



Draft Programmatic Environmental Assessment
Bridge Replacement, Upgrade and Relocation
Montana
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FEMA

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ACRONYMS

APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BLS	Basic Life Support
BMP	Best Management Practice
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
DHS	Department of Homeland Security
DNRC	Department of Natural Resource and Conservation
EA	Environmental Assessment
E.O.	Executive Order
EPA	Environmental Protection Agency
ERS	Economic Research Service
ESA	Endangered Species Act
FAS	Federal Aid System
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FWCA	Fish and Wildlife Coordination Act
HP	Highway Patrol
ISO	Insurance Services Office
MBTA	Migratory Bird Treaty Act
MT DEQ	Montana Department of Environmental Quality
MT FWP	Montana Fish Wildlife and Parks
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966 (as amended)
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NRCS	USDA Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWR	National Wildlife Refuge
OSHA	Occupational Health and Safety Administration
PA	Public Assistance
PD-Com	Planned Development - Commercial
PEA	Programmatic Environmental Assessment
P.L.	Public Law
PPE	Personal protective equipment
SDWA	Safe Drinking Water Act
SEA	Supplemental Environmental Assessment

SHPO	State Historic Preservation Officer
T&E	Threatened and Endangered Species
TMDL	Total Maximum Daily Loads
USACE	U.S. Army Corps of Engineers
USC	United States Code
USFS	United States Forest Service
USFWS	U.S. Fish and Wildlife Service
WMD	Wetland Management District

1.0 INTRODUCTION

1.1 Overview

The United States Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) proposes to implement repair, replacement, upgrade and relocation of bridges that are damaged as a result of a Presidential Declared Major Disaster in the State of Montana. Bridges may also be built, upgraded, or repaired under other FEMA funding programs, such as, but not limited to Hazard Mitigation Assistance (HMA) and Grants Program Directorate (GPD) funding. This programmatic environmental assessment (PEA) has been prepared to analyze the potential environmental consequences associated with the proposed action and the no action alternative in accordance with the National Environmental Policy Act (NEPA) (42 United States Code [USC] 55 parts 4321 et seq., 2000), the Council on Environmental Quality (CEQ) implementing regulations (40 Code of Federal Regulations [CFR] 30 parts 1500 et seq., 2004), and 44 CFR Emergency Management and Assistance Ch. I Part 10. This analysis is programmatic in nature and does not address individual site-specific impacts, which will be evaluated for individual projects prior to approval.

1.2 Background

The National Environmental Policy Act of 1969 and its implementing regulations at 40 CFR Part 1500 and 44 CFR Part 10 direct FEMA to take into consideration the environmental consequences of proposed actions during the decision-making process. FEMA must comply with NEPA before making Federal funds available. FEMA has determined through experience that the majority of the typical, recurring actions proposed for funding, and for which an Environmental Assessment is required, can be grouped by type of action or location. These groups of actions can be evaluated in a PEA for compliance with NEPA and its implementing regulations without the need to develop and produce a stand-alone Environmental Assessment (EA) for every action.

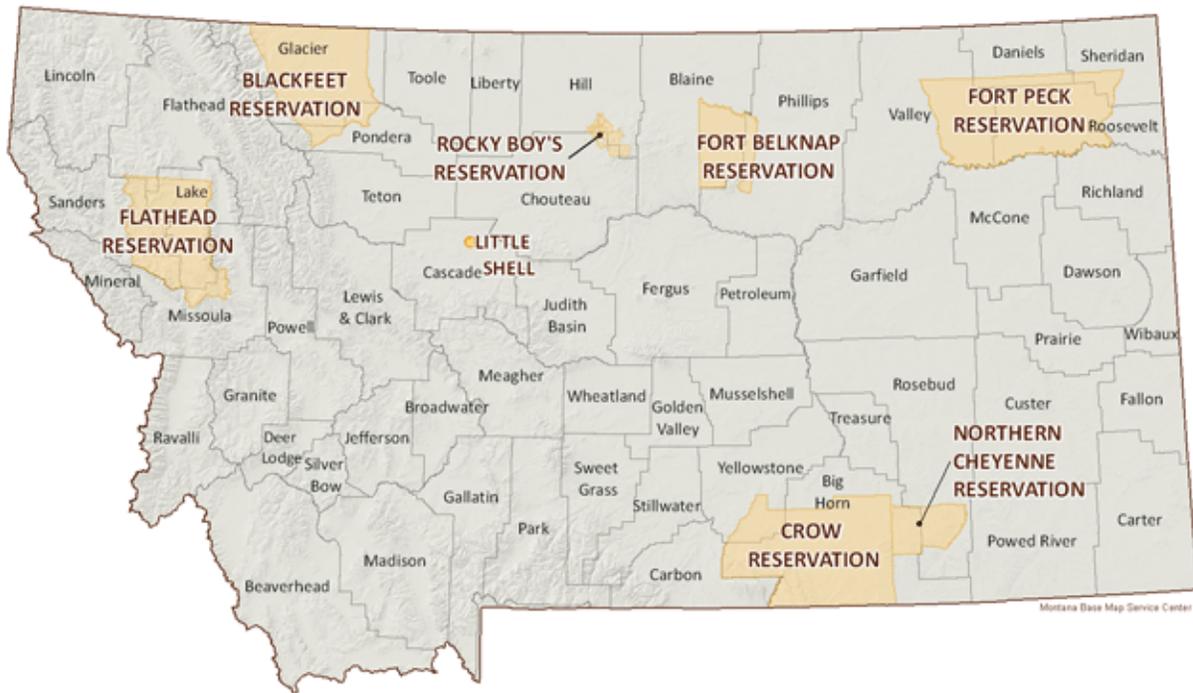
This PEA evaluates typical actions undertaken by FEMA to provide permanent restoration or mitigation to bridges on existing transportation infrastructure throughout the State of Montana. These actions are required as a result of historic and anticipated future flooding throughout the State of Montana. It applies to all proposed alternatives described in this document. This PEA also provides the public and decision-makers with the information required to understand and evaluate the potential environmental consequences of these actions and to consider these impacts in decision making. The purpose of this action is to help FEMA fulfill and expedite the environmental review process.

FEMA will use this PEA to determine the level of environmental analysis and documentation required under NEPA for permanent bridge repair activities or any of the proposed alternatives. If the description of the site-specific nature of the project and the levels of analysis are fully and accurately described in this PEA, FEMA will take no further action. If a specific project is expected to (1) create impacts not described in the PEA; (2) create impacts greater in magnitude,

extent, or duration than those described in the PEA; or (3) require mitigation measures to keep impacts below significant levels that are not described in the PEA; then a Supplemental Environmental Assessment (SEA) would be prepared to address the specific action. The SEA would be tiered from this PEA, in accordance with 40 CFR Part 1508.28. Actions that are determined during the preparation of the SEA to require a more detailed or broader environmental review will be subject to the stand-alone EA process.

The project area of this Programmatic Environmental Assessment (PEA) encompasses the State of Montana, including 56 Counties and seven Indian Reservations (Figure 1).

Figure 1 Area of Programmatic Environmental Assessment - State of Montana



2.0 Purpose and Need

2.1 Purpose

The purpose of the proposed project action is to restore safe, sustainable, and permanent transportation function and capacity to bridges within existing transportation corridors in Montana.

2.2 Need

Over the last eleven years, Montana has experienced ongoing damage from flooding and severe storms. Seven Presidential Disaster Declarations have been issued for the State of Montana from 2000 through 2011. Record rains and melting snowpack swelled rivers and caused waters to widen banks or reroute flow patterns making existing bridges no longer usable.

During this period, residents and businesses may lose access or be forced to take long detours. Additionally, local governments may be unable to provide emergency services including fire, police, and ambulance, creating a potential threat to life, public health and safety. Intervention is needed to make roads safe and useable. In an effort to restore or mitigate bridges, FEMA's Programs may provide funds for bridge expansion or enlargement, replacement, relocation or changes in materials.

3.0 Alternatives

3.1 Alternatives Development

NEPA requires federal agencies to consider a reasonable range of alternatives that meet the project purpose and need. The NEPA alternatives development process allows FEMA to work with interested agencies, Tribes, the public, and other stakeholders to develop alternatives that respond to identified issues.

This section describes typical actions, including the No Action alternative, which FEMA could undertake in order to administer and implement FEMA funding. Before FEMA can take any action the project must qualify for FEMA funding within FEMA's Public Assistance Program, Disaster Grants, Hazard Mitigation Assistance or Grants Program Directorate funding. FEMA may only fund road projects that are not eligible for funding from other Federal agencies. Bridges that are part of the Federal Aid System (FAS) are not eligible for FEMA funding.

3.2 Criteria for Evaluating Practicability of Alternatives

The proposed project bridges have previously provided access to farmsteads and transportation for residents, travelers, emergency vehicles, school buses, mail, and other commodities. To meet the purpose and need of this project, any alternative must provide for the same function and transportation capacity of the original bridge. For the purposes of health and safety reasons a fully functional bridge built to current codes and standards is needed for entrance and egress.

Criteria for identifying practicable alternatives to the repairing bridges are as follows:

- Meets the purpose and need.
- Is available and capable of being accomplished (i.e. it can be done given the financial resources that could reasonably be made available, and it is feasible from the standpoint of natural environment, social concerns, legal constraints, technology and logistics).
- Will not create other unacceptable impacts such as severe operational or safety problems, or significant socioeconomic or environmental impacts.

3.3 Alternatives Considered But Not Carried Forward

FEMA considered and reviewed several alternatives in development of this PEA. One alternative was considered but eliminated from further review in this PEA because it fall under an alternative environmental review. This alternative is listed and described below.

Alternative A: Repair and Minor Mitigation

Applicants may repair bridges to pre-disaster condition under FEMA's Public Assistance Program or make small mitigation upgrades under Hazard Mitigation Grant Programs. These types of projects may fall into a Statutory Exclusion or a Categorical Exclusion under NEPA and

will be evaluated accordingly. No further review of these types of projects will be considered in this PEA.

3.4 Alternatives Carried Forward

The following Alternatives are being considered for further evaluation in this PEA. These alternatives represent classes of actions that may be implemented individually or in combination with one another. Depending upon the response action FEMA determines is necessary to maintain bridge access and the individual characteristics of the specific site, there may be only one viable option to be implemented. The following list of alternatives may not be available at all site-specific locations.

Alternative 1: No Action

A No Project Alternative is required to be included in the environmental analysis and documentation in accordance with the Council on Environmental Quality regulations implementing NEPA. The No Project Alternative is defined as maintaining the status quo with no FEMA involvement for any alternative. The No Project Alternative is used to evaluate the effects of not implementing the bridge replacement, repair, relocation, or upgrade action on a programmatic level; thus, this alternative provides a benchmark against which other alternatives may be evaluated.

"No action" means the proposed activity would not take place and the bridge would remain in its existing condition. The road may remain closed due to the loss of a bridge. For the purpose of the environmental analysis, under the No Project Alternative, applicants would have to rely on savings, insurance, loans, or other forms of assistance to restore their transportation routes.

Alternative 2: Bridge Replacement

This alternative applies to replacement of an existing bridge with a new bridge in the existing location. Changes to the bridges materials and dimensions are included in this alternative. In cases where the bridge no longer functions at its current size, a longer or wider bridge may be needed in the existing location to repair the bridge function, level of services and stability. Included in this alternative are upgrades to current codes and standards and construction of road approaches which are necessary to maintain the roadway system. Road realignments may also occur in this alternative. Figures 2 and 3 have examples of changes possible under this alternative.

Figure 2 Length Adjustment

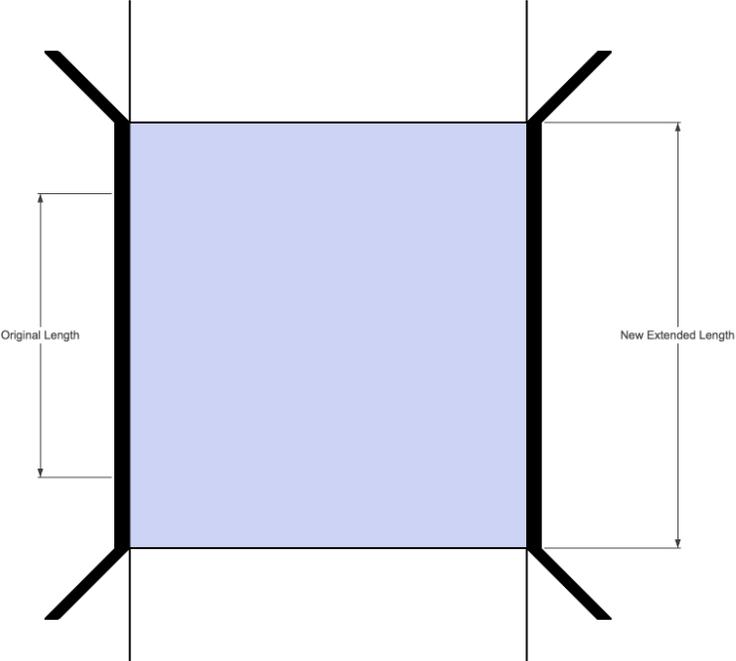
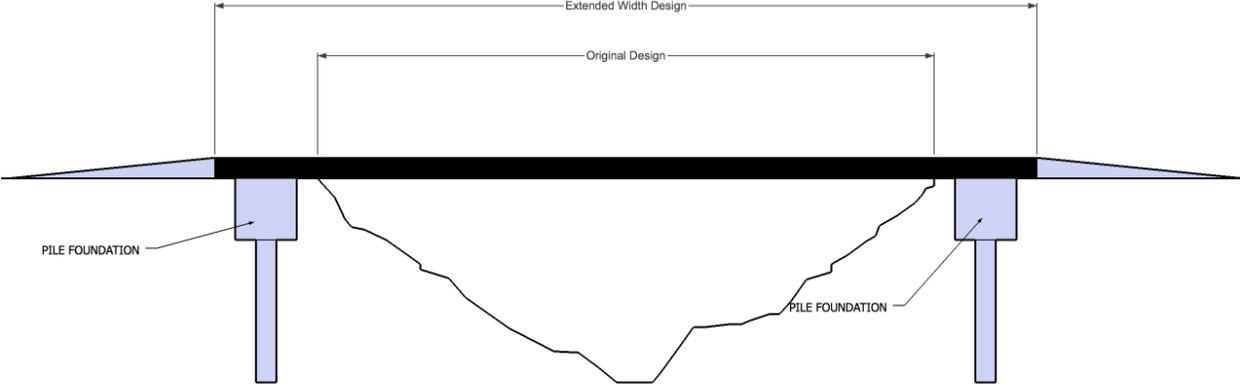


Figure 3 Width Adjustment



Alternative 3: Bridge Relocation

This alternative includes the relocation of a bridge to another location within the existing transportation corridor. Included in this alternative is the construction of a new bridge and road segments which are necessary to connect existing roads on either side of the waterway. Road relocations will contain a beginning and end point that ties to the original road segment. These roadways are typically longer segments than the roadway they are replacing. Bridges and roadways being replaced would be abandoned. Purchase of land and right of way may be required. In the cases of road segments that provide sole access, an alternate route may not be available. Road realignments may also occur in this alternative.

Alternative 4: New Structure Design

This alternative involves replacing an existing bridge or large culvert with a new structure that maintains the function of original structure. New structures may include changes from low water crossings or culverts to bridges or the replacement of bridges with culverts or low water crossings. The new structure may be dissimilar in design and material of the original. This alternative is considered when materials such as silos that were used as culverts are no longer available. Construction would occur to current codes and standards. Road realignments may also occur in this alternative.

Section 4 Affected Environment

4.1 Geology, Soils and Land Use

4.1.1 Affected Environment

Montana has a diverse geology, ranging from the western mountains lifted and folded by tectonics and sculpted by glaciers to the eastern plains partly overlain by glacial till and dissected by wind and water. The 2007 state geological map included 324 distinct geological units – a rock formation that is recognizable from everything else around it and extends over a distance.

The mean elevation in Montana is approximately 3,400 feet. The Rocky Mountains cover the western two-fifths of the state, with the Bitterroot Range along the Idaho border; the high, gently rolling Great Plains occupy most of central and eastern Montana. The highest point in the state with an elevation of 12,799 feet is Granite Peak, located in south-central Montana near the Wyoming border. The lowest point at 1,800 feet is in the northwest, where the Kootenai River leaves the state at the Idaho border. The Continental Divide passes in a jagged pattern through the western part of the state, from the Lewis to the Bitterroot ranges.

Land use in South Dakota consists primarily of grassland/herbaceous areas (44.7%), Evergreen Forest (21.6%), and Small Grains (10.6%) according to the National Land Cover Statistics Database (USGS 2010) (Table 1). Residential development covers less than 1% of Montana lands.

Table 1. Land Cover of Montana

Land Cover Classes -	State Totals Units in Square Miles
Water	1,548
Perennial Ice/Snow	71
Low Intensity Residential	118
High Intensity Residential	4
Commercial/Industrial/Transportation	191
Bare Rock	1,025
Quarries/Mines	41
Transitional	650
Deciduous Forest	1428
Evergreen Forest	31,725
Mixed Forest	94
Shrubland	12,877

Grasslands/Herbaceous	65,750
Pasture/Hay	3,410
Row Crops	397
Small Grains	15,645
Fallow	11,291
Urban/Recreational Grasses	33
Woody Wetlands	511
Emergent/Herbaceous Wetlands	231
State Total	147,039

According to the Economic Research Service (ERS) of the U.S. Department of Agriculture, there were 61,388,462 acres in Montana classified as farmland and 29,400 farms. Prime farmland is found throughout the state. Prime farmland, as defined by the U.S. Department of Agriculture, is the land that is best suited to food, feed, forage, fiber, and oilseed crops. It may be cultivated land, pasture, woodland, or other land, but it is not urban and built-up land or water areas. It either is used for food or fiber crops or is available for those crops. The soil qualities, growing season, and moisture supply are those needed for a well managed soil economically to produce a sustained high yield of crops. Prime farmland produces the highest yields with minimal inputs of energy and economic resources, and farming it results in the least damage to the environment.

Montana is the 4th largest state by land and has 94,104,586 square miles. Property is divided into private, federal, state, tribal and BIA, and water. Table 2 displays ownership by agency.

Table 2. Land by Ownership in Montana (in acres unless otherwise noted)

Percent Federal Land	29.1%
U.S. Bureau of Land Management	8,005,646
U.S. Bureau of Reclamation	125,044
U.S. Fish and Wildlife Service	923,734
National Park Service	1,188,786
U.S. Forest Service	17,048,025
U.S. – Other Federal Land	82,075
Percent State Land	6.0%
Montana State Trust Land	5,182,439
Montana Fish, Wildlife, and Parks	405,817
Montana University system	35,727
Montana Dept of Corrections	35,426
Montana -- Other State Land	28,227
Local Government	23,749
Percent Indian Trust and BIA Land	5.3%
Tribal and BIA Land	4,997,717

Percent Private Land	58.7%
Private Land	55,015,683
Private Conservation Land	227,154
Percent Water	0.8%
Water	779,337

4.1.2 Regulatory Setting

Government controls land use through the use of comprehensive plans, zoning regulations, and subdivision regulations. In general, the Montana State government has passed these powers to the local governments. However, the State does have some control over certain types of land uses. The kinds of land uses the state has some regulatory capacity include confined animal feeding operations, solid waste management, mining, and energy facility siting.

The Farmland Protection Policy Act (FPPA) require federal agencies to evaluate the effects (direct and indirect) of their activities before taking any action that could result in converting designated prime or unique farmland for nonagricultural purposes. If an action would adversely affect farmland preservation, alternative actions that could avoid or lessen adverse effects must be considered. Determination of the level of impact to prime and unique farmland or farmland of statewide and local importance is done by the lead federal agency, which inventories farmlands affected by the proposed action and scores part of an AD 1006 Form, Farmland Conversion Impact Rating, for each alternative. In consultation with the lead federal agency the Natural Resource Conservation Service (NRCS) completes the AD 1006 Form and determines the level of consideration for protection of farmlands that needs to occur under the Act.

The National Wildlife Refuge System Administration Act of 1966 (16 U.S.C. 668dd-668ee) -- This Act, derived from sections 4 and 5 of Public Law 89-669 (October 15, 1966; 80 Stat. 927), constitutes an "organic act" for the National Wildlife Refuge System. It was recently amended by P.L. 105-57, "The National Wildlife Refuge System Improvement Act of 1997." Public Law 105-57, approved October 9, 1997, (111 Stat. 1253) gives guidance to the Secretary of the Interior for the overall management of the Refuge System. The Act's main components include: a strong and singular wildlife conservation mission for the Refuge System; a requirement that the Secretary of the Interior maintain the biological integrity, diversity and environmental health of the Refuge System; a new process for determining compatible uses of refuges; a recognition that wildlife-dependent recreational uses involving hunting, fishing, wildlife observation and photography, and environmental education and interpretation, when determined to be compatible, are legitimate and appropriate public uses of the Refuge System; that these compatible wildlife-dependent recreational uses are the priority general public uses of the Refuge System; and a requirement for preparing comprehensive conservation plans.

Under the Montana Stream Access Law, the public may use rivers and streams for recreational purposes up to the ordinary high-water mark. Although the law gives recreationists the right to

use rivers and streams for water-related recreation, it does not allow them to enter posted lands bordering those streams or to cross private lands to gain access to streams. House Bill 190, passed during the 2009 Legislative Session, confirmed that the public has access to surface waters by public bridge or county road right-of-way. The Department, in cooperation with the affected landowner and county, is responsible for providing public passage around or through a fence preventing such access. A typical access feature would be a stile, gate, roller, walkover, or wooden rail fence. Access may be restricted by a county commission for public safety or where the county road ROW did not allow access.

4.1.3 Environmental Consequences

4.1.3.1 Alternative 1: No Action

Under the No-Action alternative, no federal action would be completed by FEMA. Alternative 1 has potential to change land use if access is lost as a result of an abandoned bridge. Loss in agricultural land use or recreational land use may occur. This could lead to vegetation reclaiming dirt roads. Loss of access to culturally significant properties may also occur.

4.1.3.2 Alternative 2: Bridge Replacement

Under this alternative, the existing road network would be maintained. The existing bridge footprint would be expanded to accommodate the change in channel width. However, the road footprint is expected to remain within the road right-of-way so no changes in land use are anticipated.

If the bridge extends beyond the right-of-way, there may be changes to land use, and additional road right-of-way may need to be purchased, however these impacts are not expected to be significant. If the road footprint extends outside of the right-of-way, into prime farmland or farmland of statewide significance, a quantification of the acreage of prime farmland removed will be completed. If the site contains these soils, FEMA must prepare the appropriate sections of an AD-1006 Farmland Conversion Impact Rating Form for the site, coordinate with the NRCS to determine the overall impact of the conversion, and document the results of the FPPA finding. If the road footprint extends outside of the right-of-way into Fish and Wildlife Service wetland or grassland easement area, a Land Use permit will be required from the Fish and Wildlife Service. If the road footprint extends outside of the right-of-way into other state or federal lands, additional coordination and permitting will be required from the owner agency.

If access to the river is blocked for recreationalist use due to landowner fence or other barrier, an access which could be in the form of a gate, crossover, or stile would be built.

4.1.3.3 Alternative 3: Bridge Relocations

Construction of a new bridge and connecting road segments will likely result in changes to land use as the road will create a new footprint. However, these changes in land use are not expected

to be significant, as the road relocations are expected to be relatively minor distances and lengths.

For the new footprint additional road right-of-way may need to be purchased, however these impacts are not expected to be significant. If the road footprint extends into prime farmland or farmland of statewide significance, a quantification of the acreage of prime farmland removed will be completed. If the site contains these soils, FEMA must prepare the appropriate sections of an AD-1006 Farmland Conversion Impact Rating Form for the site, coordinate with the NRCS to determine the overall impact of the conversion, and document the results of the FPPA finding. If the road footprint extends into Fish and Wildlife Service wetland or grassland easement area, a Land Use permit will be required from the Fish and Wildlife Service. If the road footprint extends into other state or federal lands, additional coordination and permitting will be required from the owner agency.

If access to the river is blocked for recreationalist due to landowner fence or other barrier, an access which could be in the form of a gate, crossover, or stile would be built.

4.1.3.4 Alternative 4: New Structure Design

Under this alternative the new structure is expected to remain within the road right-of-way so no changes in land use are anticipated.

If the bridge or road extends beyond the right-of-way, there may be changes to land use, and additional road right-of-way may need to be purchased, however these impacts are not expected to be significant. If the road footprint extends outside of the right-of-way, into prime farmland or farmland of statewide significance, a quantification of the acreage of prime farmland removed will be completed. If the site contains these soils, FEMA must prepare the appropriate sections of an AD-1006 Farmland Conversion Impact Rating Form for the site, coordinate with the NRCS to determine the overall impact of the conversion, and document the results of the FPPA finding. If the road footprint extends outside of the right-of-way into Fish and Wildlife Service wetland or grassland easement area, a Land Use permit will be required from the Fish and Wildlife Service. If the road footprint extends outside of the right-of-way into other state or federal lands, additional coordination and permitting will be required from the owner agency.

If access to the river is blocked for recreationalist due to landowner fence or other barrier, an access which could be in the form of a gate, crossover, or stile would be built.

4.2 Transportation Facilities

4.2.1 Affected Environment

Montana has 74,792 miles of highways, roads and streets and 4,126 bridges as of 2010. There were 923,819 registered motor vehicles in the state as of 2010 and 704,509 licensed drivers in the state as of 2003. Mobility in regional areas is critical for social and economic activities.

Commuting is a part of daily life and truck transportation plays a vital role in Montana's economy. Any impediment to freight movement hinders economic performance and growth.

FEMA has, under numerous Presidential declared disasters, repaired bridges that are not eligible for other federal funding. Some of these bridges have been rebuilt several times.

In addition, millions of dollars in costs have been incurred by businesses and the general public due to the extra travel distance and time because of detours from permanent and temporary road closures. Some detours can add up to 50 miles of one-way travel for school buses, emergency vehicles, employees and customers of businesses.

4.2.2 Regulatory Setting

Codes and standards for road repair are determined by Montana Department of Transportation and local governments.

4.2.3 Environmental Consequences

4.2.3.1 Alternative 1: No Action

Under the No Action alternative damaged bridges would not be funded by FEMA. Bridges would be isolated or abandoned unless actions to maintain or improve the road system would be provided by the State and/or local transportation agencies. This alternative may result in significant adverse impacts due to increased travel times and increasing traffic volumes as travel patterns change.

4.2.3.2 Alternative 2: Bridge Replacement

Short term impacts would be expected during construction as traffic delays and alternate routes would be required. No significant adverse impacts are expected to the transportation volume, capacity, and time of transit.

4.2.3.3 Alternative 3: Bridge Relocation

This alternative would generally maintain the existing road network and maintain existing traffic patterns and volumes. In some cases travel times and distances may increase slightly. Short term impacts would occur during construction from traffic delays and detours. No significant long term impacts are expected to the transportation volume, capacity, and time of transit.

4.2.3.4 Alternative 4: New Structure Design

This alternative has the potential for having impacts similar to Alternative 2.

4.3 Safety and Occupational Health

4.3.1 Affected Environment

Safety and occupational health issues include one-time and long-term exposure. Examples include asbestos/lead/radiation/chemical exposure, short/long term exposure to environmental conditions, and injuries or deaths resulting from a one-time accident. Safety and occupational health concerns could impact personnel working on the project and in the surrounding area, as well as travelers using the project sites.

Project area bridges are damaged or isolated creating public safety issues due to flooding. Many bridges in the project area were constructed prior to 1978 and have the potential to have lead-based paint on the steel structure. Lead exposure can result from paint chips or dust, or inhalation of lead vapors from torch-cutting operations. Lead exposure can adversely affect the human nervous system. Due to the size of children, exposure to lead based paint is especially dangerous to small children. Occupational Health and Safety Administration (OSHA) considers all painted surfaces in which lead is detectable to have a potential for occupational health exposure.

4.3.2 Regulatory Setting

OSHA's Standards for the Construction Industry provides worker protection for employees. On the state level, several laws mirror or exceed the federal requirements. Similar to federal laws, state laws and regulations also pertain to building materials containing lead paint.

Lead-Based Paint Program: 29 CFR 1926.62 --Lead Exposure in Construction regulations apply to any occupational exposure to lead in all construction work in which lead, in any amount, is present in an occupational context. The rule requires written compliance plan and competent person(s); initial exposure assessment and periodic exposure monitoring; task-related triggers, with interim protection during assessment; Engineering, work practice, and administrative controls; respiratory protection program; protective clothing and equipment; housekeeping; hygienic facilities and practices; medical surveillance; medical removal protection; hazard communication programs and training on specific operations causing lead exposure; warning signs; recordkeeping; observation of monitoring.

4.3.3 Environmental Consequences

4.3.3.1 Alternative 1: No Action

In the no action alternative, the bridge is not repaired, leaving the roadway impassable. These bridges are a safety concern as future flooding could further damage them. Pieces could be washed downstream impacting other structures. The bridge may be abandoned or closed, but travelers may attempt to cross behind barriers. These bridges may be particularly dangerous during winter weather conditions when visibility is more restricted. A No Action Alternative results in impassable bridges for emergency, police and fire services causing the potential for significant delay. The No Action Alternative provides a significant adverse safety affect to motorists.

4.3.3.2 Alternative 2: Bridge Replacement

Alternative 2 would have no significant impact to public safety or occupational health. The bridge would be built to current codes and standards to span the new channel width and approaches. Some spot work painting may be required and construction workers are required to follow OSHA regulations to avoid release of lead from paint. Removal of steel bridges would not release lead from paint and steel may then be recycled. Construction workers and equipment operators are required to wear appropriate personal protective equipment (PPE) and be properly trained for the work being performed.

4.3.3.3 Alternative 3: Bridge Relocation

Alternative 3 would have no impacts to public safety or occupational health. The new relocated bridge would be designed to handle the capacity of vehicles of the original pre-disaster road. If an old steel bridge is removed there is little chance for release of lead from paint and steel may then be recycled. Construction workers and equipment operators are required to wear appropriate (PPE) and be properly trained for the work being performed.

4.3.3.4 Alternative 4: New Structure Design

Alternative 4 would have no significant impacts to public safety or occupational health. Removal of steel bridges would not release lead from paint and steel may then be recycled. Construction workers and equipment operators are required to wear appropriate PPE and be properly trained for the work being performed.

4.4 Socioeconomics and Environmental Justice

4.4.1 Affected Environment

According to the 2000 U.S. Census, the population of Montana in 2010 was 989,415. This represents an approximately 9.7% increase from 2000 (902,195). The five largest cities in Montana at the time of the 2010 Census were: Billings with 104,170; Missoula with 66,789; Great Falls with 58,505; Bozeman with 37,280; and Butte with 34,525. The rankings were the same for 2000. All of the cities showed population growth from 1990 to 2000, except Butte, which registered a 1.2% decrease in population. Of those showing an increase in population from 2000 to 2010, Bozeman registered the largest increase (35.5%) and Great Falls registered the smallest increase (3.5%). All of these cities, except Billings, are located in the western half of the state.

At the time of the 2010 Census, the population was 49.8% female (492,748) and 50.2% male (496,667). The median age of the residents of Montana in 2010 was 39.8 years. The percentage of the population 18 years and older in 2000 was 77.4%. Of those 18 years or older, 49.3% were female and 50.7% were male. Average household size was 2.35 in 2010 while the average family size was 2.91.

The majority of the Census respondents (97.5%) identified themselves as being of one race. Of those who identified themselves as being of one race, 89.4% identified themselves as being

White and 6.3% identified themselves as an American Indian or Alaska Native. The remaining respondents identified themselves as Black or African American (0.4%), Asian (0.6%), or some other race (0.6%).

Total housing units in Montana in 2010 were 482,825. Of these, 84.8% were occupied and 15.2% were vacant. The homeowner vacancy rate in 2010 was 1.4%, while the rental vacancy rate was 7.6%. Of the occupied housing units, 68% were owner-occupied and 32% were renter-occupied.

Of the population 25 years and older, 29.9% identified their highest educational attainment as a high school graduate (or equivalency). Another 25.1% identified themselves as having some college education, but not a degree. 19.8% identified themselves as having a bachelor's degree. 5.8% of the population reported themselves as attending 9-12th grades, but not graduating, while 2.5% reported having less than a 9th grade education. Those with an Associate degree accounted for 7.9% of the population and those with a Graduate or Professional degree accounted for 9% of the population.

The majority of those commuting to work reported driving alone (75.6%). Another 9.7% carpool to work. Those who walk to work account for 5.2% of the commuters, while those who take public transportation account for 0.8% and those who travel by other means account for 2.1%. Those who work at home account for 6.5% of commuters. The mean travel time to work was 18.6 minutes.

The employed civilian population 16 years and older is primarily engaged in management, professional, and related occupations (35.5%) and sales and office occupations (23.5%). Another 19.3% are engaged in service occupations, 12.4% in natural resource, construction, and maintenance occupations and 9.2 % in production, transportation, and material moving.

The majority of workers (71.6%) are private wage and salary workers. Government workers account for another 18.5%, while self-employed workers in their own unincorporated businesses account for 9.5% of the working class. Unpaid family workers account for 0.4% of the working class. The median household income for 2010 was reported as \$42,666. The median family income was \$54,507. The median income for female, full-time year-workers was \$21,825, while the median income for male, full-time year-round workers was \$32,860.

Poverty levels in Montana were 14.6 % for all people and 20.1% for children under age 18. By race respondents reported poverty levels for White at 13.4%, American Indian or Alaska Native residents reported 30.5%, Asian 15% and other at 21.6%

According to the U.S. Department of Agriculture 2007 Census, there were 29,524 farms in Montana. This is up slightly from 2002 (27,870 farms). The land in farms in 2007 was 61,388,462 acres, with the average farm size of 2,079 acres. The average age of the owner is 57.8 years.

10.4 million visitors traveled to Montana in 2010. Visitor spending in 2010 totaled \$2.4 billion. Visitor spending generated \$229 million in state and local tax revenue in 2010. An estimated 34,210 jobs were traceable to the visitor industry.

There are seven federally recognized American Indian tribes in Montana: Assiniboine & Sioux Tribes, Blackfeet Tribe, Chippewa-Cree Indians, Confederated Salish & Kootenai Tribes, Crow Tribe of Montana, Ft. Belknap Indian Community, Northern Cheyenne Tribe of MT. Table 3 outlines the population and incomes for the reservations in Montana.

Table 3. Reservation and Off-Reservation Trust Land Statistics

Reservation	Population	Medium Household Income	Medium Family Income
Blackfeet Reservation and Off-Reservation Trust Land	10,100	\$24,646	\$26,832
Crow Reservation and Off-Reservation Trust Land	6,894	\$27,044	\$30,038
Flathead Reservation	26,172	\$27,424	\$33,210
Fort Belknap Reservation and Off-Reservation Trust Land	2,959	\$21,225	\$23,158
Fort Peck Reservation and Off-Reservation Trust Land	10,321	\$23,905	\$26,019
Northern Cheyenne Reservation and Off-Reservation Trust Land	4,470	\$23,679	\$24,534
Rocky Boy's Reservation and Off-Reservation Trust Land (MT part)	2,676	\$22,474	\$22,429
Turtle Mountain Reservation and Off-Reservation Trust Land, MT--ND--SD (MT part)	24	\$30,625	\$31,875

4.4.2 Regulatory Setting

Executive Order (EO) 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) requires federal lead agencies to ensure rights established under Title IV of the Civil Rights Act of 1964 when analyzing environmental effects. FEMA and most federal lead agencies determine impacts to low-income and minority communities as part of the NEPA compliance process. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority or low-income populations. EO 12898 also tasks federal agencies with ensuring

that public notifications regarding environmental issues are concise, understandable, and readily accessible.

EO 13045 (Protection of Children from Environmental Health Risks and Safety Risks) required federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. As with EO 12898, FEMA and most federal lead agencies determine impacts to children as part of the NEPA compliance process. Agencies must ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks.

4.4.3 Environmental Consequences

4.4.3.1 Alternative 1: No Action

Under the No-Action alternative impacted roads would not receive assistance from FEMA. There is no requirement for compliance with EOs 12898 and 13045 since there are no federal actions. Alternative 1 has potential to result in significant adverse impact to socioeconomics of a community if the bridge is left impassable and the road closed. Families may be isolated from their homes. Farmers/ranchers may be isolated from their crop/pasture/hay lands. Travel route detours may be increased causing an increased expense to gasoline and vehicle maintenance. For hauling of crops, livestock, and machinery, cost of operations may increase as a result of long detours. Rural residences and lands are more likely to be negatively affected as a result of closed bridges and the longer detours. Access to community infrastructure and agricultural field operations may be lost if the road is left inundated, potentially resulting in significant social and economic loss. Minority populations may be adversely affected if closed bridges occur within tribal communities. All the tribal reservations except the Flathead Reservation have poverty populations above 25%. Most Montana Counties have higher populations in poverty than the national average and many are above 20%; Big Horn (23.5), Blaine (29.0), Cascade (21.0), Chouteau (21.0), Deer Lodge (21.2), Glacier (25.4), Lake (21.6), Pondera (21.5), Roosevelt (21.5), and Sanders (21.3) Counties. These counties in particular may be adversely affected if bridge closures occur.

4.4.3.2 Alternative 2: Bridge Replacement

During the construction period this alternative may provide some short term benefits by providing construction jobs and a multiple effect of increased expenditures in the local economy. There may be minor effects to populations during construction periods due to road detours however, these are not expected to be significant.

Efforts would be made during any construction to minimize short-term disruption to the local transportation system. Low income and minority populations may actually benefit during the construction process through the provision of construction jobs and multiplier effects of expenditures in the local economy. Any adverse impacts to low income or minority populations are expected to be short-term and not significant.

4.4.3.3 Alternative 3: Bridge Relocations

The original bridge would be abandoned. Construction of new road segments that are longer than the existing roadway could permanently increase travel distances and time. Extended travel distances and time increases fuel consumption due to longer commutes, and additional energy consumption associated with construction activities. However, these impacts are not expected to be significant, as the road relocations are expected to be relatively minor distances from the existing bridge.

During the construction period this alternative may provide some short term benefits by providing construction jobs and a multiple effect of increased expenditures in the local economy.

In addition, this alternative would potentially impact agricultural production at some locations. The agricultural effects anticipated to result from where construction of new roads requires acquiring farmland and converting it into a permanent roadway. Agricultural land conversions may adversely impact low income and minority population, if done at a significant scale. It is not anticipated that the amount of land required for road relocations would be significant.

4.4.3.4 Alternative 4: New Structure Design

Under this alternative impacts are expected to be the same as for Alternative 2.

4.5 Air Quality

4.5.1 Affected Environment

Montana currently has nonattainment areas in Particulate Matter (PM₁₀) and Lead, and maintenance areas for Carbon Monoxide (CO) under the National Ambient Air Quality Standards (NAAQS).

PM₁₀ - There are ten regions listed as nonattainment with moderate levels of PM₁₀. These include Butte, Silver Bow County; Columbia Falls & Kalispell, Flathead County; Flathead County- Whitefish and vicinity; Lame Deer, Rosebud County; Libby, Lincoln County; Missoula, Missoula County; Polson & Ronan, Lake County; and Sanders County (part)-Thompson Falls and vicinity.

Lead – The East Helena Area, Lewis and Clark County is listed as a nonattainment area for lead.

CO - There are three areas considered maintenance areas for CO – Billings, MT, Missoula, MT and Great Falls, MT.

4.5.2 Regulatory Setting

The Clean Air Act (CAA) requires that the U.S. Environmental Protection Agency (EPA) establish primary and secondary NAAQS for air pollutants that are considered harmful to the

public and environment. Primary NAAQS are established at levels necessary, with an adequate margin of safety, to protect the public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Similarly, secondary NAAQS specify the levels of air quality determined appropriate to protect the public welfare from any known or anticipated adverse effects associated with air contaminants. The pollutants for which EPA has established ambient concentration standards are called criteria pollutants and include ozone (O₃), respirable particulates that have aerodynamic diameters of 10 micrometers or less (PM₁₀), fine particles with aerodynamic diameters less than 2.5 micrometers, (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead (Pb).

The CAA also requires EPA to assign a designation to each area of the United States regarding compliance with the NAAQS. The EPA categorizes the level of compliance or noncompliance as follows: attainment (area currently meets the NAAQS), maintenance (area currently meets the NAAQS but has previously been out of compliance), and nonattainment (area currently does not meet the NAAQS).

The Administrative Rules of Montana Title 17, chapter 8, covers air quality requirements for the state. The Montana Department of Environmental Quality (MT DEQ) has programs to deal with issues that affect the comfort, health, safety, and well being of Montana citizens and their environment. Enforcement of state and federal environmental laws is accomplished through permitting, inspection, sampling, analytical services, and monitoring activities of the department. Programs that may become applicable to the alternatives include:

- **Air Quality Program:** The air quality program is responsible for protecting and fostering the state's air quality resources. The program promotes clean-air activities and initiates enforcement action to correct existing air pollution problems.

4.5.3 Environmental Consequences

4.5.3.1 Alternative 1: No Action

Under the No Action Alternative, no localized or regional effects to air quality are expected.

4.5.3.2 Alternative 2: Bridge Replacement

Construction of bridges may include pre-cast concrete and some poured in place concrete. The amount that would be poured in place is minimal and would not require a portable batch plant which would require permitting by MT DEQ.

During construction there may be temporary increases in equipment exhaust emissions and fugitive dust. However, the temporary increase in equipment exhaust is expected to be negligible as long as the equipment is well maintained and idling is minimized. Asphalt paving emits volatile organic compounds (precursors to O₃) as it cures, but this is also expected to be negligible. The Administrative Rules of Montana requires that all necessary measures must be taken to minimize fugitive dust emissions created during construction activities. Any complaints that may arise are to be dealt with in an efficient and effective manner.

If fugitive dust were to become a problem it can be mitigated by periodic watering of active construction areas, particularly areas close to any nearby sensitive receptors (e.g., hospitals, senior citizen homes, schools). Impacts from fugitive dust are anticipated to be short-term and negligible.

Where removal of the existing damaged bridge is required there would be some short term increase in fugitive dust and vehicular emissions. Mitigation of fugitive dust, if necessary can be accomplished by periodic watering of the demolition site.

4.5.3.3 Alternative 3: Bridge Relocation

The impacts to air quality from this alternative would be similar to those described for Alternative 2.

4.5.3.4 Alternative 4: New Structure Design

The impacts to air quality from this alternative would be similar to those described for Alternative 2.

4.6 Noise

4.6.1 Affected Environment

Ambient noise in the proposed project areas is influenced by farm activities and transportation, which are isolated to the immediate site of the farming activity and along the county roadways, and state and federal highway systems. Urban areas tend to experience more noise due to the higher concentration of people and traffic. Table 4 represents the typical decibel levels that occur in environment and industry. The typical project areas would generally be quiet rural settings or areas with light traffic.

Table 4. Decibel Levels Encountered in the Environment and Industry

Sound Level (dba)	Maximum Exposure Limits	Source of Noise	Subjective Impression
10			Threshold of hearing
20		Still recording studio, rustling leaves	
30		Quiet bedroom	
35		Soft whisper at 5ft; Typical library	
40		Quiet urban setting (nighttime); normal level in home	Threshold of quiet
45		Large transformer at 200 feet	
50		Private business office,; light traffic at 100 feet; Quiet urban setting daytime	
55		Window air conditioner; men's clothing	Desireable limit for outdoor

		department in store	residential use area (EPA)
60		Conversation speech; Data processing center	
65		Busy restaurant; automobile at 100 feet	Acceptable level for residential land use
70		Vacuum cleaner in home; freight train at 100 feet	Threshold of moderately loud
75		Freeway at 10 feet	
80		Ringling alarm clock at 2 feet; Kitchen garbage disposal; loud orchestral music in large room	Most residents annoyed
85		Printing press; boiler room; heavy truck at 50 feet	Threshold of hearing damage for prolonged exposure
90	8 hours	Heavy city traffic	
95	4 hours	Freight train at 50 feet; Home lawn mower	
100	2 hours	Pile driver at 50 feet; Heavy diesel equipment at 25 feet	Threshold of very loud
105	1 hour	Banging on steel plate; Air hammer	
110	0.5 hour	Rock music concert; Turbine condenser	
115	0.25 hour	Jet plane overhead at 500 feet	
120	<0.25 hour	Jet plane taking off at 200 feet	Threshold of pain
135	<0.25 hour	Civil defense siren at 100 feet	Threshold of extremely loud

The approximate sound levels of construction equipment that would be used in proposed projects are described in Table 5.

Table 5. Approximate Sound Levels (dBa) at Various Distances (ft)

Equipment Type	@ 50 ft	@ 100 feet	@ 200 feet	@ 400 feet	@ 800 feet	@ 1,600 feet
Front-end Loader	84	78	72	66	60	54
Dump truck	83	77	71	65	59	53
Truck	83	77	71	65	59	53
Tractor	84	78	72	66	58	52

4.6.2 Regulatory Setting

Studies have shown that some of the most pervasive sources of noise in our environment today are those associated with transportation. Traffic noise tends to be a dominant noise source in our urban as well as rural environment. In response to the problems associated with traffic noise, the United States code of Federal Regulations Part 772 (23 CFR 772), "Procedures for Abatement of Highway Traffic Noise and Construction Noise," establishes standards for mitigating highway traffic noise.

The level of highway traffic noise depends on three things: (1) the volume of the traffic, (2) the speed of the traffic, and (3) the number of trucks in the flow of the traffic. Generally, the loudness of traffic noise is increased by heavier traffic volumes, higher speeds, and greater numbers of trucks. Vehicle noise is a combination of the noises produced by the engine,

exhaust, and tires. The loudness of traffic noise can also be increased by defective mufflers or other faulty equipment on vehicles. Any condition (such as a steep incline) that causes heavy laboring of motor vehicle engines will also increase traffic noise levels. In addition, there are other, more complicated factors that affect the loudness of traffic noise. For example, as a person moves away from a highway, traffic noise levels are reduced by distance, terrain, vegetation, and natural and manmade obstacles. Traffic noise is not usually a serious problem for people who live more than 150 meters (approximately 492 feet) from heavily traveled freeways or more than 30 to 60 meters (approximately 98 to 197 feet) from lightly traveled roads.

Traffic noise impacts occur when the predicted traffic noise levels approach or exceed the noise abatement criteria (Table 6), or when the predicted traffic noise levels substantially exceed the existing noise levels.

Table 6. Noise Abatement Criteria Hourly A-Weighted Sound Level in Decibels (dBA)*

Activity Category	$L_{eq}(h)^1$	$L_{10}(h)^2$	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

* Either $L_{eq}(h)$ or $L_{10}(h)$ (but not both) may be used on a project.

NOTE: These sound levels are only to be used to determine impact. These are the absolute levels where abatement must be considered. Noise abatement should be designed to achieve a substantial noise reduction - not the noise abatement criteria.

4.6.3 Environmental Consequences

4.6.3.1 Alternative 1: No action

¹ L_{eq} - the equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as a time-varying sound level during the same period.

² $L_{eq}(h)$ - the hourly value of L_{eq} .

Under this alternative road ways and bridges would continue to be damaged due to flooding. This would result in a natural shift in transportation patterns. Transportation noise along other roadway segments within the County may increase under this alternative due to increasing traffic on alternate roadways. Noise in the immediate area would decrease as inundated bridges are abandoned. The potential exists that overall noise levels in the immediate area may also decrease due to some migration of residents from the region. The noise as existing roads absorbed the increased traffic may increase for persons who live near the alternate routes. However, noise impacts are not expected to be significant.

4.6.3.2 Alternative 2: Bridge Replacement

The bridge expansion is anticipated to carry a similar noise level to that which it had at pre-disaster damage levels. Noise from construction activities may have short term adverse effects on persons who live near the construction area. Noise levels can be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Noise impacts on residences can also be minimized by ensuring that construction activities are not conducted during early morning or late evening hours. Noise levels of construction equipment (70 to 72 dBa) at the distance in which affected parties would likely be located (>200 feet/60 meters) will not be of a duration to be significant.

4.6.3.3 Alternative 3: Bridge Relocation

Impact under this alternative would be similar to those described in Alternative 2. Noise impacts are expected to be short in duration and not significant.

4.6.3.4 Alternative 4: New Structure Design

Impact under this alternative would be similar to those described in Alternative 2. Noise impacts are expected to be short in duration and not significant.

4.7 Public Services and Utilities

4.7.1 Affected Environment

Public services and utilities include:

- Fire protection
- Law Enforcement
- Emergency Services
- Water
- Wastewater
- Sanitation
- Solid waste disposal
- Stormwater drainage
- Schools

- Electric utilities
- Natural gas
- Telephone/Telecommunications

4.7.1.1 Fire Protection Services

Urban, regional, and rural fire protection services in Montana generally provides fire protection, fire suppression, basic life support (BLS), low-angle rescue, and water rescue services. Other services may include storm operations (e.g., flood watch and sandbags), building inspections, and public education. For calls involving emergency medical services, fire protection services generally provide BLS response until Ambulance Service arrives to perform advanced life support and ambulance transport.

4.7.1.2 Law Enforcement

Urban, regional, and rural law enforcement services in Montana generally provide traffic, enforcement, patrol, and investigation services. The Sheriff's Office generally serves areas outside of the city and is also responsible for responding to law enforcement calls within their jurisdiction. The Sheriff's Office provides 911, law enforcement, patrol, investigative, dispatch services, and operates County jails. The Montana Highway Patrol (HP) provides traffic control, investigation, and law enforcement services throughout on state highways and unincorporated roadways. The HP provides traffic control, investigation, and law enforcement related to vehicles on state highways, freeways, and unincorporated roads. Law enforcement services assist in marking and barricading flooded roads and providing support services to local, county, and state agencies in times of emergency flooding.

4.7.1.3 Water and Wastewater Systems

Public water systems in Montana operate infrastructure for water service including treatment plants distribution mains, canals, wells, storage tanks, and reservoirs. The remainder of Montana is served by private wells and minor drinking water systems, such as those at various mobile home parks for domestic water. Rural homes may rely on groundwater for their water supply. In addition, many agricultural users are reliant on their own private groundwater wells and surface water rights for irrigation

Wastewater infrastructure in Montana includes wastewater treatment plants, sewer pipes, sewage lagoon systems, and lift stations. Areas within Montana that do not lie within the service area of a wastewater service provider rely on septic systems. Septic systems are located on individual properties and provide treatment of wastewater, collect sludge, and discharge effluent into a leach field. Property owners are responsible for septic system maintenance and sludge disposal.

4.7.1.4 Schools

As of 2002 school districts in Montana were responsible for transporting approximately 66,000 students to and from school each day. The 2000 bus routes include over 19,000,000 miles traveled per year, in all weather conditions and over a variety of road surfaces, including paved, gravel and dirt roads.

4.7.1.5 Electric, Natural Gas, Telephone/Telecommunications

Transmission lines generally follow transportation corridors and are routed above ground throughout much of Montana. Natural gas lines, cable fibers and telephone facilities are typically collocated with other utilities in trenches to reduce construction costs and environmental impacts. Telephone facilities are also collocated with other utilities on poles. Most of the underground and aerial facilities are generally constructed in public and roadway rights-of-way to reduce visual and aesthetic impacts and prevent potential safety hazards. These facilities are hung beneath bridges to cross waterways.

4.7.2 Regulatory Setting

Some of the regulatory requirements pertaining to the public services and utilities in relation to the proposed project alternatives are described below.

4.7.2.1 ISO Rating

The Insurance Services Office (ISO) rating is the recognized classification for a fire department or district's ability to defend against major fires. The ISO classifies fire service in communities from 1 to 10, indicating the general adequacy of coverage. A rating of 10 generally indicates no protection, whereas an ISO rating of 1 indicates high firefighting capability. According to the ISO, newly developing urban areas should have a fire station opened within 1 1/2 miles of all commercial development and 2 1/2 miles from all residential development when "build-out" exceeds 20% of the planning area.

4.7.2.2 OSHA Standards

OSHA standards include, but are not limited to, guidelines on the handling of highly combustible materials, equipment sizing requirements, restrictions on the use of equipment, access roads, and the testing, maintenance and use of all equipment.

4.7.2.3 City/County/Regional Emergency Response Plans

The EMS City/County/Regional Response Plan(s) allow EMS responders to outline steps to work together effectively to manage emergencies regardless of the cause, size, or complexity and to assure a coordinated EMS interlace with the state's Hospitals' Regional Surge Capacity Plans.

4.7.2.4 Wildland Fire Protection

The Montana Department of Natural Resource and Conservation (DNRC) Fire and Aviation Bureau was created within the Department of Forestry. Through the Fire Suppression

Program, DNRC directly protects 5,158,942 acres of state, private, and federal lands; assists all 56 cooperating counties with fires exceeding their capabilities on 45,309,480 acres of state and private lands and subcontracts fire protection on 1,744,456 acres of state and private lands to the U.S. Forest Service, U.S. Bureau of Land Management, U.S. Fish and Wildlife Service and the Flathead Tribal Agency of The Bureau of Indian Affairs. DNRC also provides support and assistance to federal fire agencies, project fires and other states when appropriate.

4.7.2.5 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA applies to every public water system in the United States but does not regulate private wells which serve fewer than 25 individuals.

4.7.2.6 Water and Wastewater Requirements

A water or sewer system that has at least 15 service connections or that regularly serves at least 25 persons daily for any 60 or more days in a calendar year is regulated by the MT DEQ.

4.7.3 Environmental Consequences

4.7.3.1 Alternative 1: No Action

This alternative does not include any FEMA action. Alternative 1 does have the potential to affect public services and utilities because flood waters would continue to damage bridges which adversely impact the ability to provide service. Fire, emergency, law enforcement, and school services would be delayed as a result of continued inaccessibility of the route due to closed bridges. Depending on the length of detour required these services could be significantly impacted.

4.7.3.2 Alternative 2: Bridge Replacement

During construction, delays in fire, emergency, law enforcement and school services would continue, but these would be short term impacts. Once completed public services would be restored to pre-disaster levels. Utilities that are suspended from bridges may be temporarily interrupted, but this would be a short-term impact. No long term impacts would occur under this alternative.

4.7.3.3 Alternative 3: Bridge Relocation

This alternative could impact utilities due to bridges and roads being abandoned. Relocation of utilities may be required to maintain service. Relocations could produce short term disruptions to customers. Fire, emergency, law enforcement, and school services would not be significantly

impacted as the route is not anticipated to be significantly longer than the routes pre-disaster function and capacity.

4.7.3.4 Alternative 4: New Structure Design

Impacts to utilities and public services under this alternative would be similar to those described in Alternative 2.

4.8 Water Resources

4.8.1 Affected Environment

Montana has a total 176,750 stream miles, which include 53,221 miles of perennial stream and 116,608 miles of non-perennial streams. Montana is one of the few geographic areas in the world where rivers form parts of three major watersheds feeding the Pacific Ocean, the Gulf of Mexico and Hudson Bay. Montana has fifteen major river basins, most of which drain into the Missouri River. West of the continental divide the river basins drain into the Clark Fork of the Columbia River. The Missouri River basin is the largest basin in Montana. The Missouri River flows through the central part of the state until crossing into North Dakota.

Montana DEQ has developed more than 600 Total Maximum Daily Loads (TMDL) and identified more than 1,400 impaired waterbody – pollutant combinations that still require TMDL development within Montana. The majority of all impairment causes requiring TMDL development in Montana fall within one of the following pollutant groups: sediment, nutrients, metals, temperature, pathogens, or salinity.

Groundwater provides 39% of public water supply and 94% of rural domestic water supply in Montana. On a daily basis approximately 90 million gallons of ground water are used for irrigation, 16 million gallons to supply water for livestock, and 20 million gallons per day are used to support industry.

Montana is divided into three ground water regions: Western Mountain Ranges Region - the western third of Montana and the Bighorn Mountains that cross the Montana-Wyoming border south of Billings; The Glaciated Central Region - includes an area in northern Montana that extends east roughly from the Rocky Mountain Front to the North Dakota border; and Non-Glaciated Central Region – the majority of the state.

There are 11 principle aquifers within the state divided into Alluvial aquifers, Lower Cretaceous aquifers, Lower Tertiary aquifers, Northern Rocky Mountains Intermontane Basins aquifer systems, Pacific Northwest volcanic-rock aquifers, Paleozoic aquifers, Sand and gravel aquifers (glaciated regions), and Upper Cretaceous aquifers.

4.8.1.1 Wild and Scenic Rivers

Montana has two rivers classified under the wild and scenic river designation: Flathead River and Missouri River.

The Flathead River has 97.9 miles of designated as Wild; 40.7 miles as Scenic, and 80.4 miles as Recreational for a total of 219.0 miles. The designation includes the North Fork, Middle Fork and South Fork above Hungry Horse Reservoir and features recreation, scenery, historic sites, unique fisheries, and wildlife such as grizzly bears and wolves. The rugged area includes the landscapes of Glacier National Park and the Bob Marshall and Great Bear Wilderness areas.

The Missouri River segment from Fort Benton downstream to Robinson Bridge was designated in 1976 and includes 64.0 miles of Wild, 26.0 miles of Scenic, and 59.0 miles of Recreational for a total of 149.0 miles.

4.8.1.2 Floodplains

Montana has 103 entities participating in the National Flood Insurance Program: 45 counties, 82 municipalities, 2 tribes, and 1 joint municipality/county. Montana floodplains have various designations depending on streams and locations.

4.8.1.3 Wetlands

Montana has lost approximately one-third of its naturally occurring wetlands since settlement. Wetlands provide flood control, recharge groundwater, stabilize stream flows, improve water quality, and provide habitat for wildlife; however, these positive attributes have not always been recognized. Though, the Federal Clean Water Act requires mitigation for some wetland filling projects, wetlands continue to be impacted and lost as roads are expanded, land is developed and due to cumulative impacts from numerous activities such as draining, changes in land management and landowner preference for open water ponds.

4.8.2 Regulatory Setting

The Clean Water Act (CWA) establishes the basic structure for regulating pollutant discharges to navigable waters of the United States. It sets forth procedures for effluent limitations, water quality standards and implementation plans, national performance standards, and point source (e.g., municipal water discharges) and nonpoint source programs (e.g., stormwater). The CWA also establishes the National Pollutant Discharge Elimination System (NPDES) under Section 401 and 402 and permits for dredged or fill material under Section 404.

USACE is charged with regulating the disposal of dredged and fill materials under Section 404 of the CWA. A Section 404 permit from USACE may be required for the discharge of dredge and/or fill material in waters of the U.S. During the permit review process, USACE determines the type of permit appropriate for the proposed action. Two types of permits are issued by USACE: (1) General Permits, issued on a state, regional, and nationwide basis and covering a variety of activities, including minimal individual and cumulative adverse effects and (2) Individual Permits, issued for a case-specific activity.

Section 401 of the CWA specifies that states must certify that any activity subject to a permit issued by a federal agency, such as CWA Section 404 permit, meets all state water quality standards. Water quality certification is also necessary when a project qualifies for a General Permit, even if the activity does not need to be reported to USACE.

Section 402 National Pollution discharge Elimination System and General Stormwater Construction permit for impacts over 1 acre administered by MT DEQ.

The Montana Water Quality Act requires DEQ to develop TMDL for streams and lakes that do not meet, or are not expected to meet Montana Water Quality Standards.

The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. Rivers are classified as wild, scenic, or recreational.

- Wild river areas — Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
- Scenic river areas — Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- Recreational river areas — Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated. Designation neither prohibits development nor gives the federal government control over private property. Recreation, agricultural practices, residential development, and other uses may continue. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments. In most cases not all land within boundaries is, or will be, publicly owned, and the Act limits how much land the federal government is allowed to acquire from willing sellers. Visitors to these rivers are cautioned to be aware of and respect private property rights.

There are four primary federal agencies charged with protecting and managing our wild and scenic rivers and our nation's cultural, recreational and natural resources: Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service (USFWS), and U.S. Forest Service USFS.

EO 11988 (Floodplain Management) requires federal agencies to take action to minimize occupancy and modification of floodplains. Furthermore, EO 11988 requires that federal agencies proposing to site an action in a 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. In accordance with 44 CFR Part

9, critical actions, such as developing hazardous waste facilities, hospitals, or utility plants, must be undertaken outside of a 500-year floodplain. If no practicable alternatives exist to siting an action in the floodplain, the action must be designed to minimize potential harm to or within the floodplain. Furthermore, a notice must be publicly circulated explaining the action and the reasons for siting it in the floodplain. When evaluating actions in the floodplain, FEMA applies the decision process described in 44 CFR Part 9, referred to as the Eight-Step Process, to ensure that its actions are consistent with EO 11988. By its nature, the NEPA compliance process involves the same basic decision-making process as the Eight-Step Process.

In 1973, the Montana State Legislature passed the Montana Floodplain and Floodway Management Act which manages lands that are areas of flood hazard to prevent damages to property, loss of life and reduce the expenditure of tax dollars for disaster relief.

EO 11990 (Protection of Wetlands) requires federal agencies to follow avoidance, mitigation, and preservation procedures with public input before proposing new construction in wetlands. The implementation of EO 11990 is described in 44 CFR Part 9. As with EO 11988, the Eight-Step Process is used to evaluate the potential effects of an action on wetlands. As discussed in the Clean Water Act subsection above, formal legal protection of jurisdictional wetlands is promulgated through Section 404 of the CWA. A permit from the USACE may be required if an action has the potential to affect wetlands.

4.8.3 Environmental Consequences

4.8.3.1 Alternative 1: No Action

In the no action alternative, the bridge is not repaired, leaving the roadway impassable. No work would occur in water, thus there would be no impact to water due to project work. Sedimentation may increase if banks are further damaged from being left unrepaired. Damaged bridge structures may cause a flow impediment, potentially causing significant impacts to stream and floodplain hydraulics and function.

4.8.3.2 Alternative 2: Bridge Replacement

Existing bridges would be expanded within the existing ROW. Fill material may be needed around piers and supports thus impacting waters of the U.S. Discharge into surface water may provide a temporary alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity. During construction FEMA would mitigate these impacts by requiring the applicant to apply Best Management Practices (BMPs) to reduce sediment and fill material from entering the water. The applicant may be required to obtain a Section 404 from the U. S. Army Corps of Engineers and a Stream Alteration permit from MT DEQ. The applicant is responsible for complying with any conditions outlined within the permits.

Because bridges are location dependent and usually located within a floodplain, the scope of work of this alternative may have some impacts to the floodplains. Construction of the bridge and associated road approaches may result in alteration of the course or magnitude of floodwater. Expanding the bridges will take more of the structure out of the floodplain and reduce

impediments and upstream flooding. If changes to the structure are anticipated to impact the floodplain/floodway, FEMA will initiate the Eight-step Process as outlined in CFR 44. Chapter I. Part 9 to determine if the project poses a significant impact. A hydrology and hydraulics report may be required to evaluate changes to stream hydraulics in detail. Compliance with local floodplain ordinances will also be required.

While this alternative is not expected to impact wetland because actions are limited to existing roadways certain sites could result in some fill being placed in a wetland. In these situations FEMA would implement an 8-step process to evaluate effects. This alternative would have little if any impact on increasing impervious surfaces, reduce groundwater recharge, and adversely affect water quality through the transmission of sediment, debris, oils, and hazardous substances into surface waters. During construction FEMA would mitigate these impacts by requiring the applicant to apply BMPs to reduce transport of sediment, debris, oils, and hazardous substances.

For any work completed within the designated section of the Missouri or Flathead River that are listed wild and scenic FEMA would confer with the regulatory agency overseeing that section.

4.8.3.3 Alternative 3: Bridge Relocation

Because bridges are location dependent and usually located over water of the U.S., the scope of work of this alternative may have some impacts to the floodplains.

Construction would require bank disturbance and in some cases, construction of piers within the water. Bridges should be designed to prevent impediment of water under the bridge, thus preventing upstream flooding. During construction FEMA would mitigate these impacts by requiring the applicant to apply BMPs to reduce sediment and fill material from entering the water.

Because bridges are location dependent and usually located within a floodplain, the scope of work of this alternative may have some impacts to the floodplains. Expanding the bridges will take more of the structure out of the floodplain and reduce impediments and upstream flooding. If changes to the structure are anticipated to impact the floodplain/floodway FEMA will initiate the Eight-step Process as outlined in CFR 44. Chapter I. Part 9 to determine if the project poses a significant impact. A hydrology and hydraulics report may be required to evaluate changes to stream hydraulics in detail. Compliance with local floodplain ordinances will also be required.

While this alternative is not expected to impact wetland because actions are limited to existing roadways certain sites could result in some fill being placed in a wetland. In these situations FEMA would implement an 8-step process to evaluate effects. This alternative would have little if any impact on increasing impervious surfaces, reduce groundwater recharge, and adversely affect water quality through the transmission of sediment, debris, oils, and hazardous substances into surface waters. During construction FEMA would mitigate these impacts by requiring the applicant to apply BMPs to reduce transport of sediment, debris, oils, and hazardous substances. The applicant may be required to obtain a Section 404 from the U. S. Army Corps of Engineers and a permit from MT DEQ. The applicant is responsible for complying with any conditions outlined within the permits.

For any work completed within the designated section of the Missouri or Flathead River that are listed wild and scenic FEMA would confer with the regulatory agency overseeing that section.

4.8.3.4 Alternative 4: New Structure Design

This alternative would generate impacts similar to those described for alternative 2 and 3.

4.9 Biological Resources

Biological resources include native or naturalized plants and animals and the habitats (e.g., wetlands, forests, and grasslands) in which they exist. Protected and sensitive biological resources include federally listed (endangered or threatened), proposed, and candidate species designated by the USFWS. Sensitive habitats include those areas designated by the USFWS as critical habitat protected by the Endangered Species Act (ESA) and sensitive ecological areas as designated by state or Federal rulings. Sensitive habitats also include wetlands, plant communities that are unusual or of limited distribution, and important seasonal use areas for wildlife (e.g., migration routes, breeding areas, crucial summer and winter habitats).

4.9.1 Affected Environment

4.9.1.1 Vegetation

Montana is divided into four ecosystems: montane forests, plains grasslands, intermountain grasslands, and shrub grasslands.

The montane forest ecosystem represents 26% of Montana and includes the mountains of Montana that have been formed by tectonic uplift and glacial erosion. Along the western third of the state these high elevation areas encompass mountains from their base to their summit with elevations increasing from the north where the Kootenai River flows into Idaho (1,800 feet) southward to the snow capped peaks in the Beartooth Range (12,800 feet) adjacent to Yellowstone National Park. Montana forests are grouped into the following forest types, using dominant tree species as the determining characteristic: Douglas-fir, lodgepole pine, ponderosa pine, spruce-fir, western larch, Engelmann spruce, grand fir, and limber pine. The Douglas-fir, lodgepole pine, and ponderosa pine forest types combined total over two-thirds of the state's forest lands. Much of this ecosystem is in public ownership through the USFS.

Montana's eastern high plains represent 43.2% of the state and are a part of America's Great Plains region. This ecosystem type is generally found on high, rolling land and on some scattered hills and in wide river valleys. Plants of the plains grassland and forest are adapted to dry conditions and extreme temperatures. A variety of shrubs is found here, but not enough to be classified as the dominant plant species. Grasses dominate the landscape, as they are well adapted for an environment where drought and fire are common. Grasses have specialized root systems that allow them to store nutrients that can be used during times of stress. Forests of ponderosa pines can be found growing on sites that receive more than 14 inches of moisture and

along the Missouri and Yellowstone rivers and their tributaries where water loving riparian plant communities grow.

The intermountain/foothill grassland ecosystem (14.3% of the state) is a mosaic of private and public land that extends from the glaciated Flathead River Valley in the north, south to the Centennial Valley, and east to the Little Belt foothills. The intermountain grasslands are the transition zone between prairie grasslands and montane forests, sometimes referred to as foothill grasslands. These large, open valleys support plant communities dominated by grasses. Large rivers surrounded by lush riparian plant communities flow through the larger valleys.

The shrub grassland ecosystem (7.7%) occurs in widely separated segments across most of the eastern half of the state in high-elevation valleys and along non-forested slopes. Juniper and sagebrush characterize these generally dry slopes. They are interspersed with low cover grasslands and offer a unique transitional area habitat that supports many of Montana's species of greatest conservation need. Over half of this limited ecosystem is privately owned.

4.9.1.2 Wildlife

Montana is host to more than 600 species of fish, mammals, birds, reptiles, and amphibians. There are 85 fish species in the Montana. 55 of these species are native. Rainbow trout is the most common fish caught by anglers along with walleyes, northern pike, perch, bass, whitefish, other trout species, catfish, sturgeon, paddlefish, crappie, burbot, and suckers.

Big game hunted in Montana includes bison, black bear, deer, elk antelope, moose, sheep, goat, mountain lion, wolf and turkey. Smaller game species hunted include sharp-tailed grouse, prairie chickens, sage grouse, mountain grouse, partridge, and pheasants. Hunted waterfowl includes ducks, geese, and swans. Bobcat, fisher, otter, swift fox, and wolverine are trapped.

Invasive species are organism that are brought into the state from another place and compete or kill native species. There are 9 fish species, 8 plant species, 2 mollusk species, 1 mammal, 2 crustacean species, and 4 pathogen/parasite species considered invasive in Montana.

4.9.1.3 Protected Species

There are 19 species listed as Endangered (E), Threatened (T), or Candidate (C) species (see Table 7) by the USFWS under ESA that historically occurred, occur or may potentially occur within Montana. Three of these species, piping plover, bull trout, and Canada lynx have designated critical habitat in Montana.

Out of the more than 600 fish and wildlife species in Montana, 60 are listed as species in need of conservation and protected by MT FWP.

Montana has 446 plants and 214 animals listed as species of concern through MT FWP and the Montana Natural Heritage Program. Species of Concern are native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors.

Designation as a Montana Species of Concern or Potential Species of Concern is not a statutory or regulatory classification, but designations to provide information that helps resource managers make proactive decisions regarding species conservation and data collection priorities.

Montana has 76 wildlife management areas managed by MT FWP and 13 wildlife refuges (NWRs) and two wetland management districts (WMD) managed by the USFWS: Benton Lake NWR, Bowdoin NWR, Charles M. Russell NWR, Halfbreed Lake NWR, Lake Mason NWR, Lee Metcalf NWR, Lost Trail NWR, Medicine Lake NWR, National Bison Range NWR, Ninepipe NWR, Red Rock Lakes NWR, UL Bend NWR, War Horse NWR, Benton Lake WMD, and Northwest Montana WMD.

Table 7. Threatened, Endangered and Candidate Species in Montana.

COMMON NAME	SCIENTIFIC NAME	STATUS	RANGE - MONTANA
Black-footed Ferret	<i>Mustela nigripes</i>	E/XN	Prairie dog complexes; Eastern Montana
Whooping Crane	<i>Grus americana</i>	E	Wetlands; migrant eastern Montana
Least Tern	<i>Sterna antillarum</i>	E	Yellowstone, Missouri River sandbars, beaches; Eastern Montana
Pallid Sturgeon	<i>Scaphirhynchus albus</i>	E	Bottom dwelling; Missouri, Yellowstone Rivers
White Sturgeon (Kootenai River population)	<i>Acipenser transmontanus</i>	E	Bottom dwelling; Kootenai River
Grizzly Bear	<i>Ursus arctos horribilis</i>	T	Alpine/subalpine coniferous forest; Western Montana.
Piping Plover	<i>Charadrius melodus</i>	T (CH)	Missouri River sandbars, alkali beaches; northeastern Montana Alkali lakes in Sheridan County; riverine and reservoir shoreline in Garfield, McCone, Phillips, Richland, Roosevelt and Valley counties
Water Howellia	<i>Howellia aquatilis</i>	T	Wetlands; Swan Valley, Lake and Missoula Counties
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	T	River meander wetlands; Jefferson, Madison, Beaverhead, Gallatin, Broadwater counties
Bull trout (Columbia River basin and St. Mary – Belly River populations)	<i>Salvelinus confluentus</i>	T (CH)	Clark Fork, Flathead, Kootenai, St. Mary and Belly river basins; cold water rivers & lakes. Portions of rivers, streams, lakes and reservoirs within Deer Lodge, Flathead, Glacier, Granite, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, Sanders counties
Canada lynx (contiguous U.S. population)	<i>Lynx canadensis</i>	T (CH)	Western Montana - montane spruce/fir forest
Spalding's Campion (or "catchfly")	<i>Silene spaldingii</i>	T	Upper Flathead River and Fisher River drainages; Tobacco Valley - open grasslands with rough fescue or bluebunch wheatgrass
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	C	Population west of the Continental

(western population)			Divide; riparian areas with cottonwoods and willows
Greater sage-grouse	Centrocercus urophasianus	C	Eastern, central, and southwestern Montana in sagebrush, sagebrush-grasslands, and associated agricultural lands.
Sprague's Pipit	Anthus spragueii	C	Grassland habitats with little or no shrub cover east of the Continental Divide
Arctic Grayling (Upper Missouri River DPS)	Thymallus arcticus	C	Southwestern Montana; Big Hole River, Mussigbrod Lake, Miner Lake, Madison River/Ennis Reservoir, Red Rock Lakes
Wolverine	Gulo gulo luscus	C	High elevation alpine and boreal forests in areas that are cold and receive enough winter precipitation to reliably maintain deep persistent snow late into the warm season
Meltwater Lednian Stonefly	Lednia tumana	C	High elevation meltwater streams; Glacier National Park
Whitebark Pine	Pinus albicaulis	C	Forested areas in central and western Montana, in high-elevation upper montane habitat near treeline

ENDANGERED (E) - Any species that is in danger of extinction throughout all or a significant portion of its range.

THREATENED (T) - Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

PROPOSED (P) – Any species of that is proposed in the Federal Register to be listed under section 4 of the Act.

CANDIDATE (C) - Those taxa for which the Service has sufficient information on biological status and threats to propose to list them as threatened or endangered. We encourage their consideration in environmental planning and partnerships, however, none of the substantive or procedural provisions of the Act apply to candidate species.

NON-ESSENTIAL EXPERIMENTAL POPULATION (XN) - A population of a listed species reintroduced into a specific area that receives more flexible management under the Act.

CRITICAL HABITAT, PROPOSED CRITICAL HABITAT (CH, PCH) - The specific areas (i) within the geographic area occupied by a species, at the time it is listed, on which are found those physical or biological features (I) essential to conserve the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographic area occupied by the species at the time it is listed upon determination that such areas are essential to conserve the species.

4.9.2 Regulatory Setting

The Endangered Species Act (16 U.S.C. §1531 et seq.) was enacted in 1973 to provide a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The lead federal agencies for implementing the ESA are the United States Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service. The USFWS is charged with maintaining a list protected species.

The ESA requires that requires federal agencies, in consultation with the USFWS and/or the NOAA Fisheries Service, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. The law also prohibits any action that causes a "taking" of any listed species of endangered fish or wildlife. The statutory definition of "take" includes "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to

attempt to engage in any such conduct”. Import, export, interstate, and foreign commerce of listed species are all generally prohibited by the ESA as well.

The Migratory Bird Treaty Act (MBTA) of 1918 implemented the 1916 convention between the U.S. and Great Britain for the protection of birds migrating between the U.S. and Canada. Similar conventions between the United States and Mexico (1936), Japan (1972) and the Union of Soviet Socialist Republics (1976) further expanded the scope of international protection of migratory birds. Each new treaty was incorporated into the MBTA as an amendment and the provisions of the new treaty are implemented domestically. These four treaties and their enabling legislation, the MBTA, established the Federal responsibilities for protection of nearly all species of birds, their eggs and nests.

The MBTA makes it illegal for people to “take” migratory birds, or their eggs, feathers, or nests. The MBTA states, “Unless and except as permitted by regulations ... , it shall be unlawful at any time, by any means, or in any manner, to pursue, hunt, take, capture, kill, attempt to do these acts, [or] possess ...any migratory bird, [or] any part, nest, or eggs of any such bird”. There are 836 birds protected under the MBTA, 58 of which are legally hunted as game birds. A migratory bird is any species or family of birds that live, reproduce or migrate within or across international borders at some point during their annual life cycle.

The Fish and Wildlife Coordination Act (FWCA) was enacted to protect fish and wildlife when federal actions result in the control or modification of a natural stream or body of water. The statute requires federal agencies to take into consideration the effect that water-related projects would have on fish and wildlife resources, take actions to prevent loss or damage to these resources, and provide for the development and improvement of these resources. For an action resulting in the control or modification of a body of water, the federal agency must consult with the USFWS or NOAA Fisheries (as appropriate) and the State of Montana to develop measures to mitigate action-related losses of fish and wildlife resources. These measures must be incorporated in the plans for the action.

The Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. §§ 668-668d, June 8, 1940, as amended 1959, 1962, 1972, and 1978) prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions. The Act imposes criminal and civil penalties on anyone (including associations, partnerships and corporations) in the U.S. or within its jurisdiction who, unless excepted, takes, possesses, sells, purchases, barter, offers to sell or purchase or barter, transports, exports or imports at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles; or violates any permit or regulations issued under the Act. Take includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. Transport includes convey or carry by any means; also deliver or receive for conveyance. The Secretary of the Interior may issue regulations authorizing the taking, possession and transportation of these eagles for scientific or exhibition purposes, for religious purposes of Indian tribes or for the protection of wildlife, agricultural or other interests.

The USFWS administers wetland and grassland easement contracts as part of the National Wildlife Refuge System. If all construction activities and vehicle access necessary to complete the construction are confined to the right-of-way, a permit from the Service is not

required. However, if project plans include work outside of the existing right-of-way, a refuge Special Use or right-of-way permit will be necessary for construction affecting property interests administered by the Service. The issuance of a Special Use or right-of-permit is subject to the outcome of the refuge compatibility review process.

Montana Fish, Wildlife and Parks has legal authority over all fish and wildlife within the State and is responsible for management of these species. Any work that alters the bed or banks of the stream requires a permit.

EO 13112 (Invasive Species) was created to prevent the introduction of invasive species and to provide for their control. Under this order, the federal government may “not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.”

Construction and demolition activities create disturbances that can increase the spread of noxious weeds. Public Law (P.L.) 93-629, Federal Noxious Weed Act, mandates control of noxious weeds by limiting possible weed seed transport from infested areas to non-infested sites.

4.9.3 Environmental Consequences

4.9.3.1 Alternative 1: No Action

Under the No Action Alternative, no localized or regional effects to threatened or endangered species are expected. This alternative does not include any FEMA action. Therefore, FEMA would not be required to consult with USFWS to comply with the ESA, MBTA, FWCA, or state laws. A damaged decaying structure left in the stream may cause a flow impediment, potentially causing significant impacts to stream and floodplain hydraulics and function and negative impacts to fish habitat and passage.

4.9.3.2 Alternative 2: Bridge Replacement

The actions under this alternative may have the potential to affect sensitive biological resources, natural waterways or wetlands due to temporary construction activities in water; a review of available information on species potential in the area and critical habitat will be conducted. This alternative consists of performing work on bridges in existing alignments. Extension of a bridge may have the ability to remove the structure from the waterway, thus reducing impacts to species. Embankment work and in water work would occur. This work would require a permit from MT FWP.

If FEMA determines that the project has the potential to affect sensitive biological resources such as T&E species and/or their critical habitat or migratory birds it will initiate an expedited review process. FEMA would notify USFWS of the project location and the project description.

USFWS would respond after receiving this information to notify FEMA if additional consultation is required. If USFWS determines that additional consultation is required under Section 7 of the ESA, MBTA, or FWCA, the results of this consultation would be documented in a memorandum to this PEA or in a SEA. If USFWS determines that no additional consultation is required, FEMA would consider the project to be in compliance with Section 7 of the ESA, MBTA, and FWCA.

Because migratory birds nest on many substrates (e.g., ground, shrubs, trees, bridges), should the proposed work occur during the breeding season (May 1st to August 15th), the Service recommends: the required cutting of trees or shrubs occur between August 16th and April 30th to remove potential nesting surfaces prior to project commencement; the removal of swallow nests as they are built, but prior to egg laying, from the bridge structures that are to be removed, or netting of the affected bridge structures to prevent swallow nesting prior to the breeding season.

If the project sites occur within 0.5 mile of occupied eagle nests implementation of the Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)(Montana Bald Eagle Working Group 2010), would be applied as necessary.

4.9.3.3 Alternative 3: Bridge Relocation

Where this alternative consists of performing work in previously undisturbed areas, the scope of work may have the potential to affect sensitive species, threatened or endangered species or their habitats, migratory birds, or natural waterways and wetlands. Using a design that maintains the structure above the waterway will reduce impact to species. This work would require a permit from MT FWP.

If FEMA determines that the project has the potential to affect sensitive biological resources such as T&E species and/or their critical habitat or migratory birds it will initiate an expedited review process. FEMA would conduct informal consultation with USFWS based on the project location and the project description. USFWS would respond after receiving this information to notify FEMA if additional formal consultation is required. If USFWS determines that additional consultation is required under Section 7 of the ESA, MBTA, or FWCA, the results of this consultation would be documented in a memorandum to this PEA or in a SEA. If USFWS determines that no additional consultation is required, FEMA would consider the project to be in compliance with Section 7 of the ESA, MBTA, and FWCA.

Because migratory birds nest on many substrates (e.g., ground, shrubs, trees, bridges), should the proposed work occur during the breeding season (May 1st to August 15th), the Service recommends: the required cutting of trees or shrubs occur between August 16th and April 30th to remove potential nesting surfaces prior to project commencement; the removal of swallow nests as they are built, but prior to egg laying, from the bridge structures that are to be removed, or netting of the affected bridge structures to prevent swallow nesting prior to the breeding season.

If the project sites occur within 0.5 mile of occupied eagle nests implementation of the Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)(Montana Bald Eagle Working Group 2010), would be applied as necessary.

4.9.3.4 Alternative 4: New Structure Design

This alternative is expected to have effects similar to that discussed under Alternative 2 and will be treated the same.

4.10. Cultural Resources

4.10.1 Affected Environment

To preserve historical and archaeological sites in the United States of America the National Historic Preservation Act (NHPA) was established in 1966. The act created the National Register of Historic Places, the list of National Historic Landmarks, and the State Historic Preservation Offices.

The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation and is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture.

To be eligible for listing, a property must meet one of four criteria and have sufficient integrity. Montana has 40 bridges listed on the National Register and many bridges over 50 years old that are eligible or have not been evaluated for listing.

Montana has a rich cultural history. Throughout the state Native Americans have left petroglyphs, abandoned villages, and many other items from their life and travels through the state.

4.10.2 Regulatory Setting

Section 106 of the NHPA directs federal agencies to determine the impact of a project on cultural resources. In consultation with the State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) the federal agency will work to avoid impact and mitigate any potential impacts to historic properties.

FEMA is working with MT SHPO to develop a Programmatic Agreement where Allowances will help expedite the review process and determine what projects do not have the potential to affect historic properties. FEMA and SHPO have used allowances for presidentially declared disasters with the understanding that the two agencies would finalize the Programmatic Agreement.

The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior.

In addition to the National Historic Preservation Act, other pertinent laws requiring tribal consultation on federal projects include:

- Presidential Memorandum: Government-to-Government Relations with Native American Tribal Governments
- Executive Order 13084, Consultation and Coordination with Indian Tribal Governments
- Executive Order 13007, “Indian Sacred Sites”
- The American Indian Religious Freedom Act of 1978 (AIRFA)
- The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA),

Indian Trust Assets (ITA) are legal interests in property held in trust by the United States for Indian tribes or individuals, or property that the United States is otherwise charged by law to protect. That is consistent with the Indian Self-Determination and Education Assistance Act, 25 CFR Part 900.6 which defines a *trust resource* as “an interest in land, water, minerals, funds, or other assets or property which is held by the United States in trust for an Indian tribe or an individual Indian or which is held by an Indian tribe or Indian subject to a restriction on alienation imposed by the United States”. FEMA will work to carry out its activities in a manner which protects ITAs and avoids adverse impacts when possible.

4.10.3 Environmental Consequences

4.10.3.1 Alternative 1: No Action

Under the No Action Alternative, no localized affect to cultural resource are expected. A historic bridge may be abandoned.

4.10.3.2 Alternative 2: Bridge Expansion

For projects that expand outside the original road right-of way, this alternative has the potential to affect historic or cultural resources. Destruction or alteration of any site, structure or object of prehistoric or paleontological importance may occur during construction. Physical change could affect unique cultural values. There could be effects on existing religious or sacred uses of a site or area. Bridges may be of cultural significance or archeological resources may be present. For non-tribal lands FEMA will determine if a project meets the programmatic allowances. If so, FEMA would consider the project to be in compliance with Section 7 of NHPA and no further review would occur. If a project does not fall within an allowance, FEMA will make a determination of affect and consult with SHPO. Additional archaeological surveys of ground disturbing activities may be required depending on consultation with THPO and SHPO.

For tribal lands, FEMA will work with the THPO to develop a meaningful determination of affect within the context of tribal cultural resource interests.

4.10.3.3 Alternative 3: Bridge Replacement

This alternative has the potential to affect cultural resources. Bridge relocations would likely be in previously undisturbed ground. Destruction or alteration of any site, structure or object of prehistoric or paleontological importance may occur during construction. Physical change could affect unique cultural values. There could be effects on existing religious or sacred uses of a site or area. Bridges may be of cultural significance or archeological resources may be present.

FEMA would determine the area of potential affect, identify historic properties through a file search and/or a culture survey and make a determination of affect. FEMA would then consult with SHPO or the appropriate THPO. Additional archaeological surveys of ground disturbing activities may be required depending on consultation with THPO and SHPO.

If any adverse affects are identified, FEMA would work to mitigate

4.10.3.4 Alternative 4: New Structure Design

This alternative will be the same as Alternative 2.

4.11 Cumulative Impacts

The CEQ regulations (40 CFR 1500-1508) implementing the procedural provisions of NEPA of 1969, as amended (42 USC 4321) defines cumulative effects as:

“the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action (40 CFR 1508.7)”. Based on these regulations, if the alternative does not have direct or indirect effects there can be no cumulative effects resulting from the project because there would be no impacts added to past, present, or reasonably foreseeable actions.

CEQ regulations also describe cumulative impacts as impacts that “can result from individually minor but collectively significant actions taking place over a period of time.” On a programmatic level and combined with other actions affecting the roads and resource areas within Montana, including closed Federal-Aid roads, alternatives could lead to cumulative impacts depending on the scale (number of projects) or geography (localized area) in which the actions are performed.

4.11.1 Summary of Cumulative Impacts

Individual projects proposed under this Programmatic Environmental Assessment are not anticipated to cause significant impacts, even when combined with other actions. Other than the “No Action Alternative”, project impacts that are implemented at an individual or cumulative

scale, such as to produce significant impacts generally can be reduced below the level of significance by mitigating for individual impacts using the mitigation measures as addressed in Section 5. The PEA Checklist (Appendix B) will be used to define any significant individual or cumulative impacts requiring mitigation on a project specific basis. A Supplemental Project Specific Environmental Assessment will be completed, for any projects that are anticipated to occur at a scale or localized area such that impacts cannot be addressed under Mitigation Measures listed in Section 5

5.0 Mitigation Measures

Project impacts that are implemented at an individual or cumulative scale such as to produce significant impacts can generally be reduced below the level of significance through avoidance, minimization, or by mitigating for individual impacts using mitigation measures as described below. The PEA Checklist (Appendix B) will be used to define any significant individual or cumulative impacts requiring mitigation on a project specific basis. If impact avoidance cannot be achieved, specific mitigation measures including agency consultation will be undertaken by FEMA to reduce any potentially significant impacts to less than significant levels.

1. The absence of cultural properties in the area does not mean they do not exist, but rather may reflect the absence of any previous cultural resource inventory in the area. If during the course of any ground disturbance related to this project, cultural materials are inadvertently discovered, the project would be immediately stopped and the SHPO/THPO and FEMA notified.
2. If projects extend outside of the previously disturbed road footprint and wetland areas will be impacted, FEMA will evaluate individual and cumulative impacts and implement avoidance, minimization and/or mitigation measures as necessary to reduce impacts below level of significance.
3. For projects in which soil erosion potential is determined to be significant, a project erosion control plan to minimize soil loss, including the use of Best Management Practices, to isolate the construction site and minimize adverse affects of soil loss and sedimentation on soil and water resources will be implemented.
4. Construction noise levels will be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Impact to noise levels will be minimized by limiting construction activities that occur during early morning or late evening hours.
5. To avoid impacts to cultural resources from material borrow source, borrow material source will be reviewed and approved by SHPO or THPO prior to use.
6. To mitigate for impacts to floodplain, a hydrology and hydraulics study will be completed to ensure the flow of flood waters. The project must not serve as a dam or otherwise impede water movement thus aggravating flooding upstream of the roadway.
7. To mitigate for fugitive dust during construction periodic watering of active construction areas, particularly in areas close to sensitive receptors (e.g. hospitals, senior citizen homes, and schools) will be implemented.
8. All waste material associated with the project must be disposed of properly and not placed in identified floodway or wetland areas. All hazardous material resulting from demolition activities, including asbestos and lead paint will be disposed of in hazardous waste landfill.

9. FEMA will implement avoidance measures per consultation with the US Fish and Wildlife Service for any bridge relocation projects that have the potential to affect biological resources, including Threatened and Endangered Species.
10. FEMA will consult with US Fish and Wildlife Service and/or Natural Resources Conservation Service for any project which extends outside of the road right of way and has the potential to affect land use, including Fish and Wildlife Service easements, prime farmland, or farmland of state/local significance.
11. FEMA will consult with the State/Tribal Historic Preservation Office on project specific activities for any project that has the potential to affect previously undisturbed areas or historic properties.
12. To minimize any potential to occupation health and safety, construction workers and equipment operators are required to wear appropriate PPE and to be properly trained for the work being performed, including removal and disposal of asbestos and lead-based paint for demolition projects.

6.0 Summary of Impacts and Permits and Conditions Required

Resource Area	Significance Criteria	Alternative 1: No Action	Alternative 2: Bridge Expansion	Alternative 3: Bridge Relocation	Alternative 4: New Bridge Design	Permits and Conditions Required
Air Quality	An impact would be considered significant if pollutant emissions result in exposure of people, wildlife, or vegetation to ambient air that does not meet the standards established under the Clean Air Act, or interfere with state ambient air quality standards.	No localized or regional effects to air quality are expected	Temporary increases in equipment exhaust emissions and fugitive dust. Negligible impact as long as the equipment is well maintained and idling is minimized.	Similar to alternative 2.	Similar to alternative 2.	Fugitive dust can be mitigated by periodic watering of active construction areas. BMPs should be followed.
Water Resources	Impacts on water resources would be considered significant if it results in exposure of people, wildlife, or vegetation to surface or ground waters that do not meet the standards established under the Clean Water Act, or interferes with state water quality standards. An action would cause a significant impact on wetlands and floodplains if the soil structure, hydrology or the vegetation of a wetland would be altered, such that either singularly or cumulatively - function/values of the wetland, species/habitat uses, quality and area of the wetland, wetland distribution and density in the surrounding area, FWS properties in the area, habitat sensitivity in the area is significantly changed/affected, or a floodplain area is altered enough to present a reasonable flood danger to the area / has the potential to significantly alter surrounding flow flood waters.	Minor effects may occur as roads remain inundated and gravel, embankments continue to erode around the bridge abutment into the surrounding waters.	Bridges are location dependent so will have some impact to water resources. No impact is expected to wetlands or floodplains. Review of site specific impacts will be completed. Any significant wetland or floodplain impacts will be mitigated. Fill material may be used for abutments and may cause sedimentary impacts to waters of the US. For any work completed within the designated section of the Missouri or Flathead River that are listed wild and scenic FEMA confer with the regulatory agency overseeing that section.	Bridges are location dependent so will impact to water resources. No impact is expected to wetlands or floodplains. Review of site specific impacts will be completed. Any significant wetland or floodplain impacts will be mitigated. Construction of a new bridge and adjoining roadways may have significant temporary impacts. For any work completed within the designated section of the Missouri or Flathead River that are listed wild and scenic FEMA confer with the regulatory agency overseeing that section.	Similar to Alternative 2	For work occurring in floodplains, in waters of the US and bank work the applicant should complete the joint MT water application. http://dnrc.mt.gov/Permits/StreamPermitting/JointApplication.asp Bridges should be designed to prevent impediment of water under the bridge, thus preventing upstream flooding and BMPs and conditions outlined in permits must be followed. Stormwater general construction permit from MT DEQ. Local floodplain permits.

Resource Area	Significance Criteria	Alternative 1: No Action	Alternative 2: Bridge Expansion	Alternative 3: Bridge Relocation	Alternative 4: New Bridge Design	Permits and Conditions Required
Biological Resources	<p>An action would cause a significant impact if any changes to native vegetation affect the viability of a plant species population or vegetation community. Full recovery would not occur in a reasonable time, considering the size of the project and the affected resource's natural state.</p> <p>An action would cause a significant impact if any changes affect a large portion of a wildlife population and the viability of that population. An action would cause a significant impact if the degradation or loss of habitat is sufficient to cause native wildlife populations to leave or avoid the area.</p> <p>Any effect to a federally listed species or its critical habitat would be so small that it would not be of any measurable or perceptible consequence to the protected individual or its population. This effect would equate to a "no effect" or "not likely to adversely affect" determination in U.S. Fish and Wildlife Service terms. Anything else would be considered significant.</p>	No potential to affect sensitive biological resources	<p>Work completed in the existing ROW is not expected to affect sensitive biological resources.</p> <p>Embankment and in-water work may affect biologically sensitive or T&E species.</p>	The actions under this alternative may affect undisturbed areas, FEMA will coordinate with FWS based on project specific activities. Any determination of "likely to adversely affect" Endangered /Threatened species or critical habitat will require site specific re-evaluation of the alternative activities and incorporation of avoidance measures.	Same as Alternative 2	<p>Any bridge work requires a permit from MTFWP. This coordination is part of the joint applicants and is required to be completed. http://dnrc.mt.gov/Permits/StreamPermitting/JointApplication.asp</p> <p>FEMA may be required to coordinate with USFWS based on project specific activities.</p> <p>If the project sites occur within 0.5 mile of occupied eagle nests implementation of the Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan would be applied as necessary.</p> <p>USFWS recommends any required cutting of trees or shrubs, or swallow nest removal from bridges occur between August 16 and April 30</p>

Resource Area	Significance Criteria	Alternative 1: No Action	Alternative 2: Bridge Expansion	Alternative 3: Bridge Relocation	Alternative 4: New Bridge Design	Permits and Conditions Required
Cultural Resources	An impact would be significant if an effect occurs that may diminish the integrity of, cause a substantial adverse change in the significance of, or directly or indirectly destroy a cultural resource. This effect would equate to an “adverse effect” determination for purposes of Section 106.	No potential to affect cultural resources /historic properties.	Bridges may be of historic value. This action is not likely to affect archeological resources provided the project remains within the right of way, all equipment is confined to previously disturbed areas, and material is obtained from a SHPO approved source.	This alternative has the potential to affect cultural resources.	Similar to Alternative 2.	If any cultural resources are found during construction, all activities will cease and the applicant will notify FEMA. Work will not resume until FEMA consults with SHPO/THPO regarding specific measures. FEMA will consult with THPO for projects under their jurisdiction. For non tribal projects that do not meet programmatic allowances, FEMA will consult with SHPO based on project specific activities and location. Affect to cultural resources within the project location will be avoided or minimized.
Geology, Soils and Land Use	An impact would be significant if a proposed action conflicts with any federal, regional, state, or local land use plans. If land use patterns are changed in the immediate project area due to a proposed action, the impact would also be considered significant.	This may result in significant impacts to land use if the amount of land area that is abandoned due to closed bridges occurs in the same general area or County.	No significant impacts are anticipated provided that the road remains within the right-of way. If the road extends outside the right – of way, no significant impacts to land use are anticipated, however, prime farmland, FWS or other ownership properties may be affected.	Construction of new bridges and road segments will likely result in changes to land use as the road will create a new footprint. However, these changes in land use are not expected to be significant, as the road relocations are expected to be relatively minor distances and lengths.	Similar to Alternative 2	If prime farmland is disturbed AD-1006 Farmland Conversion Impact Rating Form would be completed and submitted to NRCS. If FWS or other ownership properties are affected, site specific consultation will be required and additional permits may be needed.
Socioeconomics	A change of the previously projected level of local employment, population, or gross domestic product would be considered a significant impact on socioeconomics. Also, if	Has potential to result in significant adverse impact to socioeconomics of the community if the bridge is left impassable.	There may be minor effects during construction periods, however, these are not expected to be significant. These effects could include extended travel times due to	The impacts of this alternative will be similar to those described under Alternative 2.	The impacts of this alternative will be similar to those described under Alternative 2.	None Identified

Resource Area	Significance Criteria	Alternative 1: No Action	Alternative 2: Bridge Expansion	Alternative 3: Bridge Relocation	Alternative 4: New Bridge Design	Permits and Conditions Required
	school populations decrease, revenues decrease, and if vacancy rate increases, that would constitute a significant impact.		construction delays or the need to use an alternate route.			
Noise	Sounds levels of 65 dBA are considered annoying to most individuals, while constant or repeated exposure to sounds of 90 dBA or higher can lead to significant impacts. Noise levels are significant if they exceed ambient noise level standards determined by the federal, state, and/or local governments. An impact would be considered significant if there is sustained exposure of sensitive receptors to a DNL of greater than 65 dBA.	Noise impacts would shift to other road routes due to bridge closures. Noise in the immediate area would likely decrease. Impacts are not expected to be significant	Noise impacts during construction would be short term.	Similar to alternative 2.	Similar to alternative 2.	Short term construction noise can be minimized by recommended mufflers on equipment and minimizing construction activities during early morning or late evening hours.
Transportation	A significant impact to transportation would be a traffic increase which is predicted to upset the normal flow of traffic, create the need for major road repair as a result of the action, or generate traffic levels requiring the expansion of existing roadways or facilities.	This alternative may result in significant adverse impacts due to increased travel times and increasing traffic volumes as travel patterns change in response to closed bridges.	No significant adverse impacts are expected to the transportation volume, capacity, and time of transit.	No significant adverse impacts are expected to the transportation volume, capacity, and time of transit. In some cases travel times and distances may increase slightly.	No significant adverse impacts are expected to the transportation volume, capacity, and time of transit.	None Identified

Resource Area	Significance Criteria	Alternative 1: No Action	Alternative 2: Bridge Expansion	Alternative 3: Bridge Relocation	Alternative 4: New Bridge Design	Permits and Conditions Required
Safety and Occupational Health and Hazardous Waste	An action would cause a significant impact if it would increase public safety concerns, hazardous working conditions, or the generation of solid or hazardous waste beyond the capacity to safely handle and dispose of that waste.	Damaged bridges provide a significant adverse safety affect to motorists.	No significant impact to public safety or occupational health. Some spot work painting may be required which has the potential to release lead.	No significant impact to public safety or occupational health.	No significant impacts to public safety or occupational health.	Construction workers and equipment operators are required to wear appropriate personnel protective equipment and to be properly trained for the work being performed. For any spot work painting construction workers are required to follow OSHA regulations to avoid release of lead from paint.
Public Services and Utilities		Depending on the length of detour required due to damaged bridges these services could be significantly impacted.	Fire, emergency, law enforcement, and school services would not be impacted as the route will be repaired to its pre-disaster function and capacity.	Fire, emergency, law enforcement, and school services would not be significantly impacted as the route is not anticipated to be significantly longer than the routes pre-disaster function and capacity.	Fire, emergency, law enforcement, and school services would not be impacted as the route will be repaired to its pre-disaster function and capacity.	None identified.

7.0 Consultation and Coordination

FEMA is the lead Federal agency for conducting the NEPA compliance process for this proposal. The lead Federal agency is responsible for expediting the preparation and review of NEPA documents in a way that is responsive to the needs of residents of Montana while meeting the spirit and intent of NEPA and complying with all NEPA provisions.

7.1 Public Participation

FEMA notified the public that it was preparing a Draft PEA by publishing a public notice in the following newspapers:

Publication	Dates
Billings Gazette	Sunday, April 15 and Wednesday, April 18, 2012
Bozeman Chronicle	Sunday, April 15 and Wednesday, April 18, 2012
Butte Standard	Sunday, April 15 and Wednesday, April 18, 2012
Great Falls Tribune	Sunday, April 15 and Wednesday, April 18, 2012
Helena Independent	Sunday, April 15 and Wednesday, April 18, 2012
Kalispell Daily Inter Lake	Sunday, April 15 and Wednesday, April 18, 2012
Havre Daily News	Wednesday, April 18 and Friday, April 20, 2012
Miles City Star	Wednesday, April 18 and Friday, April 20, 2012
Livingston Enterprise	Wednesday, April 18 and Friday, April 20, 2012
Missoula Missoulian	Wednesday, April 18, 2012
Belgrade News	Tuesday, April 17 and Friday, April 20, 2012
Pablo Char-Koosta News	Thursday, April 19 and Thursday, April 26, 2012

7.2 Agency Coordination and Consultation

Coordination with agencies specific to biological and cultural resources concerns is discussed in Section 4.0. In addition, FEMA conducted a scoping program during the beginning of the NEPA review process. FEMA transmitted coordination letters with a request for comments to the following agencies notifying them about the project and the preparation of the Draft PEA:

- Confederate Salish and Kootenai Tribe Tribal Historic Preservation Officer
- Rocky Boys Chippewa Cree Tribe Tribal Historic Preservation Officer
- Northern Cheyenne Tribe Tribal Historic Preservation Officer
- Blackfeet Tribe Tribal Historic Preservation Officer
- Crow Tribe Tribal Historic Preservation Officer
- Fort Belknap Tribe Tribal Historic Preservation Officer
- Fort Peck Tribe Tribal Historic Preservation Officer
- Bureau of Indian Affairs
- Environmental Protection Agency
- U. S. Fish and Wildlife Service

- U. S. Army Corps of Engineers
- Montana Fish, Wildlife & Parks
- Montana Department of Natural Resource Conservation – Floodplain Management
- Montana Department of Environmental Quality
- Montana Department of Natural Resource Conservation
- State Historical Preservation Office of Montana
- Natural Resource Conservation Service

The letter provided a description of the proposed project and requested comments on issues and concerns, the range of alternatives, and potential effects regarding the project that should be analyzed in the EA. A copy of the comments received is included in Appendix A.

7.3 DRAFT PEA Circulation

Public notice is hereby given by the Department of Homeland Security, Federal Emergency Management Agency (FEMA) of the availability of the Draft Environmental Assessment for the Montana Bridge Programmatic Environmental Assessment. The public and other interested parties are invited to review and comment on this document. The public comment period related to the draft Environmental Assessment will remain open for 30 days from the date of this notice. Copies of the Draft PEA will be made available for public review at <http://www.fema.gov/plan/ehp/envdocuments/ea-region8.shtm>.

During the public comment period, FEMA will accept written comments on the Draft PEA; written comments should be addressed to: Steven Hardegen, Regional Environmental Officer, FEMA Region VIII, Denver Federal Center, PO Box 25267, Denver, CO 80225, (303) 235-4714 or steven.hardegen@fema.gov. At the end of the public comment period, FEMA will review the comments and consider them in the decision-making process before notifying the public of its final determination.

8.0 List of Preparers

FEMA Region VIII

Steven Hardegen, Regional Environmental Officer

Laurie Conner, Environmental Specialist

Donna DeFrancesco, Environmental Specialist

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APPENDIX A

Agency Coordination



R8-EHP

March 8, 2012

«AddressBlock»

Re: Programmatic Environmental Assessment for Bridges - Montana

«GreetingLine»

The Federal Emergency Management Agency (FEMA) / Department of Homeland Security (DHS) is preparing a Programmatic Environmental Assessment (PEA) for Bridge Projects in South Montana. The proposed action includes approval and funding by FEMA for the replacement of bridges on existing non – Federal Aid maintained roads that are damaged as a result of a Presidential Declared Major Disaster.

Funding will be provided under FEMA’s Public Assistance Program in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended. All projects considered for bridge replacement must have been damaged in a Presidential Declared Major Disaster and must meet FEMA’s requirements for funding as a road grade raise project under Disaster Specific Guidance.

Due to changes in waterway channels resulting from frequent storms and ongoing flooding events some bridges have become permanently isolated making the road segment unusable. The intent of the proposed projects is to restore these road segments to pre-disaster function and capacity using current codes and standards. Restoration to function and capacity will be completed by extending and widening these bridges across the new channel. Increasing the length of the bridge will remain within the existing road right of way as appropriate but some segments may necessitate widening of the road footprint. All funded projects may include sections of roadways also damaged during the declared event.

Currently there are 19 proposed bridge projects in Montana under DR-1996-MT. It is anticipated that future projects could occur anywhere in the state where spring flooding leads to bridge damage and disasters are declared. While the footprint of the bridge will likely be expanded, it is anticipated that the road footprint will remain within the road right-of-way (ROW).

This PEA will address the purpose and need of the proposed projects, project alternatives considered, affected environment, environmental consequences, and impact mitigation measures. Once completed, the DRAFT PEA will be available for public review and comment. Review of the projects will also be completed in accordance with Executive Order 11988, Floodplain Management and Executive Order 11990, Wetlands Protection; as implemented in 44 CFR Part 9, since these actions may affect the floodplain and wetlands.

In addition to the proposed action, the following alternatives will be considered in the programmatic EA: (1) The NO ACTION ALTERNATIVE considers the consequences of not repairing the bridge, (2) Bridge Relocation Alternative, and (3) New Bridge Design.

The following conditions are also being considered as mitigative measures in the PEA to apply to all bridge projects:

1. The absence of cultural resources in the area does not mean they do not exist, but rather may reflect the absence of any previous cultural resource inventory in the area. If during the course of any ground disturbance related to the project, cultural resources are inadvertently discovered, the project would be immediately stopped and the State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and FEMA notified.
2. Staging and materials storage is restricted to the existing roadbed footprint, parking areas, and pull outs.
3. The applicant is required to implement best management practices and to develop and implement project erosion control measures to minimize soil loss, including the use of silt fences.
4. The applicant is responsible to promptly seed all upland areas that are disturbed during construction with native grasses.
5. Construction noise levels must be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Construction activities are not to occur during early morning or late evening hours to minimize noise impacts.
6. The following conditions for borrow material source applies:
 - a. Borrow material may come from an existing source, or
 - b. An existing stockpile (if from an existing stockpile - no ground disturbing activities are permitted), or
7. The applicant may be responsible to complete a hydraulic study. The applicant will install culverts to ensure the flow of flood waters. The bridge must not serve as a dam or otherwise impede water movement thus aggravating flooding upstream of the roadway
8. The applicant is responsible to mitigate for fugitive dust during construction by periodic watering of active construction areas, particularly in areas close to sensitive receptors (e.g. hospitals, senior citizen homes, schools).
9. All waste material associated with the project must be disposed of properly and not placed in identified floodplain and/or floodway areas.
10. The applicant is responsible to coordinate with utility companies to determine there are no utilities in the areas that will be adversely affected.

To ensure that any effect on social, economic, and environmental issues are analyzed accurately, we solicit your views and comments on the proposed action, pursuant to the National Environmental Policy Act (PL 91-190) and associated environmental statutes, as implemented in FEMA's regulations 44 CFR Part 10. We ask for your assistance in any comments that should be considered with respect to project alternatives, affected environment, environmental consequences, and impact mitigation measures.

Comments should be submitted by April 1, 2012 so that they may be addressed in the Draft document. Questions for FEMA can be directed to Steven Hardegen, Regional Environmental Officer, FEMA Region VIII Denver Federal Center, PO Box 25267, Denver, CO 80225, (303) 235-4714 or steven.hardegen@fema.gov.

Sincerely,

Steven E. Hardegen
Regional Environmental Officer
FEMA Region VIII

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RECEIVED

MAR 13 2012

BY: SHPO

U.S. Department of Homeland Security
Region VIII
Denver Federal Center, Building 710
P.O. Box 25267
Denver, CO 80225-0267

CONCUR
MONTANA SHPO

DATED 25 Mar 2012 SIGNED



FEMA

Josef
FEMA
PROGRAMMATIC
EA BRIDGE
REPLACEMENT
SOUTH MT

R8-EHP

March 8, 2012

Mr. Josef Warhank
MT SHPO
1410 8th Avenue
Helena, MT 59620

Re: Programmatic Environmental Assessment for Bridges - Montana

Dear Mr. Warhank,

The Federal Emergency Management Agency (FEMA) / Department of Homeland Security (DHS) is preparing a Programmatic Environmental Assessment (PEA) for Bridge Projects in South Montana. The proposed action includes approval and funding by FEMA for the replacement of bridges on existing non – Federal Aid maintained roads that are damaged as a result of a Presidential Declared Major Disaster.

Funding will be provided under FEMA’s Public Assistance Program in accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, Public Law 93-288, as amended. All projects considered for bridge replacement must have been damaged in a Presidential Declared Major Disaster and must meet FEMA’s requirements for funding as a road grade raise project under Disaster Specific Guidance.

Due to changes in waterway channels resulting from frequent storms and ongoing flooding events some bridges have become permanently isolated making the road segment unusable. The intent of the proposed projects is to restore these road segments to pre-disaster function and capacity using current codes and standards. Restoration to function and capacity will be completed by extending and widening these bridges across the new channel. Increasing the length of the bridge will remain within the existing road right of way as appropriate but some segments may necessitate widening of the road footprint. All funded projects may include sections of roadways also damaged during the declared event.

Currently there are 19 proposed bridge projects in Montana under DR-1996-MT. It is anticipated that future projects could occur anywhere in the state where spring flooding leads to bridge damage and disasters are declared. While the footprint of the bridge will likely be expanded, it is anticipated that the road footprint will remain within the road right-of-way (ROW).

This PEA will address the purpose and need of the proposed projects, project alternatives considered, affected environment, environmental consequences, and impact mitigation measures. Once completed, the DRAFT PEA will be available for public review and comment. Review of the projects will also be completed in accordance with Executive Order 11988, Floodplain Management and Executive Order 11990, Wetlands Protection; as implemented in 44 CFR Part 9, since these actions may affect the floodplain and wetlands.

MAR 30 RECD
BY:

In addition to the proposed action, the following alternatives will be considered in the programmatic EA: (1) The NO ACTION ALTERNATIVE considers the consequences of not repairing the bridge, (2) Bridge Relocation Alternative, and (3) New Bridge Design.

The following conditions are also being considered as mitigative measures in the PEA to apply to all bridge projects:

71. The absence of cultural resources in the area does not mean they do not exist, but rather may reflect the absence of any previous cultural resource inventory in the area. If during the course of any ground disturbance related to the project, cultural resources are inadvertently discovered, the project would be immediately stopped and the State Historic Preservation Office (SHPO) or Tribal Historic Preservation Office (THPO) and FEMA notified.
72. Staging and materials storage is restricted to the existing roadbed footprint, parking areas, and pull outs.
73. The applicant is required to implement best management practices and to develop and implement project erosion control measures to minimize soil loss, including the use of silt fences.
74. The applicant is responsible to promptly seed all upland areas that are disturbed during construction with native grasses.
75. Construction noise levels must be minimized by ensuring that construction equipment is equipped with a recommended muffler in good working order. Construction activities are not to occur during early morning or late evening hours to minimize noise impacts.
76. The following conditions for borrow material source applies:
 - o. Borrow material may come from an existing source, or
 - p. An existing stockpile (if from an existing stockpile - no ground disturbing activities are permitted), or
77. The applicant may be responsible to complete a hydraulic study. The applicant will install culverts to ensure the flow of flood waters. The bridge must not serve as a dam or otherwise impede water movement thus aggravating flooding upstream of the roadway
78. The applicant is responsible to mitigate for fugitive dust during construction by periodic watering of active construction areas, particularly in areas close to sensitive receptors (e.g. hospitals, senior citizen homes, schools).
79. All waste material associated with the project must be disposed of properly and not placed in identified floodplain and/or floodway areas.
80. The applicant is responsible to coordinate with utility companies to determine there are no utilities in the areas that will be adversely affected.

To ensure that any effect on social, economic, and environmental issues are analyzed accurately, we solicit your views and comments on the proposed action, pursuant to the National Environmental Policy Act (PL 91-190) and associated environmental statutes, as implemented in FEMA's regulations 44 CFR Part 10. We ask for your assistance in any comments that should be considered with respect to project alternatives, affected environment, environmental consequences, and impact mitigation measures.

Comments should be submitted by April 1, 2012 so that they may be addressed in the Draft document. Questions for FEMA can be directed to Steven Hardegen, Regional Environmental Officer, FEMA Region VIII Denver Federal Center, PO Box 25267, Denver, CO 80225, (303) 235-4714 or steven.hardegen@fema.gov.

Sincerely,

A handwritten signature consisting of a stylized triangle with a horizontal line extending to the right, and a shorter horizontal line below it.

Steven E. Hardegen
Regional Environmental Officer
FEMA Region VIII



United States Department of the Interior

Fish and Wildlife Service

Ecological Services
Montana Field Office
585 Shepard Way
Helena, Montana 59601-6287



Phone: (406) 449-5225 Fax: (406) 449-5339

M.12 FEMA

March 28, 2012

Steven Hardegen
Regional Environmental Officer
FEMA Region VIII Denver Federal Center
P.O. Box 25267
Denver, CO 80225

Dear Mr. Hardegen:

This is in response to your March 8, 2012 letter regarding the development of a Programmatic Environmental Assessment (PEA) for Bridge Projects in South Montana. The proposed action includes approval and funding by FEMA for the replacement of 19 bridges on existing non-Federal Aid maintained roads that are damaged as a result of a Presidential Declared Major Disaster. While your letter does not specify locations for the affected bridges, it does present a list of mitigative measures that are being considered to apply to all bridge projects. The Service's Montana Field Office received your letter on March 13, 2012, and we offer the following comments for your consideration under the authority of, and in accordance with the provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.), Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703 et seq.), Bald and Golden Eagle Protection Act (BGEPA; 16 U.S.C. 668-668d, 54 Stat. 250), and the Endangered Species Act (16 U.S.C. 1531 et. seq.).

While your letter does not specify in which Montana counties the affected bridges occur, a current list of endangered, threatened, proposed and candidate species, by Montana County, can be found at our website (http://www.fws.gov/montanafieldoffice/Endangered_Species/Listed_Species/countylist.pdf). This website also includes information pertaining to the presence of federally-designated critical habitat for certain species.

Should any of the project sites occur within 0.5 mile of occupied eagle nests, the Service recommends that FEMA identify the specific location of any bald eagle nest site, determine the nest's proximity to the proposed project site, and implement the Montana Bald Eagle Management Guidelines: An Addendum to Montana Bald Eagle Management Plan (1994)

(Montana Bald Eagle Working Group 2010), as necessary. The BGEPA, prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald or golden eagles, including their parts, nests, or eggs. The BGEPA provides criminal and civil penalties for persons who take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof. The BGEPA defines take as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

The MBTA prohibits the taking, killing, possession, and transportation, (among other actions) of migratory birds, their eggs, parts, and nests, except when specifically permitted. Because migratory birds nest on many substrates (e.g., ground, shrubs, trees, bridges), should the proposed work occur during the breeding season, the Service recommends: the required cutting of trees or shrubs between August 16th and April 30th to remove potential nesting surfaces prior to project commencement; the removal of swallow nests as they are built, but prior to egg laying, from the bridge structures that are to be removed, or netting of the affected bridge structures to prevent swallow nesting prior to the breeding season.

For stream channel crossings, the Service encourages the use of single span bridges whenever feasible, and that the crossings cover at least 1.5 times the bankfull width to ensure passage of fish and debris through the system. 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. 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.

In the March 8, 2012 letter, a list of mitigative measures is listed that are being considered in the PEA to apply to all bridge projects. The Service encourages FEMA to apply all listed measures to all bridge projects to help reduce potential impacts of the bridge projects to aquatic and terrestrial resources. Regarding measure 106, borrow material sources, the Service further recommends that borrow material come from an existing source that has been screened for sensitive species (e.g., threatened/endangered species, proximity to eagle nests, etc.), and all pertinent state and federal laws be followed.

Because these would be bridge replacement projects, they may impact streams or wetlands. If so, Corps of Engineers (Corps) Section 404 permits may eventually be required. In that event, depending on permit type and other factors, the Service may be required to review permit applications and will recommend any protection or mitigation measures to the Corps as may appear reasonable and prudent based on the information available at that time.

Thank you for the opportunity to comment on your Programmatic Environmental Assessment. We appreciate your efforts to consider and conserve fish and wildlife resources, including T/E species. If you have questions regarding this letter, please contact Mike McGrath, of my staff, at (406) 449-5225, extension 201.

Sincerely,

A handwritten signature in blue ink that reads "R. Mark Wilson". The signature is written in a cursive style with a large, stylized "R" and "W".

R. Mark Wilson
Field Supervisor

APPENDIX B

EHP Bridge Checklist

EHP Bridge Checklist

Date: _____

Applicant: _____

PA No: _____ **PW No:** _____

Location (Lat, Long of end points):

Location (Township, Range, and Section Line)

Brief Description:

FEMA

USFWS: Y ___ N ___ FEMA DETERMINATION: _____

Coordination initiated: _____ Coordination Completed _____

SHPO/THPO: Y ___ N ___ Programmatic Allowance: _____

Coordination initiated: _____ Coordination Completed _____

Borrow Pit Approval: _____

Wetland: Y ___ N ___ Map Attached: Y ___ N ___

Wetlands Executive Order Review Initiated: _____

Wetlands Executive Order Review Completed: _____

Floodplain: Y ___ N ___ Panel Number: _____ Map Attached: Y ___ N ___

Floodplain Executive Order Review Initiated: _____

Floodplain Executive Order Review Completed: _____

Farmland Soils: _____

Wild and Scenic River: _____

NEPA Review: _____

Applicant requirement: Joint Permit Application

✓	PERMIT/ WHO MUST APPLY	AGENCY	INITIATED	COMPLETED
	310 Permit Private citizens and companies working in or near perennial streams.	Local Conservation District		
	SPA 124 Permit Governmental entities working in any stream.	Montana Department of Fish, Wildlife & Parks (DFWP)		
	Floodplain Permit Applicants proposing new construction within designated floodplains.	City or County Floodplain Administrator		
	Section 404 Permit Applicants working in any stream and in wetlands. Section 10 Permit Applicants working on Yellowstone, Missouri, or Kootenai Rivers or their reservoirs.	U.S. Army Corps of Engineers (COE)		
	318 Authorization Activities that cause temporary turbidity in any state water. Applies only for work carried out in water. 401 Certification Activities that may adversely affect state water quality standards. General Stormwater Construction Permit (NPDES)	Montana Department of Environmental Quality (DEQ) Montana Department of Environmental Quality (DEQ) Montana Department of Environmental Quality		
	Navigable Rivers Land Use License/Easement -- Projects in, on, under, or over navigable waters.	Montana Department of Natural Resources and Conservation (DNRC)		

NOTES: