Culbertson Corridor Planning Study

Environmental Scan

Prepared For:
Montana Department of Transportation

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DISCLAIMER: This environmental scan report is a planning level document based on information obtained from websites, reports, and other publically available sources in December 2011. The information contained herein is subject to change.

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Abbreviations and Acronyms

BNSF	BNSF Railway Company
CWA	Clean Water Act
DEQ	Montana Department of Environmental Quality
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GIS	geographic information system
HUC	Hydrologic Unit Code
MDT	Montana Department of Transportation
MEPA	Montana Environmental Policy Act
MFISH	Montana Fisheries Information System
MNHP	Montana Natural Heritage Program
MT 16	Montana Highway 16
NEPA	National Environmental Policy Act
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NRIS	National Resource Information System
NWI	National Wetland Inventory
RP	Reference Post
SHPO	Montana State Historic Preservation Office
TMDL	Total Maximum Daily Load
US 2	US Highway 2
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 Introduction

1.1 Background

The primary objective of this Environmental Scan Report is to identify the environmental resources present within the Culbertson Corridor Planning Study area and determine any potential impacts or constraints. The Study area encompasses the Town of Culbertson and includes four mile segments of US Highway 2 (US 2) and Montana Highway 16 (MT 16). The information contained in this planning-level document was obtained from websites, reports, and documentation. Accordingly, no detailed environmental investigations were conducted to complete the scan.

If any improvement option(s) are forwarded from the Culbertson Corridor Planning Study, an analysis in compliance with the National and Montana Environmental Policy Acts (NEPA/MEPA) will be completed as part of the project development process. The gathered information, identified environmental impacts and mitigation, and resulting improvement option(s) from the Culbertson Corridor Planning Study may be forwarded into the NEPA/MEPA analysis.

1.2 Geographic Setting

The Study area is centered around the Town of Culbertson, located in Roosevelt County in northeastern Montana. The Missouri River is located approximately 1.5 miles south of the Town of Culbertson and outside the Study area boundary. Rolling hills parallel the river and form a break between the valley bottom and the upper glaciated plains. The general topography north of Culbertson consists of rough ridges and steep drainage ways.

US 2 and MT 16 are both functionally classified as Non-Interstate Principal Arterials on the National Highway System. From Reference Post (RP) 642.8 to RP 646.8, US 2 serves as an east-west corridor through the Town of Culbertson and roughly parallels the BNSF Railway (BNSF). MT 16 serves as north-south connection from RP 86.6 to RP 88.6 and RP 0 to RP 3 through the corridor Study area. Both roadways consist of two lanes with varying shoulder widths and sidewalks on portions through the Town of Culbertson. Land ownership within the corridor is predominantly private land but contains State of Montana and the Town of Culbertson parcels.

The Culbertson area has seen an increase in the oil and gas industry which has affected the transportation system, primarily US 2 and MT 16. Scoria pits are located along MT 16 south of Culbertson and a large storage area for fracture sand is located approximately one mile east of Culbertson on US 2. With Culbertson being the main source of water for fracturing, fracture sand arrives via BNSF and is unloaded at the rail station in Culbertson. In addition, United Grain, which is the largest exporter of grain off the west coast, plans to construct a unit train loading facility just south of the railroad crossing on 1st Avenue West. Ultimately, the increased activity in the oil and gas industry has resulted in an increase in truck traffic and congestion through the Town of Culbertson. Figure 1 shows the Study area boundary and land ownership.

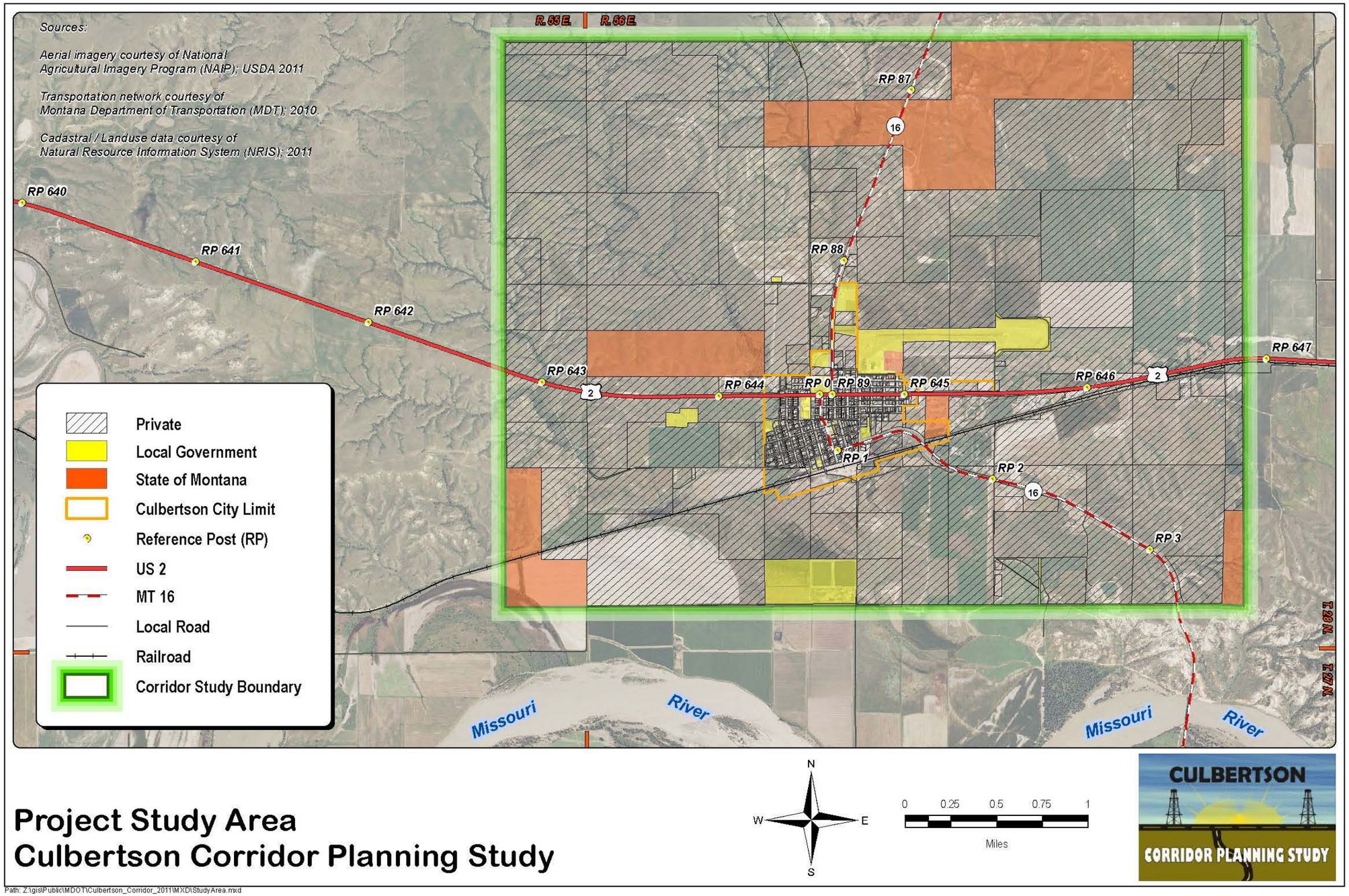


Figure 1 - Corridor Study Boundary

2 Physical Environment

2.1 Air Quality

The Clean Air Act of 1970, as amended in 1990, is a federal law requiring the U.S. Environmental Protection Agency (EPA) to develop and enforce regulations in order to reduce air pollution and protect air quality. The EPA has established attainment and non-attainment zones throughout the state. The state must establish a State Implementation Plan, outlining the control of air pollution, for any zones designated as non-attainment areas. The Study area is outside any non-attainment air quality zones.

2.2 Soil Resources and Prime Farmland

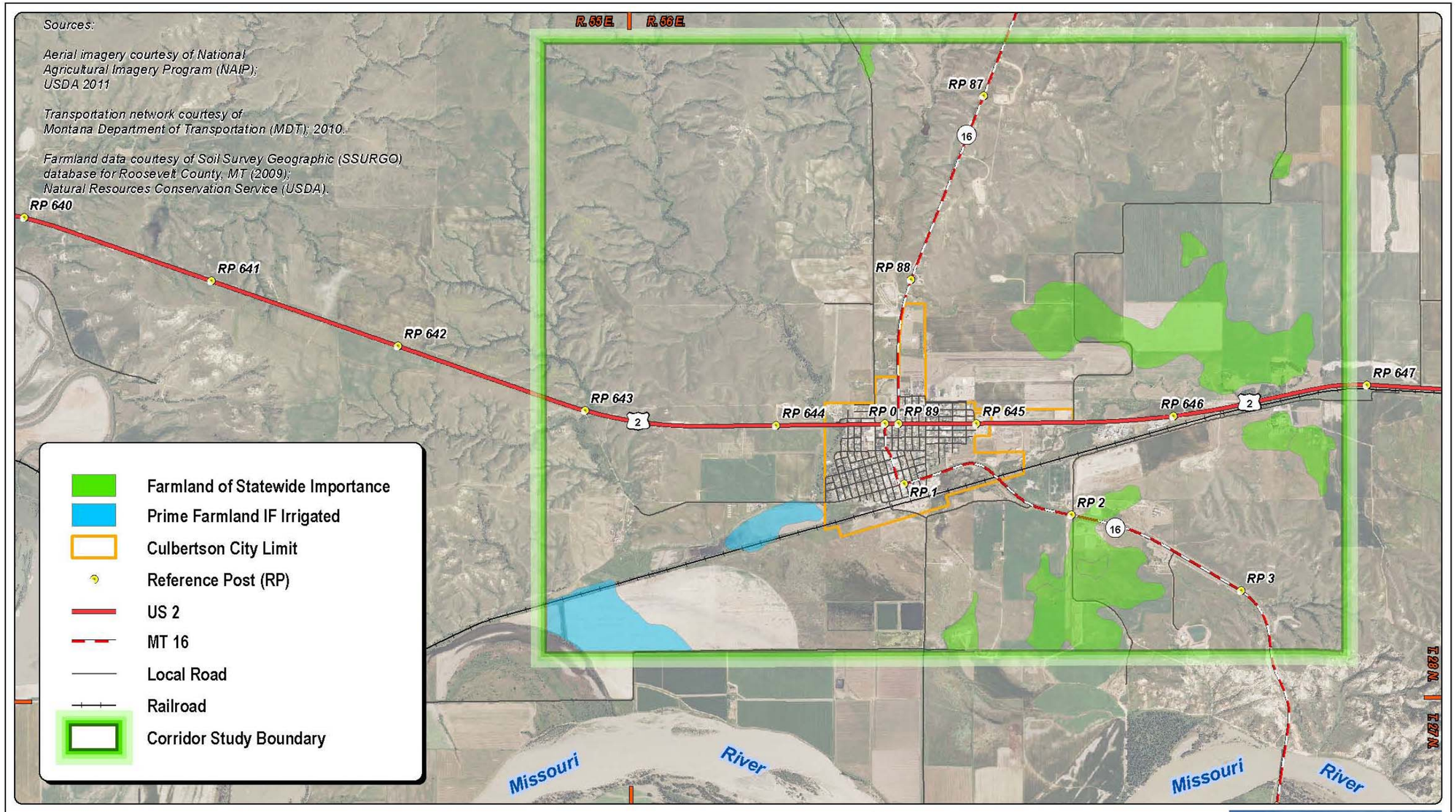
The Farmland Protection Policy Act of 1981 (Title 7 United States Code, Chapter 73) has as its purpose "to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to assure that federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland."

Farmland is defined by the Act in Section 4201 as including prime farmland, unique farmland, and farmland, other than prime or unique farmland, that is of statewide or local importance.

Prime farmland soils are those that have the best combination of physical and chemical characteristics for producing food, feed, and forage; the area must also be available for these uses. Prime farmland can be either non-irrigated or lands that would be considered prime if irrigated. Farmland of statewide importance is land, in addition to prime and unique farmlands, that is of statewide importance for the production of food, feed, fiber, forage, and oilseed crops.

Information on soils from the US Department of Agriculture, Natural Resource Conservation Service (NRCS) was obtained to determine the presence of prime and unique farmland in the Study area. The Roosevelt County soil surveys indicate that the predominant soil types within the Study area include loam, silty loams, and silty clay. Prime farmland, as well as farmland of statewide importance, exists within the Study area. Figure 2 illustrates the farmland classifications present in the Study area.

The Form NRCS-CPA-106: Farmland Conversion Impact Rating for Corridor Type Projects is a way for the NRCS to keep inventory of the Prime and Important farmlands within the state. Project activities associated with the construction of a alternative route in the Study area will likely create impacts to the soil map units with prime and important farmland status; thus it is likely required that a NRCS-CPA-106 Form be completed. The process for completing this form requires mapping of the prime and important farmlands to be converted to non-farmable land, coordination with the NRCS, and final completion of the conversion form.



Prime Farmland
Culbertson Corridor Planning Study

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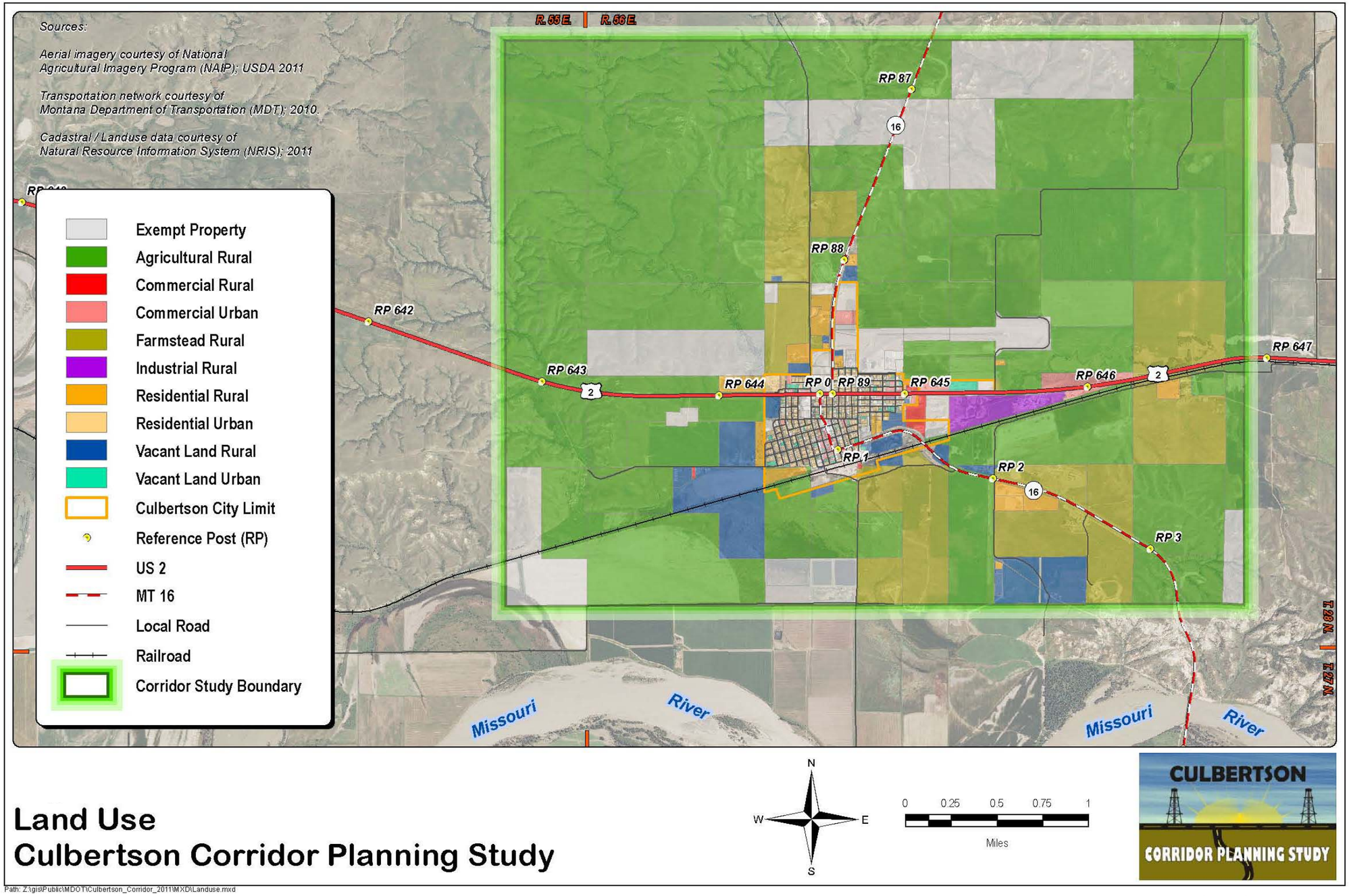
Figure 2 - Prime Farmland

2.3 Land Use

According to the National Resource Information System (NRIS), the corridor Study area has been classified into 10 different categories of land use. Figure 3 shows the different land uses within the Study area. As shown, the predominant corridor land use is agricultural rural.



Land Use
Culbertson Corridor Planning Study

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Figure 3 – Land Use

2.4 Geologic Resources

The Montana Bureau of Mines and Geology has provided geological information for the Study area. The presence of alluvium contributes to the predominate use of farmland, as discussed in Section 2.2. According to U.S. Geological Survey (USGS), shale is the primary rock type of the Fort Union Formation, of which the Tongue River Member is part. The secondary rock type is siltstone and other rock types associated with this formation are sandstone, coal, and limestone.

The Town of Culbertson lies within the Bakken-Lodgepole Total Petroleum System within the Williston Basin Province. Due to the considerable exploration of oil and gas surrounding the Study area, oil and gas are prime economic contributors to the area. The Bakken and its socio-economic factors related to the Study area will be explored in the Existing and Projected Conditions Report that will accompany the overall Culbertson Corridor Planning Study.

Seismic information was reviewed for fault lines and seismic hazard areas. This geologic information can help determine any potential design and construction issues related to embankments and road design. Appendix A contains a map showing the major faults in Montana. A fault zone known as the Weldon-Brockton-Froid Fault Zone is approximately 8 miles outside the Study area, but is the closest fault zone to the Study area. The state of Montana adopted the seismic standards set by the Uniform Building Code (which establishes building design standards used by architects and engineers) to assess the seismic risk in Montana. These standards were adopted in order to provide earthquake design standards for regional construction. Eastern Montana is classified as a Seismic Zone 0 on the Uniform Building Code seismic risk scale of 0 (low risk) to 4 (high risk).

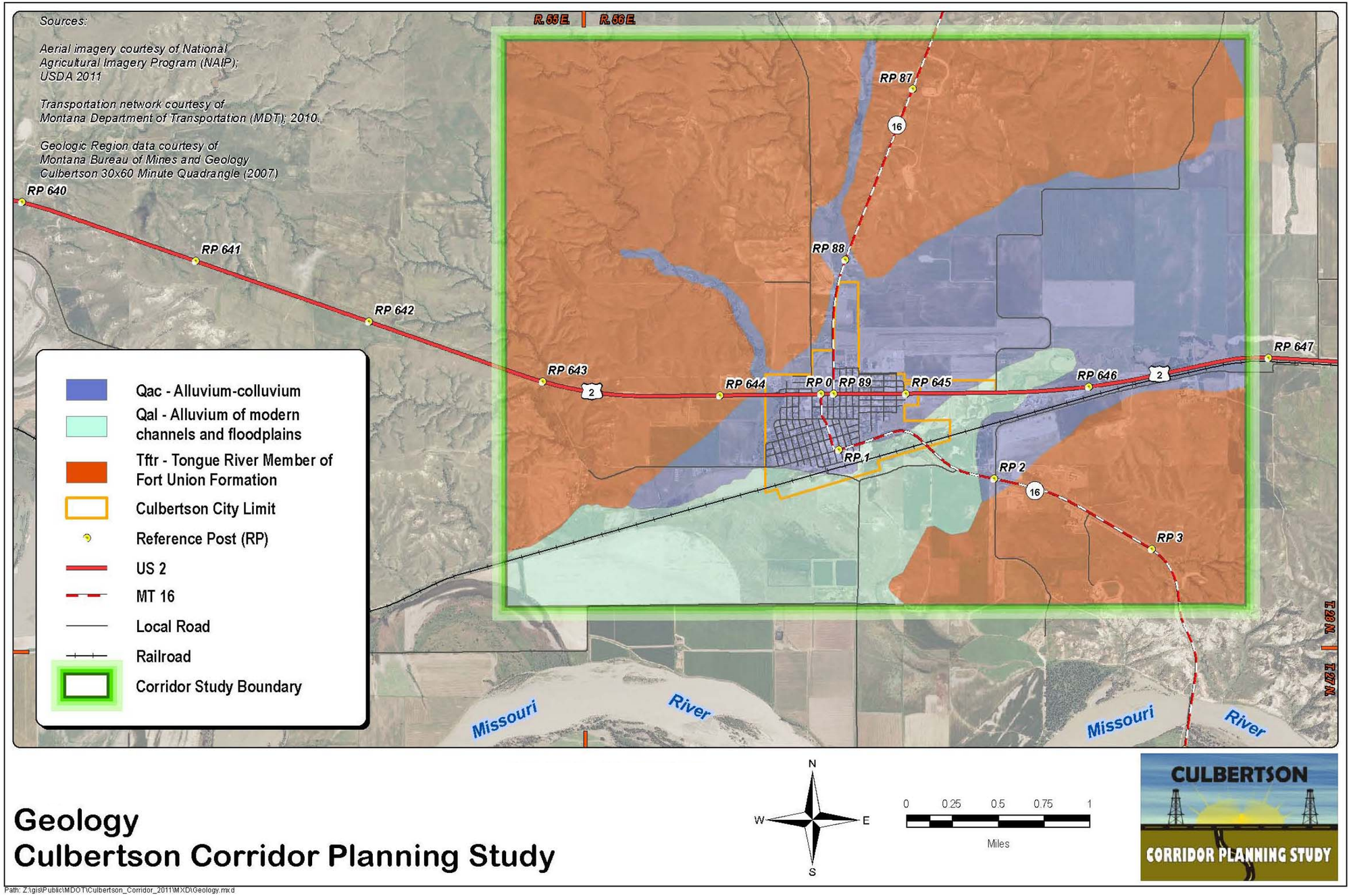


Figure 4 - Geology

2.5 Water Resources

2.5.1 Surface Water

The Study area lies within the Lower Missouri River Basin, Charlie-Little Muddy Creek Sub-basin Hydrologic Unit Code (HUC) 10060005, and Clover Creek Watershed (HUC: 1006000505). According to available geographic information system (GIS) data and a review of USGS Culbertson and McCabe West quad maps, several surface waters have been identified within the Study area as shown in Table 1.

Table 1. Surface Waters

Approximate Reference Post (RP)	Description
643.05 (US 2)	Unnamed, intermittent stream
643.33 (US 2)	Unnamed, intermittent stream
644.26 (US 2)	Diamond Creek
645.62 (US 2)	Clover Creek
86.83 (MT 16)	Unnamed, intermittent stream
88.05 (MT 16)	Unnamed, intermittent stream
88.40 (MT 16)	Unnamed, intermittent stream
1.60 (MT 16)	Clover Creek
3.10 (MT 16)	Unnamed, intermittent stream

Section 303(d) of the Clean Water Act (CWA) requires the State of Montana to develop a list, subject to EPA approval, of water bodies that do not meet water quality standards. When water quality fails to meet the established standards, Montana Department of Environmental Quality (DEQ) determined the causes and sources of pollutants in a sub-basin assessment and sets maximum pollutant levels, called total maximum daily loads (TMDL), within a watershed. The TMDLs become the basis for implementation plans to restore the water quality to a level that supports its designated beneficial uses. The implementation plans identify and describe pollutant controls and management measures to be undertaken (such as best management practices), the mechanisms by which the selected measures would be put into action, and the individuals and entities responsible for implementation projects.

The Lower Missouri Basin and Charlie-Little Muddy Creek Sub-basin are listed in the 2010 Integrated 303(d)/305(d) Water Quality Report for Montana by DEQ. The Charlie-Little Muddy Creek Sub-basin is listed as a Category 5 water quality, meaning that one or more applicable beneficial uses have been assessed as being impaired or threatened, and a TMDL is required to address the factors causing the impairment or threat. Beneficial uses that apply to this area include agricultural, aquatic life, warm water fisheries, drinking water sources, and industry. Probable causes of impairment include flow alteration and temperature modification by dam or impoundment impacts from hydrostructure flow regulation/modification. According to DEQ, Clover Creek and Diamond Creek are not identified as impaired water bodies on the TMDL list. If a project is forwarded from this study, potential impacts to all surface waters will need to be

examined to determine if the waterways are considered waters of the U.S. and subject to jurisdiction by the U.S. Army Corps of Engineers (USACE). It should be noted that USACE also has jurisdiction over ditches when they carry return flow to waters of the U.S. Figure 5 shows the surface waters within the Study area boundary.

2.5.2 Public Water Supply

According to NRIS and DEQ, three public water supplies exist within the Study area boundary. The public water supplies are summarized in Table 2.

Table 2. Public Water Supply

PWSID	Primary Name	City	Population Served (resident/non-resident)	Source Name	Source Type
MT0000192	Town of Culbertson	Culbertson	796/0	Missouri River	Surface Water
IN004	Plant Reservoir	Surface Water	-	-	-
MT0004348	Dry Prairie Rural Water Authority	Culbertson	1147/0	Consecutive Connection from 00192	Surface Water

2.5.3 Irrigation

Land within the southern portion of the Study area boundary is irrigated by various types of irrigation systems. The different methods include sprinkler, flood or "gravity flow", and water spreading. According to the U.S. Department of Agriculture (USDA), the predominant irrigation methods in Montana are flood and sprinkler systems. When irrigation ditches are used, they have the potential to be under state jurisdiction if they drain to state waters. Potential impacts to the irrigation facilities should be minimized to the greatest extent practicable. The location of various irrigation facilities within the Study area, including streams, ditches, canals, pivots, and sprinklers, are shown in Figure 5.

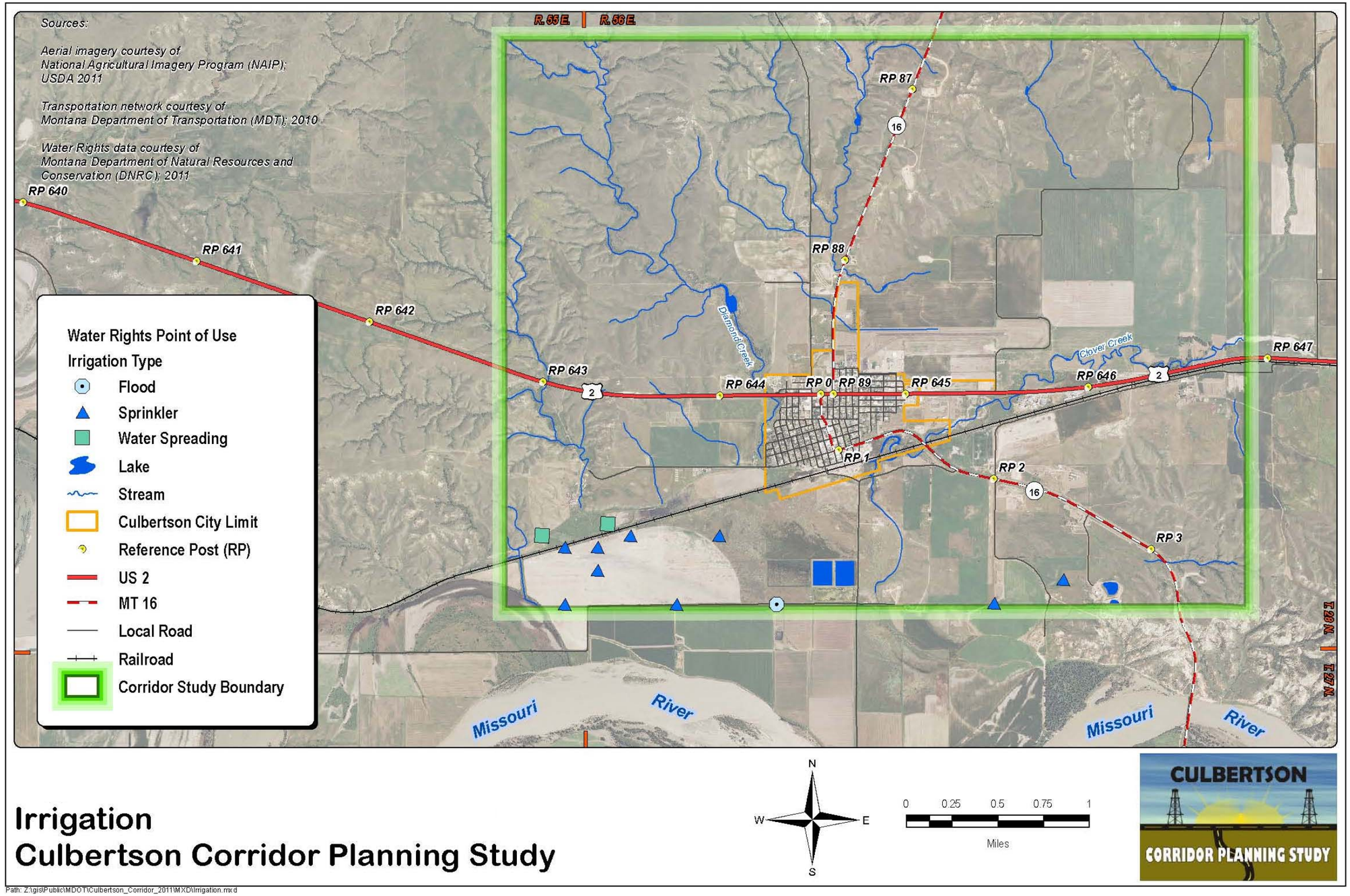


Figure 5 – Surface Waters and Irrigation

2.5.4 Wetlands

The USACE defines wetlands as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

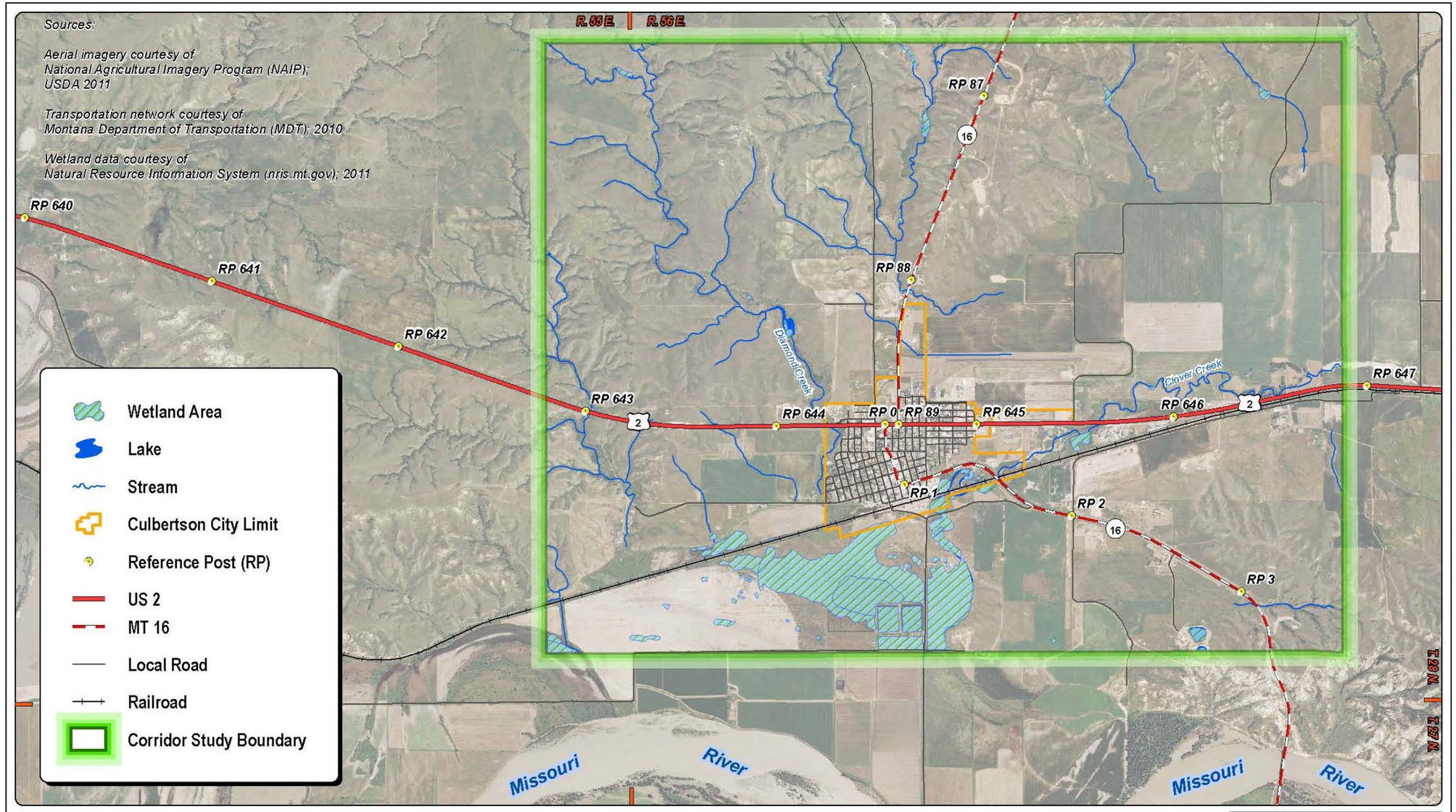
National Wetland Inventory (NWI) Mapping is available for the Study area. Wetlands identified in the Study area are shown in Figure 6. Although the NWI maps were reviewed for general wetland locations present in the Study area, it is important to note that these maps are not accurate or detailed enough for project level wetland identification and delineation. The NWI map is not intended to be a complete identification and/or delineation of wetlands present in the Study area. NWI maps are typically generated based on aerial and satellite imagery. They are generated by the U.S. Fish and Wildlife Service (USFWS), and are based on the USFWS definition of wetlands, which differs from the USACE definition of wetlands that MDT is required to use in wetland identification and delineation.

Based on USFWS classification codes, Table 3 describes the wetlands present in the Study area boundary.

Table 3. Wetlands

Code	Code Description
PEMA	Palustrine (System) Emergent (Class) Temporary Flooded (Water Regime)
PEMC	Palustrine (System) Emergent (Class) Seasonally Flooded (Water Regime)
PEM/ABF	Palustrine (System) Emergent (Class) Temporary Flooded, Saturated (Water Regime) Farmed (Special Modifier)
PUBGx	Palustrine (System) Unconsolidated Bottom (Class) Intermittently Exposed (Water Regime) Excavated (Special Modifier)
PABFh	Palustrine (System) Aquatic Bed (Class) Semi-permanently Flooded (Water Regime) Diked/Impounded (Special Modifier)
PABFx	Palustrine (System) Aquatic Bed (Class) Semi-permanently Flooded (Water Regime) Excavated (Special Modifier)

Formal wetland delineations will need to be conducted according to standard USACE defined procedures if an improvement option(s) is forwarded during the MDT project development process. Jurisdictional determinations of wetlands will also be conducted during the project development process. Wetland impacts should be avoided to the greatest extent practicable. All unavoidable wetland impacts will need to be mitigated as required by the USACE. Potential mitigation sites should be investigated and constructed prior to project impacts. The USACE generally requires that compensatory mitigation occur in the same watershed as the impacts. Coordination with the USACE will be necessary to determine the appropriate location of any mitigation site.



Wetlands
Culbertson Corridor Planning Study

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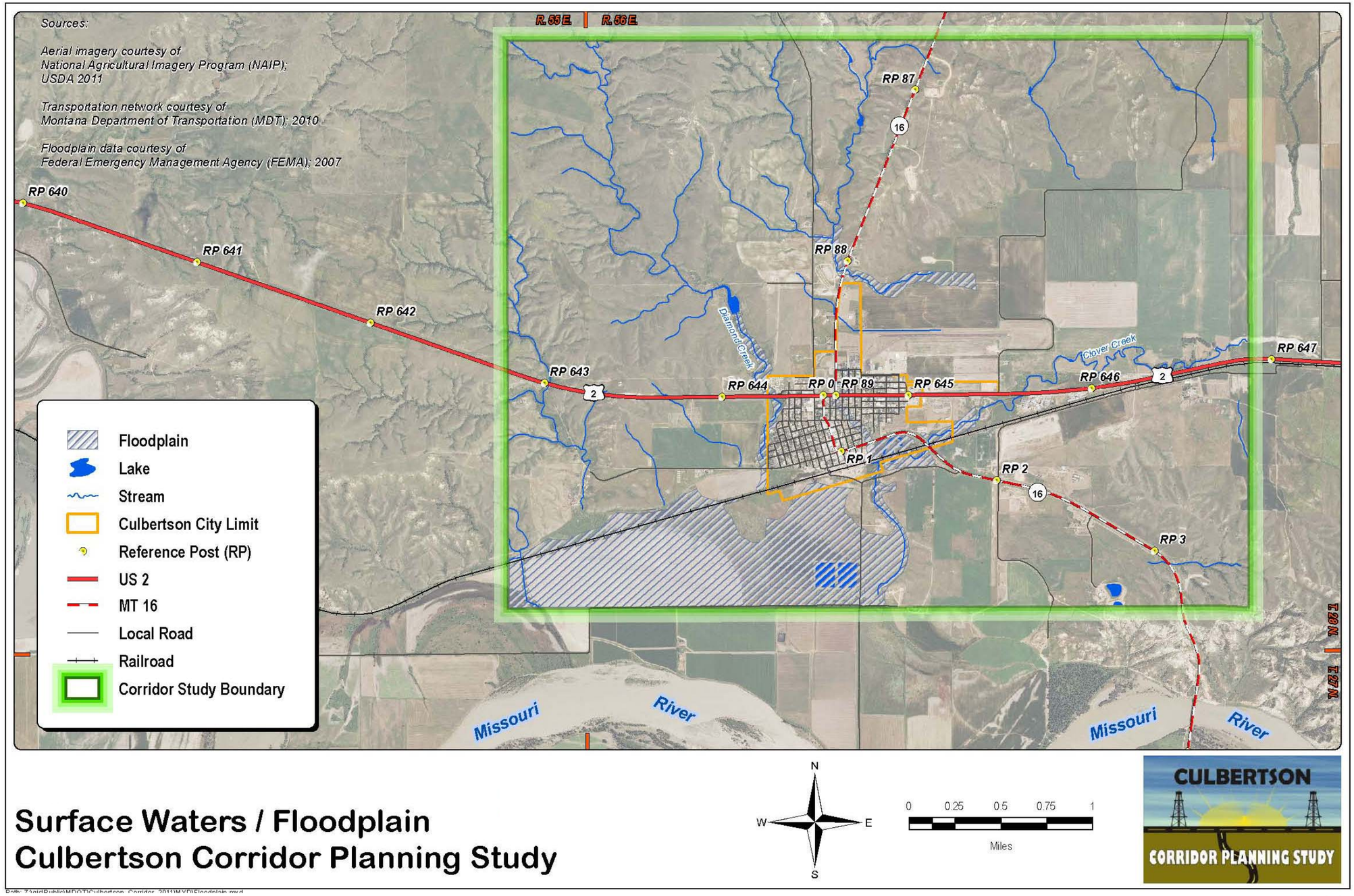
Figure 6 - Wetlands

2.6 Floodplains (EO 11988) and Floodways

Executive Order (EO) 11988, Floodplain Management, requires federal agencies to avoid direct or indirect support of floodplain development whenever a practicable alternative exists. EO 11988 and 23 CFR 650 Part A requires an evaluation of project alternatives to determine the extent of any encroachment into the base floodplain. The base flood (100-year flood) is the regulatory standard used by federal agencies and most states to administer floodplain management programs. A "floodplain" is defined as lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, with a one percent or greater chance of flooding in a given year. As described in FHWA's floodplain regulation (23 CFR 650 Part A), floodplains provide natural and beneficial values serving as areas for fish, wildlife, plants, open space, natural flood moderation, water quality maintenance, and groundwater recharge. The Federal Emergency Management Agency (FEMA) issued flood maps have indicated Flood Zones A and AE are present within the Study area, shown in Figure 7. Coordination with Roosevelt County should be conducted during the project development process to determine if floodplain permits are required. As improvement options are developed, consideration will be given to reduce the impact within the floodplain to the extent practicable.



Surface Waters / Floodplain
Culbertson Corridor Planning Study

Figure 7 - Floodplain

2.7 Hazardous Substances

The NRIS database was searched for documented leak sites within the Study area. The 13 identified sites are summarized in Table 4 below and shown on Figure 8. It should be noted that because most sites house multiple release ID's, all 13 releases are identified on Figure 8 although it only appears that seven sites are mapped. Two mine sites were also identified in the Study area and are shown on Figure 8. Additional unknown contaminated sites may be identified during the project development process and/or during construction.

If an improvement option is forwarded into project development, further evaluation may be needed at specific sites to determine if contamination will be encountered during construction. This may include reviewing DEQ files and conducting subsurface investigation activities to determine the extent of soil and groundwater contamination. If it appears that contaminated soils or groundwater could be encountered during construction, handling/disposing of the contaminated material will need to be conducted in accordance with State, Federal, Tribal, and local laws and rules.

Table 4. Leaking Tank Sites in Study Area

Facility Name	Location	Confirmed Release	Resolved Date	Priority
ANDERSON CONOCO CULBERTSON #481	307 BROADWAY AVE	11/19/1990	2/7/1991	
CULBERTSON SCHOOL DIST 17 #830	423 1ST AVE W	7/12/1991	10/31/1991	
CULBERTSON SCHOOL DIST 17 ARMORY #3475	423 1ST AVE W	6/23/1998	7/7/1999	
JOHNSENS CAFE & CONVENIENCE STORE #2888	515 6TH ST E	3/28/1996	4/29/1996	
L & R STOP N SHOP #626	110 W 6TH ST N	6/25/1990	8/27/1990	
MILLER OIL CO CULBERTSON #3114	120 1ST AVE E	2/18/1997	(active)	4.0 - Ground Water Management
MILLER OIL CO INC CULBERTSON #4801	120 1ST AVE E	10/19/2010	(active)	1.4 - High Priority Characterization
MISSOURI BREAKS TRUCK STOP #3682	515 6TH ST E	3/5/1999	2/24/2004	
ORGANIZATIONAL MAINT SHOP 2 #745	MT HIGHWAY 16	5/8/1989	5/22/1991	
ROOSEVELT COUNTY #2414	4TH AVE E	10/12/1994	4/7/1997	
SVO SPECIALTY PRODUCTS #3080	US HIGHWAY 2	8/24/1996	(active)	2.0 - Medium Priority Characterization
SVO SPECIALTY PRODUCTS #741	US HIGHWAY 2	5/16/1991	11/1/1996	
USDA ARS AG RESEARCH SERVICE #875	MT HIGHWAY 16	8/2/1991	10/4/1991	

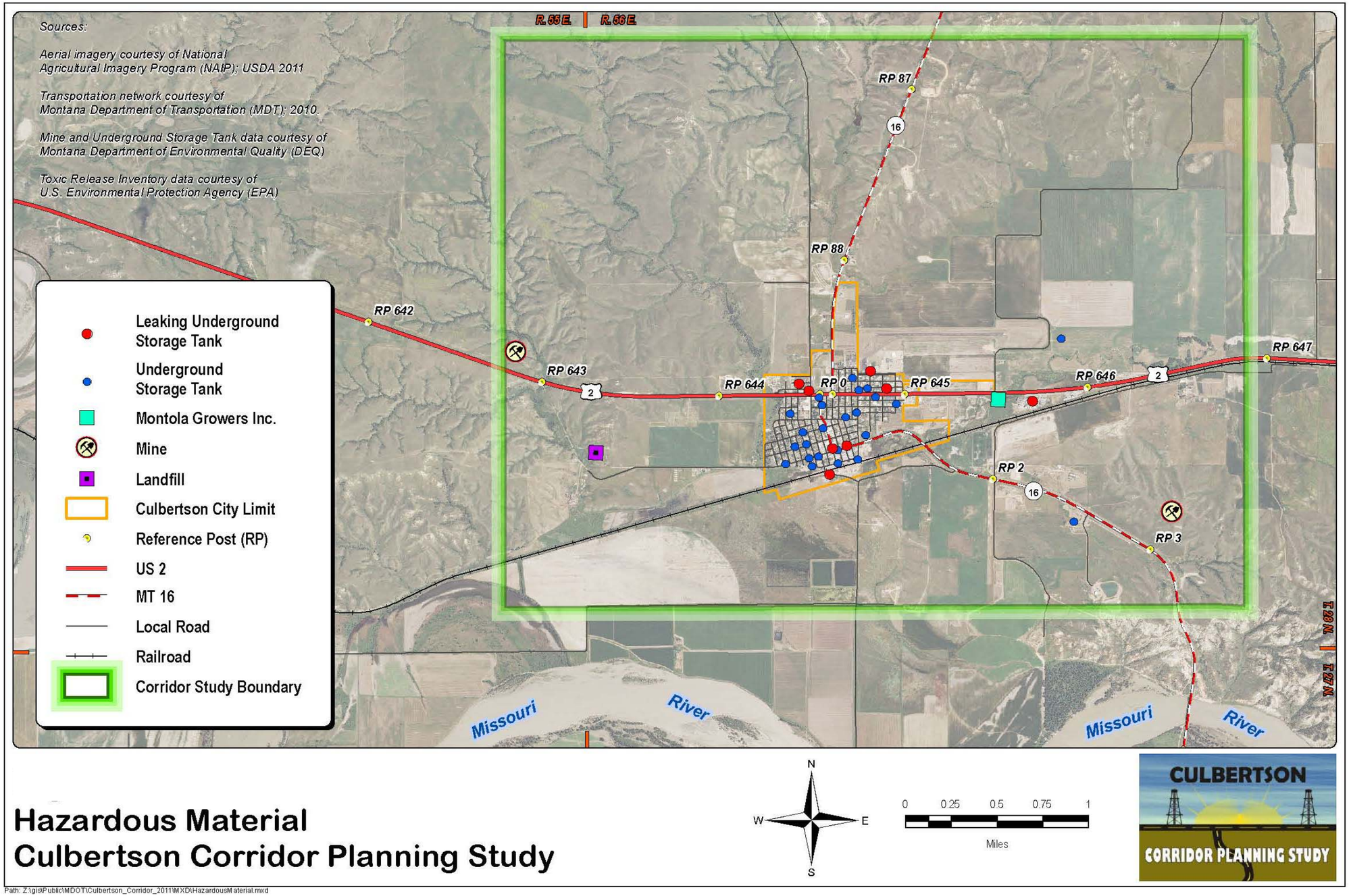


Figure 8 – Hazardous Substances/Leaking Tanks

3 Biological Resources

Biological resources in the Study area were identified using maps, aerial photographs, Montana Natural Heritage Program (MNHP) data, and the endangered, threatened, proposed, and candidate species list for Montana counties. This limited survey is not intended to be a complete and accurate biological survey of the Study area. Rather, a complete biological survey of the Study area will be conducted in accordance with accepted practices if an improvement option is forwarded during the project development process.

3.1 Fish and Wildlife

The Montana Fish, Wildlife & Parks owns the Culbertson Bridge Fishing Access Site; a 12.6 acre fishing access site, located south of the Study area. The closest National Wildlife Refuge is located approximately 20 miles north of the Study area at the Medicine Lake National Wildlife Refuge.

Riparian and river, stream or creek habitats should be avoided to the greatest extent practicable, including but not limited to Clover Creek and Diamond Creek. Montana Fish, Wildlife & Parks keeps a database of information on fish distribution known as the Montana Fisheries Information System (MFISH). The MFISH database notes that Clover Creek is the only waterbody in the Study area that has sufficient year-round flow to house fish. Brook Stickleback was the only species noted in Clover Creek. Encroachment into the wetted width of any waterway and the associated riparian habitat should be limited to the absolute minimum necessary for the construction of the proposed project. Soils, vegetation, and flooding data can be utilized in determining the extent of riparian habitat.

3.1.1 Threatened and Endangered Animal Species

The federal list of threatened and endangered species is maintained by the USFWS. Species on this list receive special protections under the Endangered Species Act (Title 16 United States Code, Chapter 35). An 'endangered' species is one that is in danger of extinction throughout all or a significant portion of its range. A 'threatened' species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of species that are candidates or proposed for possible addition to the federal list.

In May 2011 the USFWS published a list of endangered, threatened, proposed and candidate species for each county within Montana. This list identifies the counties where one would reasonably expect the species to occur. Roosevelt County listed the endangered Pallid Sturgeon, threatened and designated critical habitat for the Piping Plover, endangered Interior Least Tern, endangered Whooping Crane, and the candidate Sprague's Pipit. During a Resource Agency meeting conducted for this project on February 8, 2012, USFWS noted that the Study area may contain potential foraging habitat for the Least Tern.

Further evaluation of potential impacts to all threatened, endangered, proposed, or candidate species will need to be conducted during the project development process if an improvement option is forwarded. Updated critical habitat maps should be consulted during the project development process.

3.1.2 Animal Species of Concern

Montana Species of Concern are native animals within the state that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution. Designation of a species as a Montana Animal Species of Concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to direct limited resources to priority data collection needs and address conservation needs proactively. Each species is assigned a state rank that ranges from S1 (greatest concern) to S5 (least concern). Other ranks used by the state include SU (unrankable due to insufficient information), SH (historically occurred), and SX (believed to be extinct). State ranks may be followed by modifiers, such as B (breeding), N (non-breeding), or M (migratory).

Table 5 lists the 15 animal species of concern that the Montana Natural Heritage Program (MNHP) has records of in Township 58, Sections 55 and 56. The results of a data search by the MNHP reflect the current status of their data collection efforts. These results are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys. On-site surveys would need to be completed during the project development process.

Table 5. Montana Animal Species of Concern

	Scientific Name	Common Name	State Rank
Mammals	*Corynorhinus townsendii*	Townsend's Big Eared Bat*	S2
	Lasiurus borealis	Eastern Red Bat	S2S3
Birds	*Ardea Herodias*	Great Blue Heron	S3
	Charadrius melodus	Piping Plover*	S2B
	Grus americana	Whooping Crane	S1M
Fish**	*Cycleptus elongatus*	Blue Sucker	S2S3
	Etheostoma exile	Iowa Darter	S3
	Lepisosteus platostomus	Shortnose Gar	S1
	Macrhybopsis gelida	Sturgeon Chub	S2S3
	Macrhybopsis meeki	Sicklefin Chub	S1
	Phoxinus eos	Northern Redbelly Dace	S3
	Sander canadensis	Sauger	S2
	Scaphirhynchus albus	Pallid Sturgeon	S1
	Margariscus margarita	Pearl Dace	S2
Reptiles	*Heterodon nasicus*	Western Hog-nosed Snake	S2

**** Note: Although MNHP has documentation of the Townsend's Big-eared Bat and Piping Plover existing in T28N R55 and 56E, specific mapped locations of these species shows they are outside, but adjacent to the Study area.***

*****Note: Although MNHP has documentation of these fish existing in T28N R56E, Clover Creek is the only stream located within the Study area and, therefore, the stream is presumed to not have the flow necessary to sustain these fish populations.***

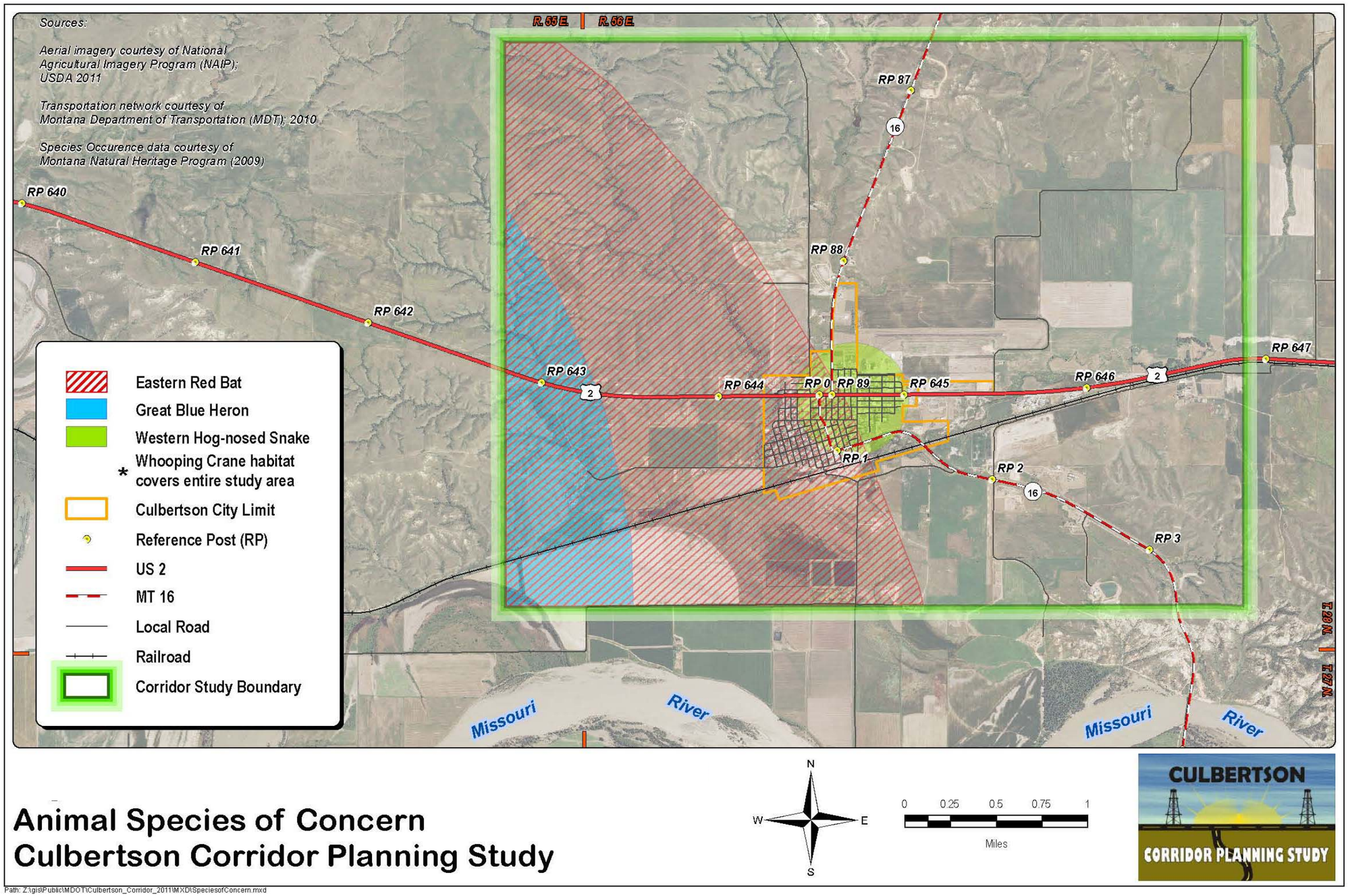


Figure 9 - Animal Species of Concern

3.2 Vegetation

The Montana Natural Heritage land cover database shows that the Study area is largely comprised of lowland/prairie grassland and agriculture. The grasslands support livestock grazing, and have been tilled for small grain and hay production. The agriculture land cover category is broken into cultivated crops and pasture/hay.

3.2.1 Threatened and Endangered Plant Species

As discussed in Section 3.1.1, the federal list of threatened and endangered species is maintained by the USFWS. Species on this list receive special protections under the Endangered Species Act. The threatened, endangered, proposed, and candidate plant species list for Montana counties was consulted. This list generally identifies the counties where one would reasonably expect the species to occur, not necessarily every county where the species is listed.

According to the USFWS, there are not any plant species listed as threatened, endangered, proposed, or candidate species for Roosevelt County. An evaluation of potential for and impacts to all threatened, endangered, proposed, or candidate species would need to be conducted during the project development process.

3.2.2 Plant Species of Concern

Montana Species of Concern are native plants in the state that are considered to be "at risk" due to declining population trends, threats to their habitats, and/or restricted distribution. As described in Section 3.1.2, designation of a species as a Montana Species of Concern is not a statutory or regulatory classification. Instead, these designations provide a basis for resource managers and decision-makers to direct limited resources to priority data collection needs and address conservation needs proactively.

The MNHP does not have record of any plant species of concern within the Study area. The results of a data search by the MNHP reflect the current status of their data collection efforts. These results are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys. On-site surveys would need to be completed during the project development process.

3.2.3 Noxious Weeds

Noxious weeds degrade habitat, choke streams, crowd native plants, create fire hazards, poison and injure livestock and humans, and foul recreation sites. Areas with a history of disturbance are at particular risk of weed encroachment.

The INVADERS Database System identified six (6) noxious weeds present in Roosevelt County, Montana: Canada Thistle, Dalmatian Toadflax, Field Bindweed, Leafy Spurge, Russian Knapweed, and Spotted Knapweed. However, as shown in Figure 10, four (4) noxious weeds are present in the Study area boundary: Leafy Spurge, Spotted Knapweed, Russian Knapweed, and Dalmatian Toadflax. The Study area will need to be surveyed for noxious weeds during the project development process.

To reduce the spread and establishment of noxious weeds and to re-establish permanent vegetation, disturbed areas will need to be seeded with desirable plant species. County Weed Control Supervisors should be contacted prior to any construction activities regarding specific measures for weed control.

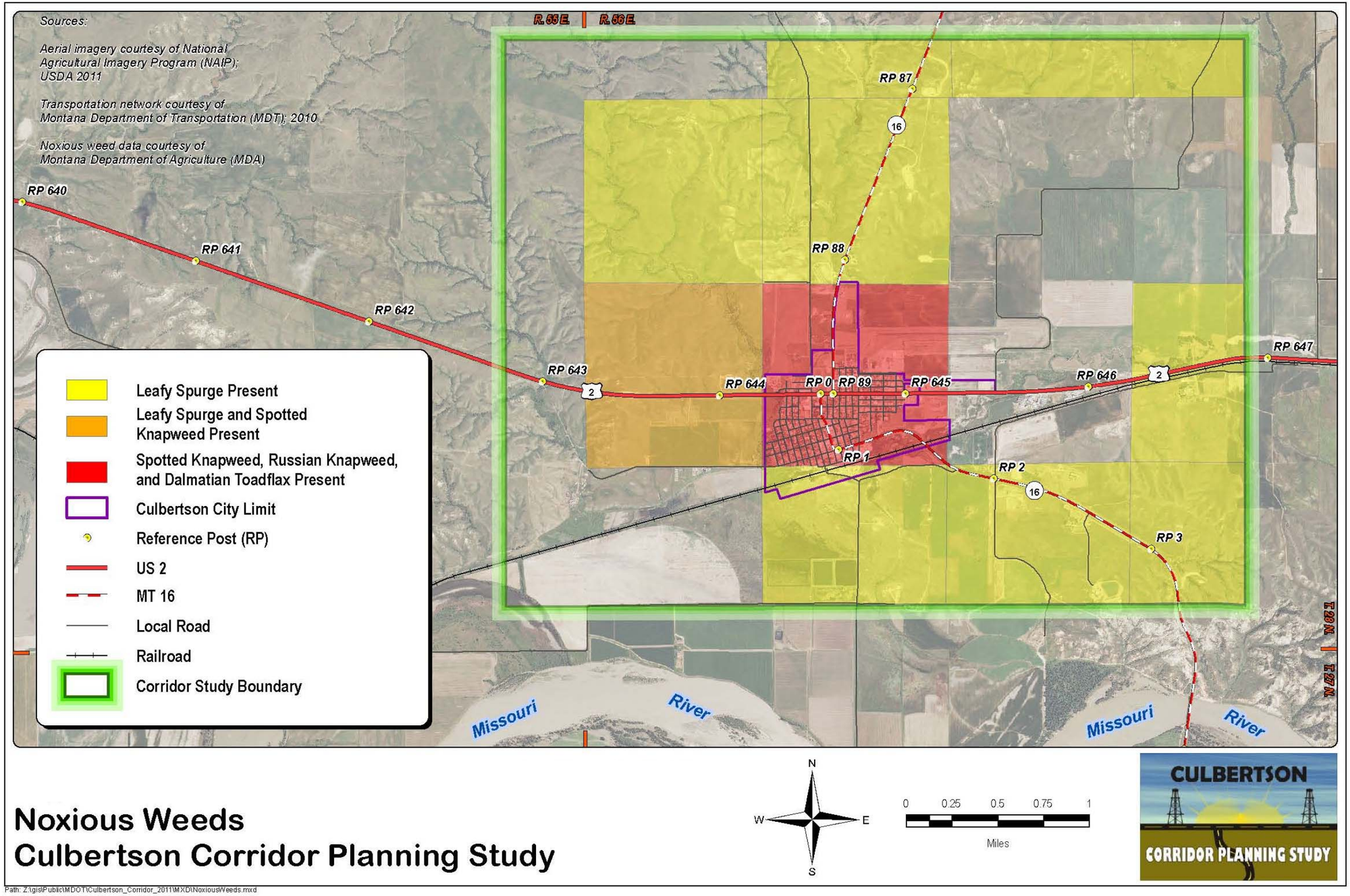


Figure 10 – Noxious Weeds

4 Social and Cultural Resources

4.1 Demographic Information

To provide a context in which to evaluate social impacts, characteristics of the existing population are presented below in Tables 6 and 7.

Table 6. US Census Bureau Demographic Information

Area	Population (2010)	Population % Change (2000 to 2010)	Median Household Income (2009)	Persons Below Poverty (2009)	Persons per Square Mile (2010)
Roosevelt County	10,425	-1.8%	$30,455	30.7%	4.4
State of Montana	989,415	9.7%	$42,222	15.0%	6.8

As shown in Table 6, Roosevelt County has experienced over twice the percentage of persons below the poverty rate when compared to the State of Montana as a whole.

Table 7. Town of Culbertson US Census Bureau 2010 Data

Total Population	714
White (%)	88.9
African American (%)	0.3
American Indian/Alaska Native (%)	6.3
Asian (%)	0.1
Native Hawaiian/ Pacific Islander (%)	0
Other (%)	1.0
2 or more races (%)	3.4

More social and economic data will be presented in the Existing and Projected Conditions Report that will accompany the overall Culbertson Corridor Planning Study.

4.2 Environmental Justice

Title VI of the US Civil Rights Act of 1964, as amended (Title 42 United States Code, Chapter 21) and EO 12898 require that no minority, or, by extension, low-income person shall be disproportionately adversely impacted by any project receiving federal funds. For transportation projects, this means that no particular minority or low-income person may be disproportionately isolated, displaced, or otherwise subjected to adverse effects. Environmental justice would need to be addressed during the project development process if an improvement option is forwarded from this study.

4.3 Archaeological Resources

The Montana State Historic Preservation Office (SHPO) was contacted to determine the presence of any known cultural and/or historic sites within the Study area. The file search yielded one previously recorded archaeological resource site. This site is listed as a prehistoric lithic scatter. If an improvement option is forwarded into project development, on the ground fieldwork will be necessary to determine where additional cultural resources are located.

4.4 Historic Resources

A file search conducted by SHPO revealed four 4(f) resource sites within the Study area that are either on or eligible for inclusion in the National Register of Historic Places (NRHP) while there are 30 undetermined historic properties within the Study area. Appendix B contains a list of all sites identified by SHPO as occurring in the Study area.

If improvement options are forwarded from this Study and are federally-funded, a cultural resource survey of the Area of Potential Effect for this project as specified in Section 106 of the National Historic Preservation Act (Title 16 United States Code, Chapter 1; 36 CFR 800) will need to be completed. Section 106 requires Federal agencies to "take into account the effects of their undertakings on historic properties." The purpose of the Section 106 process is to identify historic properties that could be affected by the undertaking, assess the effects of the project and investigate methods to avoid, minimize or mitigate any adverse effects on historic properties.

4.5 Protected Resources

Reviews were also conducted to determine the presence of known Section 6(f) and Section 4(f) properties within the Study area.

4.5.1 6(f) Resources

Section 6(f) of the Land and Water Conservation Funds Act (Title 16 United States Code, Chapter 1) applies to all projects that impact public outdoor recreational lands purchased and/or improved with land and water conservation funds. The Secretary of the Interior must approve any conversion of property acquired or developed with assistance under this Act to other than public, outdoor recreation use. Several 6(f) properties summarized in Table 8 below have been identified within the Study area.

Table 8. LWCF 6(f) Resources

Project Number	Type*	Site Name	Grant Sponsor
30-00150	D	Culbertson Swimming Pool	City of Culbertson
30-00256	D	Culbertson Swimming Pool	City of Culbertson
30-00362	C	Culbertson Bicentennial Park	City of Culbertson
30-00606	D	Culbertson Schools Recreation Complex	Culbertson School District

**D=Development, C=Combination*

4.5.2 4(f) Resources

Section 4(f) refers to the original section within the Department of Transportation Act of 1966 (Title 49 United States Code, Chapter 3), which set the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. Prior to approving a project that "uses" a Section 4(f) resource, FHWA must find that there is no prudent or feasible alternative that completely avoids 4(f) resources. "Use" can occur when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of the land that is adverse to a 4(f) resource. Constructive "use" can also occur when a project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under 4(f) are "substantially impacted". As discussed in Section 4.3 and 4.4, 4(f) resources include any historic or archaeological sites on or eligible for inclusion in the National Register. Additionally, 4(f) resources include significant publicly-owned parks, recreational areas, and wildlife or waterfowl refuges. Table 9 below lists potential 4(f) resources including parks and recreational areas and sites eligible for listing on the National Register.

Table 9. 4(f) Resources

Name	Type of 4(f) Resource	Location
Bicentennial Park	Public Park	MT 16 and 3rd Ave E
Swimming Pool Park	Public Park	4th Ave West
Culbertson Public Schools	Public School with recreation area	1st Ave West
Culbertson Public School's Sports Complex	Public Recreational Area	US 2 and MT 16
BNSF Railway	NRHP Eligible	Railroad through Study area
Charlie Jacobs House	NRHP Eligible	4th Street West
Oelkers Carter Service Center	NRHP Eligible	US Highway 2
Petersen House	NRHP Eligible	US Highway 2 and 3rd Ave East

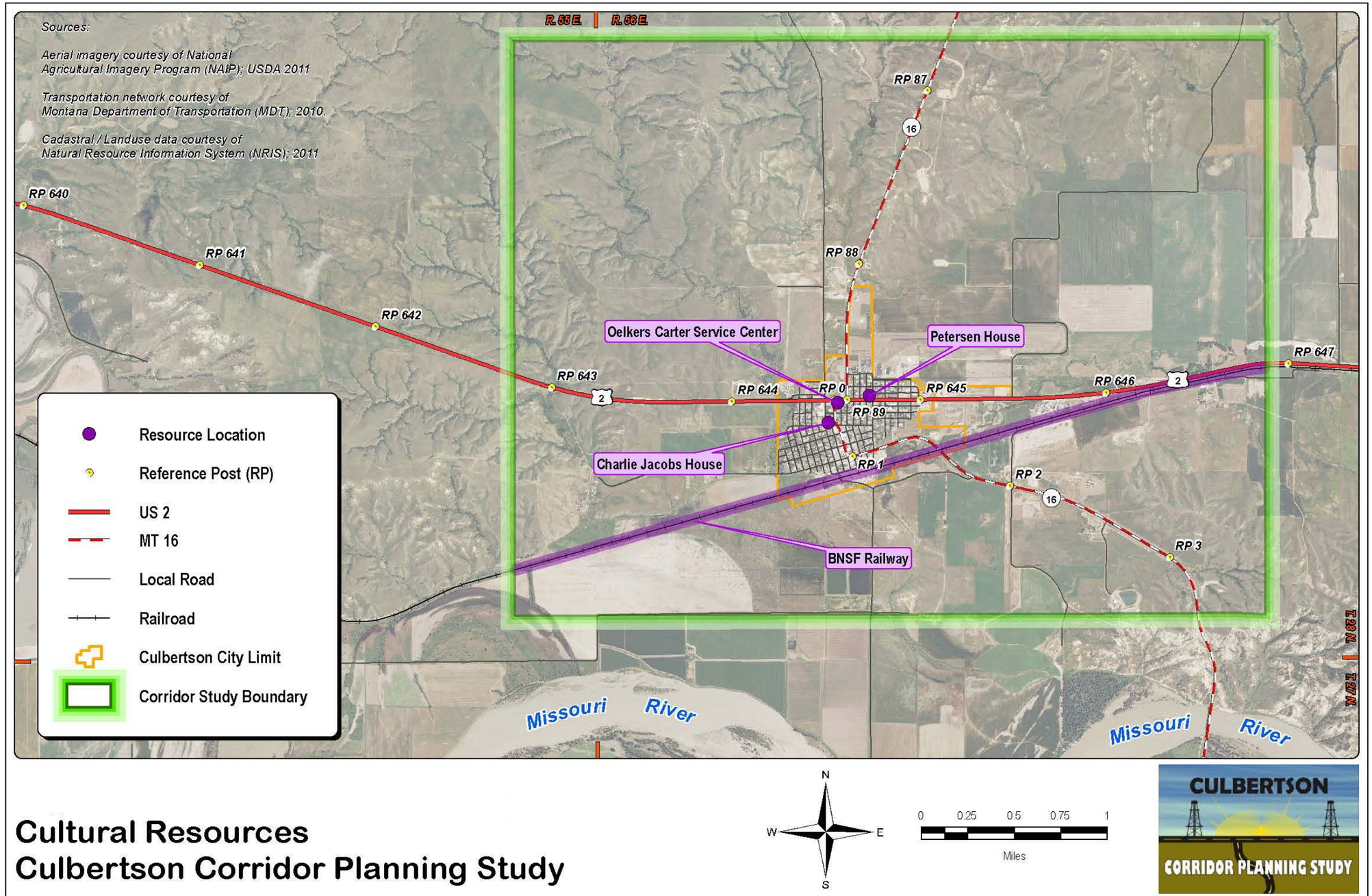


Figure 11 – NRHP Eligible Sites

4.6 Noise

If an improvement option is forwarded into project development, a noise study would be required to determine where noise-sensitive land uses are located, what existing noise levels those areas are experiencing, and to estimate what future noise levels will be as a result of the project per MDT policy. Previous noise studies have been conducted along US 2 within the Study area for the *Culbertson East to North Dakota Environmental Assessment*. If the project is expected to change traffic volumes on other routes, then off-project routes should also be studied for noise impacts. In areas of residential development, noise impacts (existing or predicted) may need to be mitigated.

Appendix A:
Major Faults in Montana

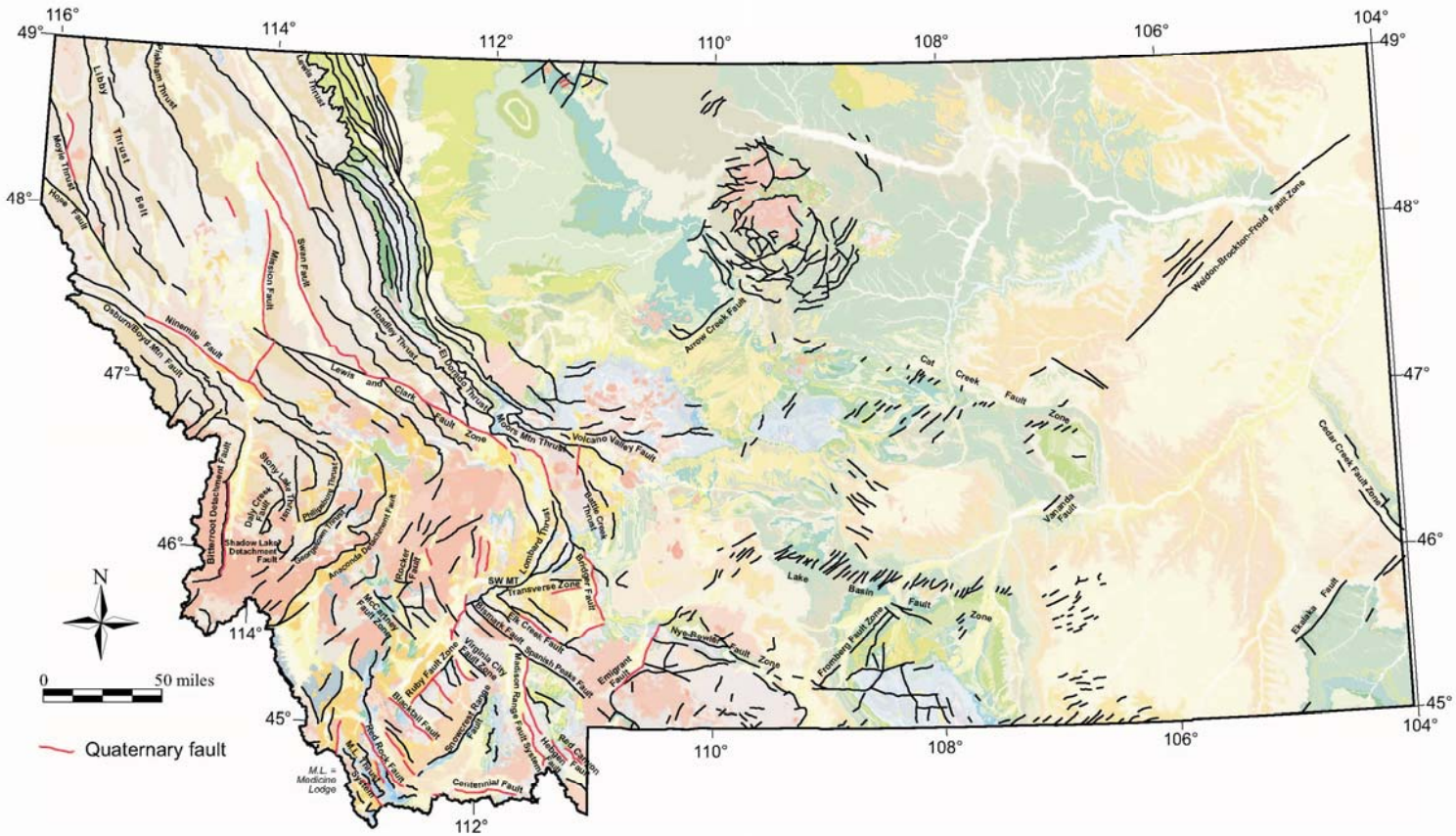


Figure 5. Major faults. Base map from plate 1. Quaternary faults from Stickney and others (2000).

Appendix B:
SHPO Research Files

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STATE HISTORIC PRESERVATION OFFICE

Cultural Resource Information Systems

CRIS Township, Range, Section Report

Report Date: 12/05/2011

Site #	Twp	Rng	Sec	Qs	Site Type1	Site Type 2	Time Period	Owner	NR Status
24RV0698	28 N	55E	25	Comb	Historic Energy Development	Null	Historic More Than One Decade	Combination	Ineligible
24RV0817	28 N	55E	25	NE	Rock Cairn(s)	Null	No Indication of Time	Private	undetermined
24RV0702	28 N	55E	25	NW	Historic Agriculture	Historic Building Foundation	Historic More Than One Decade	Private	Ineligible
24RV0153	28 N	55E	25	comb	Historic Road/Trail	Multi County	Historic More Than One Decade	Combination	CD GCD US 2
24RV0566	28 N	56E	4	SE	Historic Mining	Historic Coal Mine	1920-1930	Private	undetermined
24RV0436	28 N	56E	17	SW	Historic Mining	Null	Historic Period	Private	Ineligible
24RV0680	28 N	56E	17	comb	Historic Road/Trail	Null	Historic Period	Private	Ineligible
24RV0680	28 N	56E	18	NE	Historic Road/Trail	Null	Historic Period	Private	Ineligible
24RV0698	28 N	56E	27	Comb	Historic Energy Development	Null	Historic More Than One Decade	Combination	Ineligible
24RV0132	28 N	56E	27	SW	Historic Railroad	Historic Railroad Bridge	Historic More Than One Decade	Private	CD GN RR
24RV0698	28 N	56E	28	Comb	Historic Energy Development	Null	Historic More Than One Decade	Combination	Ineligible
24RV0795	28 N	56E	28	SW	Historic Vehicular/Foot Bridge	Null	Historic More Than One Decade	MDOT	undetermined
24RV0795	28 N	56E	28	SW	Historic Vehicular/Foot Bridge	Null	Historic More Than One Decade	MDOT	undetermined
24RV0698	28 N	56E	29	Comb	Historic Energy Development	Null	Historic More Than One Decade	Combination	Ineligible
24RV0154	28 N	56E	29	NE	Historic Homestead/Farmstead	Null	Historic More Than One Decade	Private	undetermined
24RV0788	28 N	56E	29	SE	Historic Residence	Historic Outbuildings	1950 and later	Private	undetermined
24RV0191	28 N	56E	29	SE	Historic Commercial Development	Historic Outbuildings	Historic More Than One Decade	Private	undetermined
24RV0789	28 N	56E	29	SE	Historic Residence	Historic Outbuildings	Historic More Than One Decade	Private	undetermined NR
24RV0788	28 N	56E	29	SE	Historic Residence	Historic Outbuildings	1950 and later	Private	undetermined
24RV0191	28 N	56E	29	SE	Historic Commercial Development	Historic Gas Station	1930-1939	Private	undetermined
24RV0789	28 N	56E	29	SE	Historic Residence	Historic Outbuildings	Historic More Than One Decade	Private	undetermined
24RV0186	28 N	56E	29	SW	Historic Commercial Development	Historic Hotel/Motel	Historic More Than One Decade	Private	undetermined
24RV0792	28 N	56E	29	SW	Historic Residence	Null	1950 and later	Private	undetermined
24RV0792	28 N	56E	29	SW	Historic Residence	Null	1950 and later	Private	undetermined ELIG.
24RV0791	28 N	56E	29	SW	Historic Residence	Null	1950 and later	Private	undetermined
24RV0791	28 N	56E	29	SW	Historic Residence	Null	1950 and later	Private	undetermined
24RV0790	28 N	56E	29	SW	Historic Residence	Historic Outbuildings	Historic More Than One Decade	Private	undetermined
24RV0790	28 N	56E	29	SW	Historic Residence	Historic Outbuildings	Historic More Than One Decade	Private	undetermined
24RV0140	28 N	56E	29	SW	Historic Residence	Null	Prehistoric More Than One Period	Private	Ineligible
24RV0139	28 N	56E	29	SW	Historic Residence	Null	Prehistoric More Than One Period	Private	undetermined
24RV0138	28 N	56E	29	SW	Historic Residence	Historic Outbuildings	Prehistoric More Than One Period	Private	CD CHARLIE JACOBS MANSION RUIN
24RV0137	28 N	56E	29	SW	Historic Residence	Null	Prehistoric More Than One Period	Private	undetermined
24RV0185	28 N	56E	29	SW	Historic Commercial Development	Historic Gas Station	1950 and later	Private	undetermined NR
24RV0186	28 N	56E	29	SW	Historic Commercial Development	Historic Hotel/Motel	1940-1949	Private	undetermined
24RV0793	28 N	56E	29	SW	Historic Residence	Null	Historic More Than One Decade	Private	undetermined
24RV0793	28 N	56E	29	SW	Historic Residence	Null	Historic More Than One Decade	Private	undetermined
24RV0134	28 N	56E	29	SW	Historic Residence	Historic Outbuildings	Prehistoric More Than One Period	Private	undetermined
24RV0135	28 N	56E	29	SW	Historic Residence	Null	Prehistoric More Than One Period	Private	undetermined
24RV0787	28 N	56E	29	SW	Historic Residence	Null	Historic More Than One Decade	Private	undetermined
24RV0136	28 N	56E	29	SW	Historic Residence	Null	Prehistoric More Than One Period	Private	undetermined
24RV0787	28 N	56E	29	SW	Historic Residence	Null	Historic More Than One Decade	Private	undetermined
24RV0192	28 N	56E	29	Unk	Historic Commercial Development	Historic Gas Station	1950 and later	Private	undetermined ELIG.
24RV0191	28 N	56E	29	Unk	Historic Commercial Development	Historic Outbuildings	Historic More Than One Decade	Private	undetermined
24RV0191	28 N	56E	29	Unk	Historic Commercial Development	Historic Gas Station	1930-1939	Private	undetermined
24RV0188	28 N	56E	29	Unk	Historic Commercial Development	Historic Site	1950 and later	Private	undetermined
24RV0186	28 N	56E	29	Unk	Historic Commercial Development	Historic Hotel/Motel	Historic More Than One Decade	Private	undetermined
24RV0186	28 N	56E	29	Unk	Historic Commercial Development	Historic Hotel/Motel	1940-1949	Private	undetermined
24RV0185	28 N	56E	29	Unk	Historic Commercial Development	Historic Gas Station	1950 and later	Private	undetermined

8 + 21 = 30 unresolved 3 ELIG. Sites

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Historical Society

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Report Date: 12/05/2011

Site #	Twp	Rng	Sec	Qs	Site Type1	Site Type 2	Time Period	Owner	NR Status
24RV0698	28 N	56E	30	Comb	Historic Energy Development	Null	Historic More Than One Decade	Combination	Ineligible
24RV0153	28 N	56E	30	comb	Historic Road/Trail	Multi County	Historic More Than One Decade	Combination	CD
24RV0679	28 N	56E	31	NE	Historic Railroad Building/Structure	Null	Historic Period	Private	undetermined
24RV0153	28 N	56E	31	comb	Historic Road/Trail	Multi County	Historic More Than One Decade	Combination	CD
24RV0679	28 N	56E	32	NW	Historic Railroad Building/Structure	Null	Historic Period	Private	undetermined
24RV0678	28 N	56E	32	SE	Firehearths or Roasting Pits, FCR	Null	No Indication of Time	Private	Unresolved
24RV0190	28 N	56E	32	Unk	Historic Commercial Development	Null	1950 and later	Private	undetermined
24RV0189	28 N	56E	32	Unk	Historic Commercial Development	Historic Site	1930-1939	Private	undetermined
24RV0187	28 N	56E	32	Unk	Historic Commercial Development	Null	1910-1919	Private	undetermined
24RV0677	28 N	56E	33	NW	Lithic Material Concentration	Null	No Indication of Time	Private	CD
24RV0207	28 N	56E	34	Comb	Lithic Material Concentration	Tipi Ring	No Indication of Time	No Data	undetermined
24RV0699	28 N	56E	34	SW	Tipi Ring	Null	No Indication of Time	No Data	undetermined

24RV0153 - OLD US Highway 2

24RV0132 - GN/AT Northern Railway - Now BNSF

24RV0138 - Charlie Jacobs House

24RV0677 - Archaeological site

24RV665 - Roosevelt highway segments