national origin under any MDT program or activity.

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



WELCOME AND INTRODUCTIONS

Project Team Introduction

- Local Officials
- Partners
  - MDT
  - FHWA
  - Fallon County
  - City of Baker
- Consultant Team

MEETING AGENDA

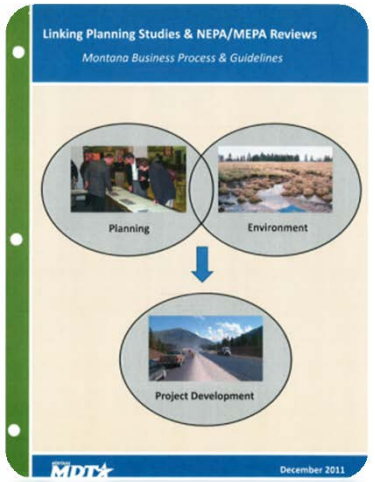
Presentation

- Introduction of the Corridor Planning Process
- Discuss public involvement process
- Study area boundary
- Study schedule
- Identified stakeholders
- Existing conditions within the study area
  - Socio-economics
  - Transportation
  - Environmental
- Overview of Quantm alignment planning software
- Next steps and conclusion

Discussion Period

WHAT IS A CORRIDOR PLANNING STUDY?

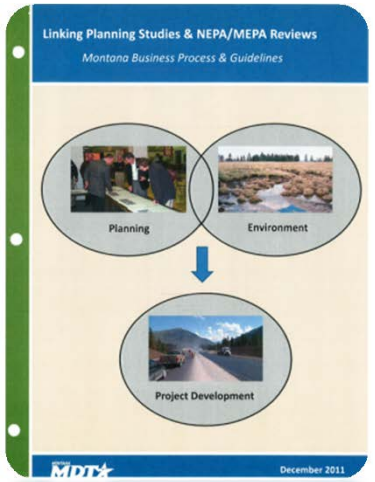
- Corridor Planning Studies:
  - Develop a high level analysis of study area conditions
  - Define transportation issues and areas of concern
  - Provide for early identification of potential social, economic, and environmental impacts
  - Identify a range of transportation improvement strategies
  - Facilitate continued public, resource agency, and stakeholder participation



MDT Corridor Study Guidance Document

WHAT A CORRIDOR STUDY IS NOT

- Corridor Planning Studies are **not**:
  - A preliminary or final design project
  - A construction project or right-of-way acquisition
  - An environmental compliance document

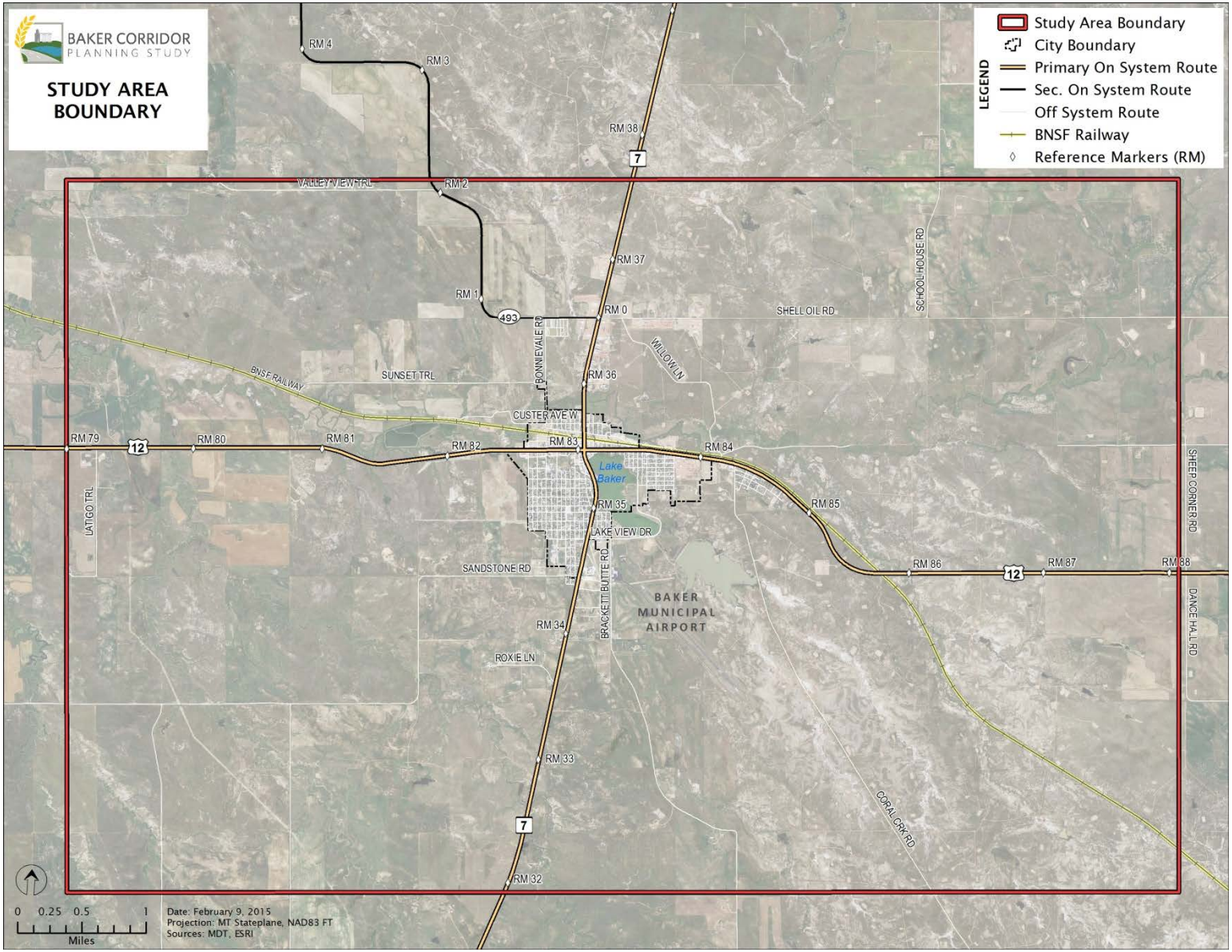


MDT Corridor Study Guidance Document

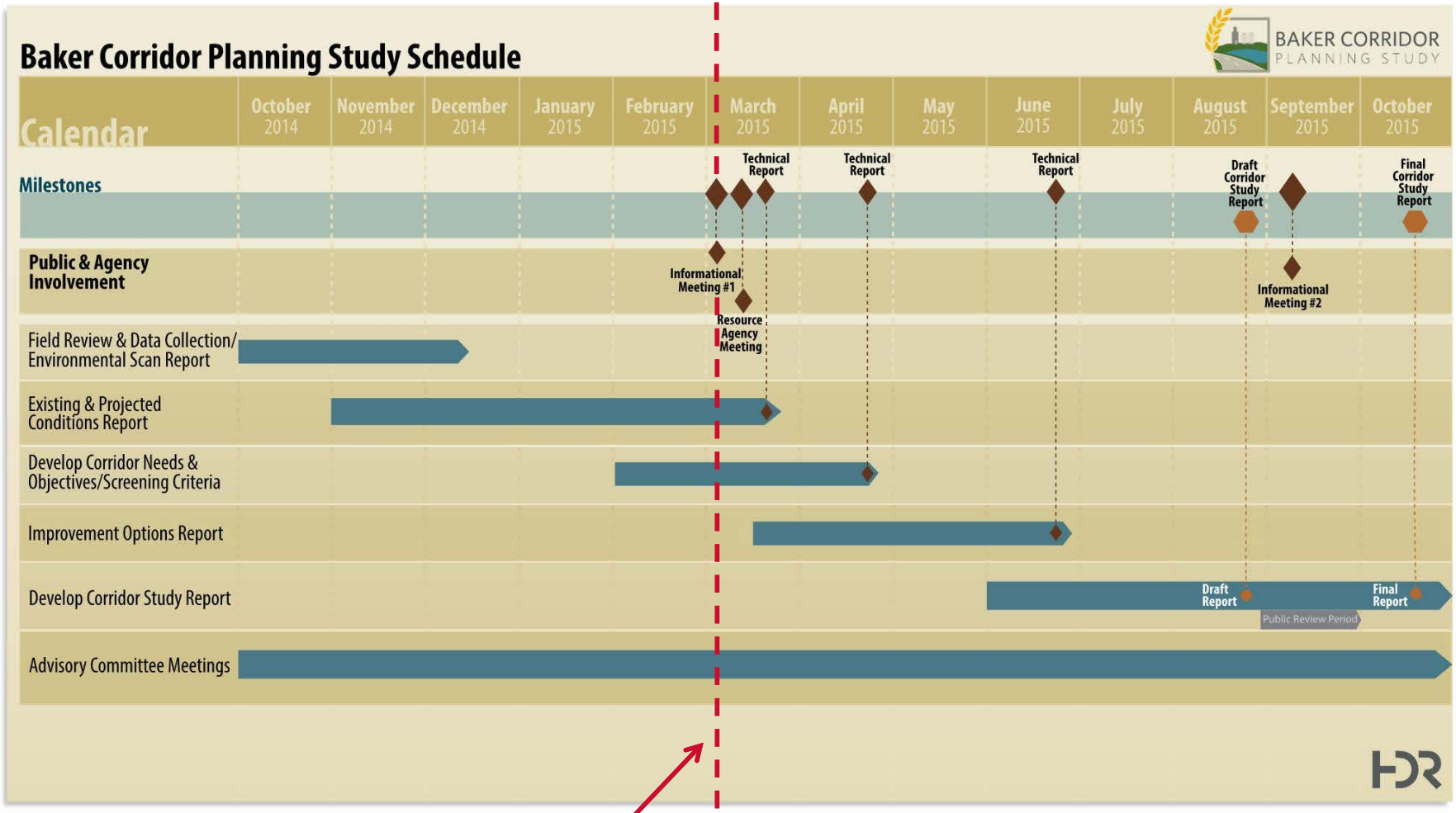
GOALS AND PURPOSE OF STUDY

- The *Baker Corridor Planning Study* will:
  - Identify study area needs and objectives
  - Identify and consider possible impacts and constraints
  - Develop potential improvement option(s)
  - Present recommended improvement option(s) and potential funding sources

STUDY AREA BOUNDARY



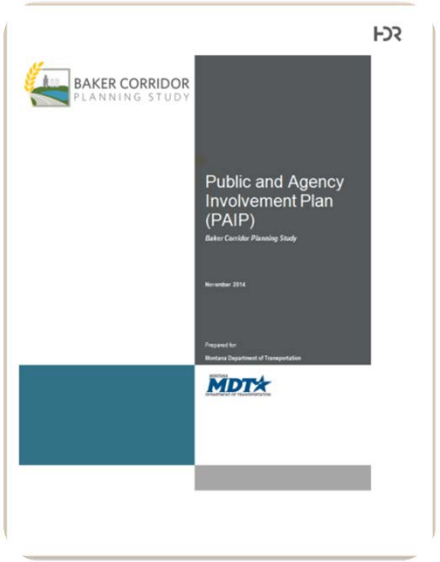
STUDY SCHEDULE



Current Planning Study Progress

PUBLIC INVOLVEMENT PROCESS

- The *Baker Corridor Planning Study* includes the following public involvement activities:
  - Two informational meetings in Baker
  - Coordination with stakeholders, resource agencies, and other interested parties, as needed
  - Study website
  - Study newsletters
  - Stakeholder meetings (as required)



Find the Public and Agency Involvement Plan on the study website.

PROJECT STAKEHOLDERS

- City of Baker Chamber of Commerce and Agriculture
- Baker Municipal Airport
- Southeast Montana Area Revitalization Team (SMART) – Fallon County Economic Development
- BNSF Railway
- Equity Coop Elevator
- Denbury Resources
- Trucking Operations (Freight and Oil/Gas Services)
  - Continental Resources
  - Mitchell's Oilfield Services
  - D&M Water Services
  - Power Fuels
  - Woody's Trucking LLC
  - Griffith Excavation Inc.
- Brosz Engineering
- Others as requested

STUDY AREA EXISTING CONDITIONS

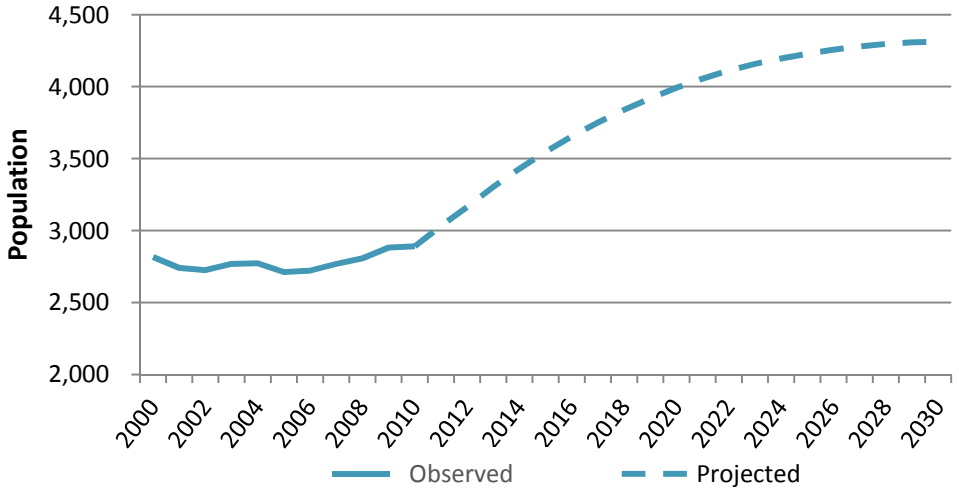
Population & Demographics

- Population estimates (2013):
  - Fallon County: 3,085
  - City of Baker: 1,812
  - 60% of Fallon County resides in City of Baker
  - City of Baker population grew by 3% over past decade
- County demographics:
  - 97.8% of County residents predominantly self-identified as White
  - 2.1% of County residents are American Indian
  - <1% other races

STUDY AREA EXISTING CONDITIONS

Demographics & Population

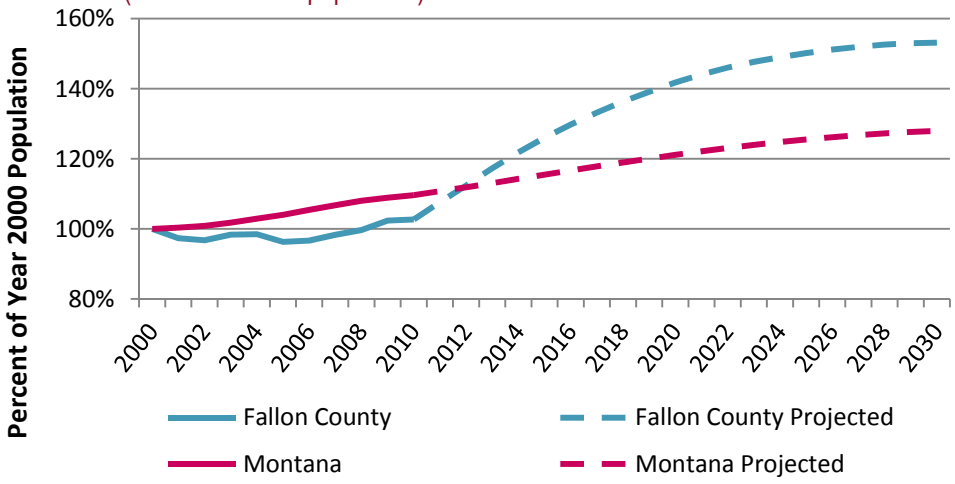
Fallon County Observed and Projected Population



- MT Dept. of Commerce estimated population growth:
  - Fallon County population to grow by approx. 1,500 by 2030

- Fallon County is projected to have much higher population growth rate than the state as a whole

Montana and Fallon County Total Observed and Projected Population (Percent of 2000 population)

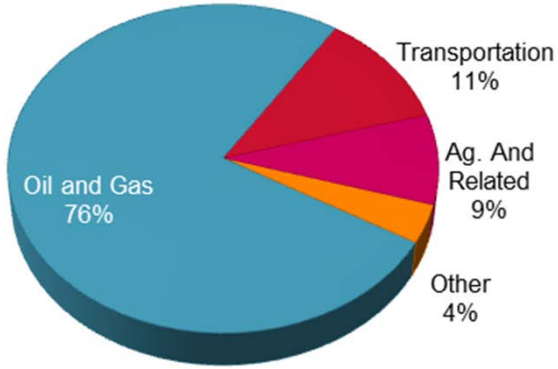


STUDY AREA EXISTING CONDITIONS

Employment & Economy

- Fallon County Employment by Industry (2009-2013)
  1. Agriculture, forestry, fishing, hunting, and mining: 27.5%
  2. Educational services, and health care and social assistance: 18.7%
  3. Construction: 10%
  4. Entertainment, accommodations, and food services: 8.0%

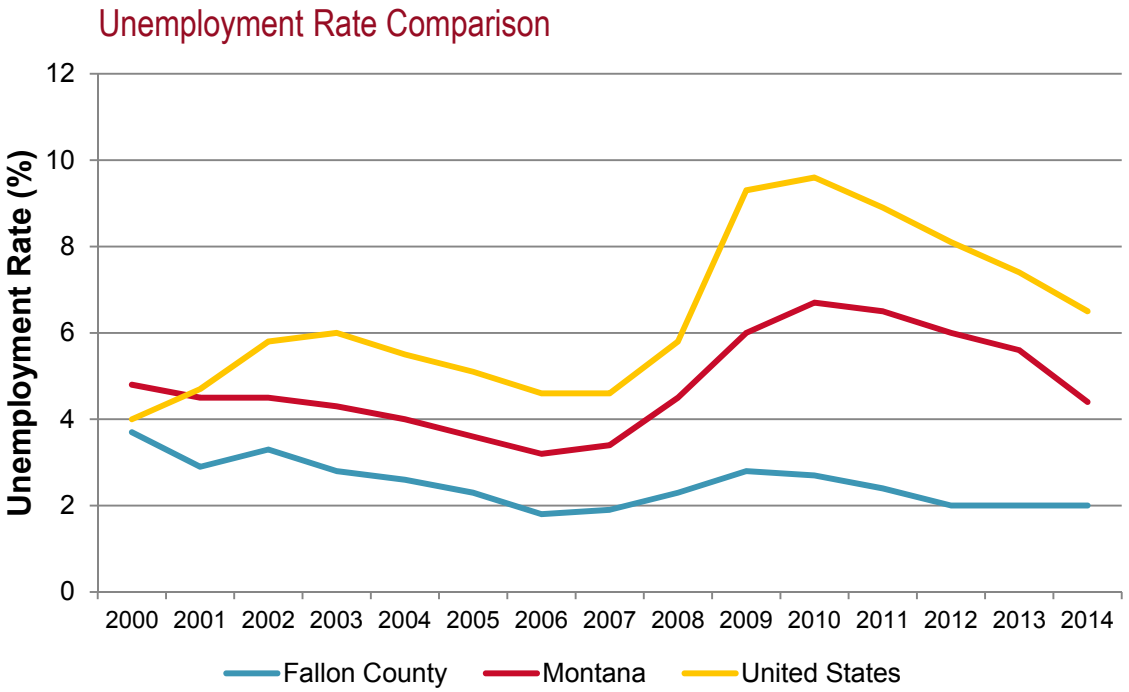
- Economic Base of Fallon County, Montana (2012)
  1. Oil and Gas: 76%
  2. Transportation: 11%
  3. Agriculture and Related: 9%
  4. Other 4%



Source: UM Bureau of Business and Economic Research

STUDY AREA EXISTING CONDITIONS

Economy & Employment



- Unemployment rates in Fallon County have remained low
- November 2014 unemployment rates:
  - Fallon County = 1.4%
  - State of Montana = 4.2%
  - United States = 5.5%

STUDY AREA EXISTING CONDITIONS

Highways

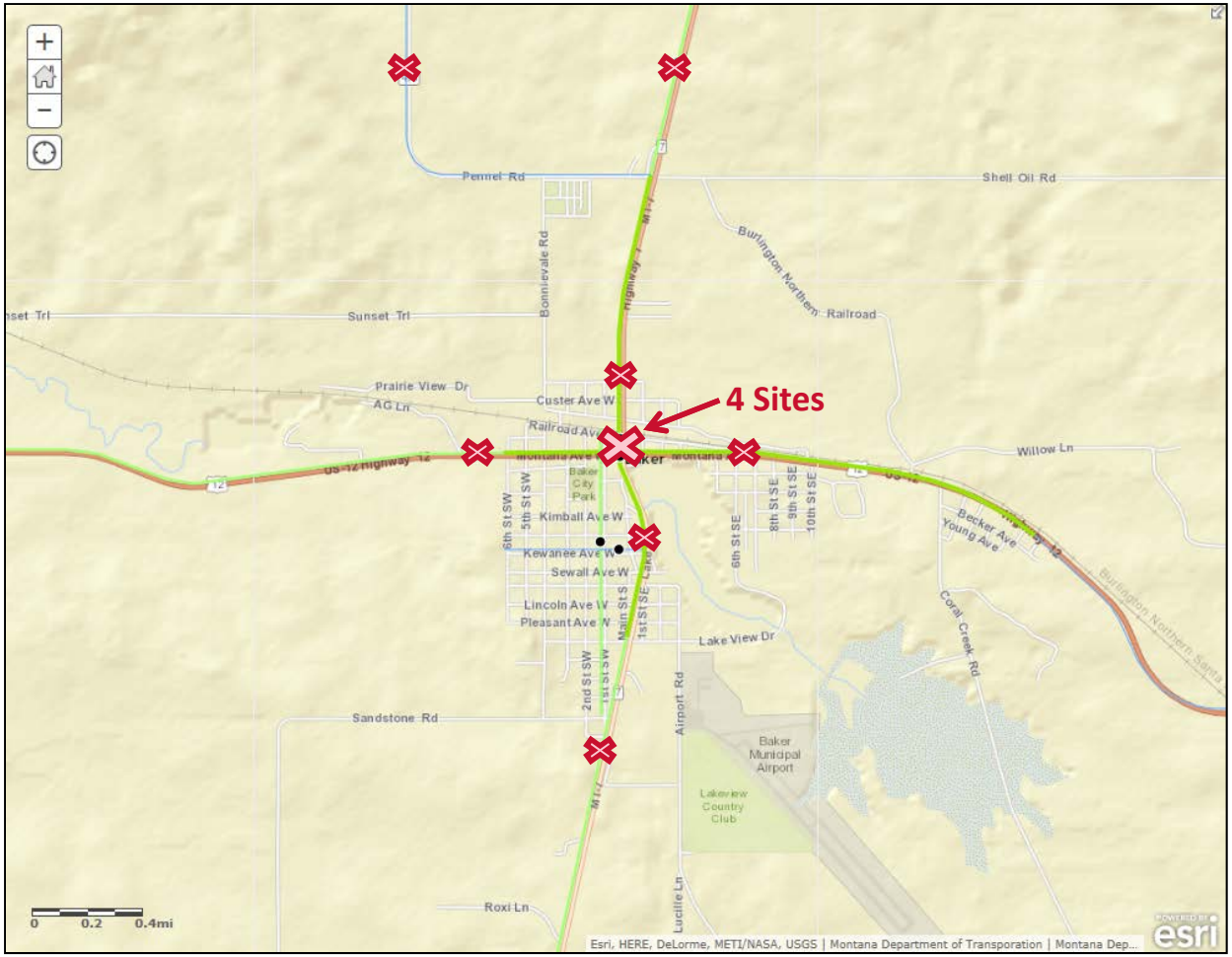
- US Highway 12
  - Functionally classified as Rural Minor Arterial
  - Runs east-west
  - Major linkage to I-94 to west and North Dakota to east
  - Speed limits range from 25 mph (city) to 70 mph (rural)
  - Two-lane highway
  - 155 access points within Study Area

- MT Highway 7
  - Functionally classified as Rural Minor Arterial
  - Runs north-south
  - Major linkage to I-94 to north at Wibaux
  - Speed limits range from 25 mph (city) to 70 mph (rural)
  - Two-lane highway
  - 94 access points within Study Area

STUDY AREA EXISTING CONDITIONS

Traffic Data

- 11 traffic count sites in Study Area
- Downtown intersection includes 4 sites: one on each leg of intersection



STUDY AREA EXISTING CONDITIONS

Traffic Data

Historic Annual Average Daily Traffic

Site ID	Route	Reference Marker	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
13-1-4*	US 12	76.13	750	750	980	990	930	1210	1220	790	990	1230
13-1-15	US 12	82.09	1210	1210	1150	1250	1180	1490	1500	1100	1470	1560
13-1-16	US 12	82.60	4000	4000	4330	4460	3600	3730	4530	4590	3750	3790
13-1-17	US 12	82.65	3610	3690	4310	4440	3470	3590	3690	3740	3520	3320
13-1-18	US 12	83.07	3170	3170	2780	2820	2650	2600	2610	2700	2280	2350
13-1-5*	US 12	88.12	880	880	810	1120	1050	880	870	880	990	810
13-2-2*	MT 7	29.34	660	660	810	870	820	390	390	710	750	1030
13-1-19	MT 7	34.32	1050	1460	1030	1130	1060	1120	1120	980	1350	1310
13-1-20	MT 7	35.14	2020	2680	2320	2390	2000	2070	2080	2320	2370	2460
13-1-21	MT 7	35.45	3930	4600	3910	4020	3070	3180	3190	3200	3720	3730
13-1-22	MT 7	35.52	4080	4080	3660	3770	3540	3660	3730	3780	3490	3580
13-1-23	MT 7	35.76	2500	2500	2760	2860	2690	2910	2920	2610	2690	2990
13-1-7	MT 7	36.95	1140	1140	1380	1320	1240	1120	1120	930	1090	1320
13-1-12	S-493	1.26	220	330	290	400	380	370	310	310	260	270

Source: MDT 2014

* Site located outside the Study Area Boundary.

Highway traffic volumes highest within the City Limits

- US Highway 12 traffic within the Study Area ranges from 1,560 vehicles per day (vpd) to 3,790 vpd (2013 counts)
- MT Highway 7 traffic has a similar range within the Study Area: 1,310 – 3,730 vpd
- Traffic volumes are highest within the City of Baker

STUDY AREA EXISTING CONDITIONS

Traffic Data – Heavy Vehicles

Average Daily Traffic

Corridor	Reference Marker	ADT	AADT	HV
US 12	80	1467	1280	14%
US 12	87	1296	1130	20%
MT 7	31	834	730	21%
MT 7	37	1439	1260	29%

Source: MDT 2014

- The Study Area has a high percentage of heavy vehicle (HVs)
- Larger volumes of HVs make turns from southbound MT 7 to eastbound US 12 and westbound US 12 to northbound MT 7 throughout the day in addition to the peak period.

STUDY AREA EXISTING CONDITIONS

Traffic Projections

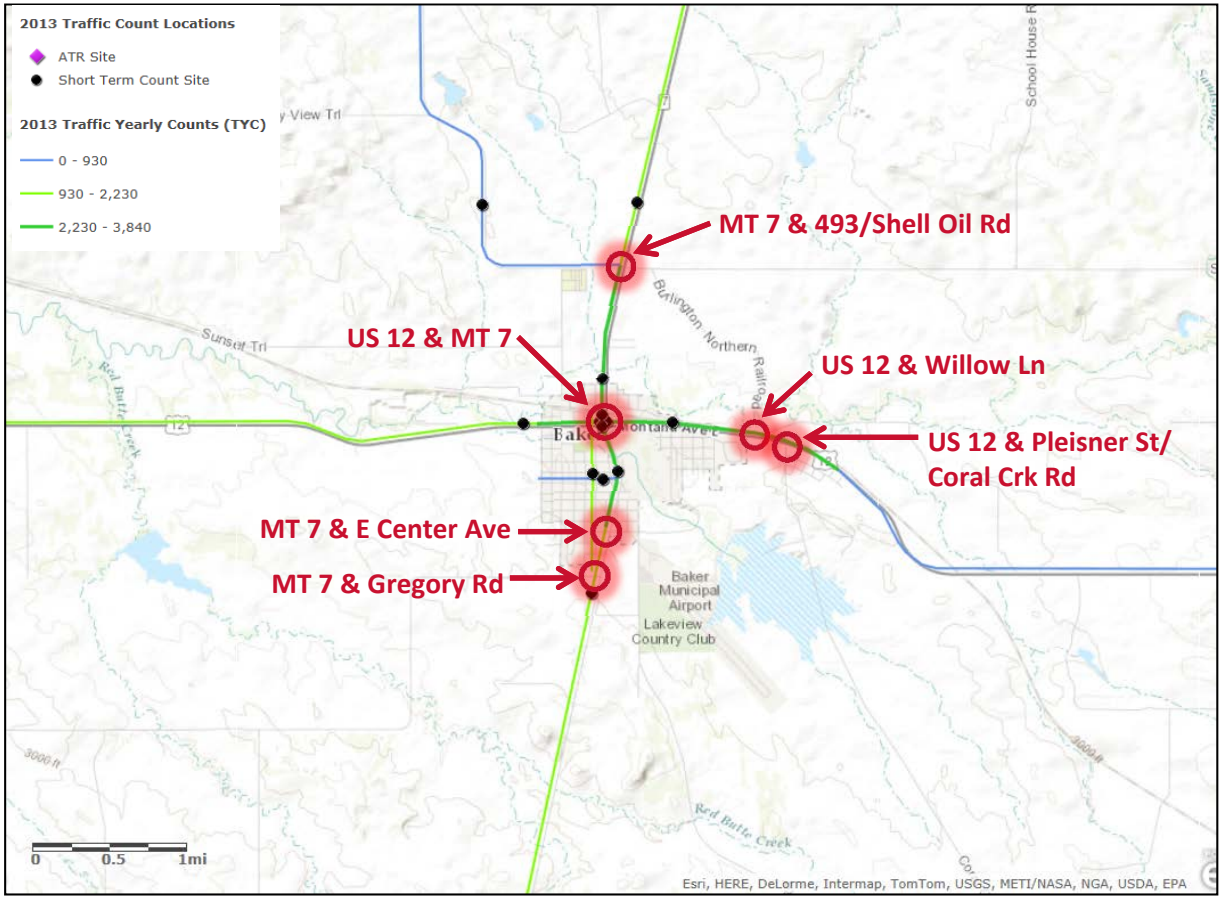
Projected ADT Traffic Volumes (2034)

Site ID	Route	Reference Marker	2013	Low Growth (2%)	Medium Growth (5%)	High Growth (5% vehicles/10% HV
13-1-4*	US 12	76.13	1230	1900	3400	4000
13-1-15	US 12	82.09	1560	2400	4300	4900
13-1-16	US 12	82.60	3790	5700	10600	11100
13-1-17	US 12	82.65	3320	5000	9200	10000
13-1-18	US 12	83.07	2350	3600	6500	7300
13-1-5*	US 12	88.12	810	1200	2300	3000
13-2-2*	MT 7	29.34	1030	1600	2900	3400
13-1-19	MT 7	34.32	1310	2000	3600	4200
13-1-20	MT 7	35.14	2460	3700	6900	7400
13-1-21	MT 7	35.45	3730	5700	10400	11000
13-1-22	MT 7	35.52	3580	5400	10000	10800
13-1-23	MT 7	35.76	2990	4500	8300	9100
13-1-7	MT 7	36.95	1320	2000	3700	4500
13-1-12	S-493	1.26	270	400	800	1100

- Three growth scenarios were developed to demonstrate resulting growth in traffic
  - Low Growth: 2% growth rate for all vehicles (passenger vehicles and heavy trucks)
  - Medium Growth: 5% growth rate for all vehicles
  - High Growth: 5% growth rate for regular vehicles, 10% growth rate for heavy vehicles

STUDY AREA EXISTING CONDITIONS

Traffic Data – Intersection Analysis



Turning movement counts gathered at six (6) main intersections.

- US 12 & Pleisner St
- US 12 & Willow Ln
- MT 7 & Shell Oil Rd
- MT 7 & US 12
- MT 7 & E Center Ave
- MT 7 & Gregory Rd

STUDY AREA EXISTING CONDITIONS

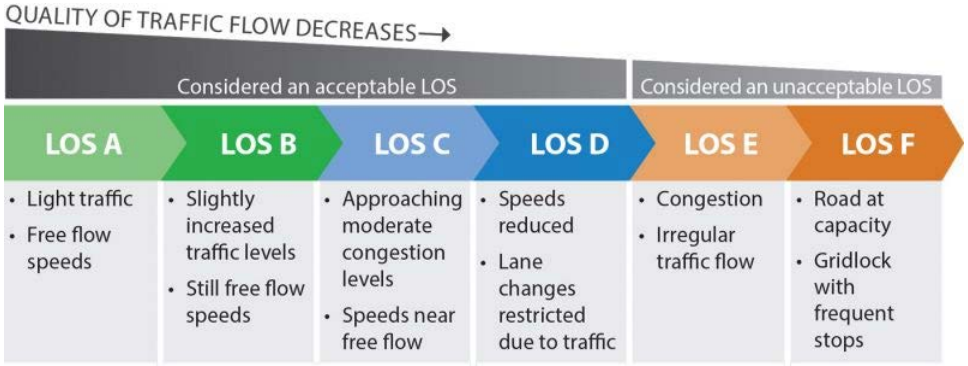
Traffic Data – Intersection Level of Service (LOS)

Existing Conditions and Projected Level of Service during Peak Hour

Intersection	Peak Hour	2014 Current LOS (Delay[1])	2034 Projected LOS[2] (Delay)
US 12 & MT 7	5:45 – 6:45 PM	B (14.4)	F (71.3)
US 12 & Willow Lane	5:15 – 6:15 PM	A (9.6)	B (10.1)
US 12 & Pleisner Street	2:45 – 3:45 PM	A (9.7)	B (10.4)
MT 7 & Shell Oil Road/S-493	7:30 – 8:30 AM	C (15.2)	D (28.2)
MT 7 & Center Ave	5:00 – 6:00 PM	A (9.7)	B (10.3)
MT 7 & Gregory Ave	6:00 – 7:00 PM	A (8.8)	A (9.1)

Note: The worst-performing leg LOS is shown for each intersection.
[1] Delay is shown in seconds.
[2] Projections use a 2% growth rate

Level of Service (LOS) is a term used to qualitatively describe roadway and intersection traffic operations using "letter grades" ranging from A (best) to F (worst).



STUDY AREA EXISTING CONDITIONS

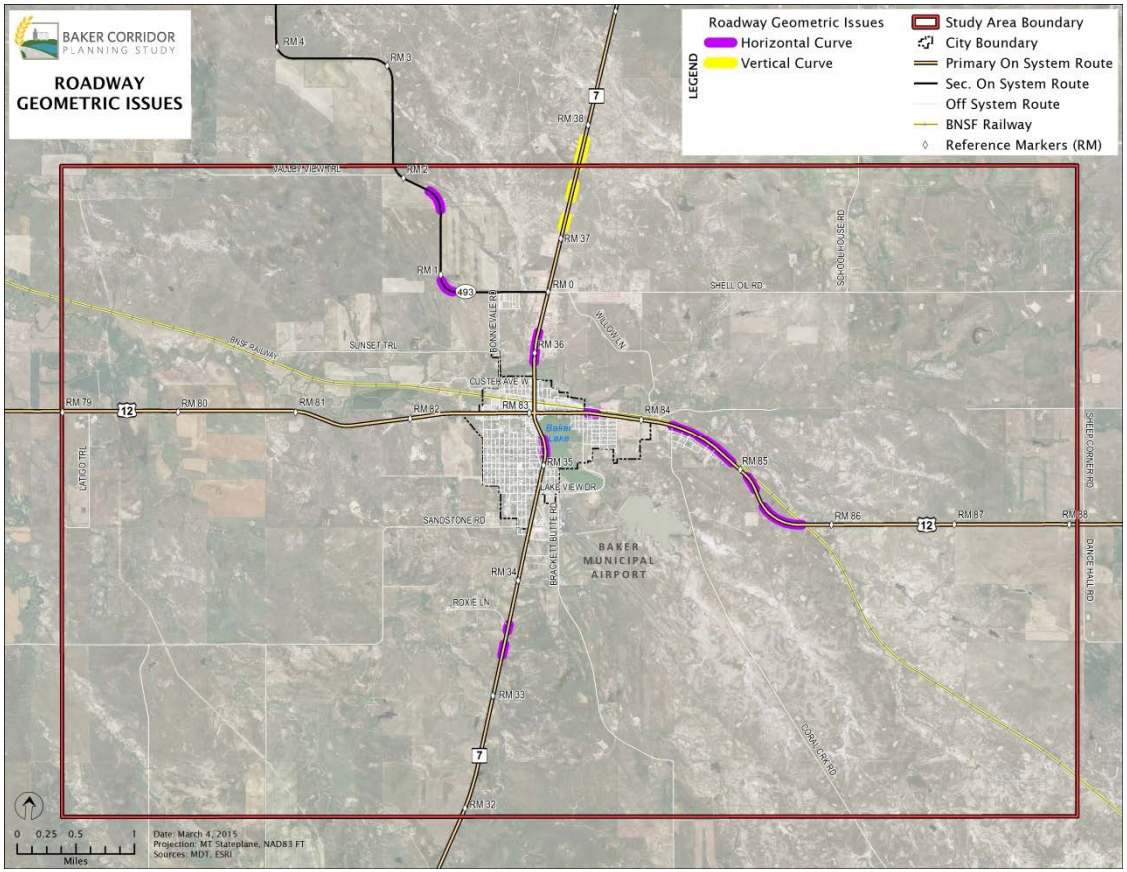
Roadway Geometrics

Horizontal Curves

- 10 curves do not meet current MDT design standards
  - Radius
  - Stopping Sight Distance

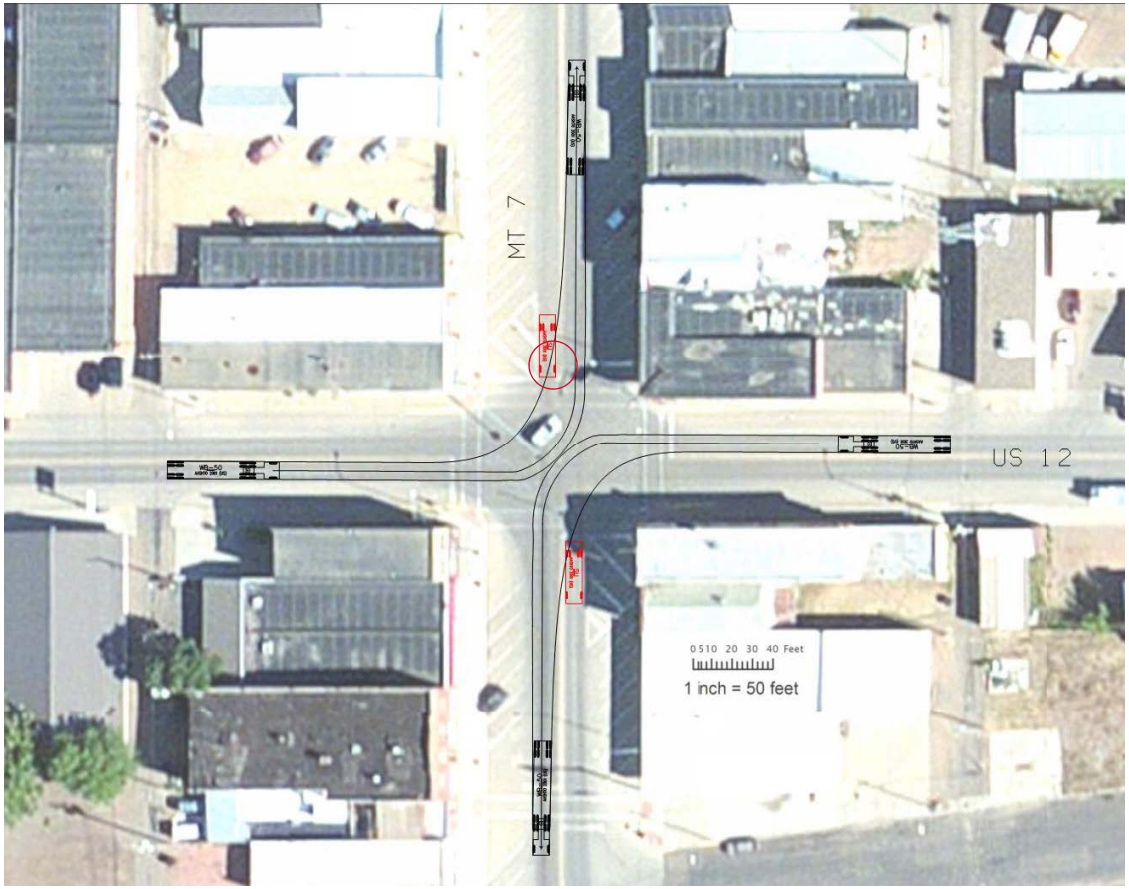
Vertical Curves

- 3 curves do not meet current MDT standards
  - Curvature
  - Grade
  - Stopping Sight Distance



STUDY AREA EXISTING CONDITIONS

Intersection Turning Movements



- The intersection of US 12 and MT 7 cannot accommodate proper turning movements of medium sized and standard sized semi-trailers
- A WB-50 design vehicle (truck with 50’ wheelbase) cannot make turning movements from US 12 onto MT 7 without conflict
- Note that a larger WB-67 vehicle is the standard-sized semi-truck

STUDY AREA EXISTING CONDITIONS

Pavement Conditions

SEGMENT REFERENCE MARKER (RM)	RIDE INDEX (IRI)	RUT INDEX (RI)	ALLIGATOR CRACK INDEX (ACI)	MISC. CRACKING INDEX (MCI)	OVERALL PERFORMANCE INDEX (OPI)
US HIGHWAY 12 (P-2)					
77.2 – 82.6[1]	65.09	53.91	95.47	95.17	**54.07**
82.6 – 83.749	48.00	74.67	100.00	100.00	**57.41**
83.749 – 95.514	80.33	75.46	99.25	97.68	74.09
MT HIGHWAY 7 (P-27)					
29.0 – 35.4	72.07	75.71	98.35	97.99	69.57
35.4 – 44.5	67.95	70.79	98.19	95.58	64.64

Source: MDT Pavement Management System, 2014

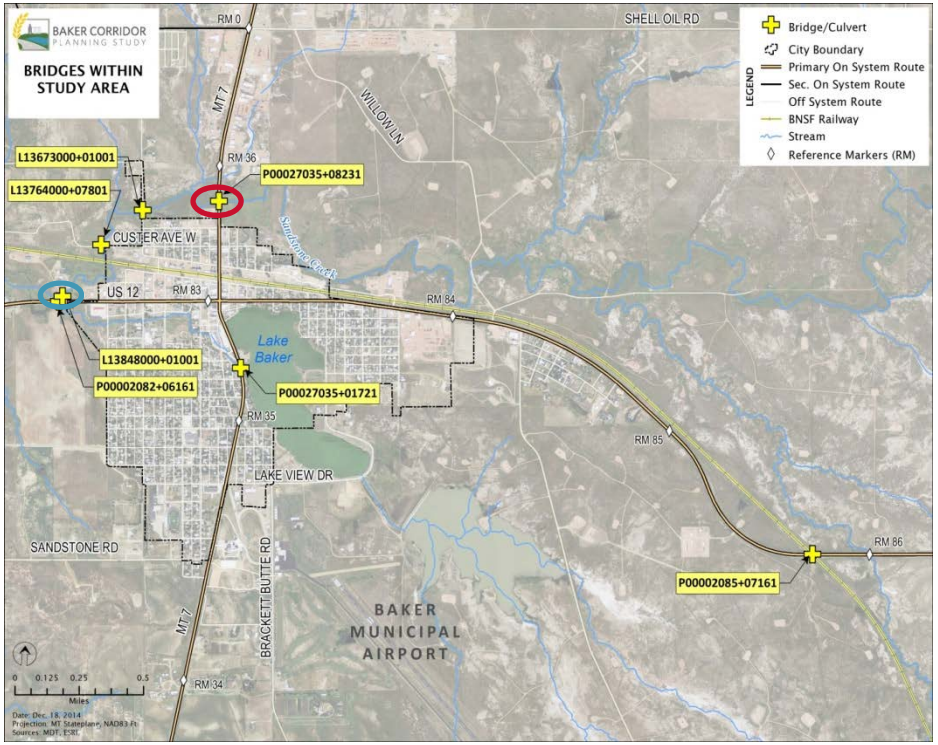
[1] Portions of this segment were resurfaced in 2014 and likely are not reflected in PvMS at the time the report was run.

- Performance Index Scale:
  - 80-100 = “Good”
  - 60 – 79.9 = “Fair”
  - 0 – 59.9 = “Poor”
- US 12 from RM 77.2 to RM 83.7 is rated as “Poor” based on the OPI
- MT 7 from RM 35.4 to RM 44.5 is approaching “Poor”

STUDY AREA EXISTING CONDITIONS

Bridges

- Built in 1941, the bridge located just north of Baker on MT 7 at RM 35.86 spanning Sandstone Creek (P00027035+08231) has been categorized as **Functionally Obsolete.**
- Built in 2003, the bridge just north of US 12 on Ag Lane (L13848000+01001) has been categorized as Structurally Deficient. This bridge was recently replaced.



Bridge ID	Last Inspection Year	Sufficiency Rating	Structure Status (NBI Rating)
P00002082+06161	2014	83	Not Deficient
P00002085+07161	2014	77.1	Not Deficient
P00027035+01721	2014	93.3	Not Deficient
P00027035+08231	2014	69.6	Functionally Obsolete
L13673000+01001	2013	73.2	Not Deficient
L13764000+07801	2013	99.2	Not Deficient
L13848000+01001	2013	47.9	Structurally Deficient

Source: MDT Bridge Management System, 2014

STUDY AREA EXISTING CONDITIONS

Other Transportation Modes – BNSF Railway

Railroad Crossings within the Study Area

Location	AADT	Warning Device / Crossing Type	Trains Per Day	# of Tracks	Train Switching	Speed Over Crossing
Baker, E 1.6 mi on US 12 (overpass)	990	RR Underpass, grade separated	5	0	0	40
Baker, E 0.2 mi (Willow Lane)	110	Cross bucks, at-grade	5	2	0	40
Berwald Rd	102	Cross bucks, at-grade	5	2	0	40
Main Street (MT 7)	4509	Gates, at-grade	5	3	0	40
N 3rd Street W	402	Gates, at-grade	5	3	0	40

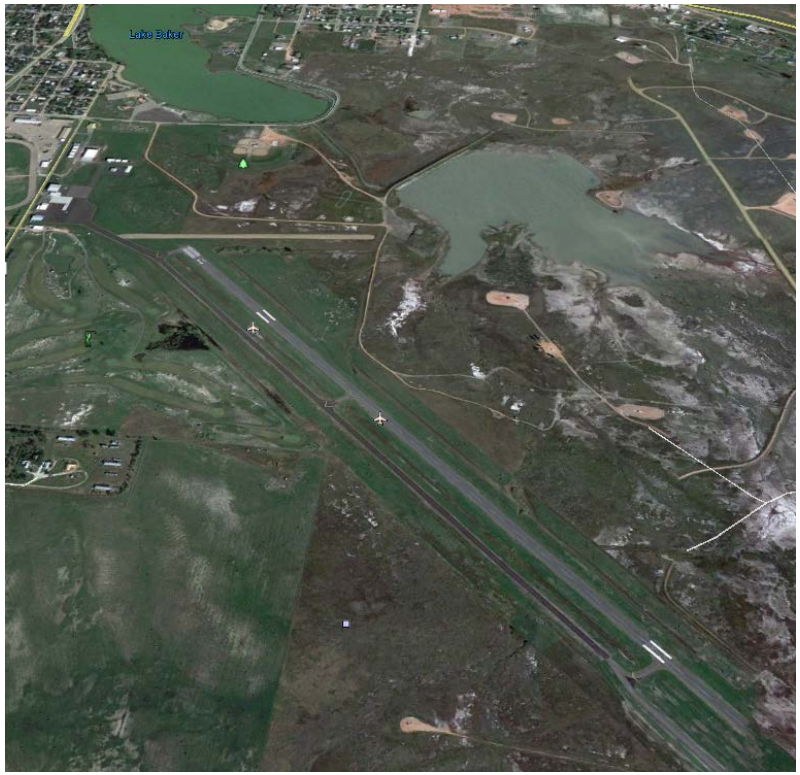
Source: MDT, 2014

- Four BNSF Railway-operated at-grade crossings are located within the Study Area
- There is an approximate 2-mile stretch of double track (main, siding) in Baker
- The crossing located on Willow Lane has steep roadway grades, which can be problematic for low clearance trucks.

STUDY AREA EXISTING CONDITIONS

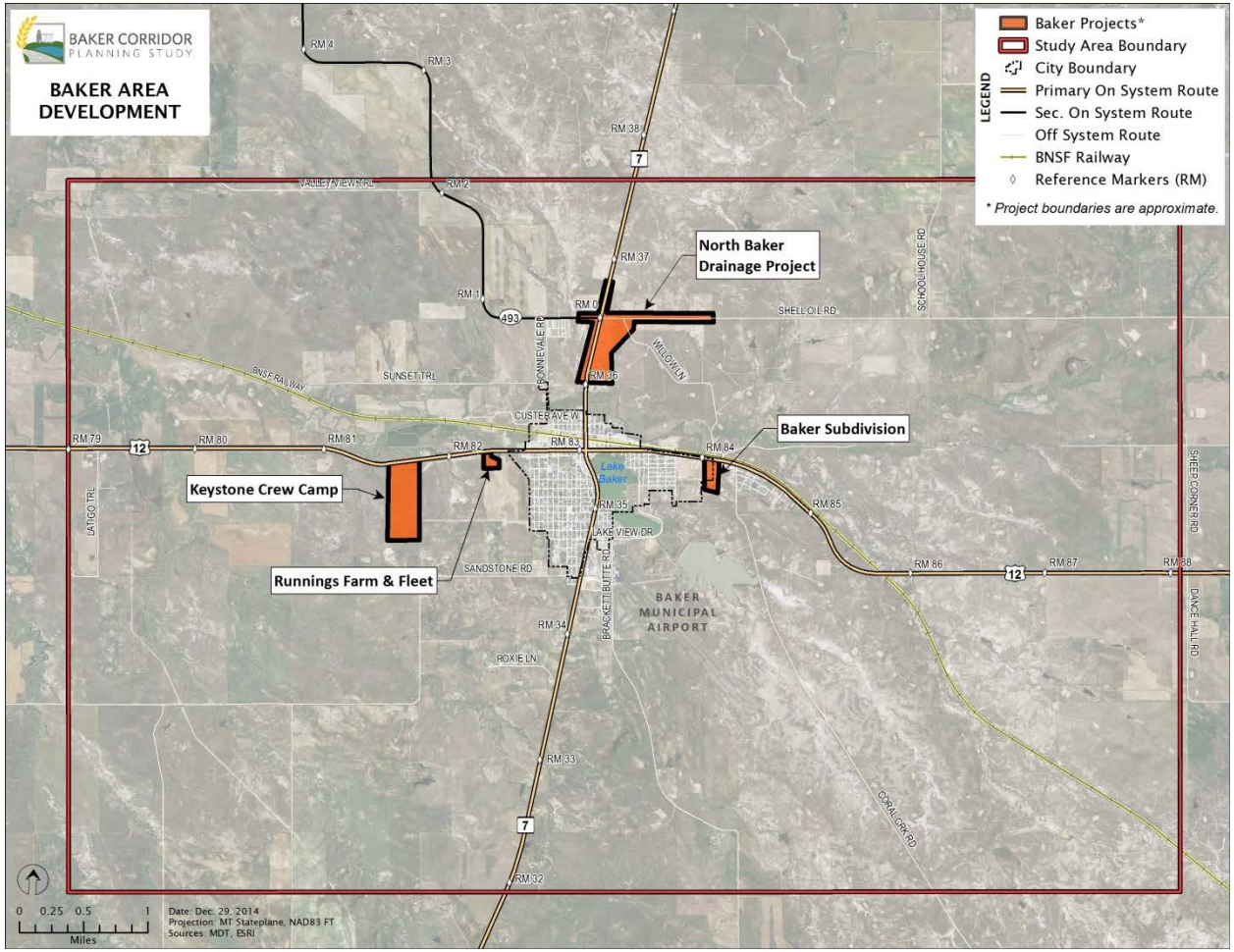
Other Transportation Modes – Baker Municipal Airport

- Baker Municipal Airport (BHK) is owned by the City of Baker and Fallon County
- Airport covers an area of 193 acres and includes one 4,898-foot-long runway
- The airport has approximately 19 aircraft operations per day on average



STUDY AREA EXISTING CONDITIONS

Relevant Projects

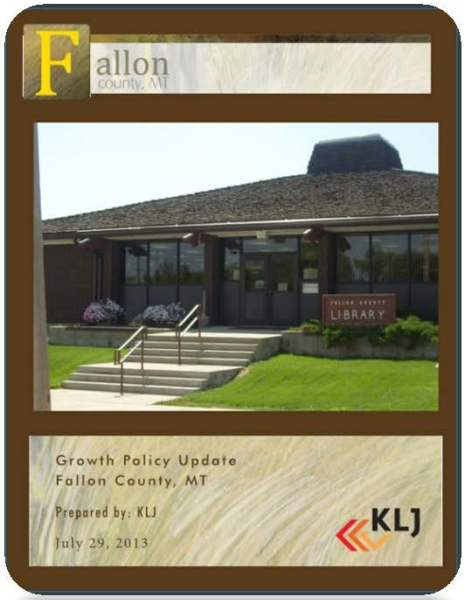


- North Baker Drainage Project
- Baker Subdivision
- Keystone XL Pipeline development
  - Crew Camp
  - Additional water & sewer infrastructure
  - "Market link" pipeline connection at Baker Tank Farm

STUDY AREA EXISTING CONDITIONS

Fallon County Growth Policy

- Updated in 2012
- Includes goals, objectives, and policies to facilitate decision-making related to future growth in the area
- Includes specific goals and objectives related to transportation:
  - Reduce truck traffic levels in the City of Baker
  - Maintain safe streets and roads
  - Minimize disruption of traffic circulation caused by barriers such as the railroad
  - Plan for street and road extensions and preserve adequate right-of-way for such extensions
  - Protect Baker Municipal Airport's air space



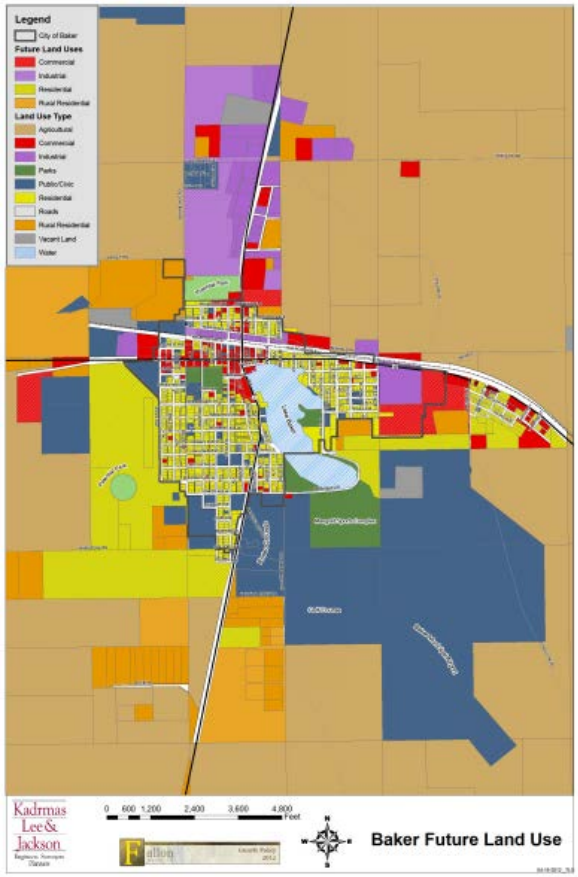
2012 Fallon County Growth Policy

STUDY AREA EXISTING CONDITIONS

Land Use and Zoning

- Future Land Use Plan
  - Guides growth within the County and Baker
  - Encourages growth in areas with existing or easily expandable infrastructure
  - City of Baker growth directed towards north and west of city

- Zoning ordinance
  - Applicable within city limits
  - Establishes zoning districts
  - Development standards



Baker Future Land Use Plan

STUDY AREA EXISTING CONDITIONS

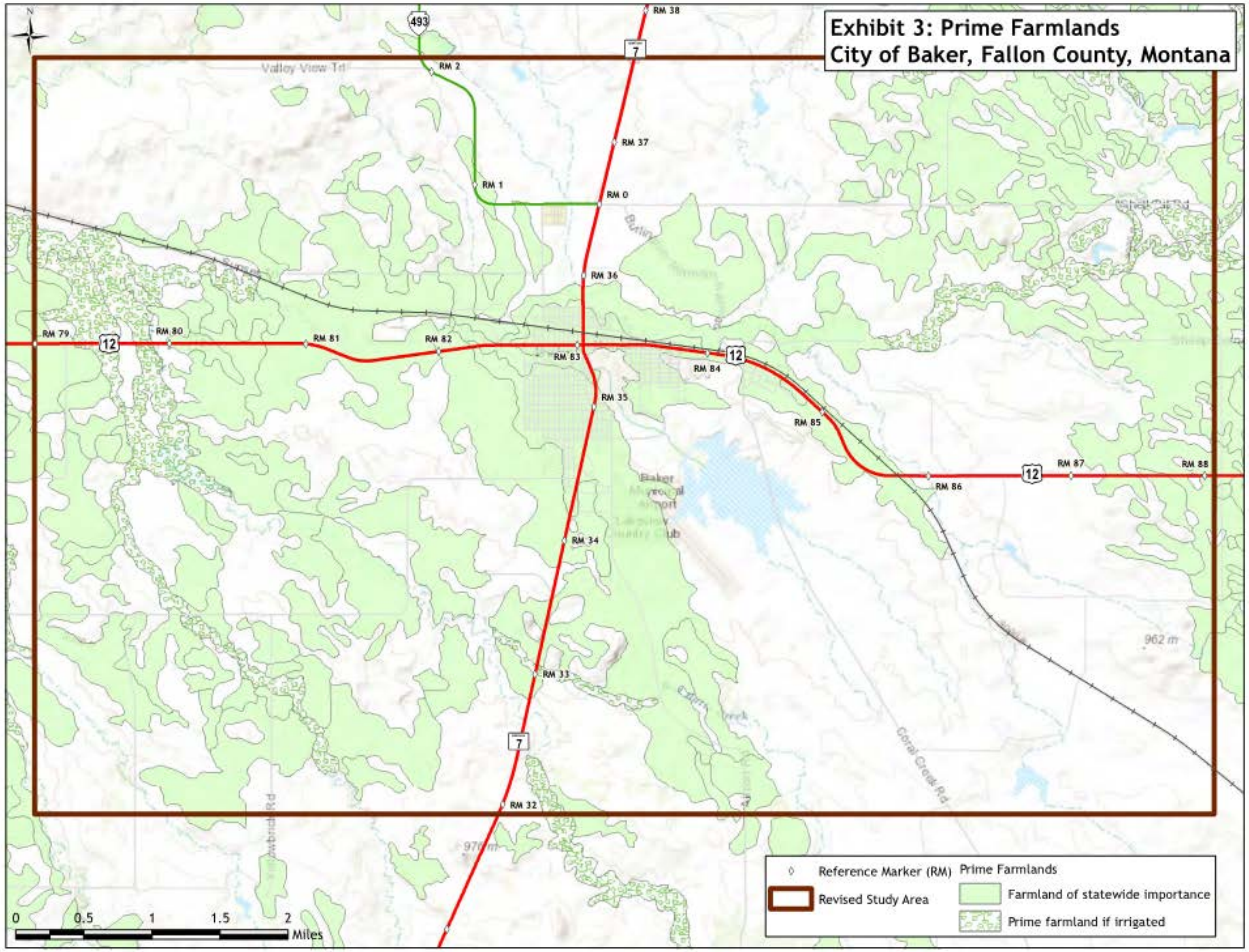
Environmental Resources

- Physical Environment
  - **Soil Resources and Prime Farmland**
  - Geologic Resources
  - **Surface Waters**
  - Groundwater
  - **Wetlands**
  - **Floodplains**
  - Irrigation
  - Air Quality
  - **Hazardous Materials**
  - Noise
  - Visual Resources
- Biological Resources
  - Vegetation
  - Wildlife
  - **Threatened and Endangered Species**
  - **Montana Species of Concern**
- Recreational, Historical and Cultural Resources
  - **Parks and Recreational Sites**
  - Cultural Sites

STUDY AREA EXISTING CONDITIONS

Soil and Farmland

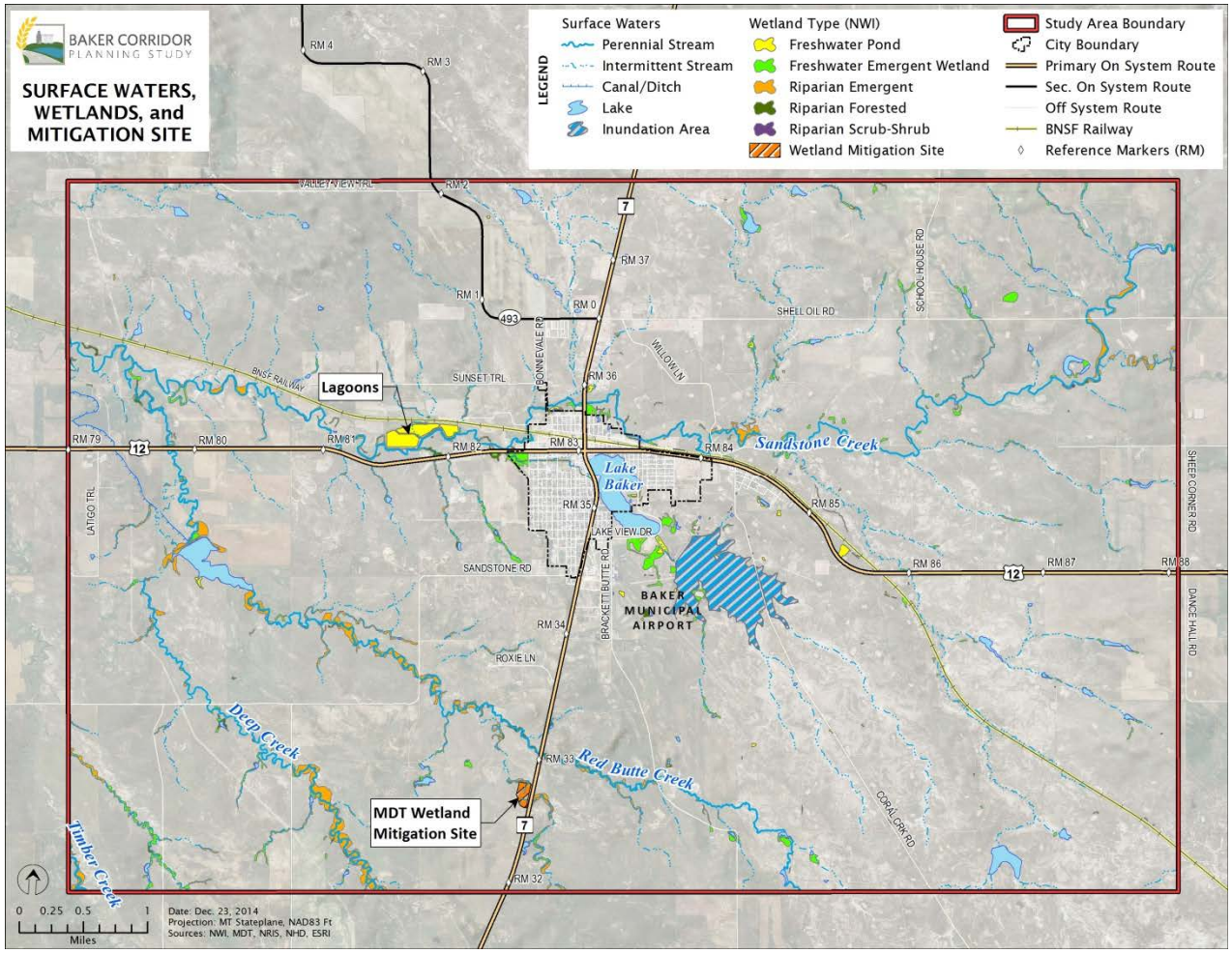
- The Farmland Protection Policy Act (FPPA) protects farmland and minimizes conversion to non-agricultural uses
- Study Area contains farmland of state or local importance and prime farmland



STUDY AREA EXISTING CONDITIONS

Surface Waters

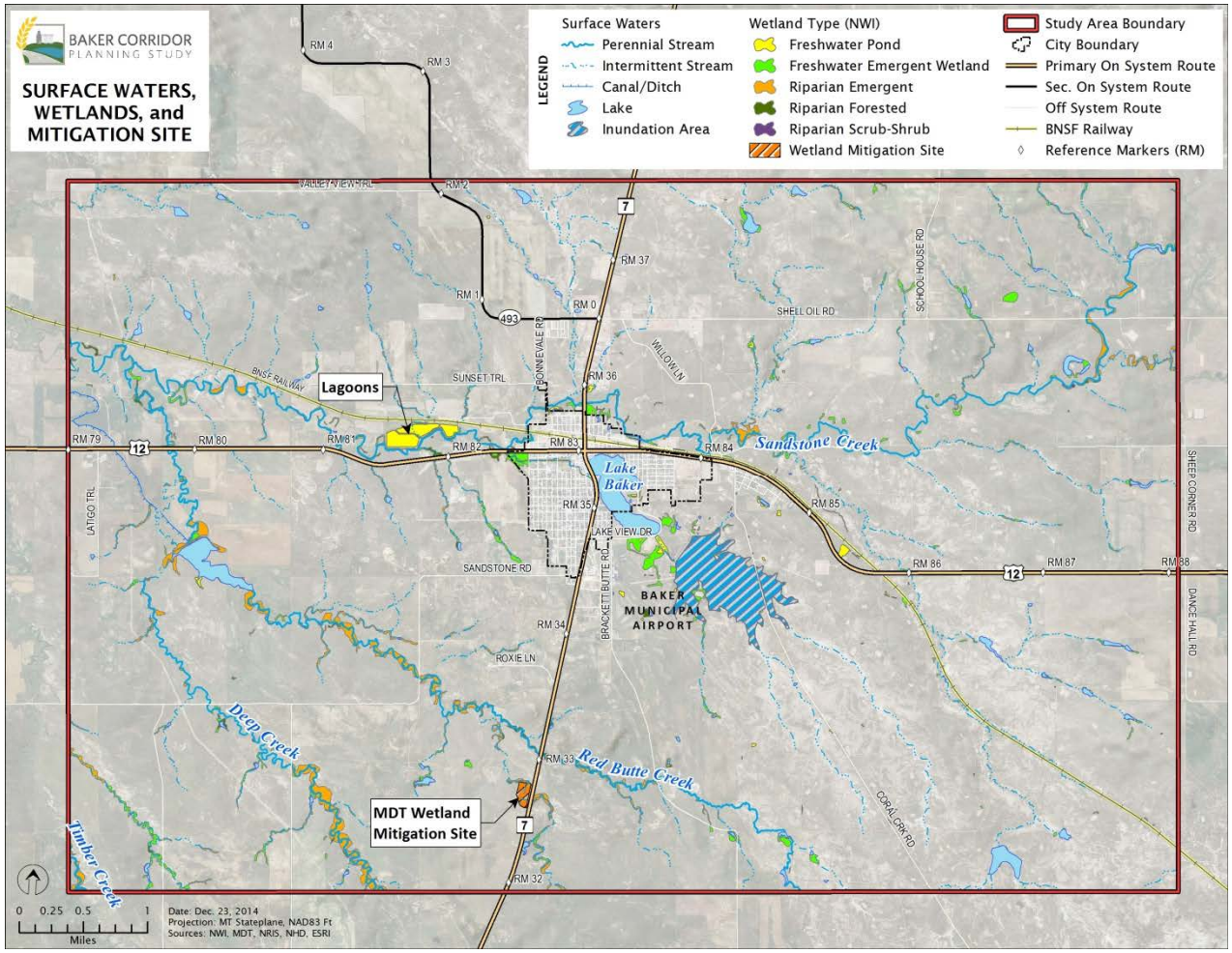
- Surface waters in the Study Area include:
  - Baker Lake
  - Sandstone Creek
  - Deep Creek
  - Red Butte Creek
  - Timber Creek
  - Irrigation
  - others
- Sandstone Creek is on the DEQ 303(d) list for impaired water bodies
  - Probable sources of impairment are agriculture and municipal point source discharges



STUDY AREA EXISTING CONDITIONS

Wetlands

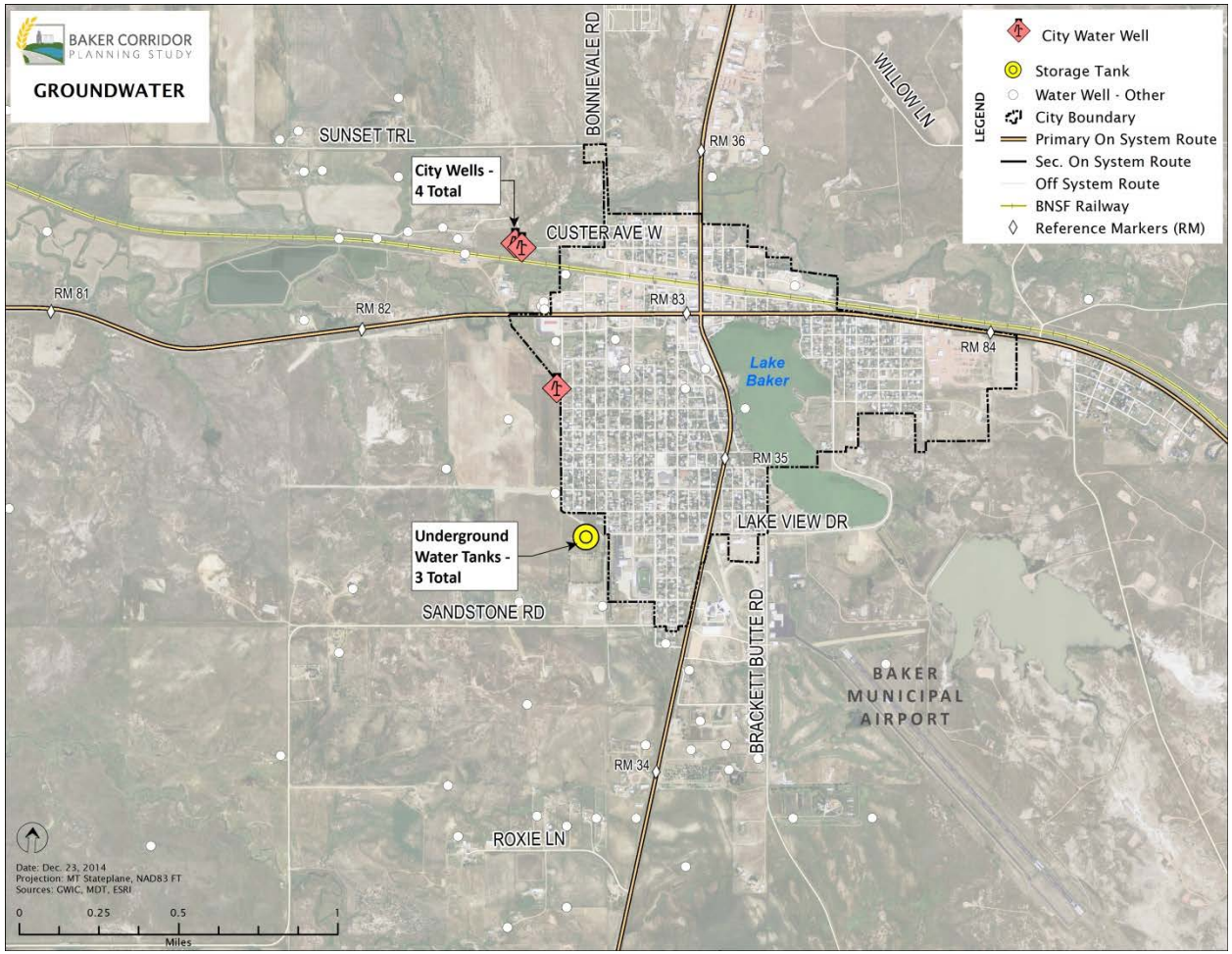
- Wetlands and waters of the U.S. are protected under the federal Clean Water Act
- Study Area includes numerous wetlands, water bodies, and unnamed drainages
- An MDT Wetland Mitigation Site located along MT 7
- Wetland delineations required when/if a project is identified for construction



STUDY AREA EXISTING CONDITIONS

Groundwater Resources

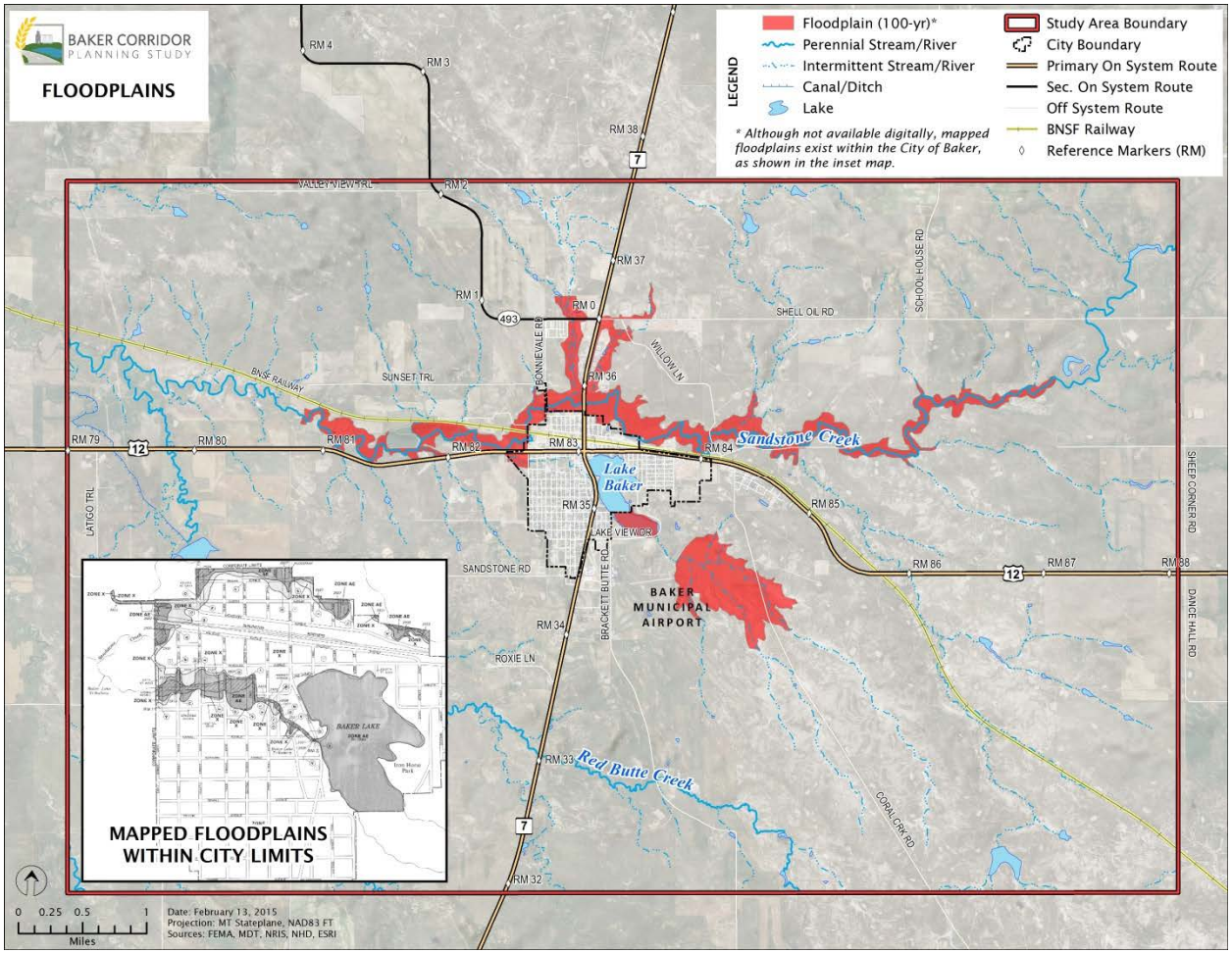
- The City of Baker has five public water supply wells in the Study Area
- Public water supply wells typically have 100’ setbacks
- Study Area contains numerous stockwater and domestic wells



STUDY AREA EXISTING CONDITIONS

Floodplains

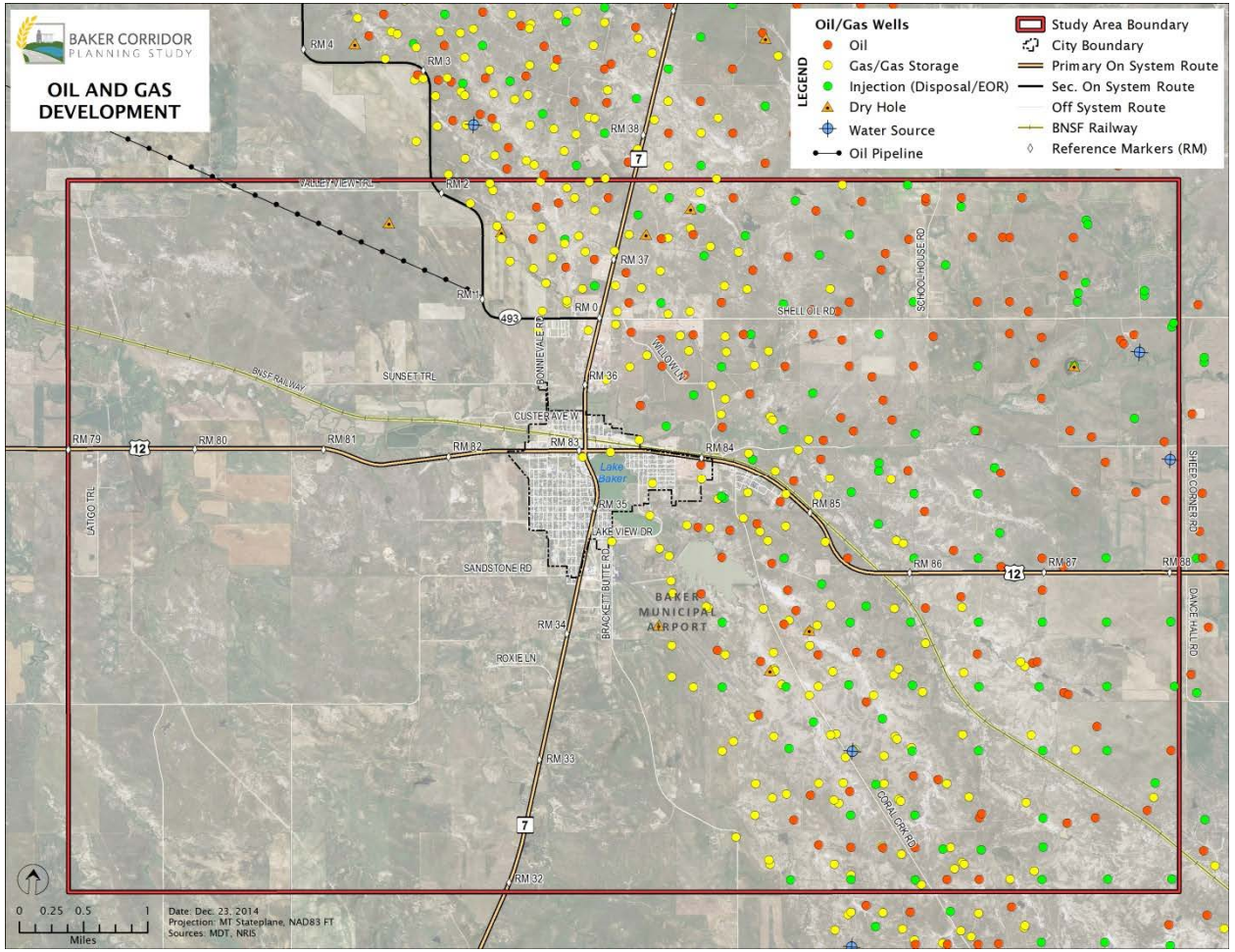
- Mapped floodplains exist along Sandstone Creek, Baker Lake, and the Baker Lake tributary within city limits
- Study Area has a history of flooding events



STUDY AREA EXISTING CONDITIONS

Oil and Gas Development

- Extensive oil and gas development within the Study Area
- One crude oil pipeline identified



STUDY AREA EXISTING CONDITIONS

Threatened and Endangered Species

Species	Status
Greater Sage-Grouse	Candidate
Sprague's Pipit	Candidate
Red Knot	Threatened
Whooping Crane	Endangered

Source: USFWS, 2014.

- Documented occurrence within Study Area:
  - Greater Sage-Grouse
  - Sprague's Pipit
- T&E species protected under the Endangered Species Act

Greater Sage-Grouse

Sprague's Pipit

STUDY AREA EXISTING CONDITIONS

Montana Species of Concern

Animal Subgroup	Common Name	State[1] Rank	Habitat Description
Birds	Greater Sage-grouse	S2	Sagebrush
	Baird's Sparrow	S3B	Grasslands
	Brewer's sparrow	S3B	Sagebrush
	Chestnut-collard Longspur	S2B	Grasslands
Fish	Brook Stickleback	S4	Small prairie rivers
	Brassy Minnow	S4	Small prairie rivers
	Plains Minnow	S4	Small prairie rivers
	Creek Chub	S4	Small prairie rivers

Source: MNHP, 2014.

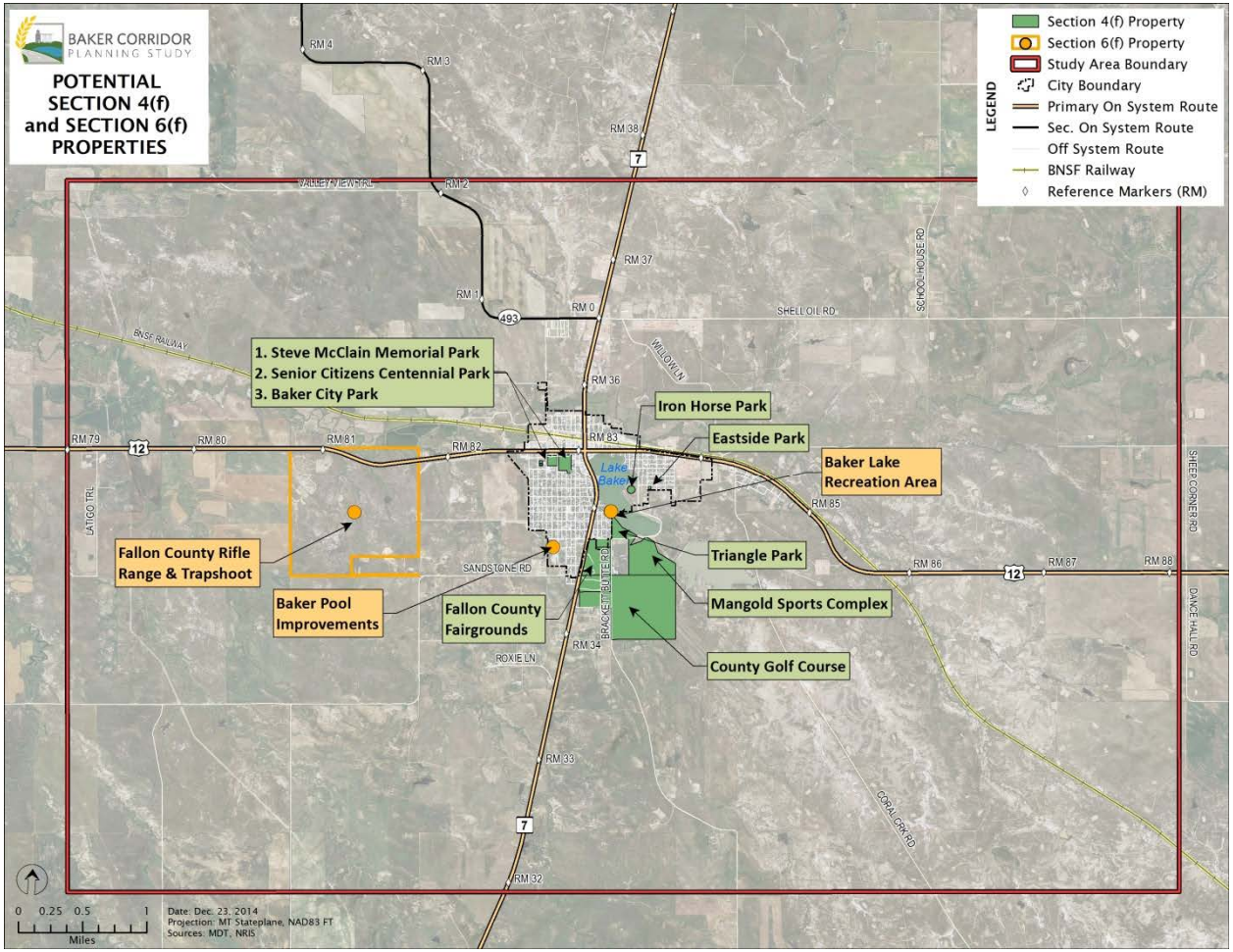
[1] State rank definitions are located in Appendix C.

- Montana species of concern (SOC) are considered to be "at risk" due to:
  - declining population trends
  - threats to their habitats
  - restricted distribution

STUDY AREA EXISTING CONDITIONS

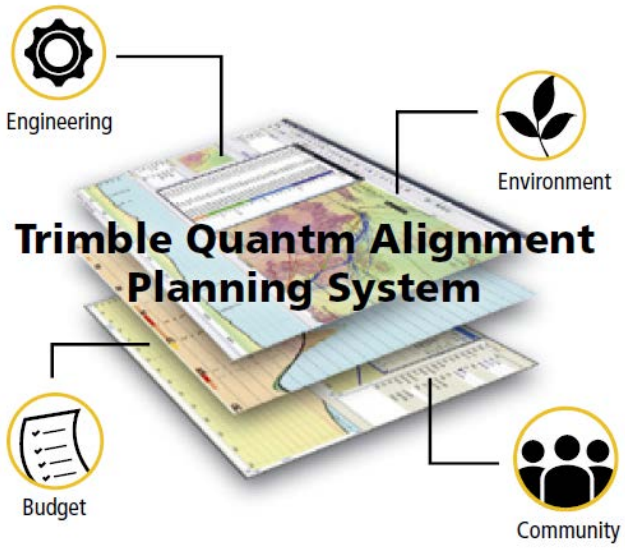
Recreational Resources

- Study Area includes recreational resources protected under Section 4(f) and Section 6(f)



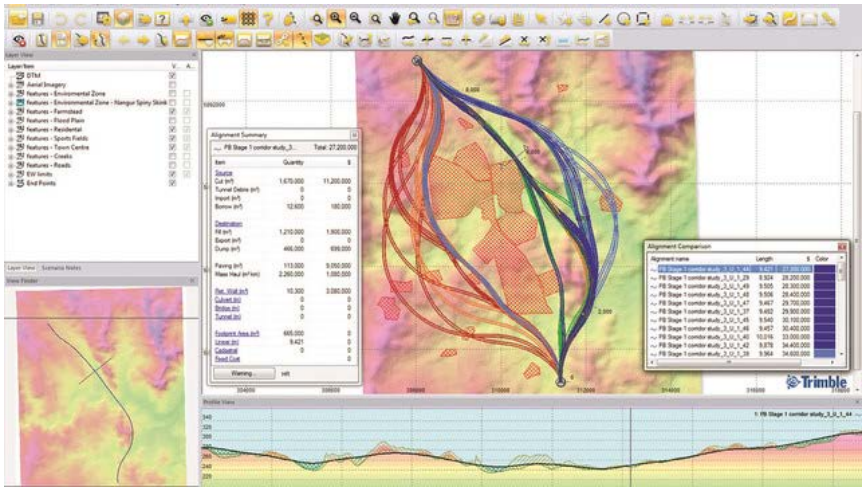
QUANTM ROUTE OPTIMIZATION

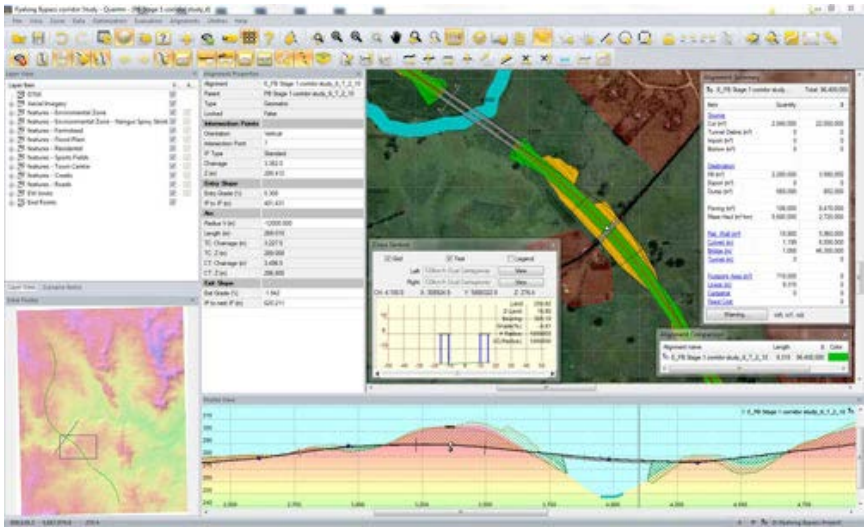
- Study is examining potential alternative alignments
- The Trimble Quantm Alignment Planning system:
  - Supports the planning process through corridor selection by considering the environmental, design, cost, and social factors during alternatives analysis
  - Reduces project planning time and can substantially lower construction cost
  - Has been successfully utilized by MDT on multiple pre-NEPA/MEPA corridor planning projects



OVERVIEW OF QUANTM

(example screen shots)





- Data input overview:
  - Terrain
  - Environmental Constraints
  - Physical Constraints
  - Engineering Design Criteria
  - Geotechnical and Construction Unit Costs

- For the *Baker Corridor Planning Study*:
  - Analysis will be conducted by MDT District
  - Model inputs established based on best available information
  - Geometric Design Criteria For Rural Minor Arterials (Non-NHS – Primary)

NEXT STEPS...

- Continue coordination with public, resource agencies, and stakeholders
- Finalize study documents:
  - Environmental scan
  - Existing and project conditions report
- Further analysis of transportation needs
- Identification of improvement option(s)
- Develop corridor study report

MISSING INFORMATION?

- Identify any missing information not previously discussed
- Identify public concerns/issues with existing transportation system
- Written comments are encouraged

CONCLUSION

- Questions/comments?
- For more information
  - Study website:

    http://www.mdt.mt.gov/pubinvolve/baker/
  - Study newsletters:
  - Study contacts:


BAKER CORRIDOR PLANNING STUDY

Baker Corridor Planning Study

Project Newsletter No. 1 | January 2015

In This Issue

STUDY DESCRIPTION

WHAT IS A CORRIDOR PLANNING STUDY?

INFORMATIONAL MEETING NO. 1

Everyone is welcome to attend!

WHEN

WHERE

WHY

MDT

Corrina Collins
MT Department of Transportation
2701 Prospect Avenue
P.O. Box 201001
Helena, MT 59620-1001
Email: ccollins@mt.gov
Tel: (406) 444-9131

Jon Schick
HDR Engineering, Inc.
1715 South Reserve Street
Suite C
Missoula, MT 59801
Email: jon.schick@hdrinc.com
Tel: (406) 532-2231

BAKER CORRIDOR PLANNING STUDY

Baker **Corridor Planning Study**

Project Newsletter No. 1 | *February 2015*

In This Issue

Study Description	1
What is a Corridor Planning Study?	1
Study Area	2
Study Area Information	3
Schedule	3
Public Involvement Opportunities	4
Study Contacts	4

STUDY DESCRIPTION

The Montana Department of Transportation (MDT), in partnership with the Federal Highway Administration (FHWA), and in coordination with Fallon County and the City of Baker, is developing a corridor planning study that includes the City of Baker and surrounding vicinity. A need has been identified for a planning study to examine highway freight through the downtown area, as well as the internal transportation network, highway and railroad issues, and other identified transportation needs.

The goal of the study is to assess current and projected conditions in the Baker area and to develop a package of short- and long-term improvement options addressing the needs identified through the study process. The study will identify feasible improvement options to address safety, operations, and roadway areas of concern. Additionally, the study will analyze potential impacts of the improvements; identify constraint areas; and gather public, resource agency, and stakeholder input.

WHAT IS A CORRIDOR PLANNING STUDY?

A Corridor Planning Study is a pre-National Environmental Policy Act (NEPA)/Montana Environmental Policy Act (MEPA) planning study which provides for early planning-level coordination with the community, local government, resource agencies, and other stakeholders to identify issues and potential transportation improvement options within the study area. The Baker Corridor Planning Study will follow the MDT Corridor Planning Process which provides a linkage between early transportation planning and the environmental review process. The process includes a planning-level analysis of the existing transportation system and the environmental setting of the study area to identify needs and constraints.

The Corridor Planning Process can benefit future project development by streamlining the environmental review process and ultimately reducing costs. This process will develop goals and objectives, identify and analyze improvement options, eliminate non-feasible options, and identify potential environmental impacts and other constraints through a public involvement process.

The Corridor Planning Process is distinct from the NEPA/MEPA environmental compliance documentation and does not include design, right-of-way acquisition, or construction phases for any individual project.

INFORMATIONAL MEETING NO. 1

Everyone is welcome to attend!

WHEN

Thursday, March 5th, 2015
6:00-8:00 p.m.

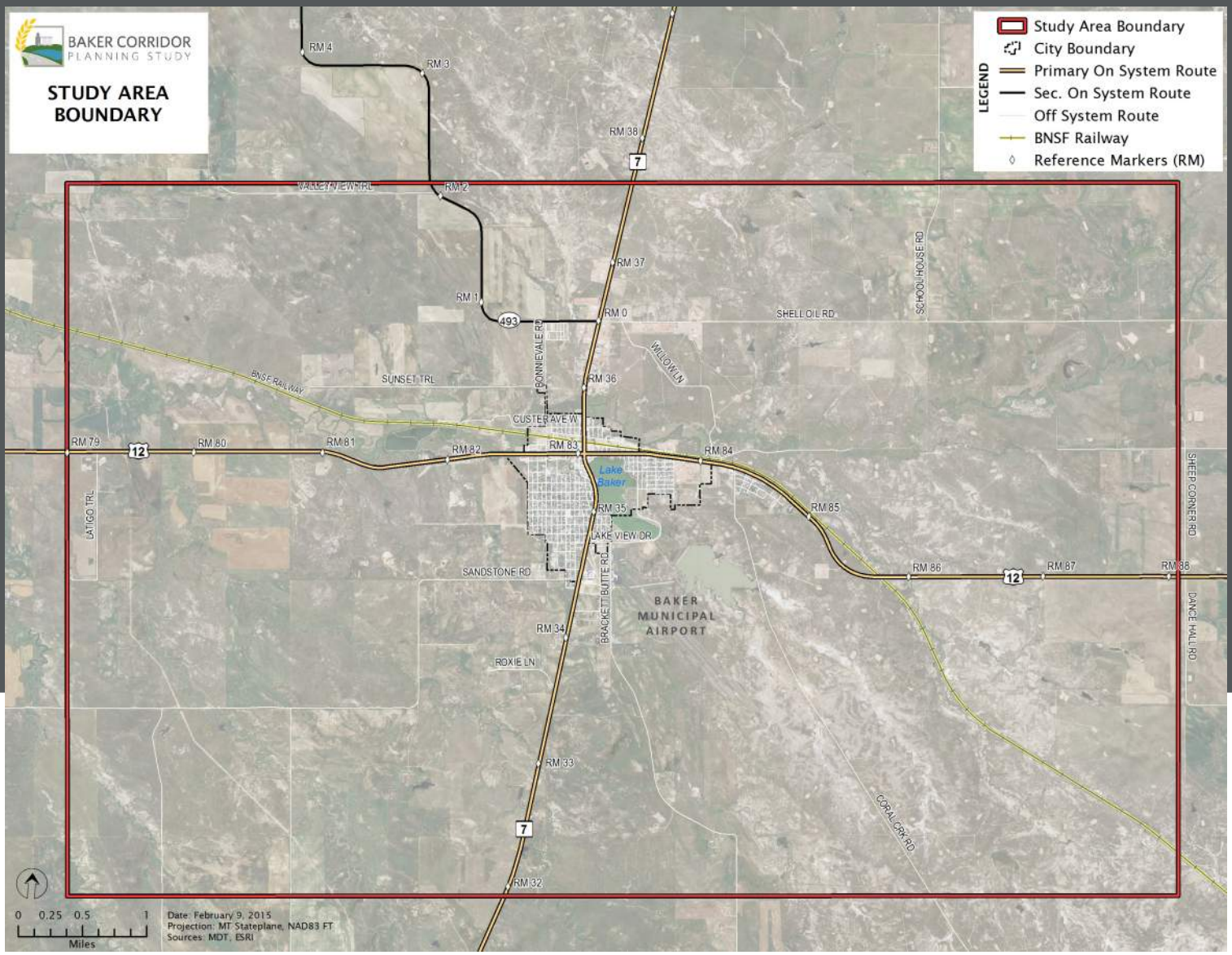
WHERE

Fallon County Fairgrounds Exhibit Hall
3440 Montana 7, Baker, MT

WHY

- Introduce the study and corridor planning process
- Present the existing conditions review
- Identify issues and constraints within the Study Area

MONTANA MDT DEPARTMENT OF TRANSPORTATION



Study Area

The study area includes U.S. Highway 12 (US 12) from Reference Marker (RM) 79 to RM 88.1 and Montana Highway 7 (MT 7) from RM 31.9 to RM 37.6. The City of Baker is within the study area, as well as Baker Municipal Airport and the BNSF Railway. Land use in the study area is a diverse mix and includes rural residential, agricultural, oil and gas development, and recreational areas, among others.

Study Schedule

It is anticipated that the Baker Corridor Planning Study will be completed within a twelve-month period. Per the assumed schedule, all work on this study is expected to be completed by October 31, 2015.

Study Area Information

The following is a brief summary of initial study area information gathered through preliminary analysis of existing data and on-site review. This list is not exhaustive and additional information may be added as the planning process progresses.

Existing Roadway Conditions

- Highways US 12 and MT 7 are both functionally classified as Rural Minor Arterial routes on the Primary Highway System.
  - Several areas have been identified along the highway systems that do not meet existing MDT design standards.

- The main intersection of US 12 and MT 7 in downtown Baker has insufficient area for standard semitrailers to make right-turn movements without conflicting with either the angled parking or over-tracking into the opposing traffic lane.

- Based on assumed traffic growth and existing intersection configuration, the intersection of US 12 and MT 7 will experience increased delays and operate at a failing level of service in the future.

Vehicular Traffic

- The US 12 and MT 7 intersection in downtown Baker has an average annual daily traffic volume of approximately 3,750 vehicles per day and experiences a high percentage of heavy vehicles (requiring a Class B license).

- High volumes of heavy vehicles make turns from southbound MT 7 to eastbound US 12 and westbound US 12 to northbound MT 7 throughout the day in addition to the peak period.

Safety

- Accident records spanning the 10-year period of 2004 to 2013 for the Study Area were examined. Recorded over this period were a total of 57 crashes along US 12 and 35 crashes along MT 7. The crash rate within the Study Area for both the US 12 and MT 7 corridors is below the overall statewide average.

Bridges

- Built in 1941, the bridge located just north of Baker on MT 7 spanning Sandstone Creek has been categorized as Functionally Obsolete and eligible for rehabilitation.

Environmental Conditions

- Sandstone Creek is a major drainage that crosses the Study Area. A variety of other surface waters, including Lake Baker, as well as many unnamed streams, natural drainages, wetlands, and ponds are present in the Study Area. An MDT wetland mitigation site exists south of Baker along MT 7.

- Historical flooding events have occurred within the Study Area. Regulated floodplains exist on and along Sandstone Creek within the Study Area.

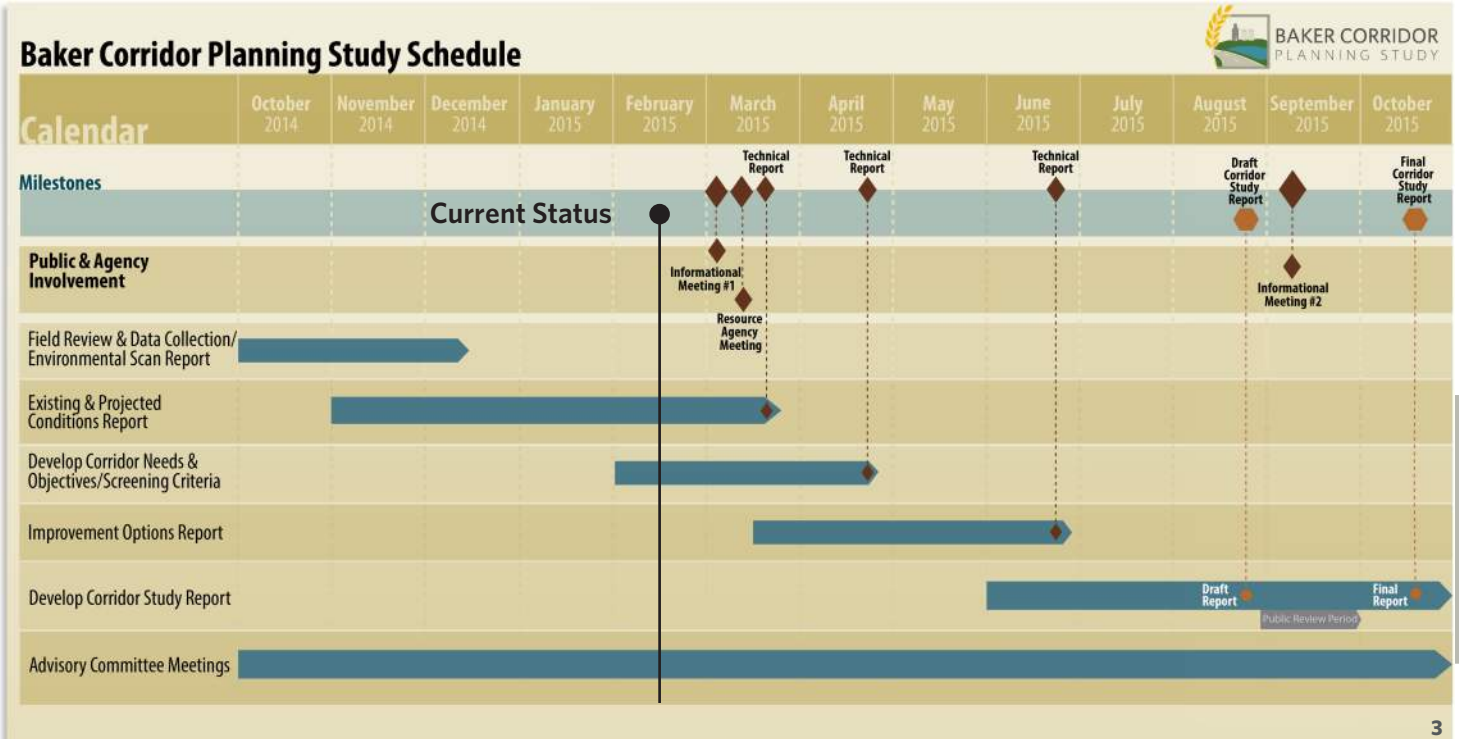
- Soil surveys indicate the presence of prime farmland within the Study Area. The Study Area contains irrigated agriculture and associated irrigation canals, ditches, or pressurized systems.

- Hundreds of oil and gas wells exist in the entire eastern half of the Study Area.

- Two threatened and endangered species potentially can be found within the Study Area.

- There are multiple recreational properties located within the Study Area protected under federal law.

- Approximately 25 historic or archaeological properties have been recorded and are located within the Study Area, including historic buildings, bridges, a railroad, and several prehistoric sites.



PUBLIC INVOLVEMENT OPPORTUNITIES

Information sharing is at the heart of any public process and is important to the overall success of the corridor study planning process. Public involvement opportunities for the planning study will include informational meetings held in Baker, as well as opportunities to review and comment on ongoing study deliverables. The informational meetings will be advertised in advance through local media and the study mailing list. See page 1 of this newsletter for information on Public Informational Meeting #1.

A project website has also been developed at http://www.mdt.mt.gov/pubinvolve/baker to provide online opportunities to review and comment on the Baker Corridor Planning Study. The study team will compile and consider all comments received during the planning study process. To join the mailing list, please contact Jon Schick at jon.schick@hdrinc.com.

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.

CONTACTS

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MDT District Administrator
406.345.8212
smintz@mt.gov

Corrina Collins
MDT Project Manager
406.444.9131
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Jon Schick
HDR Project Manager
406.532.2231
jon.schick@hdrinc.com

Website
www.mdt.mt.gov/pubinvolve/baker

MONTANA MDT DEPARTMENT OF TRANSPORTATION

PO Box 201001
Helena, MT 59620-1001

Memorandum

Project:	Baker Corridor Planning Study
Subject:	**Resource Agency Meeting**
Date:	Monday, March 09, 2015
Location:	MDT Planning Room A, 2960 Prospect Ave, Helena
Attendees:	Corrina Collins – MDT Planning Larry Sickerson – MDT District Biologist Carol Strizich – MDT Planning Doug Lieb – MDT Environmental Renee Lemon – FWP, Planning and Policy Specialist Brad Schmidt – FWP, Region 7 Shane Mintz – MDT District Administrator* Jim Frank – MDT District* Steve Heidner – MDT District* Mindy McCarthy – MDEQ, Water Quality Specialist Jim Darling – FWP, Fisheries Habitat Bureau Chief Robert Cole – Army Corps of Engineers* Jon Schick – HDR Chris Kelly – HDR Mick Johnson – HDR*

** attended via conference call*

The Baker Corridor Planning Study Resource Agency Meeting was held on Monday, March 9th, 2015 at the MDT Planning Division Conference Room A from 10 AM to 11:30 AM. Meeting attendees are listed above. Several attendees participated from the MDT Glendive office and MDT Miles City office via GoToMeeting webinar and teleconference. All applicable materials associated with the Resource Agency Meeting are provided as an attachment to this memorandum.

Resource Agency Coordination

An invitation letter dated January 30, 2015 was mailed to resource agency representatives. Included in the mailing was a copy of the Draft Environmental Scan report and appendices provided on a CD as well as a meeting agenda and hard copy exhibit of the Study Area Boundary.

Resource Agency Meeting

The Resource Agency Meeting included a PowerPoint presentation provided by Jon Schick, followed by a discussion. Comments and discussions were encouraged during the presentation as necessary. The topics discussed are described below. The presentation agenda included the following topics:

Presentation

- Introduction of the Project Team
- Introduction of the Corridor Planning Process
- Discussion of the public involvement process
- Study area boundary
- Study schedule
- Identified stakeholders

- Existing conditions within the study area
    - Socioeconomics
    - Transportation
    - Environmental
- Overview of Quantm alignment planning software
- Next steps and conclusion

Discussion Period

Team Introductions

- The meeting began with introductions and an description of the planning study team.

Planning Process Overview

- Carol provided an overview of the pre-NEPA/MEPA planning process:
    - MAP-21 allows a linkage of planning documentation to be used during the environmental review process to expedite project development.
    - MDT worked with FHWA to ensure the corridor study planning process adheres to their expectations so that corridor planning study information can transition into the formal environmental process.
- Much of the information regarding resource impacts from corridor planning studies feed into the environmental process.
    - The corridor planning studies can sometimes, but not commonly, include development of a project-level Purpose & Need statement.
    - Corridor planning studies do involve developing Needs and Objectives.
    - Public involvement is a key component of corridor planning studies.
- Purpose of the Resource Agency Meeting:
    - MDT wants input from resource agencies early and often.
    - The intent is to avoid situations where a project is forwarded only to later learn of agency issues/concerns during project development.
    - The early coordination serves to identify potential impacts and mitigation opportunities.

Existing Conditions

- Has Baker been impacted by the oil development in the Bakken region?
    - Traffic increases can potentially be attributed to the Bakken and other oil development.
    - That is one of the reasons for the Corridor Study: Fallon County Commissioners have observed a change in the amount and type of traffic and are anticipating a greater change. They wanted to get ahead of the curve and identify solutions before the change occurs.
- Workforce Housing
    - There is a potential for impacts related to development, demonstrated in the population projections.

  - The Keystone XL Pipeline is anticipating building a crew camp within the study area.
- Keystone XL Pipeline passes through the study area in the southwest corner. Potential impacts include temporary and longer term impacts related to construction and pipeline operations and associated truck traffic.
- There has been steady oil and gas production in this area and new growth can be attributed to new technologies (e.g., CO_2 injected into the wells). The study area is well outside of the Bakken region.
- The growth rates used in the traffic projections were discussed:
  - Historic ADT volumes show a range of growth rates, ranging from negative growth to upwards of 5-6% in some locations. A 2% growth rate was determined to be a conservative growth rate assumption.
- The intersection LOS analysis shows the US12/MT7 intersection failing by 2034. Will it fail much sooner than 2034?
  - It was noted that traffic projections are very dependent on anticipated development. Without knowing when and where future growth will occur, a 2% growth rate is the best scenario for planning.
- Does the project team know BNSF's projection for future train traffic?
  - It was noted that the project team does not know future train volumes. The information can sometimes be difficult to obtain. We do know that BNSF is anticipating widespread system improvements, which would likely have an affect on future train volumes.
- Hazardous materials: What is leaking from the LUSTs?
  - Specifics on each LUST site are available through DEQ LUST database and contained in the Environmental Scan appendices.
  - LUSTs likely involve leaking petroleum and potentially an old gas station at locations downtown. Most are within city limits, centered along the highway system.
  - If a project is forwarded, more research would be required on the extent and source of contamination.

<u>Resource Agency Comments:</u>

- Brad Schmitz referenced Attachment 8 regarding culvert design and bridges. They encourage adequate consideration of fish passage. It was noted that Matt Rugg has already submitted a letter discussing culvert sizing and embeddedness.
- The presence of Greater Sage-grouse within the study area was discussed.
  - The map depicting observance areas is fairly accurate.
  - Brad isn't aware of active leks within the study area; however, the large observation circles on the map would suggest there is likely nesting/breeding activity in the southeast area of the study area.
  - John Enzine (FWP) confirmed the likely presence of a lek in the lower southeast quadrant of the study area. Catherine Wightman in Helena can be contacted for more information.

- The Environmental Scan seems focused on Sandstone Creek and doesn't provide the same level of information for other streams, such as Red Butte Creek.
    - It was mentioned that Sandstone Creek is on the DEQ 303(d) list and no other waterbody within the study area is impaired.
- The stock pond located on Red Butte Creek was discussed. It was noted that it does not contain water most of the year, is not stocked by FWP and is not a fishery.
- Mindy McCarthy (DEQ) was asked if she had any specific comments. She did not.
- Above Baker Lake, there is a sediment basin to collect sediment before it enters Baker Lake. The inundation area includes a large wetland complex.
- Robert Cole mentioned there have been Clean Water Act violations on Baker Lake.
    - EPA is the lead agency on the case.
    - The violation is related to unauthorized dredging along the perimeter of Baker Lake.
    - County Public Works is trying to reinitiate coordination between City of Baker and EPA.
    - It should be determined if specific mitigation is being discussed and where that may be occurring within the study area.
    - City of Baker has to work out solution with EPA to prevent sediment from entering lake.
- Brad (FWP) noted that no conservations easements exist within the study area.

Quantm Alignment

- The Quantm alignment planning software was discussed, including the model inputs and overview of the alternative analysis process.
- MDT will be initiating runs shortly after the project team confirms all agencies have reviewed the scan and there are no information gaps.
- Potential alignments will be compared to the existing alignment.

Next Steps

- The resource agencies were encouraged to submit written comments by March 16.
- HDR to follow up with City of Baker regarding EPA action and status.
- HDR to follow up with Catherine Wightman (FWP) on spatial data regarding Greater Sage-grouse.

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

January 30, 2015

To: Resource Agency Distribution

Subject: Resource Agency Meeting Invitation
Baker Corridor Planning Study

The Montana Department of Transportation (MDT), in partnership with the Federal Highway Administration (FHWA), and in coordination with Fallon County and the City of Baker, is developing a corridor planning study that includes the City of Baker and surrounding vicinity. The Study Area is a rectangular boundary centered on the City of Baker and includes portions of US Highway 12 and MT Highway 7. The Study Area includes the City of Baker, Baker Municipal Airport, and a portion of the BNSF Railway. Refer to the attached study area exhibit.

The goal of the planning study is to assess current and projected conditions in the study area and to develop a package of potential short- and long-term improvement options addressing the needs identified through the study process. Alternative routes around Baker will be considered as part of the study. The study will identify resources potentially present in the Study Area, analyze potential impacts of the proposed improvements, identify constraint areas, and gather input and inform citizens through a public process. The study may form the basis of future National and Montana Environmental Policy Act (NEPA/MEPA) process(es) if improvement options identified through the study are forwarded.

MDT invites you to attend a resource agency meeting to discuss environmental conditions in the Study Area, and identify issues, concerns or potential impacts of improvement options that may be forwarded from the study. Agency representatives are invited to attend in person at the MDT Helena office, Glendive District office, or Miles City office.

When: **Monday, March 9, 2015** from **10 AM to 12 PM**
Where:

MDT Planning Division		**MDT Glendive District**		**MDT Miles City Office**
Conference Room A		Conference Room		Conference Room
2960 Prospect Avenue	or	503 N. River Avenue	or	217 North 4th Street
Helena, MT 59601		Glendive, MT 59330		Miles City, MT 59301

Please review the draft environmental scan report in advance of the meeting. An electronic version of this document is provided on the enclosed CD, along with a print copy of the meeting agenda. If you are unable to attend the resource agency meeting, please forward these documents to an appropriate agency designee.

Written comments should be directed to MDT Project Manager, Corrina Collins by March 6, 2015 at the address indicated on letterhead. Additional information is available on the study website (http://www.mdt.mt.gov/pubinvolve/baker/).

Please call or email Jon Schick, Consultant Project Manager, by Wednesday, March 4, 2015 to confirm your participation in the resource agency meeting.

Jon Schick
HDR Engineering
1715 South Reserve Street, Ste. C
Missoula, MT 59801
406.532.2231
jon.schick@hdrinc.com

Thank you in advance for your agency's participation.

Sincerely,

Tom S. Martin, P.E.
Environmental Services Bureau Chief

Enclosures: CD containing electronic version of Draft Environmental Scan
Study Area Boundary Exhibit
Resource Agency Meeting Agenda

Copies (without enclosures):
File

E-copies (without enclosures):
Shane Mintz – MDT Glendive District Administrator
Jim Frank, P.E. – MDT Engineering Services Engineer
Tom Martin, P.E. – MDT Environmental Services Bureau Chief
Heidy Bruner, P.E. – MDT Environmental Services Engineering Section Supervisor
Bill Semmens – MDT Resources Section Supervisor
Joe Radonich – MDT Hazardous Waste Section Supervisor
Douglas Lieb, E.I. – MDT Statewide Project Development Engineer
Corrina Collins – MDT Project Manager
Jon Schick – MDT Project Manager

Resource Agency Distribution:

Julie DalSoglio – Director, U.S. Environmental Protection Agency, Region 8
Mike McGrath – Fish and Wildlife Biologist, Transportation
Todd Tillinger – United States Army Corps of Engineers
Diane Friez - US Bureau of Land Management, District Manager
Todd Yeager – US Bureau of Land Management, Field Manager
Jon Kenning – US Department of Environmental Quality, Water Protection Bureau
Paul Skubinna – US Department of Environmental Quality, Water Protection Bureau
Robert Ray – US Department of Environmental Quality, Water Quality Planning Bureau
Beau Downing – Montana Fish, Wildlife & Parks, SPA Coordinator
Jim Darling – Montana Fish, Wildlife & Parks, Habitat Bureau Chief
Brad Schmitz – Montana Fish, Wildlife & Parks, Regional Supervisor
Matt Rugg – Montana Fish, Wildlife & Parks, Fisheries Biologist
Melissa Foster – Montana Fish, Wildlife & Parks, Wildlife Biologist
Jackie Tooke – Montana Fish, Wildlife & Parks, Upland Game Bird Specialist
Mark Baumler – Montana State Historic Preservation Office
Faron Henderson – Fallon County Planning Department, Planner/Floodplain Coordinator and City of Baker Planner

Agenda

Project:	Baker Corridor Planning Study
Subject:	Resource Agency Meeting
Date/Time:	Monday, March 09, 2015, 10 AM to 12 PM
Location:	MDTCNF Planning Room A, 2960 Prospect Ave, Helena MDT Glendive District Conference Room, 503 N. River Avenue, Glendive MDT Miles City Office Conference Room, 217 N. 4th Street, Miles City

The following meeting agenda and Study Area exhibit are intended to accompany the *Baker Corridor Planning Study* Resource Agency Meeting invitation letter and environmental scan report (enclosed CD) previously provided.

Meeting Agenda

1. Introductions
2. Provide an Overview of the Corridor Planning Study Process
3. Present Existing Conditions Information
4. Present Key Findings from the Environmental Scan Report
5. Solicit Input
6. Conclusion and Next Steps

For questions, please contact:

Jon Schick
HDR Project Manager
(406) 532-2231
jon.schick@hdrinc.com

BAKER CORRIDOR PLANNING STUDY

Resource Agency Meeting

Monday, March 9th, 2015

NAME:	TITLE:	AGENCY:	EMAIL:
Jim Darling	Fisheries Habitat Bur. Chief	MT Fish, Wildlife & Parks	jdarling@mt.gov
Doug Lieb	Statewide Proj Development Eng.	MDT	dlieb@mt.gov
Renee Lemon	Planning and Policy Specialist	FWP	rlemon@mt.gov
Carol Strizich	Statewide & Urban Planning Supervisor	MDT - Planning	CStrizich@mt.gov
Larry Sickerson	MDT - District Biologist	MDT	LSickerson@mt.gov
Mindy McCarthy	Water Quality Specialist	DEQ	mmccarthy3@mt.gov
Robert Cole	Army Corps of Engineers		
Steve Hiedner	MDT Glendive		
Jim Frank	MDT Glendive		
Shane Mintz	MDT ~~Dist~~ Glendive		
Brad Schmitz	Miles City/Baker FWP		
Mick Johnson	HDR		
Jon Schick	HDR		
Chris Kelley	HDR		
Corrina Collins	MDT		

United States Department of the Interior
Fish and Wildlife Service
Ecological Services
Montana Field Office
585 Shepard Way, Suite 1
Helena, Montana 59601-6287
Phone: (406) 449-5225 Fax: (406) 449-5339

M.44 MDT (I)
06E11000-2015-TA-0166

March 19, 2015

Jon Schick
HDR Project Manager
1715 South Reserve Street, Suite C
Missoula, MT 59801-4708

Dear Mr. Schick:

This is in response to your February 13, 2015 letter regarding the Montana Department of Transportation's (Department) Baker Corridor Planning Study. The intent of the study is to provide a planning-level overview of resources and determine potential constraints and opportunities for the Baker Corridor Planning Study. The study is focused in Fallon County around the town of Baker, Montana. Specifically, this includes a 53 square mile area from Reference Marker (RM) 79 to RM 88 of US Highway 12, and RM 31.9 to RM 37.6 of MT Highway 7. The Service's Montana Field Office received your letter on February 13, 2015. These comments have been prepared under the authority of and in accordance with the provisions of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531 et. seq.), and the Migratory Bird Treaty Act of 1918 (MBTA), as amended (16 U.S.C. 703 et. seq.).

The federally listed threatened or endangered species that may occur in Fallon County are the endangered whooping crane (*Grus americana*), the threatened red knot (*Calidris canutus rufa*), the proposed northern long-eared bat (*Myotis septentrionalis*), and candidate species greater sage-grouse (*Centrocercus urophasianus*), and Sprague's pipit (*Anthus spragueii*). As such, the Service strongly recommends that the Department contact the Montana Department of Fish, Wildlife and Parks at 1420 East Sixth Ave., P.O. Box 200701, Helena, Montana 59620-0701, (406) 444-2535 or the Montana Natural Heritage Program, 1515 East 6th Avenue, Box 201800, Helena, Montana 59620-1800, (406) 444-5354. Both of these agencies may be able to provide updated, site-specific information regarding greater sage-grouse (hereafter sage grouse) locations, as well as all other fish, wildlife, and sensitive plant resources occurring in the study area.

A portion of the sage grouse Cedar Creek Core Area extends into the corridor study area, as well as there being several sage grouse leks outside of core habitat that surround the study area (Montana Natural Heritage Program database 2015). Consequently, the Service would like to remind you that the Department has obligations under Governor Bullock's Executive Order (EO) No. 10-2014 (signed September 9, 2014), with regards to sage grouse conservation. The EO delineated sage grouse core areas, connectivity areas, and general habitat in Montana; note that both core and general habitat occurs in the corridor study area. We recommend that impacts to sage grouse, including all habitats, be avoided to the extent possible, and that unavoidable impacts be minimized to the extent possible. Impact avoidance and minimization priority should generally first be directed to core habitat, although other locally important habitats and features warranting prioritization, such as leks, may occur in non-core habitat.

The U.S. Geological Survey published a 2014 report evaluating effective lek buffer distances, and indicates an effective buffer range of 3.1 to 5 miles for both surface disturbance and linear features (e.g., roads, powerlines; Manier et al. 2014). In addition to EO considerations (as well as applicable Bureau of Land Management [BLM] Resource Management Plan or other interim guidance), we recommend that any project that may result from this corridor planning study implement this recent buffer information as well as applicable conservation measures recommended in the U.S. Fish and Wildlife Service's Conservation Objectives Report (2013). Incorporation of this information into corridor planning may assist in avoiding or minimizing adverse effects to sage grouse populations and habitat. We recommend that this information, along with a compensatory mitigation proposal commensurate with the degree of impacts that would offset any unavoidable impacts remaining after application of avoidance and minimization measures, accompany and inform any effects analysis for any project that results from this corridor planning study. We refer you to the Service's September 2014 Greater Sage-Grouse Range-wide Mitigation Framework for further guidance regarding appropriate mitigation.

Examples of sage grouse conservation recommendations from Manier et al. (2014) and USFWS (2013) relating to infrastructure that may apply to the subject corridor study include the following:

- There should be no new development of infrastructure corridors within core areas. Designated, but not yet developed infrastructure corridors should be re-located outside of core areas unless it can be demonstrated that these corridors will have no impacts on the maintenance of neutral or positive sage grouse population trends and habitats.
- Avoid construction of infrastructure in sage grouse habitat, both within and outside of core areas.
- Avoid surface disturbance and construction of linear features within 3.1 to 5 miles of leks.
- Mark or remove fences within 1.2 to 3.2 miles of leks on flat or rolling terrain to reduce sage grouse mortality associated with collisions. Fences can be deleterious to sage grouse populations and habitats, with threats including habitat fragmentation and direct mortality through strikes (Stevens et al. 2012), but can also improve habitat conditions for sage grouse (e.g., by protecting riparian areas providing brood-rearing habitats from overgrazing). The assessment of the impact or benefit of fences must be made considering local ecological conditions and the movement of sage grouse within local areas (Stevens et al. 2012). Unnecessary fences should be removed.
- Construction of tall structures, such as utility poles and power transmission lines, within two to five miles of leks should be avoided or the features that they convey should be buried (if technically feasible), and disturbed habitat should be restored. If avoidance is not possible, consolidate new structures with existing features and/or preclude development of new structures within locally important sage grouse habitats. Consolidation with existing features should not result in cumulative corridor width of greater than 0.12 mile.
- Remove transmission lines and roads that are duplicative or are not functional.
- Transmission line towers should be constructed to severely reduce or eliminate nesting and perching by avian predators, most notably ravens, thereby reducing anthropogenic subsidies to those species.
- Within 3.1 to 5 miles of leks, the Department should look to minimize road densities where possible, as the intermittent noise associated with roads has been associated with significant reductions in lek attendance by sage grouse (Blickley et al. 2012 in Manier et al. 2014:5).
- Infrastructure corridors should be designed and maintained to preclude introduction of invasive plant species.
- Existing restrictions limiting use of roads should be enforced.

- Avoid installation of compressor stations (and facilities such as crushing plants, etc.) in core areas or other sage grouse habitats where sage grouse would be affected by noise and operation activities.
- Remove (or decommission) non-designated roads within sagebrush habitats.

For stream channel crossings, the Service encourages the use of single span bridges whenever feasible. These structures generally maintain the stream's long-term aquatic functions because there is natural streambed material through the crossing and, given adequate bridge length, the stream can function naturally and unimpeded throughout that stretch. For crossings where culverts are proposed, we suggest embedding them enough to allow natural streambed material to deposit in the bottom of the culverts to facilitate passage of aquatic organisms. The Service also recommends keeping temporary disturbances to stream channels to the minimum extent and duration possible, with as much occurring "in the dry" as possible. This would reduce disruptions to the stream during construction, resulting in fewer short-term impacts to aquatic species relative to stream bed and bank disturbance and sediment inputs.

Thank you for the opportunity to comment on the Baker Corridor Planning Study. We appreciate your efforts to consider and conserve fish and wildlife resources, including threatened and endangered species. If you have questions regarding this letter, please contact Mike McGrath, of my staff at (406) 449-5225, extension 201.

Sincerely,

for Jodi L. Bush
Field Supervisor

Cc: Sheila Ludlow, Montana Department of Transportation, Helena, MT

Literature Cited

Manier, D. J., Bowen, Z. H., Brooks, M. L., Casazza, M. L., Coates, P. S., Deibert, P. A., Hanser, S. E., and Johnson, D. H. 2014. Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014-1239, 14 p., http://dx.doi.org/10.3133/ofr20141239.

Stevens, B. S., J. W. Connelly, and K. P. Reese. 2012. Multi-scale assessment of Greater sage-grouse fence collision as a function of site and broad scale factors. Journal of Wildlife Management 76:1370-1380.

U.S. Fish and Wildlife Service. 2013. Greater Sage-grouse (*Centrocercus urophasianus*) Conservation Objectives: Final Report. U.S. Fish and Wildlife Service, Denver, CO. February 2013.

U.S. Fish and Wildlife Service. 2014. Greater Sage-Grouse Range-Wide Mitigation Framework, Version 1.0. 27 pages.

Montana Fish, Wildlife & Parks

Mathew Rugg
Fisheries Biologist
907 N. Kendrick Ave., Glendive, MT 59330
Phone: (218) 205-6132, Email: mrugg@mt.gov

March 3, 2015

Corrina Collins
Montana Department of Transportation
Rail, Transit, & Planning
Helena, MT 59602

SUBJECT: Baker Corridor Planning Study

Dear Ms. Collins:

I have reviewed the Baker Corridor Planning Study as it relates to stream function and fisheries impacts and concerns. Most of the streams within the study area are either towards the head of the drainage, and/or have minimal fisheries use. However, there is some fish use within the study area. I would like to provide comment on the language regarding the use of culverts for stream crossings (Attachment 8 Crucial Area Planning System Data). I suggest the following language be included:

Culverts should be sized to span the bankfull channel width on fish-bearing streams. Culverts should also be embedded a minimum of 20% of the culvert rise. Studies have shown that culverts embedded at least 20% reduce the potential for the culvert to become a barrier to fish movements.

Please feel free to contact me with any additional questions regarding stream function and/or fish use within the water bodies in the study area.

Respectfully,

Mathew Rugg
Region 7 Fisheries Biologist

From: Cole, Robert H NWO <Robert.H.Cole@usace.army.mil>
Sent: Monday, March 09, 2015 11:23 AM
To: Schick, Jon; Collins, Corrina
Subject: Baker Study (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

Jon and Corrina,

During the meeting the mitigation site was touched on. As a reminder MTDOT does not have an approved mitigation bank. Until the bank has been finalized, mitigation will need to be addressed for each project constructed.

Robert Cole
Regulatory Project Manager
2602 1st Street North, Room 309
PO Box 2256
Billings, MT 59103
(406) 657-5910

Classification: UNCLASSIFIED
Caveats: NONE

BAKER CORRIDOR PLANNING STUDY

RESOURCE AGENCY MEETING

March 9, 2015
10:00 AM – 12:00 PM

WELCOME AND INTRODUCTIONS

Meeting Introductions

Project Team includes:

- Partners
  - MDT
  - FHWA
  - Fallon County
  - City of Baker
- Consultant Team

MEETING AGENDA

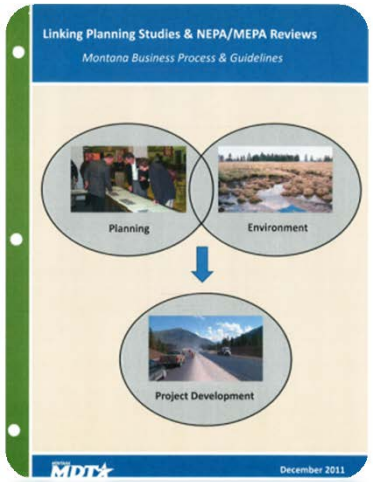
Presentation

- Introduction of the Corridor Planning Process
- Discuss public involvement process
- Study area boundary
- Study schedule
- Identified stakeholders
- Existing conditions within the study area
  - Socio-economics
  - Transportation
  - Environmental
- Overview of Quantm alignment planning software
- Next steps and conclusion

Discussion Period

WHAT IS A CORRIDOR PLANNING STUDY?

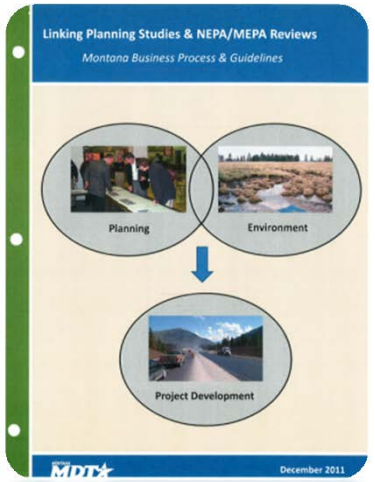
- Corridor Planning Studies:
  - Develop a high level analysis of study area conditions
  - Define transportation issues and areas of concern
  - Provide for early identification of potential social, economic, and environmental impacts
  - Identify a range of transportation improvement strategies
  - Facilitate continued public, resource agency, and stakeholder participation



MDT Corridor Study Guidance Document

WHAT A CORRIDOR STUDY IS NOT

- Corridor Planning Studies are **not**:
  - A preliminary or final design project
  - A construction project or right-of-way acquisition
  - An environmental compliance document

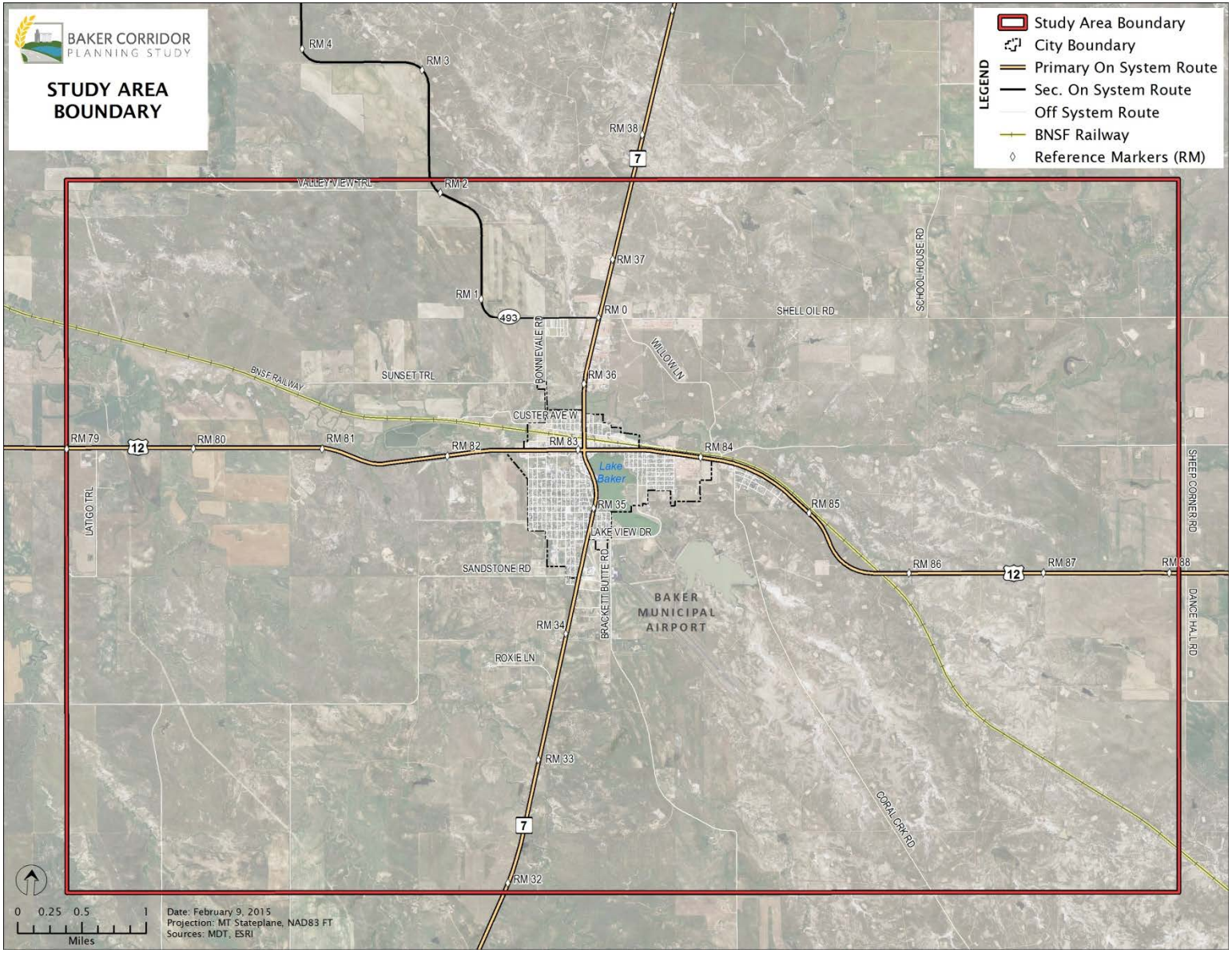


MDT Corridor Study Guidance Document

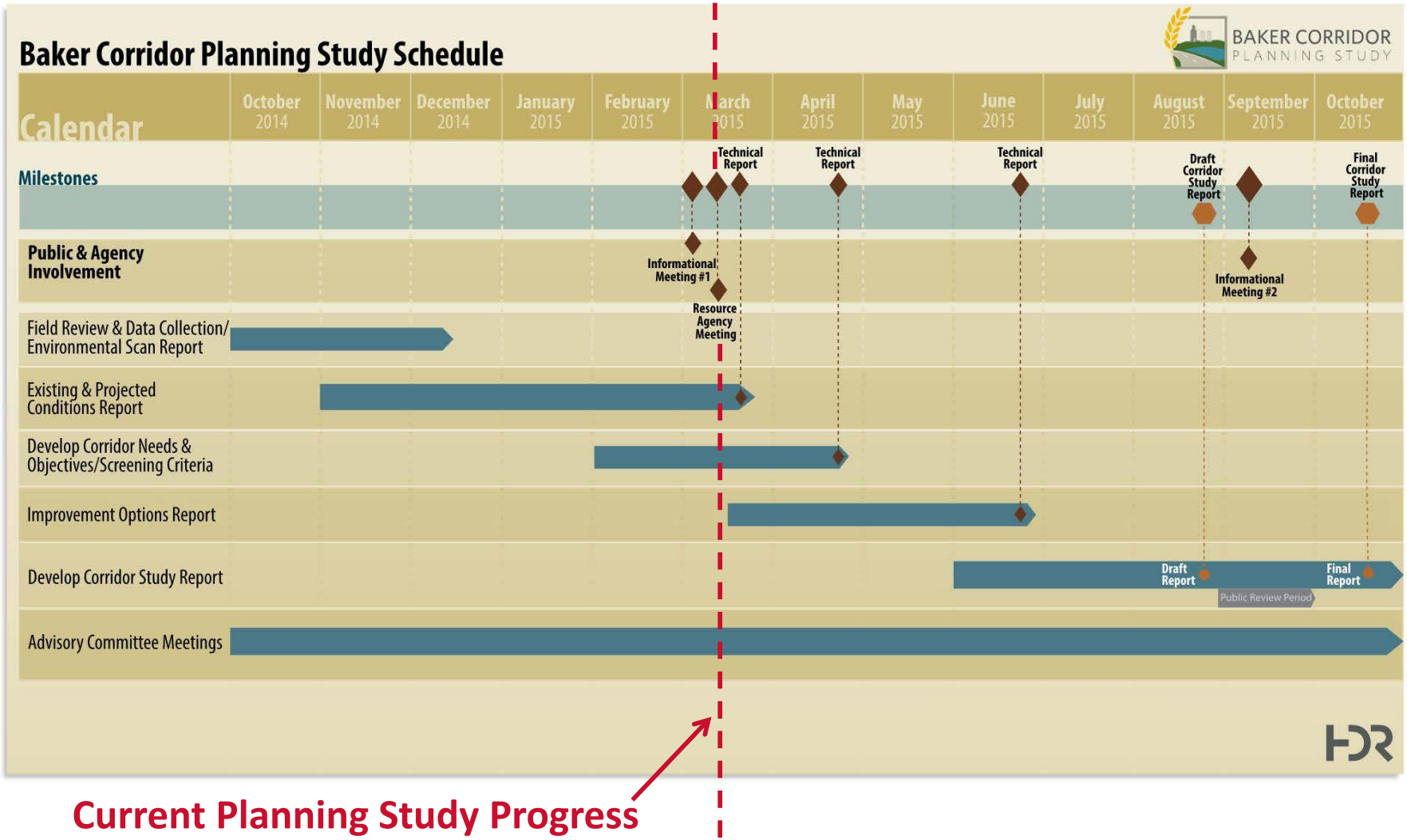
GOALS AND PURPOSE OF STUDY

- The *Baker Corridor Planning Study* will:
  - Identify study area needs and objectives
  - Identify and consider possible impacts and constraints
  - Develop potential improvement option(s)
  - Present recommended improvement option(s) and potential funding sources

STUDY AREA BOUNDARY

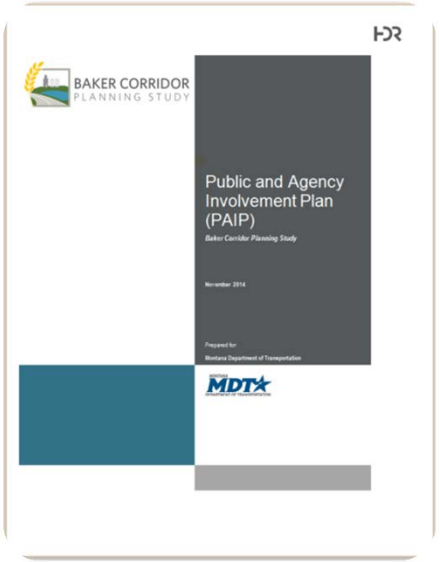


STUDY SCHEDULE



PUBLIC INVOLVEMENT PROCESS

- The *Baker Corridor Planning Study* includes the following public involvement activities:
  - Two informational meetings in Baker
  - Coordination with stakeholders, resource agencies, and other interested parties, as needed
  - Study website
  - Study newsletters
  - Stakeholder meetings (as required)



Find the Public and Agency Involvement Plan on the study website.

PROJECT STAKEHOLDERS

- City of Baker Chamber of Commerce and Agriculture
- Baker Municipal Airport
- Southeast Montana Area Revitalization Team (SMART) – Fallon County Economic Development
- BNSF Railway
- Equity Coop Elevator
- Denbury Resources
- Trucking Operations (Freight and Oil/Gas Services)
  - Continental Resources
  - Mitchell's Oilfield Services
  - D&M Water Services
  - Power Fuels
  - Woody's Trucking LLC
  - Griffith Excavation Inc.
- Brosz Engineering
- Others as requested

STUDY AREA EXISTING CONDITIONS

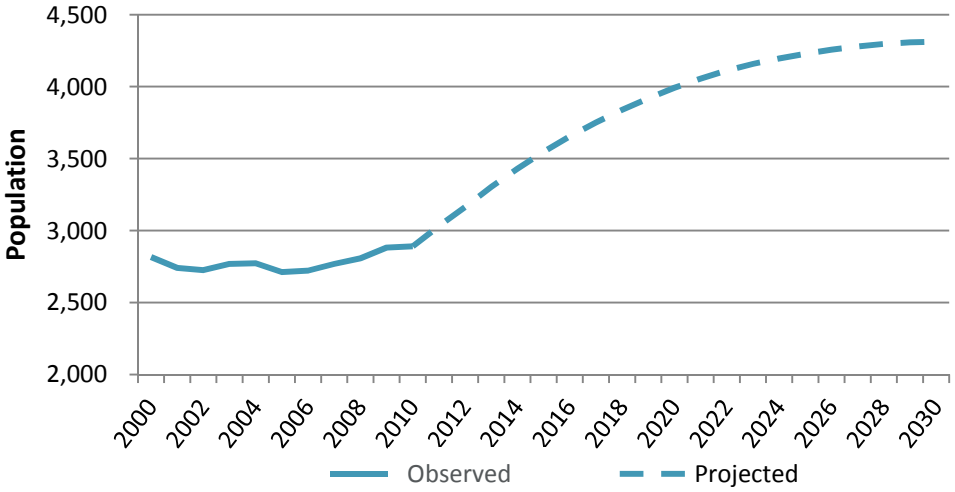
Population & Demographics

- Population estimates (2013):
  - Fallon County: 3,085
  - City of Baker: 1,812
  - 60% of Fallon County resides in City of Baker
  - City of Baker population grew by 3% over past decade
- County demographics:
  - 97.8% of County residents predominantly self-identified as White
  - 2.1% of County residents are American Indian
  - <1% other races

STUDY AREA EXISTING CONDITIONS

Demographics & Population

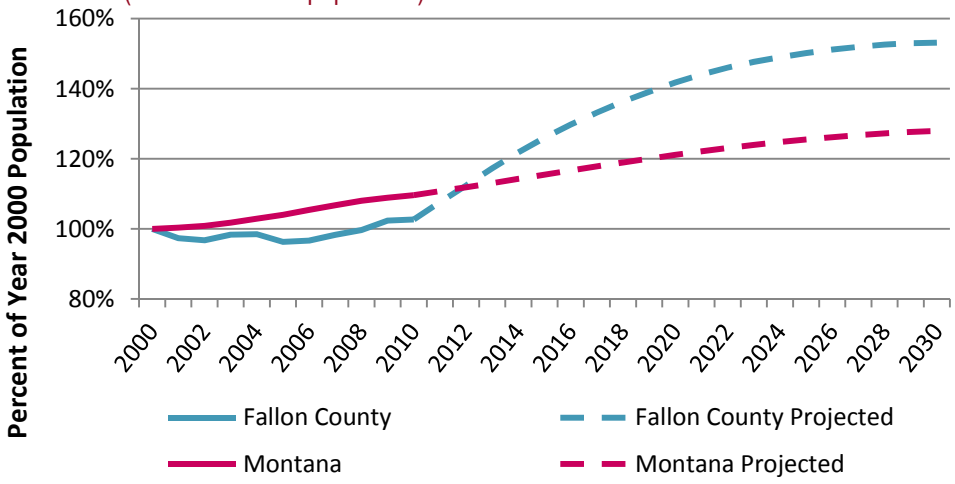
Fallon County Observed and Projected Population



- MT Dept. of Commerce estimated population growth:
  - Fallon County population to grow by approx. 1,500 by 2030

- Fallon County is projected to have much higher population growth rate than the state as a whole

Montana and Fallon County Total Observed and Projected Population (Percent of 2000 population)

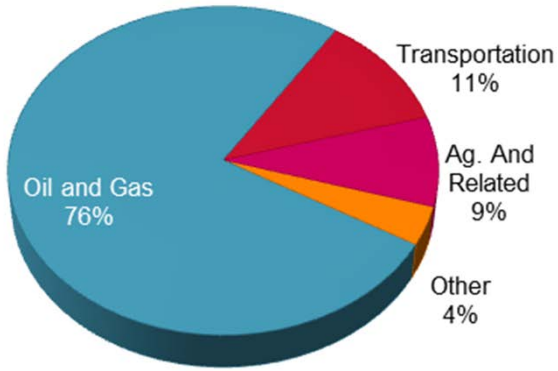


STUDY AREA EXISTING CONDITIONS

Employment & Economy

- Fallon County Employment by Industry (2009-2013)
  1. Agriculture, forestry, fishing, hunting, and mining: 27.5%
  2. Educational services, and health care and social assistance: 18.7%
  3. Construction: 10%
  4. Entertainment, accommodations, and food services: 8.0%

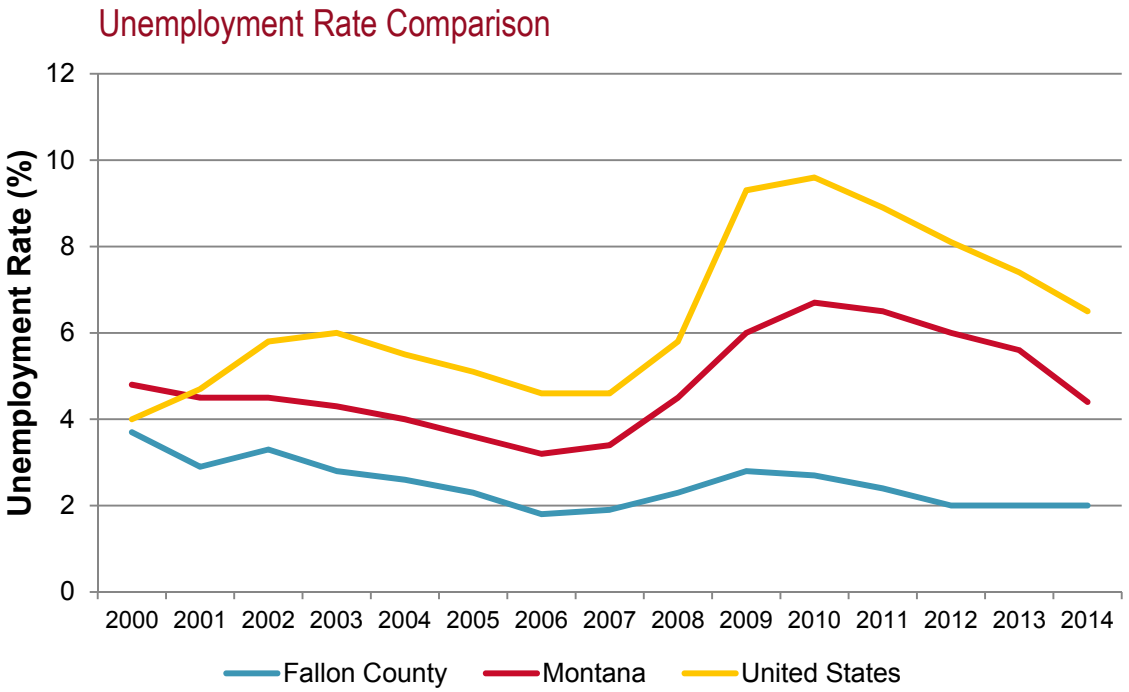
- Economic Base of Fallon County, Montana (2012)
  1. Oil and Gas: 76%
  2. Transportation: 11%
  3. Agriculture and Related: 9%
  4. Other 4%



Source: UM Bureau of Business and Economic Research

STUDY AREA EXISTING CONDITIONS

Economy & Employment



- Unemployment rates in Fallon County have remained low
- November 2014 unemployment rates:
  - Fallon County = 1.4%
  - State of Montana = 4.2%
  - United States = 5.5%

STUDY AREA EXISTING CONDITIONS

Highways

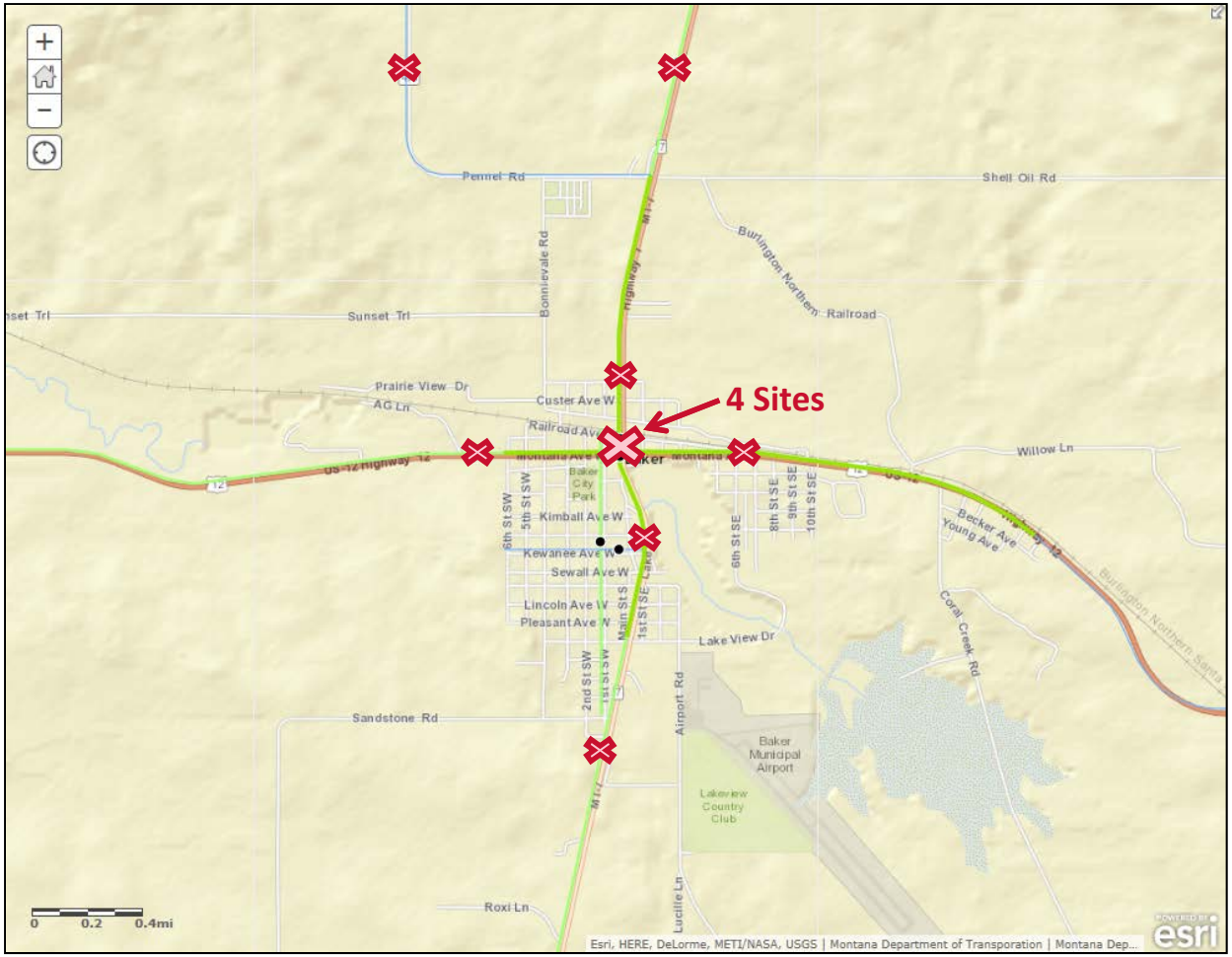
- US Highway 12
  - Functionally classified as Rural Minor Arterial
  - Runs east-west
  - Major linkage to I-94 to west and North Dakota to east
  - Speed limits range from 25 mph (city) to 70 mph (rural)
  - Two-lane highway
  - 155 access points within Study Area

- MT Highway 7
  - Functionally classified as Rural Minor Arterial
  - Runs north-south
  - Major linkage to I-94 to north at Wibaux
  - Speed limits range from 25 mph (city) to 70 mph (rural)
  - Two-lane highway
  - 94 access points within Study Area

STUDY AREA EXISTING CONDITIONS

Traffic Data

- 11 traffic count sites in Study Area
- Downtown intersection includes 4 sites: one on each leg of intersection



STUDY AREA EXISTING CONDITIONS

Traffic Data

Historic Annual Average Daily Traffic

Site ID	Route	Reference Marker	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
13-1-4*	US 12	76.13	750	750	980	990	930	1210	1220	790	990	1230
13-1-15	US 12	82.09	1210	1210	1150	1250	1180	1490	1500	1100	1470	1560
13-1-16	US 12	82.60	4000	4000	4330	4460	3600	3730	4530	4590	3750	3790
13-1-17	US 12	82.65	3610	3690	4310	4440	3470	3590	3690	3740	3520	3320
13-1-18	US 12	83.07	3170	3170	2780	2820	2650	2600	2610	2700	2280	2350
13-1-5*	US 12	88.12	880	880	810	1120	1050	880	870	880	990	810
13-2-2*	MT 7	29.34	660	660	810	870	820	390	390	710	750	1030
13-1-19	MT 7	34.32	1050	1460	1030	1130	1060	1120	1120	980	1350	1310
13-1-20	MT 7	35.14	2020	2680	2320	2390	2000	2070	2080	2320	2370	2460
13-1-21	MT 7	35.45	3930	4600	3910	4020	3070	3180	3190	3200	3720	3730
13-1-22	MT 7	35.52	4080	4080	3660	3770	3540	3660	3730	3780	3490	3580
13-1-23	MT 7	35.76	2500	2500	2760	2860	2690	2910	2920	2610	2690	2990
13-1-7	MT 7	36.95	1140	1140	1380	1320	1240	1120	1120	930	1090	1320
13-1-12	S-493	1.26	220	330	290	400	380	370	310	310	260	270

Source: MDT 2014

* Site located outside the Study Area Boundary.

Highway traffic volumes highest within the City Limits

- US Highway 12 traffic within the Study Area ranges from 1,560 vehicles per day (vpd) to 3,790 vpd (2013 counts)
- MT Highway 7 traffic has a similar range within the Study Area: 1,310 – 3,730 vpd
- Traffic volumes are highest within the City of Baker

STUDY AREA EXISTING CONDITIONS

Traffic Data – Heavy Vehicles

Average Daily Traffic

Corridor	Reference Marker	ADT	AADT	HV
US 12	80	1467	1280	14%
US 12	87	1296	1130	20%
MT 7	31	834	730	21%
MT 7	37	1439	1260	29%

Source: MDT 2014

- The Study Area has a high percentage of heavy vehicle (HVs)
- Larger volumes of HVs make turns from southbound MT 7 to eastbound US 12 and westbound US 12 to northbound MT 7 throughout the day in addition to the peak period.

STUDY AREA EXISTING CONDITIONS

Traffic Projections

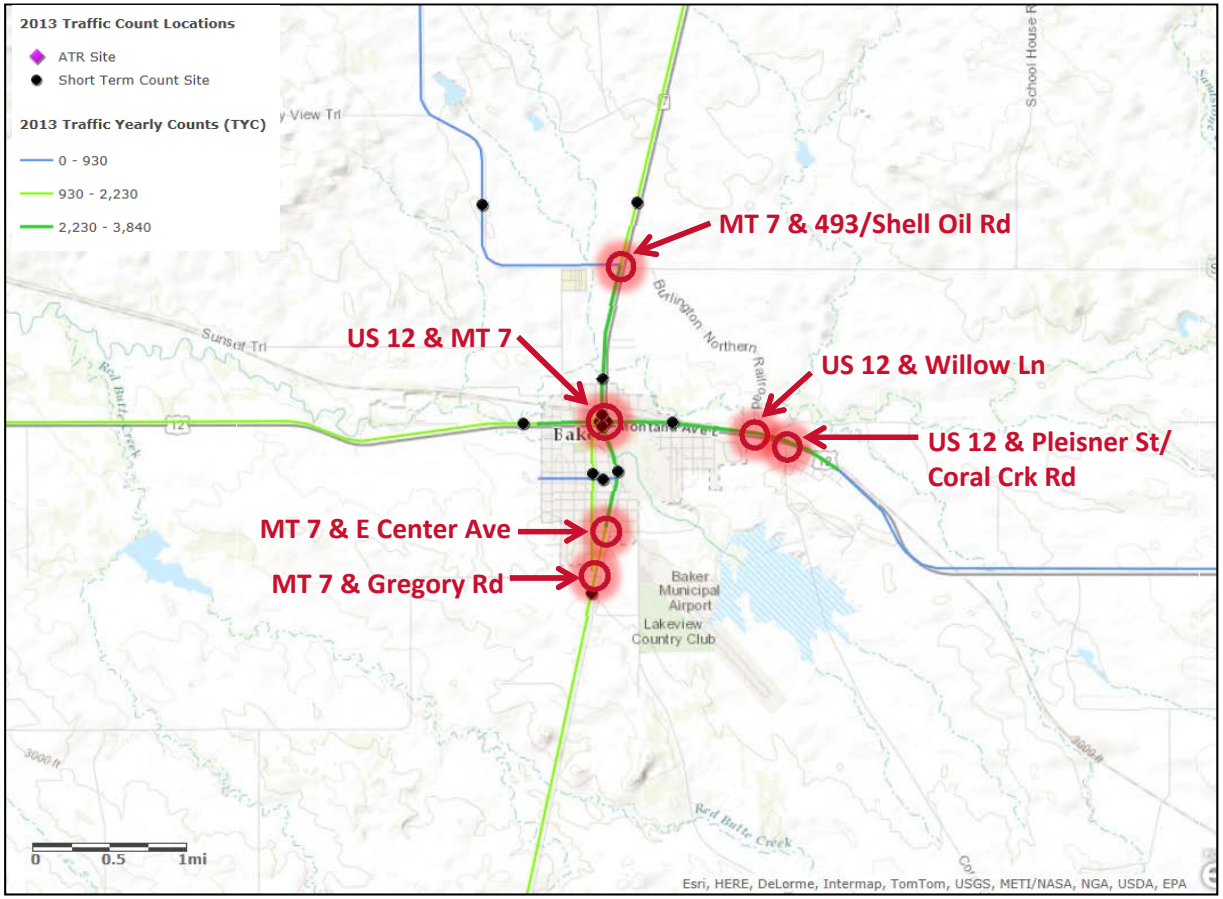
Projected ADT Traffic Volumes (2034)

Site ID	Route	Reference Marker	2013	Low Growth (2%)	Medium Growth (5%)	High Growth (5% vehicles/10% HV
13-1-4*	US 12	76.13	1230	1900	3400	4000
13-1-15	US 12	82.09	1560	2400	4300	4900
13-1-16	US 12	82.60	3790	5700	10600	11100
13-1-17	US 12	82.65	3320	5000	9200	10000
13-1-18	US 12	83.07	2350	3600	6500	7300
13-1-5*	US 12	88.12	810	1200	2300	3000
13-2-2*	MT 7	29.34	1030	1600	2900	3400
13-1-19	MT 7	34.32	1310	2000	3600	4200
13-1-20	MT 7	35.14	2460	3700	6900	7400
13-1-21	MT 7	35.45	3730	5700	10400	11000
13-1-22	MT 7	35.52	3580	5400	10000	10800
13-1-23	MT 7	35.76	2990	4500	8300	9100
13-1-7	MT 7	36.95	1320	2000	3700	4500
13-1-12	S-493	1.26	270	400	800	1100

- Three growth scenarios were developed to demonstrate resulting growth in traffic
  - Low Growth: 2% growth rate for all vehicles (passenger vehicles and heavy trucks)
  - Medium Growth: 5% growth rate for all vehicles
  - High Growth: 5% growth rate for regular vehicles, 10% growth rate for heavy vehicles

STUDY AREA EXISTING CONDITIONS

Traffic Data – Intersection Analysis



Turning movement counts gathered at six (6) main intersections.

- US 12 & Pleisner St
- US 12 & Willow Ln
- MT 7 & Shell Oil Rd
- MT 7 & US 12
- MT 7 & E Center Ave
- MT 7 & Gregory Rd

STUDY AREA EXISTING CONDITIONS

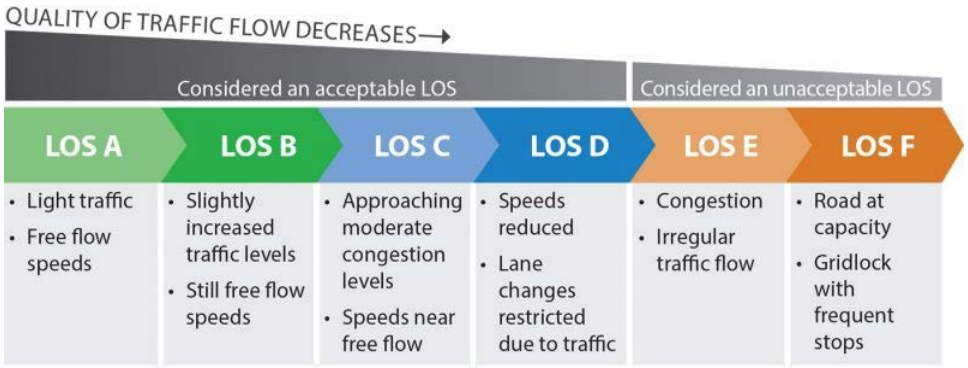
Traffic Data – Intersection Level of Service (LOS)

Existing and Projected Level of Service during Peak Hour

Intersection	Peak Hour	2014 Current LOS (Delay[1])	2034 Projected LOS[2] (Delay)
US 12 & MT 7	5:45 – 6:45 PM	B (14.4)	F (71.3)
US 12 & Willow Lane	5:15 – 6:15 PM	A (9.6)	B (10.1)
US 12 & Pleisner Street	2:45 – 3:45 PM	A (9.7)	B (10.4)
MT 7 & Shell Oil Road/S-493	7:30 – 8:30 AM	C (15.2)	D (28.2)
MT 7 & Center Ave	5:00 – 6:00 PM	A (9.7)	B (10.3)
MT 7 & Gregory Ave	6:00 – 7:00 PM	A (8.8)	A (9.1)

Note: The worst-performing leg LOS is shown for each intersection.
[1] Delay is shown in seconds.
[2] Projections use a 2% growth rate

Level of Service (LOS) is a term used to qualitatively describe roadway and intersection traffic operations using "letter grades" ranging from A (best) to F (worst).



STUDY AREA EXISTING CONDITIONS

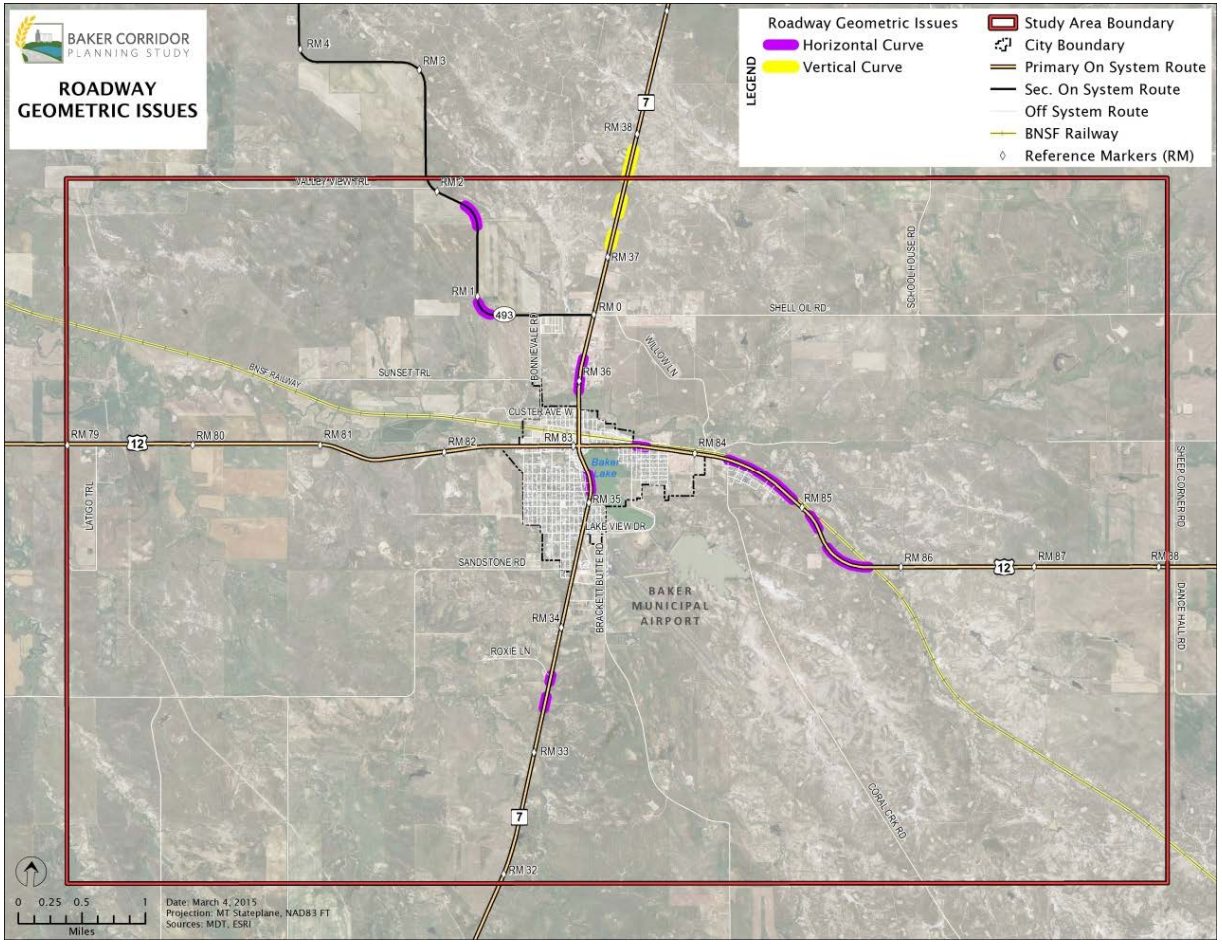
Roadway Geometrics

Horizontal Curves

- 10 curves do not meet current MDT design standards
  - Radius
  - Stopping Sight Distance

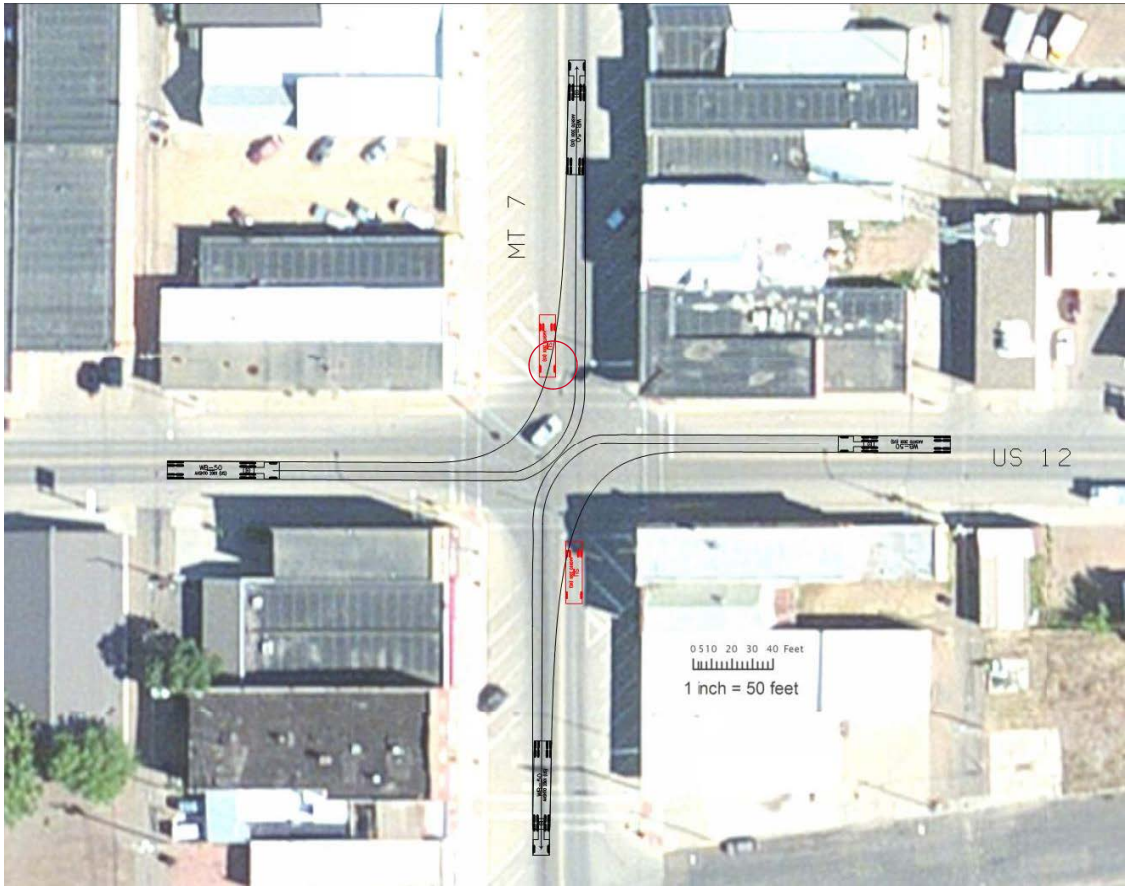
Vertical Curves

- 3 curves do not meet current MDT standards
  - Curvature
  - Grade
  - Stopping Sight Distance



STUDY AREA EXISTING CONDITIONS

Intersection Turning Movements

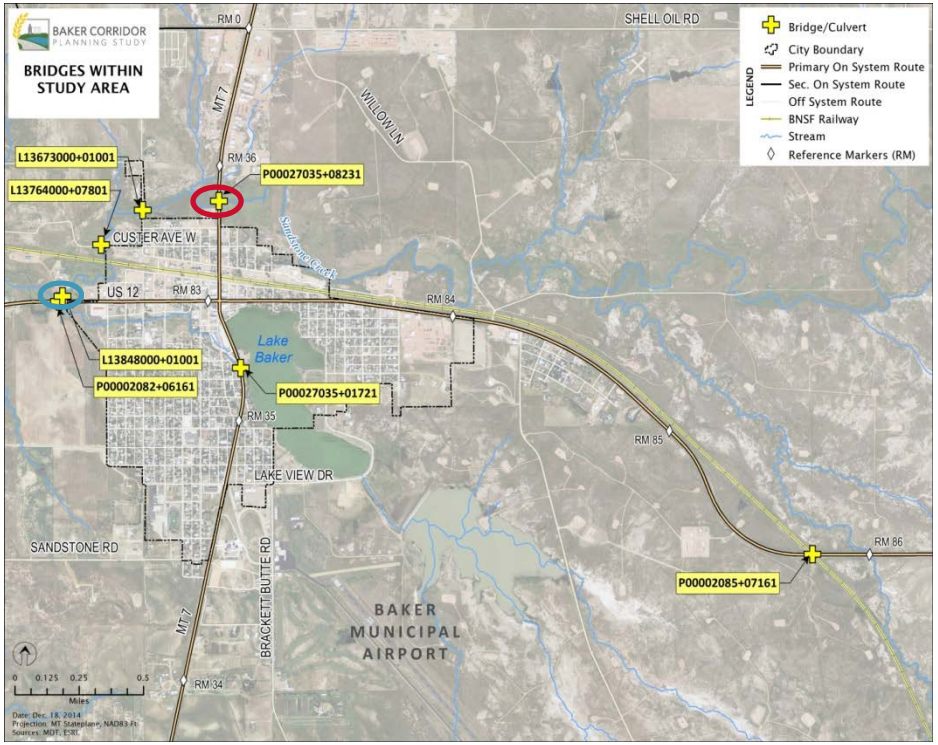


- The intersection of US 12 and MT 7 cannot accommodate proper turning movements of medium sized and standard sized semi-trailers
- A WB-50 design vehicle (truck with 50’ wheelbase) cannot make turning movements from US 12 onto MT 7 without conflict
- Note that a larger WB-67 vehicle is the standard-sized semi-truck

STUDY AREA EXISTING CONDITIONS

Bridges

- Built in 1941, the bridge located just north of Baker on MT 7 at RM 35.86 spanning Sandstone Creek (P00027035+08231) has been categorized as **Functionally Obsolete.**
- Built in 2003, the bridge just north of US 12 on Ag Lane (L13848000+01001) has been categorized as Structurally Deficient. This bridge was recently replaced.



Bridge ID	Last Inspection Year	Sufficiency Rating	Structure Status (NBI Rating)
P00002082+06161	2014	83	Not Deficient
P00002085+07161	2014	77.1	Not Deficient
P00027035+01721	2014	93.3	Not Deficient
P00027035+08231	2014	69.6	Functionally Obsolete
L13673000+01001	2013	73.2	Not Deficient
L13764000+07801	2013	99.2	Not Deficient
L13848000+01001	2013	47.9	Structurally Deficient

Source: MDT Bridge Management System, 2014

STUDY AREA EXISTING CONDITIONS

Other Transportation Modes – BNSF Railway

Railroad Crossings within the Study Area

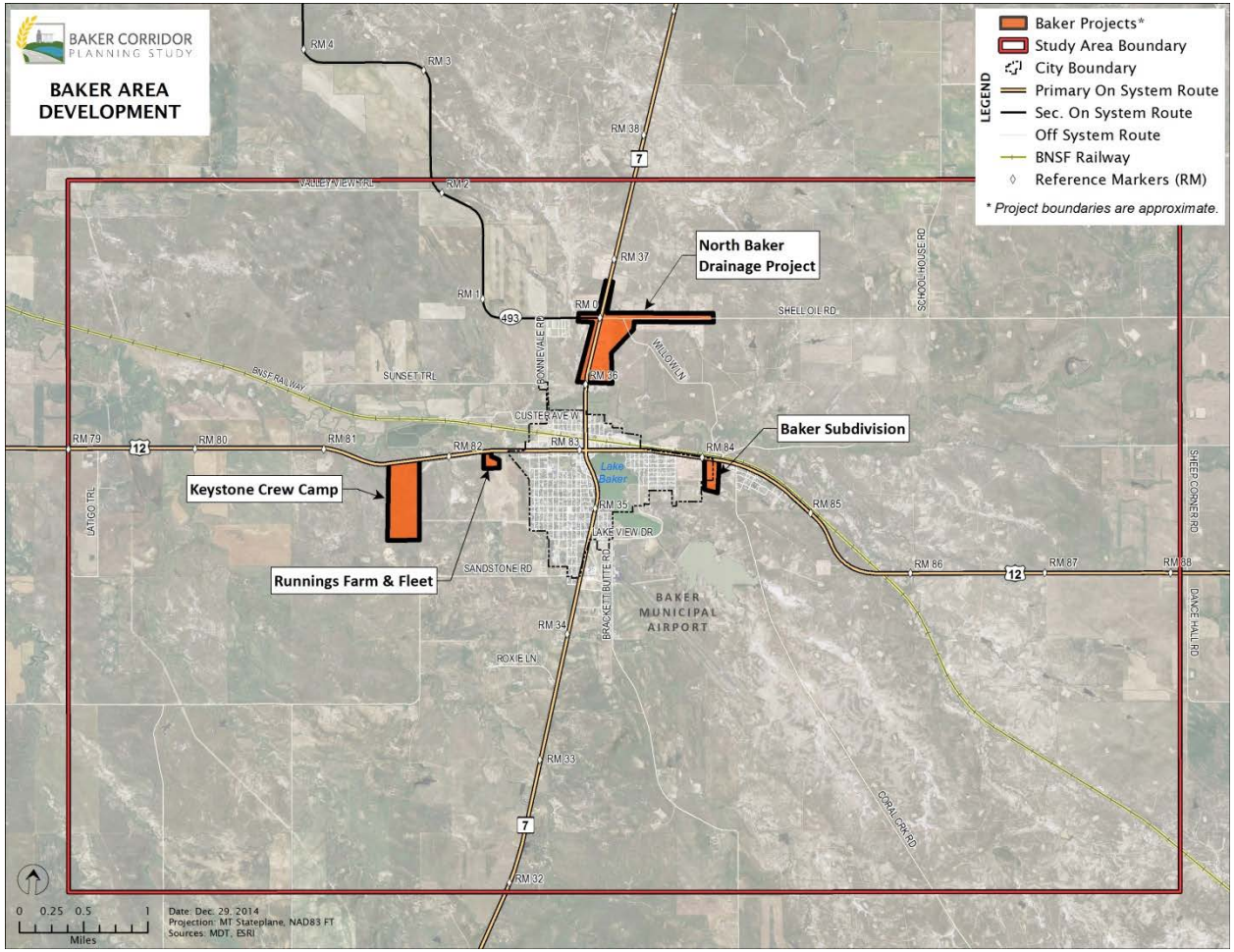
Location	AADT	Warning Device / Crossing Type	Trains Per Day	# of Tracks	Train Switching	Speed Over Crossing
Baker, E 1.6 mi on US 12 (overpass)	990	RR Underpass, grade separated	5	0	0	40
Baker, E 0.2 mi (Willow Lane)	110	Cross bucks, at-grade	5	2	0	40
Berwald Rd	102	Cross bucks, at-grade	5	2	0	40
Main Street (MT 7)	4509	Gates, at-grade	5	3	0	40
N 3rd Street W	402	Gates, at-grade	5	3	0	40

Source: MDT, 2014

- Four BNSF Railway-operated at-grade crossings are located within the Study Area
- There is an approximate 2-mile stretch of double track (main, siding) in Baker
- The crossing located on Willow Lane has steep roadway grades, which can be problematic for low clearance trucks.

STUDY AREA EXISTING CONDITIONS

Relevant Projects

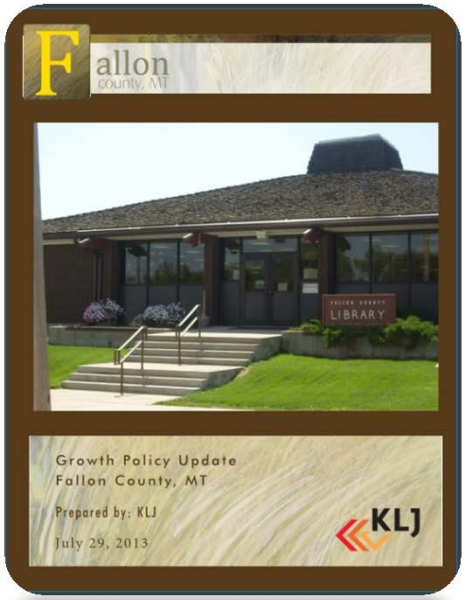


- North Baker Drainage Project
- Baker Subdivision
- Keystone XL Pipeline development
  - Crew Camp
  - Additional water & sewer infrastructure
  - "Market link" pipeline connection at Baker Tank Farm

STUDY AREA EXISTING CONDITIONS

Fallon County Growth Policy

- Updated in 2012
- Includes goals, objectives, and policies to facilitate decision-making related to future growth in the area
- Includes specific goals and objectives related to transportation:
  - Reduce truck traffic levels in the City of Baker
  - Maintain safe streets and roads
  - Minimize disruption of traffic circulation caused by barriers such as the railroad
  - Plan for street and road extensions and preserve adequate right-of-way for such extensions
  - Protect Baker Municipal Airport's air space



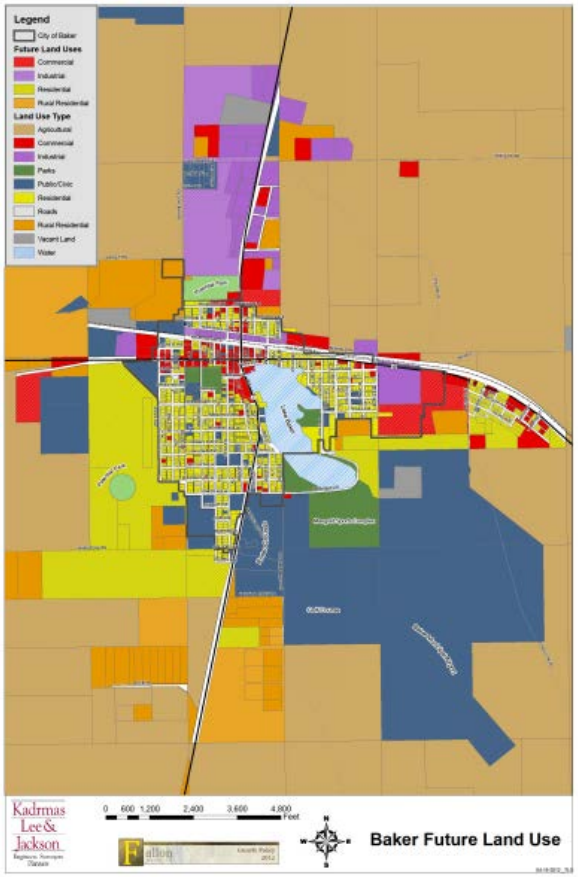
2012 Fallon County Growth Policy

STUDY AREA EXISTING CONDITIONS

Land Use and Zoning

- Future Land Use Plan
  - Guides growth within the County and Baker
  - Encourages growth in areas with existing or easily expandable infrastructure
  - City of Baker growth directed towards north and west of city

- Zoning ordinance
  - Establishes zoning districts within city limits
  - Development standards

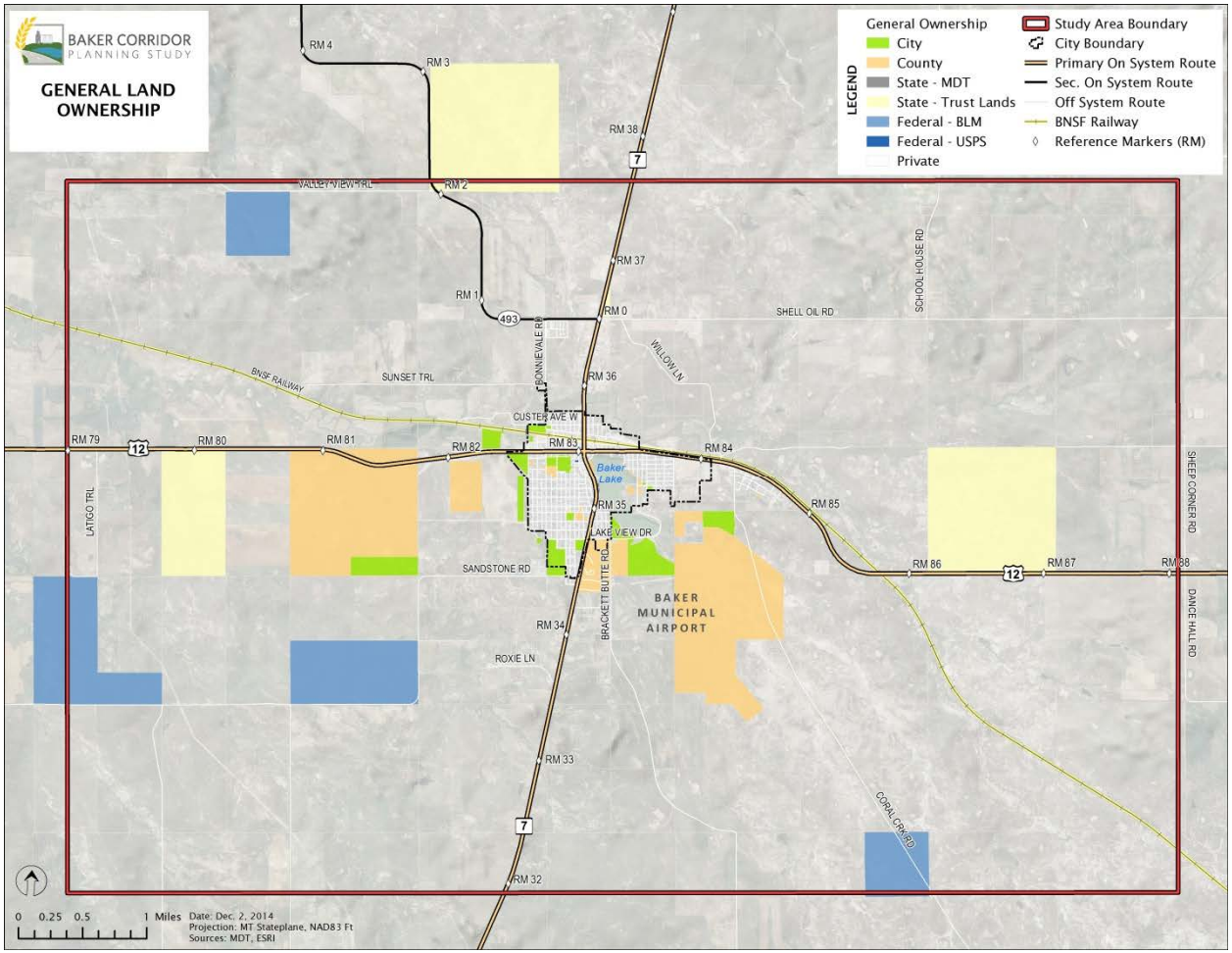


Baker Future Land Use Plan

STUDY AREA EXISTING CONDITIONS

Land Ownership

- Study Area land ownership predominantly privately owned
- State of Montana
- Fallon County
- BLM



STUDY AREA EXISTING CONDITIONS

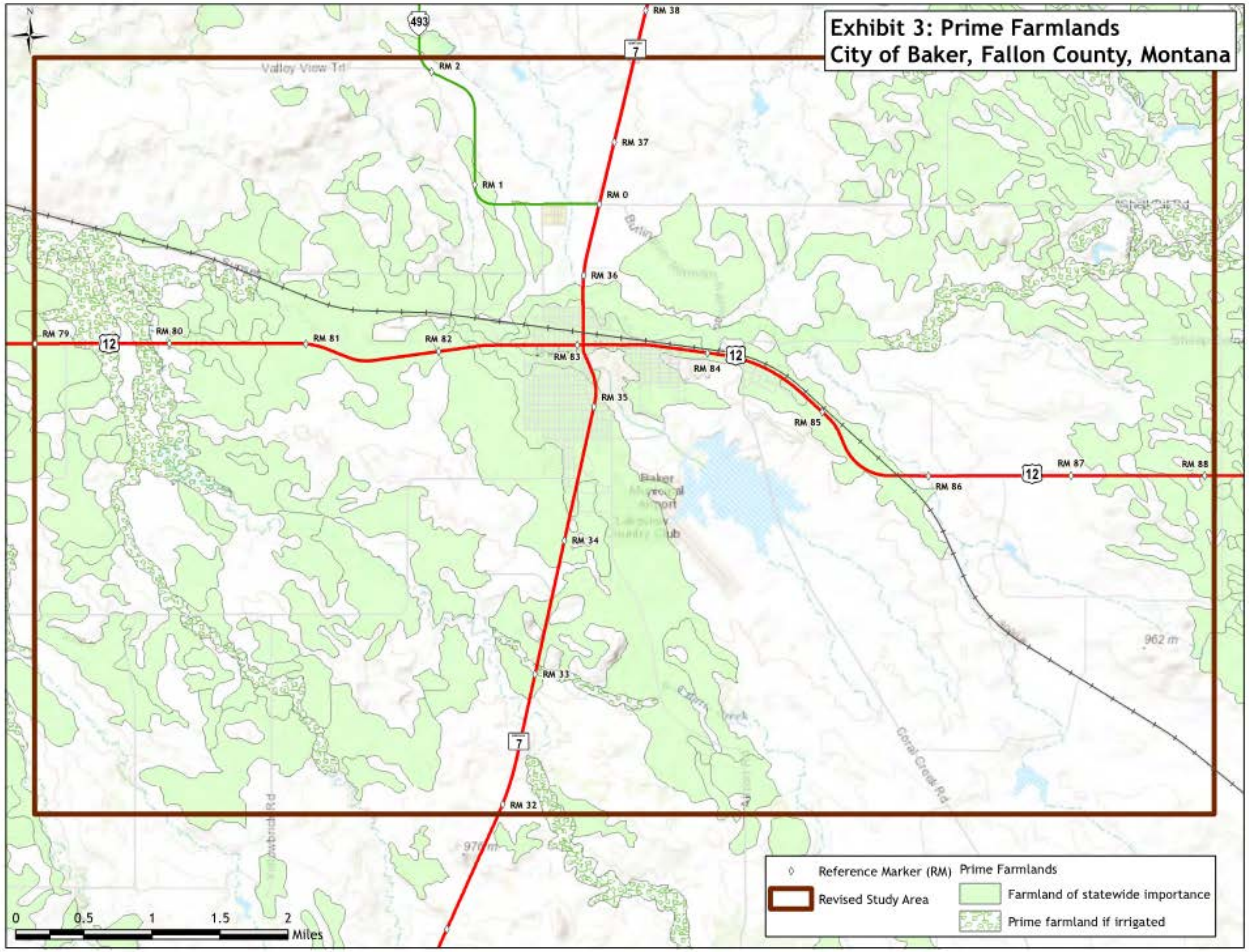
Environmental Resources

- Physical Environment
  - **Soil Resources and Prime Farmland**
  - Geologic Resources
  - **Surface Waters**
  - **Groundwater**
  - **Wetlands**
  - **Floodplains**
  - Irrigation
  - Air Quality
  - **Hazardous Materials**
  - Noise
  - Visual Resources
- Biological Resources
  - Vegetation
  - **Wildlife**
  - **Threatened and Endangered Species**
  - **Montana Species of Concern**
- Recreational, Historical and Cultural Resources
  - **Parks and Recreational Sites**
  - **Cultural/Historic Sites**

STUDY AREA EXISTING CONDITIONS

Soil and Farmland

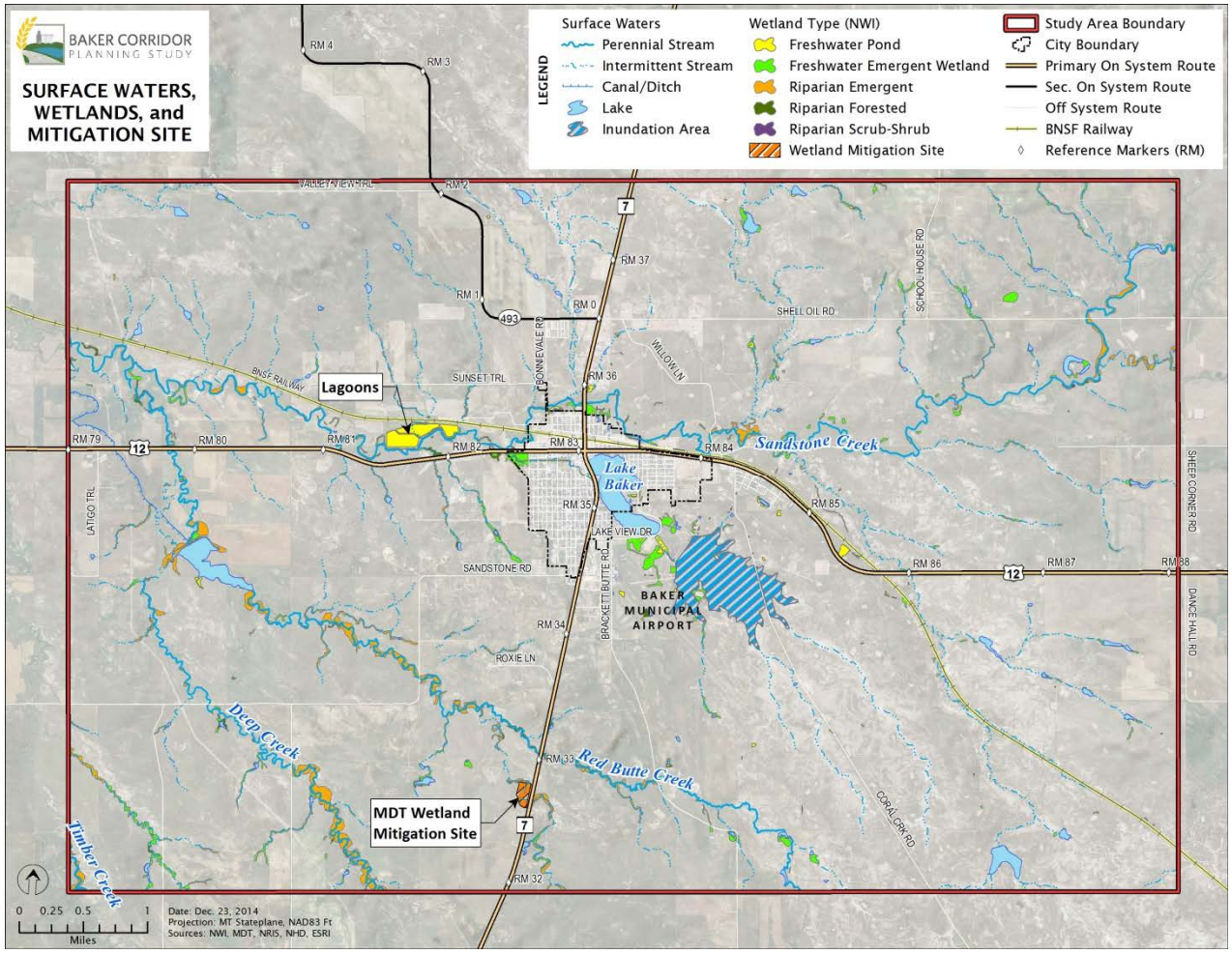
- The Farmland Protection Policy Act (FPPA) protects farmland and minimizes conversion to non-agricultural uses
- Study Area contains farmland of state or local importance and prime farmland
- Any forwarded improvement options affecting farmland will require a CPA-106 Farmland Conversion Impact Rating Form for Linear Projects



STUDY AREA EXISTING CONDITIONS

Surface Waters

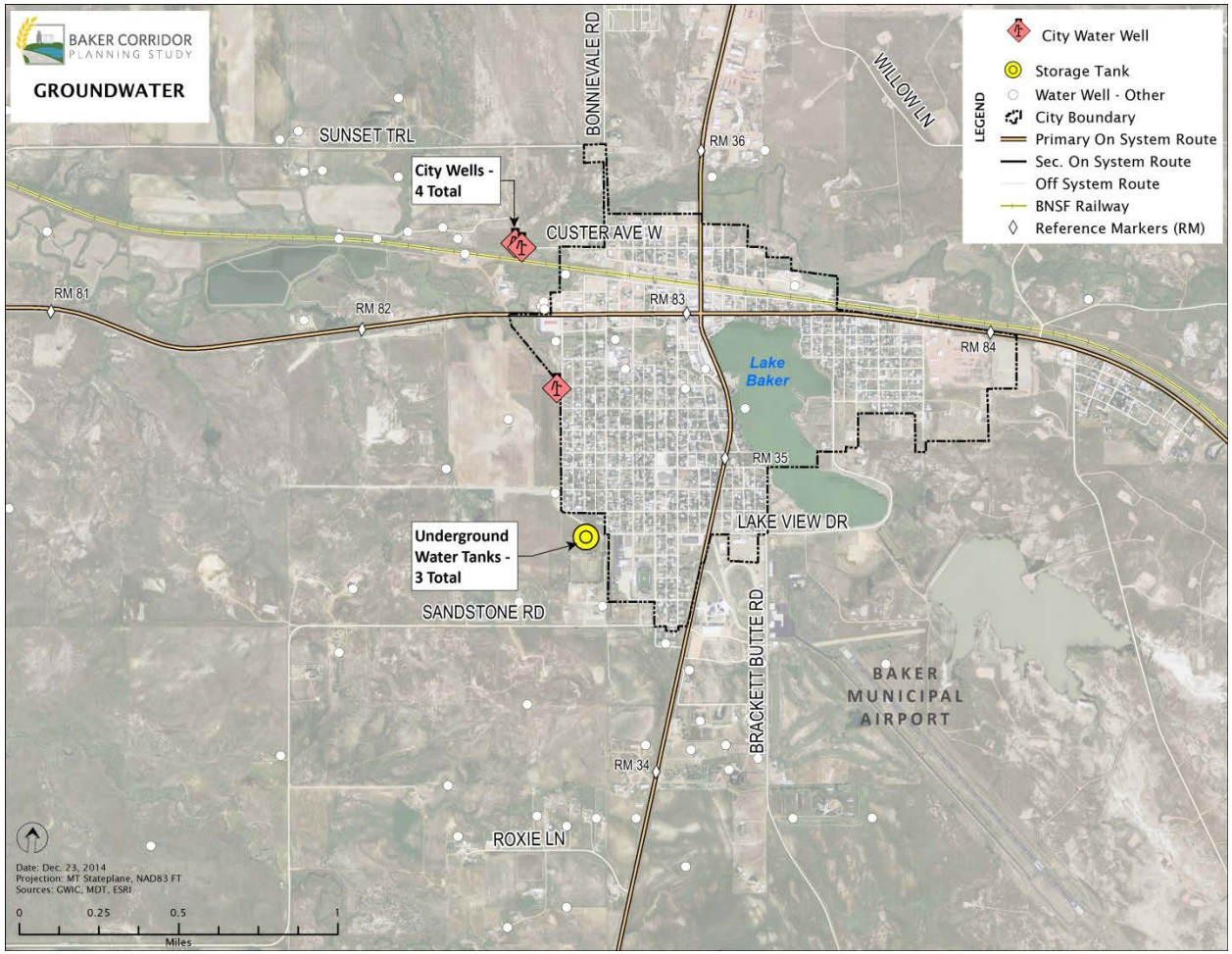
- Surface waters in the Study Area include:
  - Baker Lake
  - Sandstone Creek
  - Deep Creek
  - Red Butte Creek
  - Timber Creek
  - Irrigation
  - City lagoons
  - others
- Sandstone Creek is on the DEQ 303(d) list for impaired water bodies
  - Probable sources of impairment: agriculture and municipal point source discharges



STUDY AREA EXISTING CONDITIONS

Groundwater Resources

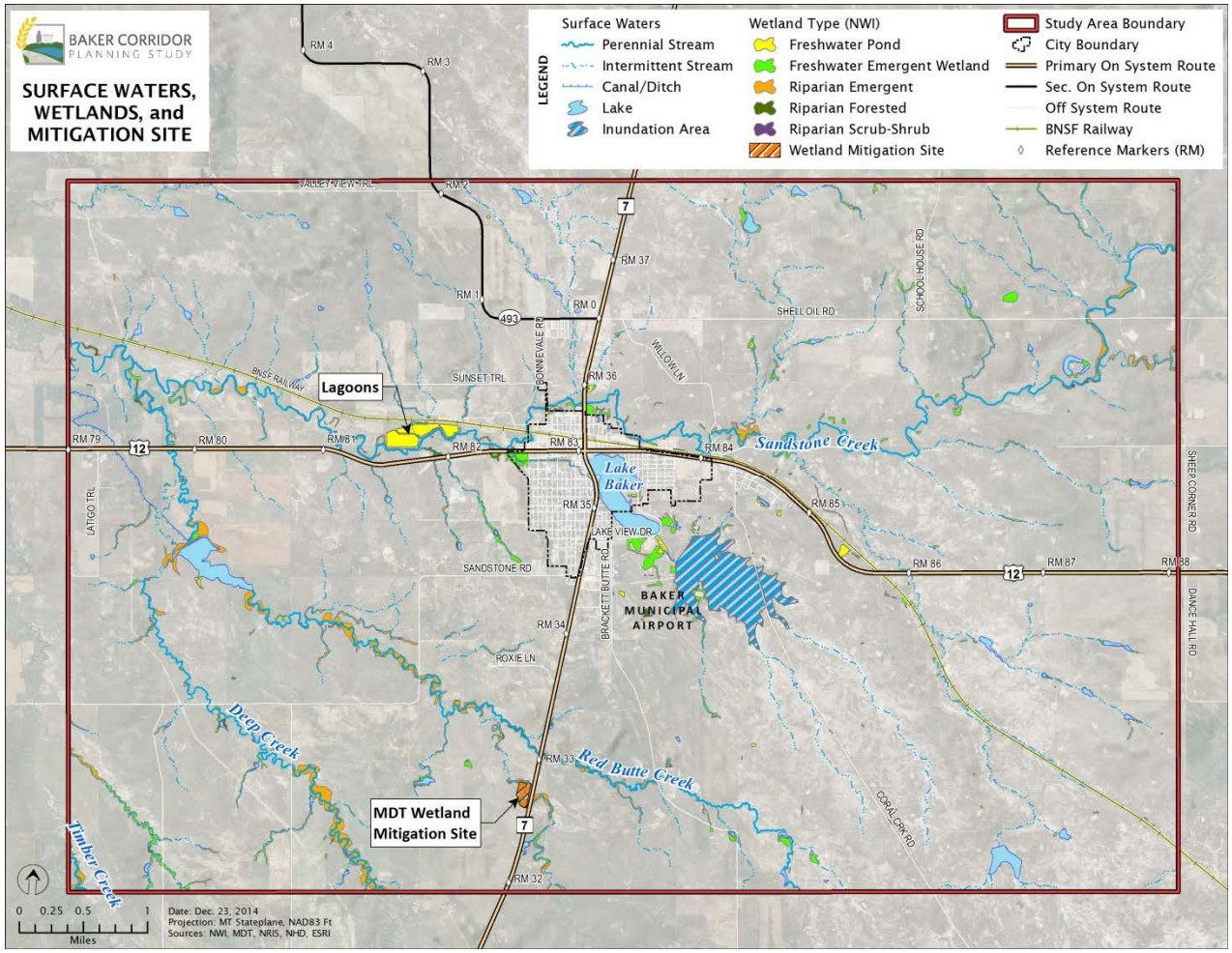
- The City of Baker has five public water supply wells in the Study Area
- Public water supply wells typically have 100’ setbacks
- Study Area contains numerous stockwater and domestic wells



STUDY AREA EXISTING CONDITIONS

Wetlands

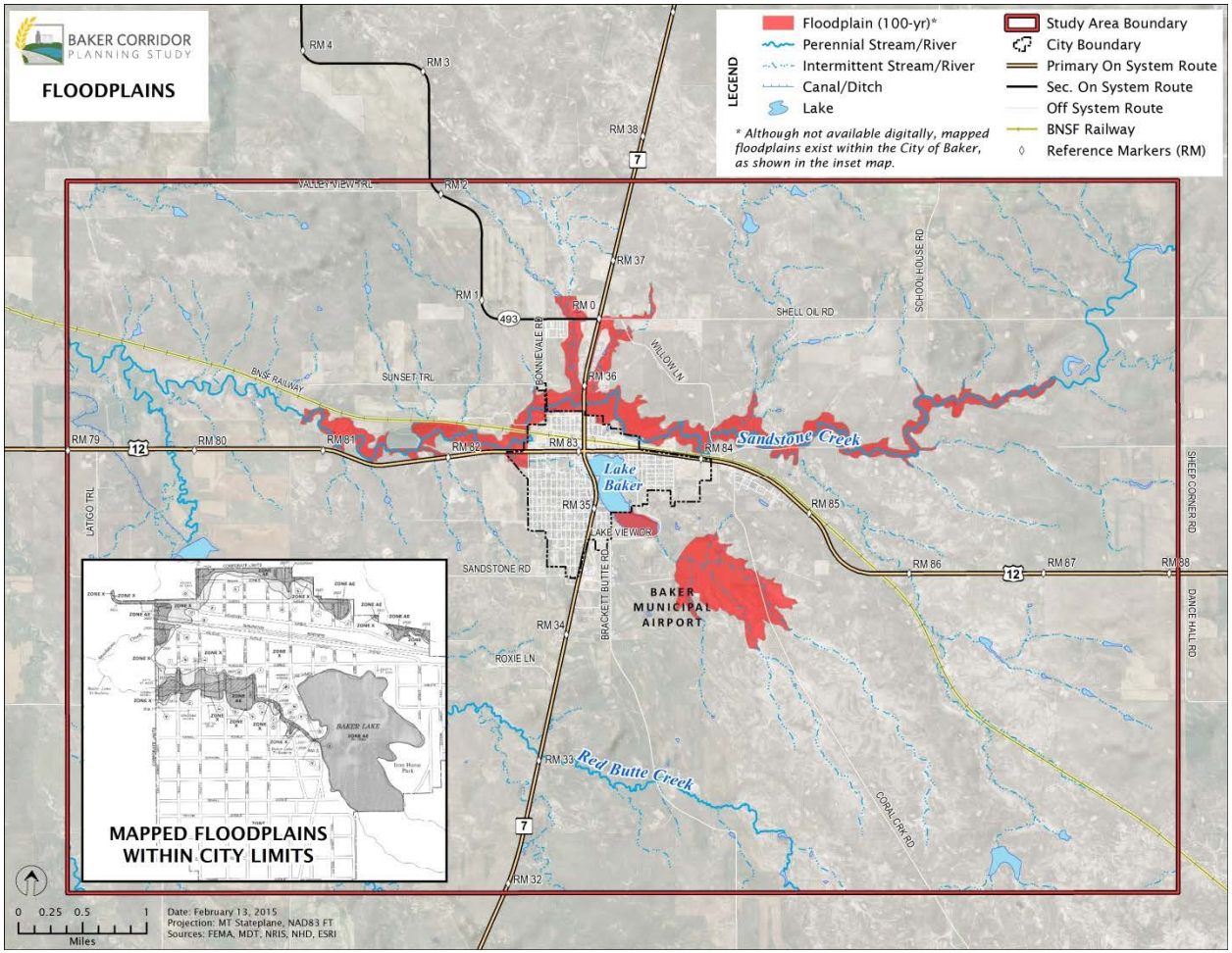
- Wetlands and waters of the U.S. are protected under the federal Clean Water Act
- Study Area includes numerous wetlands, water bodies, and unnamed drainages
- An MDT Wetland Mitigation Site located along MT 7
- Wetland delineations required when/if a project is identified for construction



STUDY AREA EXISTING CONDITIONS

Floodplains

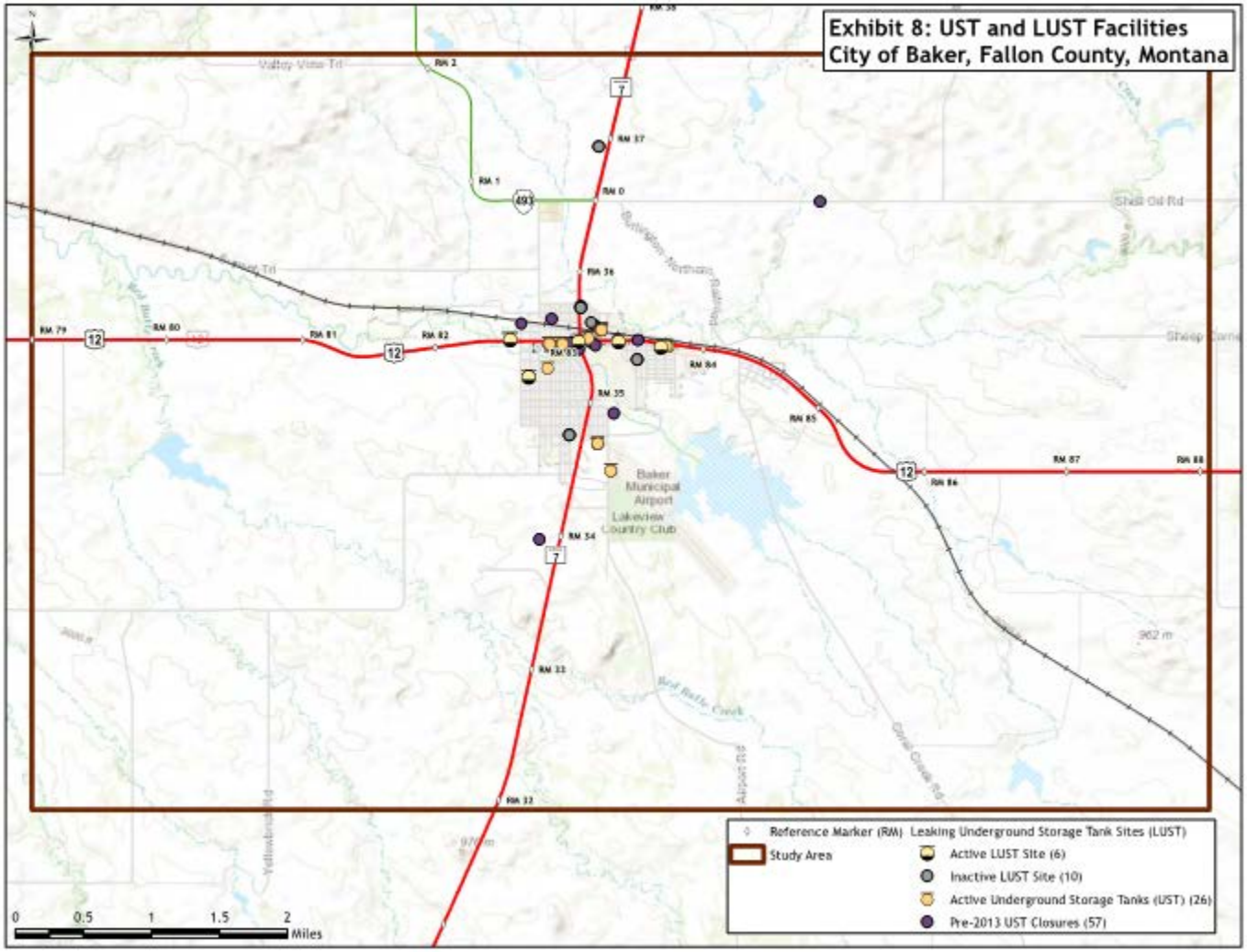
- Mapped floodplains exist along Sandstone Creek, Baker Lake, and the Baker Lake tributary within city limits
- Study Area has a history of flooding events



STUDY AREA EXISTING CONDITIONS

Hazardous Materials

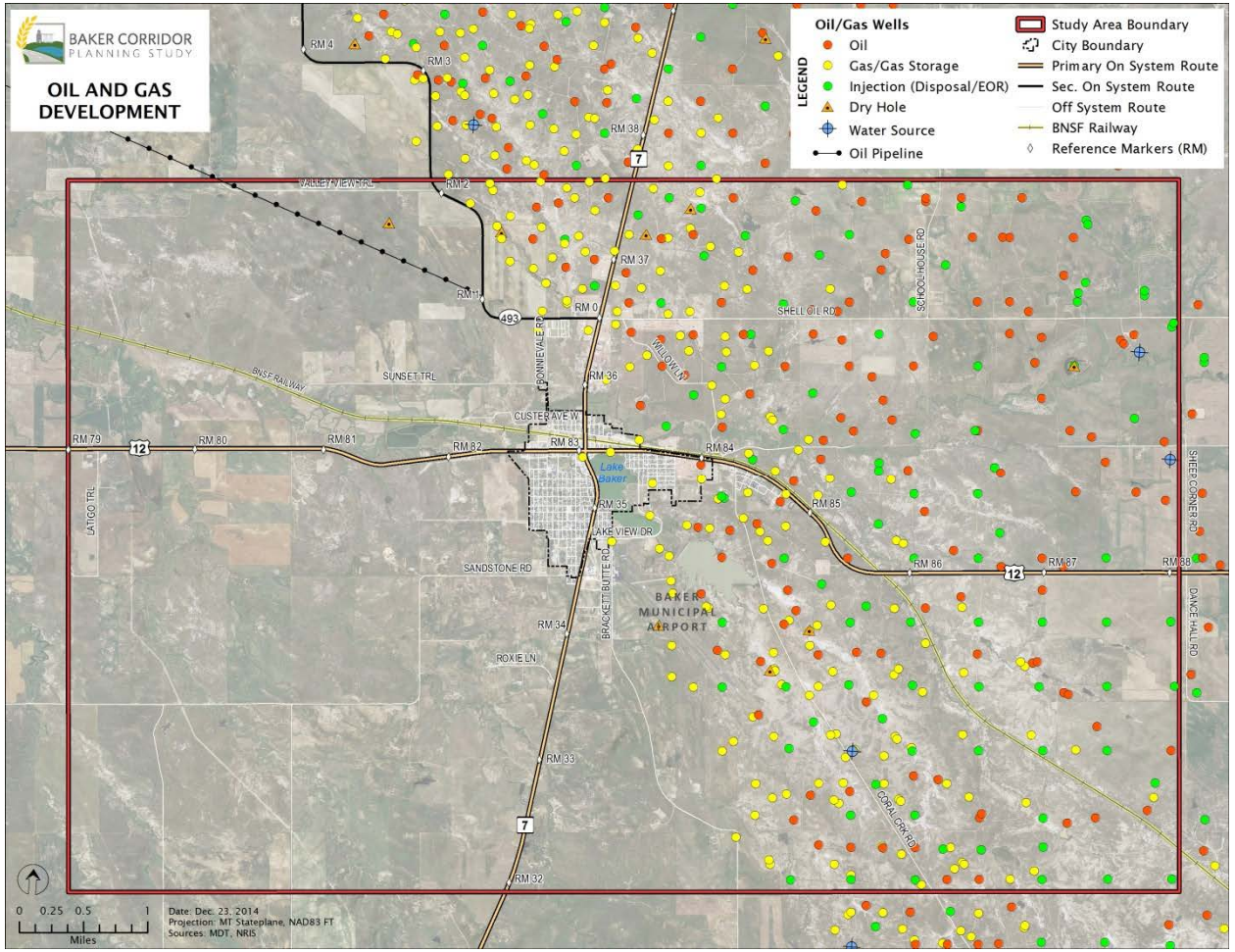
- 26 Underground Storage Tanks (USTs) in Study Area
- 6 active LUST sites
- 10 inactive LUST sites
- Abandoned mine site southwest of Baker



STUDY AREA EXISTING CONDITIONS

Oil and Gas Development

- Extensive oil and gas development within the Study Area
- One crude oil pipeline identified

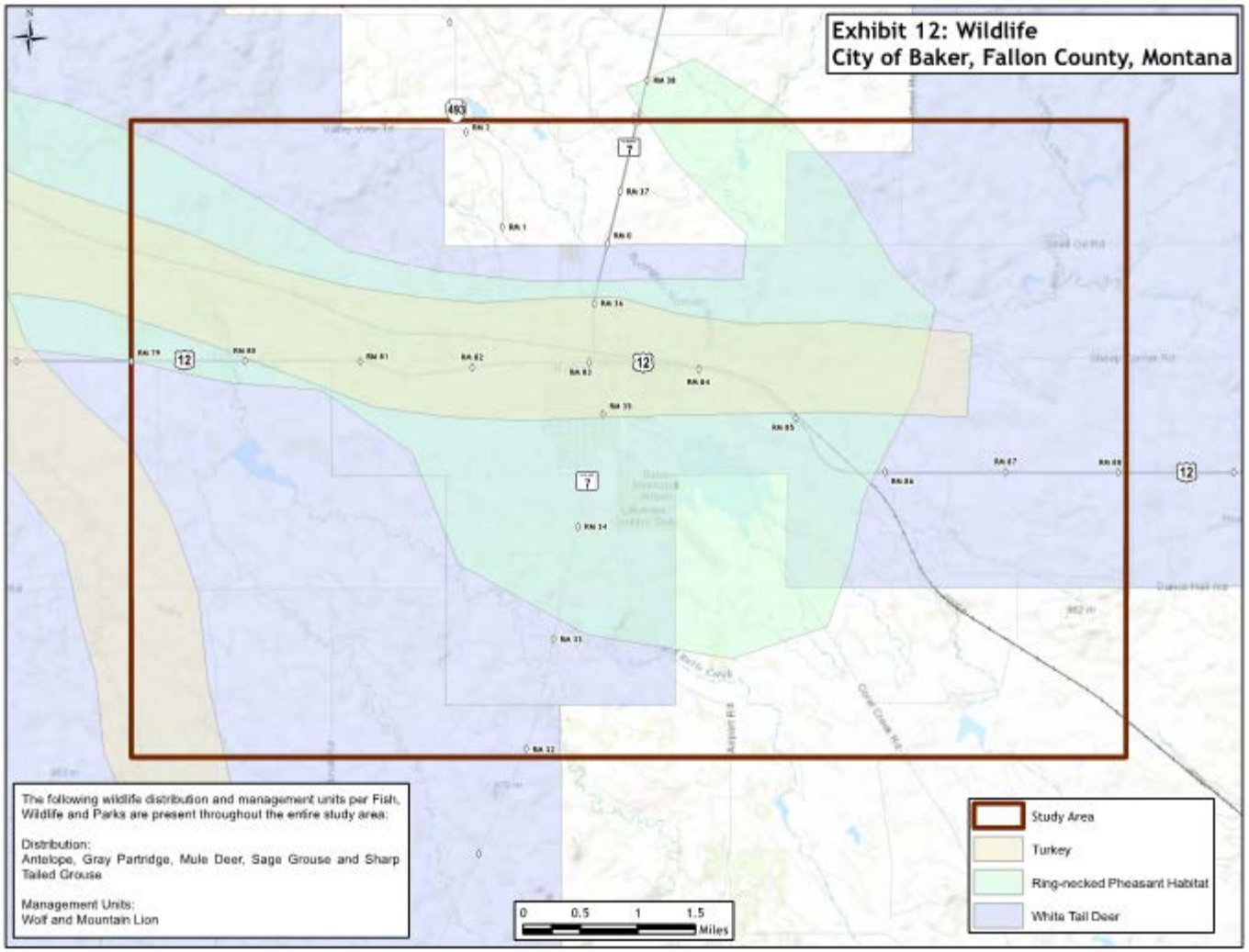


STUDY AREA EXISTING CONDITIONS

General Wildlife - Mammals

- Common mammals occurring in Study Area:

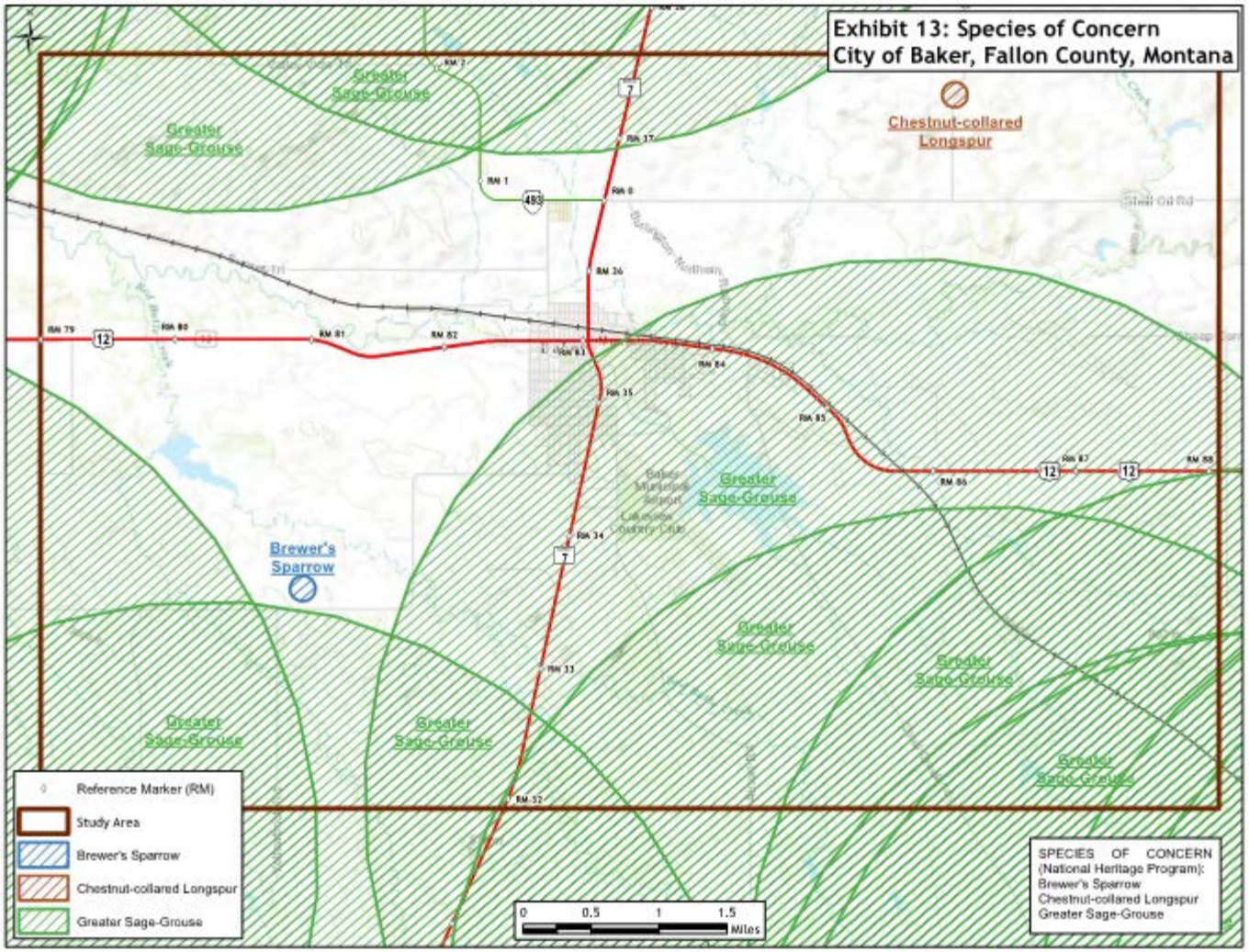
Mountain lion
Raccoon
Striped skunk
Badger
Bobcat
Red fox
Beaver
Muskrat
Long-tailed weasel
White-tailed jackrabbit
Western harvest mouse
Deer mouse
Prairie vole
Turkey
White-tailed deer
Ring-necked pheasant



STUDY AREA EXISTING CONDITIONS

General Wildlife - Birds

- No known bald eagle or golden eagle nests within Study Area
- Any forwarded project requires compliance with the MBTA and the Bald and Golden Eagle Protection Act



STUDY AREA EXISTING CONDITIONS

Montana Species of Concern

Animal Subgroup	Common Name	State[1] Rank	Habitat Description
Birds	Greater Sage-grouse	S2	Sagebrush
	Baird's Sparrow	S3B	Grasslands
	Brewer's sparrow	S3B	Sagebrush
	Chestnut-collard Longspur	S2B	Grasslands
Fish	Brook Stickleback	S4	Small prairie rivers
	Brassy Minnow	S4	Small prairie rivers
	Plains Minnow	S4	Small prairie rivers
	Creek Chub	S4	Small prairie rivers

Source: MNHP, 2014.

[1] State rank definitions are located in Appendix C.

- Montana species of concern (SOC) are considered to be "at risk" due to:
  - declining population trends
  - threats to their habitats
  - restricted distribution

STUDY AREA EXISTING CONDITIONS

Threatened and Endangered Species

Species	Status
Greater Sage-Grouse	Candidate
Sprague's Pipit	Candidate
Red Knot	Threatened
Whooping Crane	Endangered

Source: USFWS, 2014.

- Documented occurrence within Study Area:
  - Greater Sage-Grouse
  - Sprague's Pipit
- T&E species protected under the Endangered Species Act

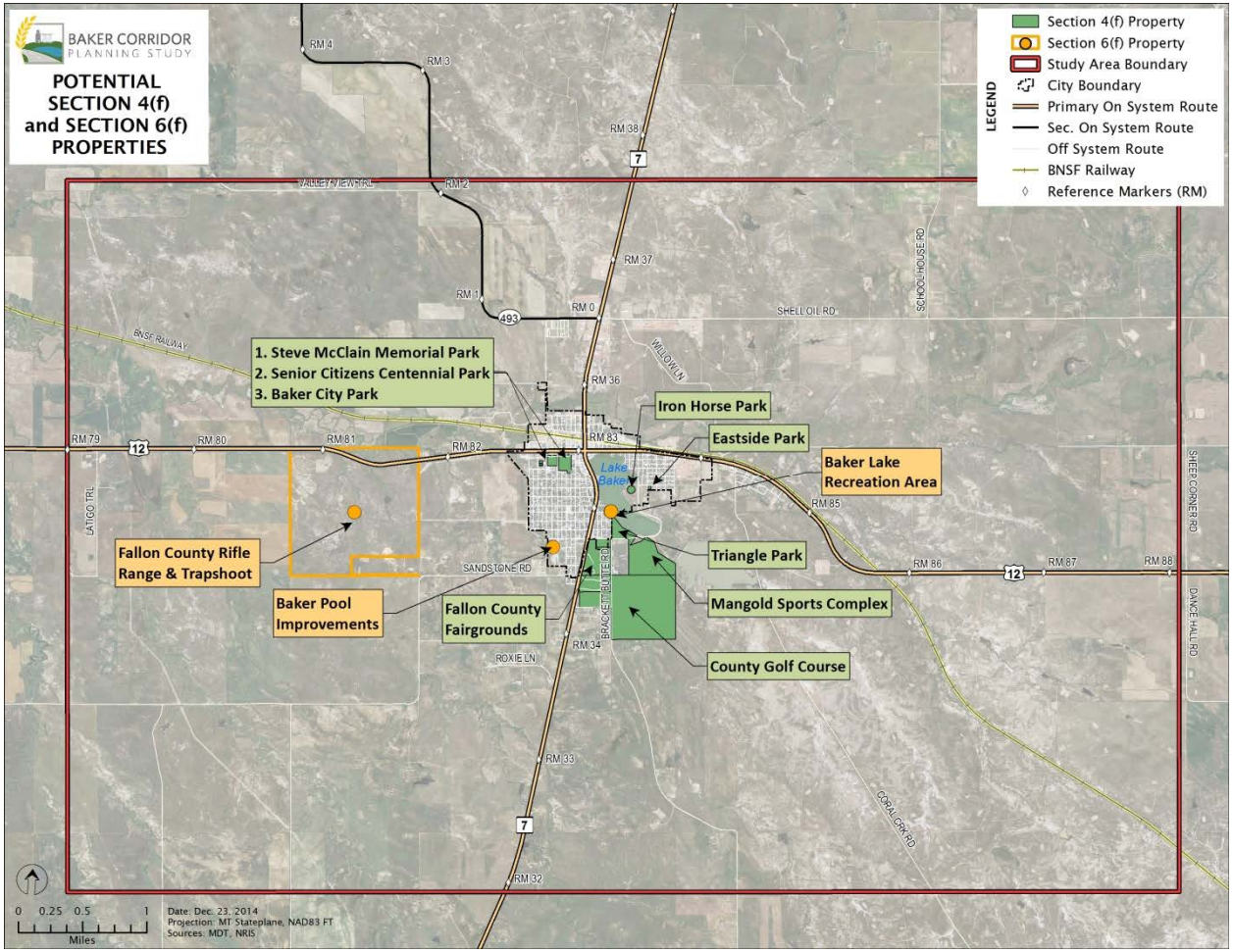
Greater Sage-Grouse

Sprague's Pipit

STUDY AREA EXISTING CONDITIONS

Recreational Resources

- Study Area includes recreational resources protected under Section 4(f) and Section 6(f)



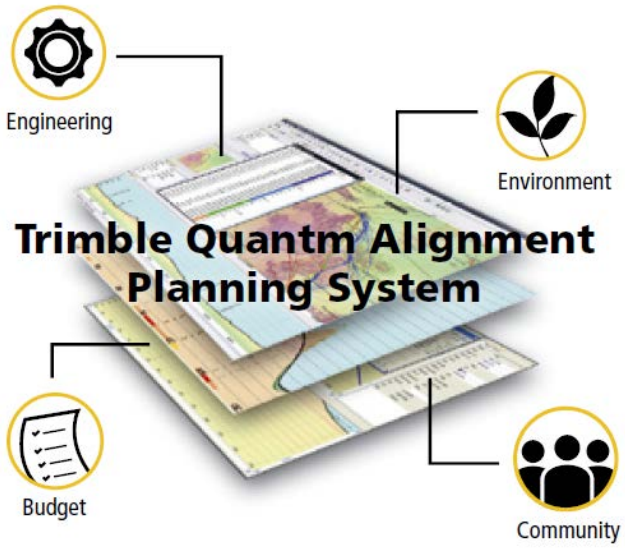
STUDY AREA EXISTING CONDITIONS

Cultural and Historical Resources

- File search through Montana SHPO revealed approximately 25 historic or archaeological properties within Study Area
  - Historic buildings
  - Bridges
  - Railroad
  - Historic irrigation system
  - Pre-contact buried campsites
  - Lithic scatters
- Forwarding improvements options require compliance with Section 106 of the National Historic Preservation Act (NHPA)
- Cultural resource surveys would be required

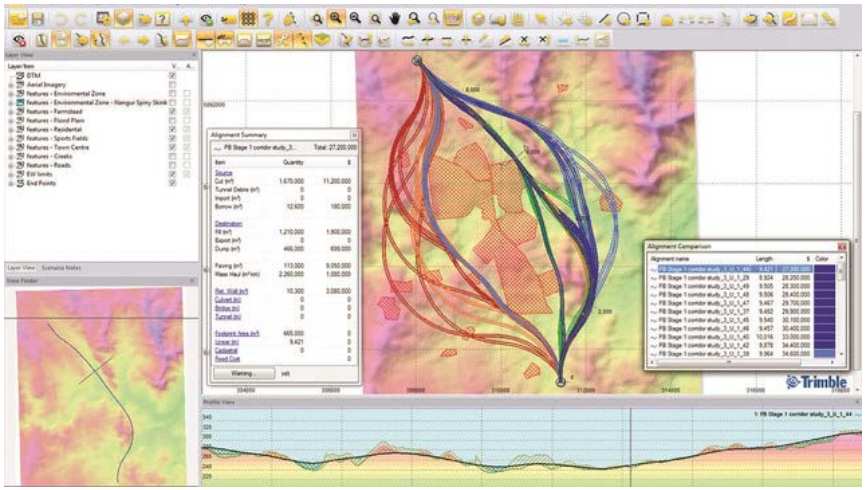
QUANTM ROUTE OPTIMIZATION

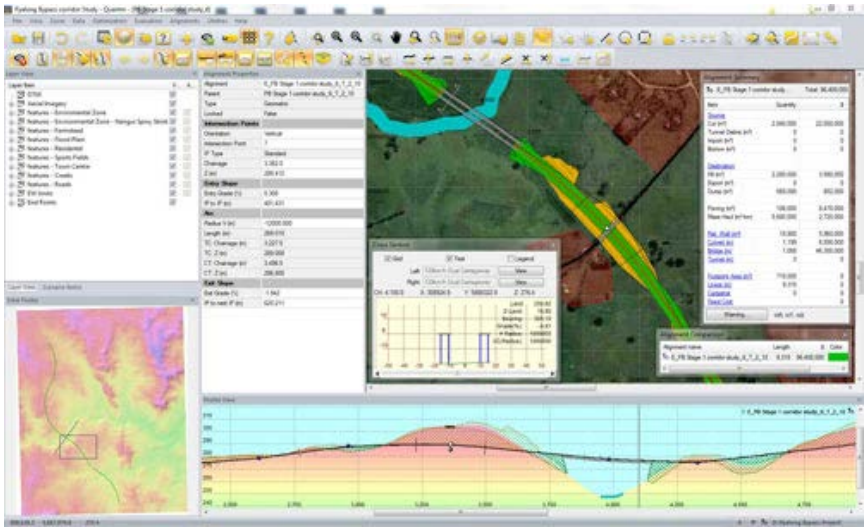
- Study is examining potential alternative alignments
- The Trimble Quantm Alignment Planning system:
  - Supports the planning process through corridor selection by considering the environmental, design, cost, and social factors during alternatives analysis
  - Reduces project planning time and can substantially lower construction cost
  - Has been successfully utilized by MDT on multiple pre-NEPA/MEPA corridor planning projects



OVERVIEW OF QUANTM

(example screen shots)





- Data input overview:
  - Terrain
  - Environmental Constraints
  - Physical Constraints
  - Engineering Design Criteria
  - Geotechnical and Construction Unit Costs

- For the *Baker Corridor Planning Study*:
  - Analysis will be conducted by MDT District
  - Model inputs established based on best available information
  - Geometric Design Criteria For Rural Minor Arterials (Non-NHS – Primary)

NEXT STEPS...

- Continue coordination with public, resource agencies, and stakeholders
- Finalize study documents:
  - Environmental scan
  - Existing and project conditions report
- Further analysis of transportation needs
- Identification of improvement option(s)
- Develop corridor study report

MISSING INFORMATION?

- Identify any missing information not previously discussed
- Identify resource agency concerns
- Written comments are encouraged

CONCLUSION

- Questions/comments?
- For more information
  - Study website:

    http://www.mdt.mt.gov/pubinvolve/baker/
  - Study newsletters:
  - Study contacts:


BAKER CORRIDOR PLANNING STUDY

Baker Corridor Planning Study

Project Newsletter No. 1 | January 2015

In This Issue

STUDY DESCRIPTION

WHAT IS A CORRIDOR PLANNING STUDY?

INFORMATIONAL MEETING NO. 1

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