

Tongue River Road

Corridor Planning Study

Informational Meeting No. 2

July 18th, 2012

[Introduction]

- Introduction of local officials
- Partners
 - Custer County
 - Rosebud County
 - MDT
 - FHWA
- Planning team members in attendance
- Consultant team



Outline of this Evening's Meeting

- What is a corridor planning study?
- Study area boundary
- Study schedule
- Identified interested parties
- Existing conditions in the corridor
- Next steps & conclusion

What is a Corridor Planning Study?

- Corridor planning studies:
 - Are a “high level scan”
 - Define transportation issues/areas of concern
 - Consider social, economic and environmental effects at an early stage
 - Identify and prioritize cost-effective and feasible strategies
 - Provide a level of analysis that can support informed and sustainable decisions
 - Provide opportunities for early and continuous involvement

What is a Corridor Planning Study?

- Corridor planning studies are:
 - Not a NEPA/MEPA Study or Environmental Study
 - Not a Preliminary or Final Design Project
 - Not a Construction or Maintenance Project
 - Not a Right of Way Acquisition Project

[Goals and Purpose]

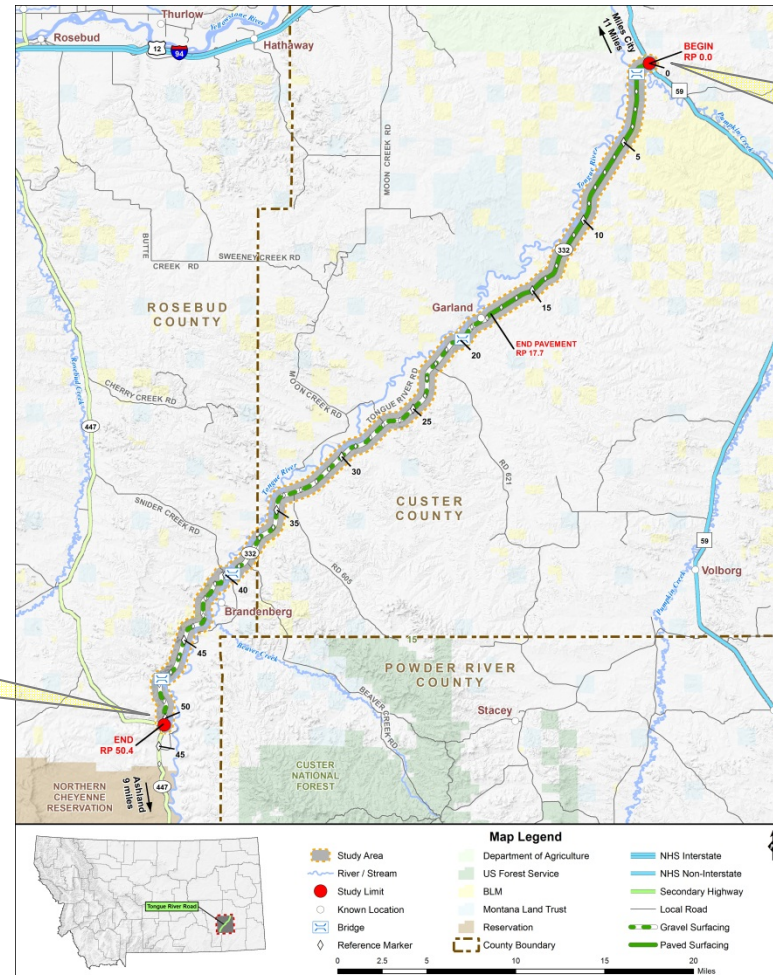
- Engage constituents early!
- Identify constraints
- Identify needs and objectives
- Identify short-range and long-range improvements
- Develop planning level cost estimates
- Develop information and data to be forwarded into the environmental process if a project moves forward from the study

Study Area Boundary

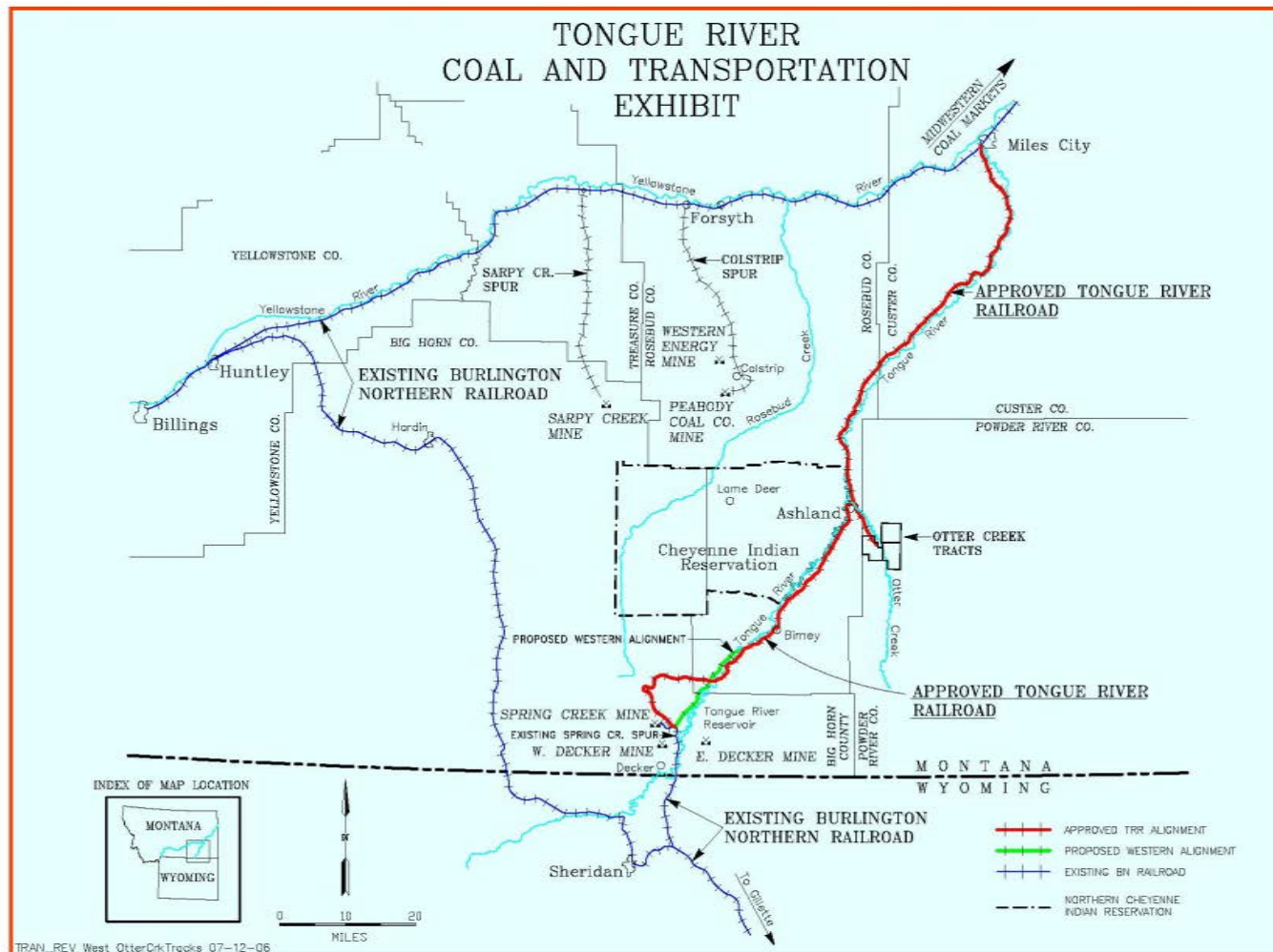
- State Secondary Route 332 (S-332)
- Between MT-59 and S-447
- 50.4 miles in length

END
S-447/S-332
Intersection

BEGIN
MT-59/S-332
Intersection

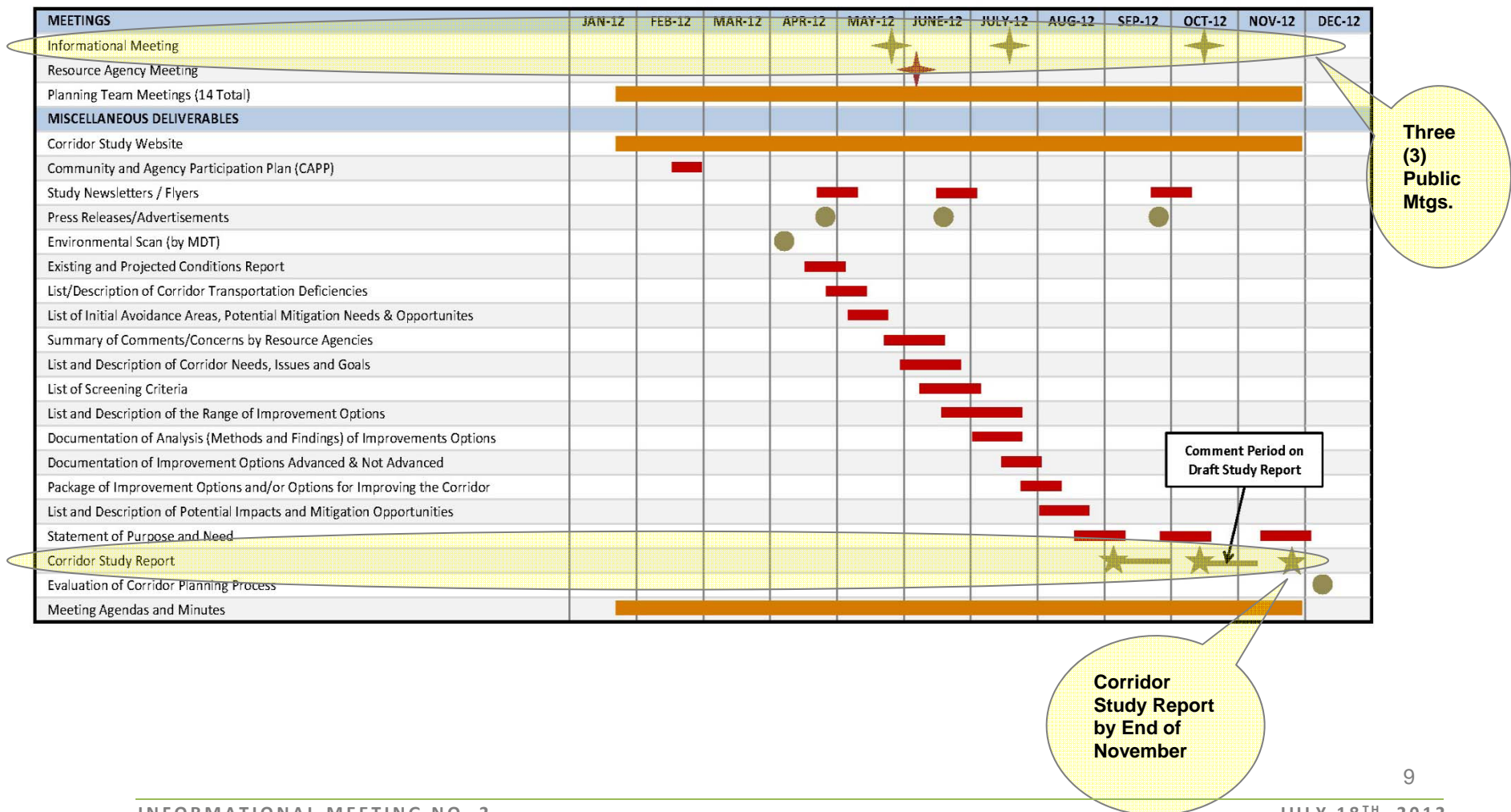


Tongue River Railroad (TRR)



- This study is not related to the TRR
- Sole focus on S-332

Study Schedule



[Public Involvement Activities]

- Three informational meetings
- Presentations and outreach to interested parties, stakeholders, resource agencies and land owners as warranted
- Study newsletters
- Website/toll free line
- Informal meetings

[Identified Interested Parties]

- Bill McChesney (House District 40)
- Williston Basin Interstate Pipeline Company
- Eric Moore (Senate District 20)
- Northern Cheyenne Tribe
- Montana State Highway Patrol
- Arch Coal
- Landowners in the Corridor

S-332 Corridor

Context

- Functionally classified as a Rural Collector
- Posted speeds vary between 45 mph and 70 mph
- Serves multiple uses
 - Local traffic
 - Recreational traffic
 - Farm-to-market agricultural traffic
 - Horses / horse-and-buggies
 - Mining related traffic



S-332 Corridor

Physical Characteristics

- Two-lane roadway
- Asphalt surfacing – first 17.7 miles
- Gravel surfacing – remaining 32.7 miles
- 147 access points, of which 10 are “public” approaches
- Constructed or improved at various times (as early as 1930 and as recently as 1998)
 - Emergency slide repairs in 2011



S-332 Corridor

Traffic Data

- Ranges from 280 vehicles per day (vpd) near Miles City to 50 vpd near Ashland (2010 counts)

Site	Loc.	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
9-2-9	RP 1.0	190	170	180	260	180	140	270	250	180	190
9-4-3	RP 11.0	140	150	90	80	80	160	180	90	110	130
9-4-4	RP 26.5	70	90	(a)	(a)	80	210	100	110	90	110
44-7-5	RP 39.5	100	100	70	90	(a)	90	40	10	(a)	(a)
44-8-4	RP 49.5	60	100	60	60	(a)	60	90	40	(a)	40

Year 2010
Volumes
Highest
Near
Miles City

Site	Loc.	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
9-2-9	RP 1.0	190	290	220	(a)	220	230	220	220	280	(a)
9-4-3	RP 11.0	160	210	150	150	120	100	100	100	100	100
9-4-4	RP 26.5	100	140	100	130	90	70	70	70	70	80
44-7-5	RP 39.5	20	20	30	(a)	80	70	70	70	50	(a)
44-8-4	RP 49.5	70	30	90	(a)	60	60	60	60	50	(a)

S-332 Corridor

Roadway Geometrics - Horizontal

- Corridor consists of both level and rolling terrain
- Seven horizontal curves do not meet current standards

Reverse
curves just
west of
Tongue River
Bridge



RP	Element	Value (ft)
39.52	Radius	955
40.23	Radius	350
40.66	Radius	300
40.98	Radius	350
42.21	Radius	500
42.97	Radius	500
44.37	Radius	1,000

S-332 Corridor

Roadway Geometrics - Vertical

■ Grades

- Nine areas have vertical grades greater than 5.0% (exceeds current standards)
- Of the nine, two have grades greater than 7.0%

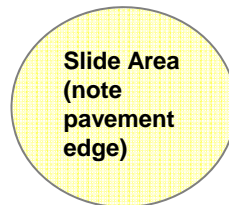
■ Curves

- Thirty-four curves do not meet current standards
- Of the 34, 13 curves do not meet current standards for stopping sight distance (SSD)
 - An additional 12 locations are estimated to not meet SSD

S-332 Corridor

Roadway Geometrics – Clear Zone

- Seven slide areas



- Fourteen steep fill slopes



S-332 Corridor

Roadway Geometrics - Widths

- Determined from MDT's 2011 Montana Road Log
 - Surface width, lane width, shoulder width, surfacing thickness, and base thickness

Begin RP	End RP	Lanes	Width			Surfacing
			Surface	Lane	Shoulder	
0.0	5.7	2	26	12	1	Asphalt
5.7	12.2	2	32	12	4	Asphalt
12.2	17.7	2	24	12	0	Asphalt
17.7	20.0	2	28	10	4	Gravel
39.6	41.0	2	32	12	4	Gravel
41.0	44.7	2	26	9	4	Gravel
44.7	50.4	2	28	10	4	Gravel

Widths Are Of Interest

S-332 Corridor

Access Points

Begin RP	End RP	Length (mi)	Access Points	Density (Access / mi)	< 60° Angle	Public Approach	
						Access Points	< 60° Angle
0.0	6.0	6.0	27	4.5	1	3	0
6.0	12.0	6.0	26	4.3	1	0	0
12.0	17.7	5.7	15	2.6	0	0	0
17.7	24.0	6.3	20	3.2	3	1	1
24.0	31.0	7.0	7	1.0	0	1	0
31.0	37.2	6.2	20	3.2	2	1	0
37.2	44.0	6.8	21	3.1	5	3	2
44.0	50.4	6.4	11	1.7	0	1	0
Total		50.4	147	2.9	12	10	3

S-332 Corridor

Bridge Crossings

- Four bridge crossings
 - RP 1.02 (Pumpkin Creek)
 - RP 19.87 (Foster Creek)
 - RP 39.61 (Tongue River)
 - RP 47.80 (Roe and Cooper Creek)

None of the bridges are structurally deficient or functionally obsolete



S-332 Corridor

Safety (Reported Crashes)

- For period between January 1, 2001 and December 31, 2010
- 18 total reported crashes
 - All single-vehicle; 6 involved wild or domestic animal; one fatal crash

Crash Data	Crash Rate (per MVM)	Crash Severity Index	Crash Severity Rate (per MVM)
S-332	0.86	1.94	1.67
Statewide Secondary – Rural	1.40	2.25	3.17
Percent Difference	-38.6%	-13.8%	-47.3%

MVM = million-vehicle-miles

S-332 Corridor

Future Traffic Volumes

- Average Annual Growth Rate (AAGR)
- 20 years ahead – look 20 years back.....

Site	Location	2010 AADT	Average Annual Growth Rate			
			1992 - 2011	1992 - 1999	2000 - 2011	2005 - 2011
9-2-9	RP 1.0	280	1.57%	3.77%	2.55%	4.48%
9-4-3	RP 11.0	100	-0.41%	-0.54%	-4.06%	-5.49%
9-4-4	RP 26.5	70	-1.49%	7.47%	-4.36%	-6.76%
44-7-5	RP 39.5	50	-2.07%	-21.67%	17.64%	-8.97%
44-8-4	RP 49.5	50	-1.15%	-3.87%	2.00%	-3.58%
Average		110	0.24%	0.45%	1.79%	-0.72%

Ambient
background
growth = 0.24%

S-332 Corridor

Future Traffic Volumes

- In addition to “Ambient Background Growth”, additional traffic due to potential mining activities

Site	Location	Existing (2010)	Baseline (2032)	Scenario 1 (2032)	Scenario 2 (2032)	Scenario 3 (2032)
9-2-9	RP 1.0	280	295	795	2,235	1,155
9-4-3	RP 11.0	100	105	605	2,045	965
9-4-4	RP 26.5	70	74	574	2,014	934
44-7-5	RP 39.5	50	53	553	1,993	913
44-8-4	RP 49.5	50	53	553	1,993	913
Average		110	116	616	2,056	976

Uses ambient background growth = 0.24%

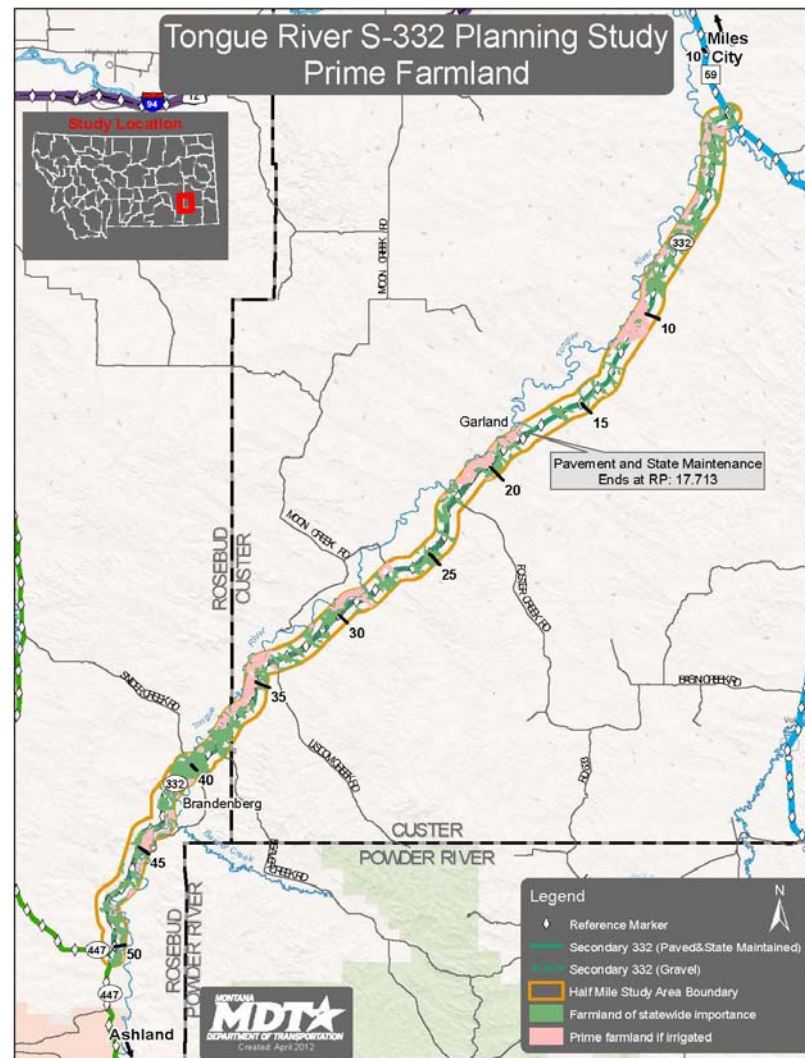
Depending on mining development, S-332 could realize a range of traffic volumes between 116 to 2,056 vpd

[Environmental Resources]

- Land Ownership
- **Soil Resources and Prime Farmland**
- Geologic Resources
- **Water Resources**
- Wetlands
- Floodplains and Floodways
- Hazardous Substances
- Air Quality
- Noise
- **Visual Resources**
- **Biological Resources**
- Vegetation
- **Cultural and Archaeological Resources**
- Social

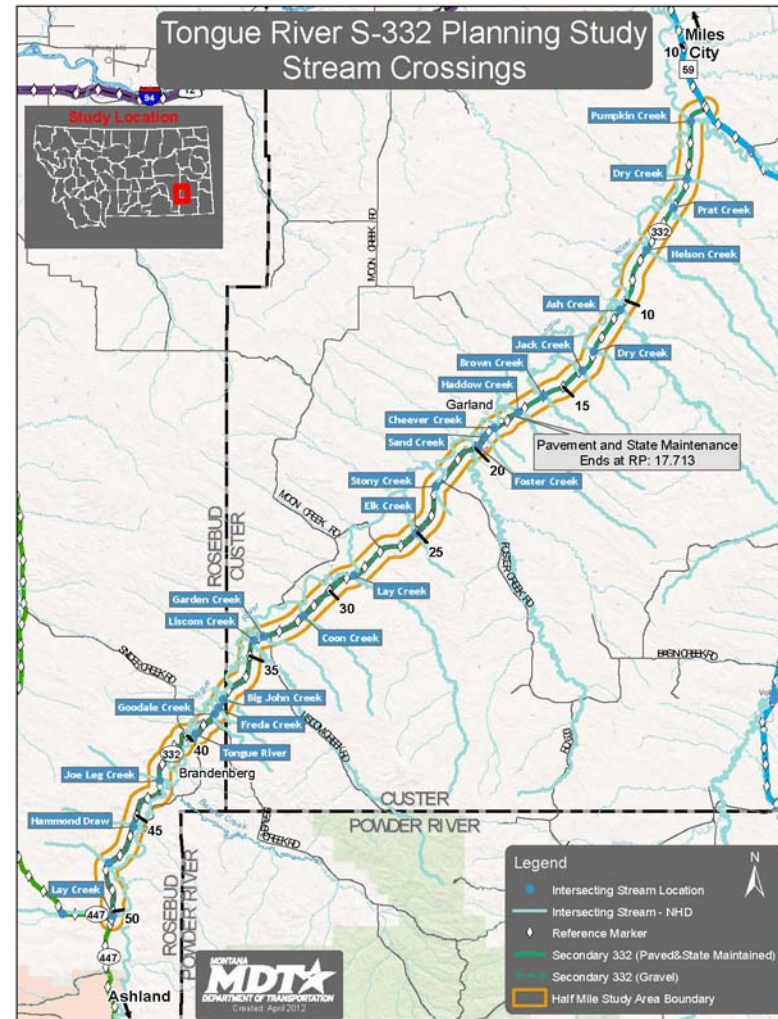
Soil Resources and Prime Farmland

- Farmland of statewide importance (~28% of study area)
- Prime farmland if irrigated (~15% of study area)



Water Resources

- Numerous crossings
- Four bridges
- Wetlands – delineated if and when a project is identified and advances



[Visual Resources]

- Landscape Character
- Visual Sensitivity
- Scenic Integrity
- Landscape Visibility



[Biological Resources]

- Fish and Wildlife
- Vegetation



Fish and Wildlife

T & E Species

- Black-footed Ferret (Listed Endangered)
- Pallid Sturgeon (Listed Endangered)
- Piping Plover (Listed Threatened, Critical Habitat)
- Interior Least Tern (Listed Endangered)
- Whooping Crane (Listed Endangered)
- Greater Sage Grouse (Candidate)
- Sprague's Pipit (Candidate)

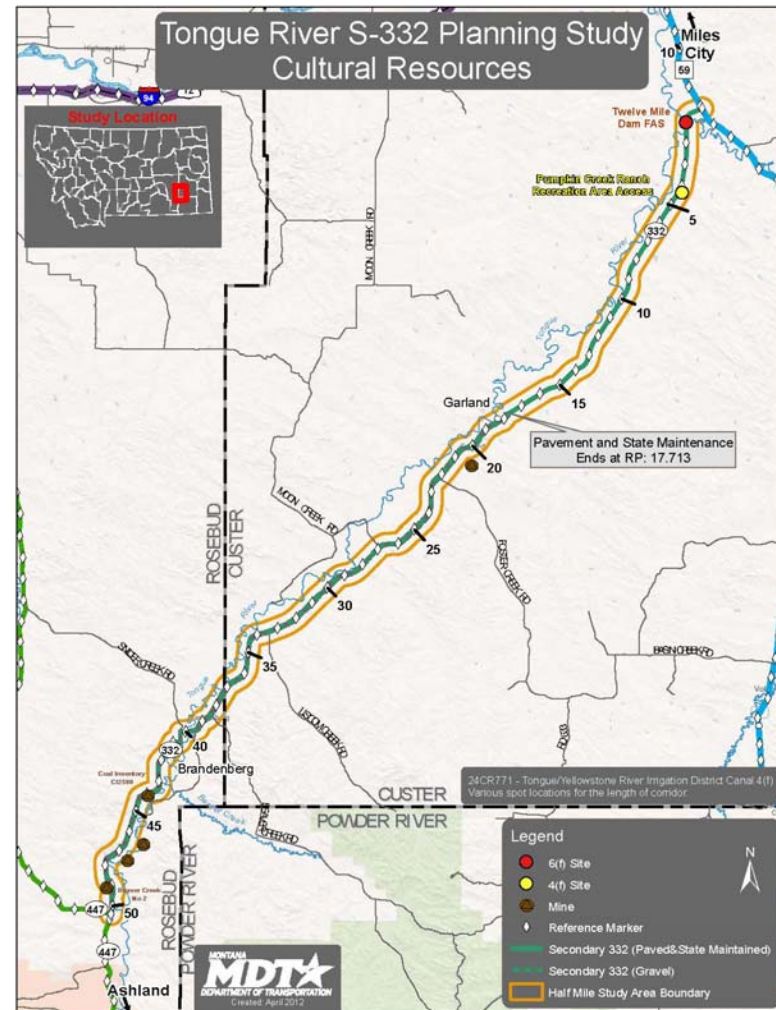
Fish and Wildlife

Montana Species of Concern

- Birds
 - Twelve species identified
- Fish
 - Eleven species identified
- Invertebrates
 - Sixteen species identified
- Mammals
 - Six species identified
- Reptiles
 - Six species identified

Cultural and Archaeological Resources

- Twelve Mile Dam Fishing Access – 4(f) and 6(f)
- Pumpkin Creek Ranch Recreational Area – 4(f)
- Tongue / Yellowstone River Irrigation District Canal – 4(f)



[Next Steps]

- Continue study coordination and outreach
- Finalize environmental scan
- Finalize existing and projected conditions report
- Continue analysis of transportation needs
- Identify potential improvement options
- Draft corridor study report



Conclusion

- Questions, answers and/or comments?

Study website: <http://www.mdt.gov/pubinvolve/tongueriver/>

Study newsletters:

Study contact:

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