



Montana Department of Transportation

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

Michael T. Tooley, Director  
Steve Bullack, Governor

June 6, 2013

Kevin L. McLaury  
Division Administrator  
Federal Highway Administration  
585 Shepard Way  
Helena, MT 59601-9785

Attention: Jeff Patten

Subject: Categorical Exclusion Concurrence Request  
DEEP CRK STRUCTURES/MT 11-1 (Segment A)  
STPP-ER 14-1(27)11  
CN 7750001

Dear Mr. McLaury:

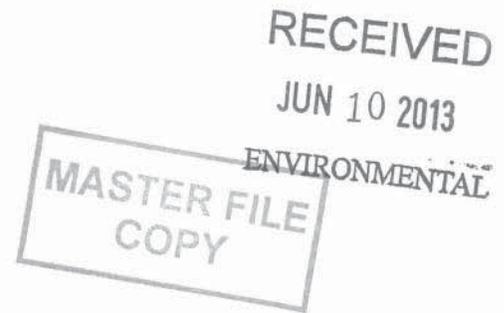
This is a request for the Federal Highways Administration's (FHWA) concurrence that this proposed project meets the criteria for classification as a Categorical Exclusion (CE) under the provisions of 23 CFR 771.117(d). This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections **75-1-103** and **75-1-201, MCA**).

### Project Background

This project takes place within several locations along US Highway 12. This project has been split into three segments and the field work performed during the summer of 2012 occurred in locations where Segment A activities are planned. This categorical exclusion request is for Segment A only. Segment A project activities include replacing three existing bridges with three new bridges at RP 17.3, RP 19.6, and RP 19.8; stabilizing roadway embankment erosion at various locations between RP 17.3 to RP 20.0; providing stream and riparian enhancements at locations where emergency repairs were made by maintenance during high water events (between RP 17.3 and RP 20.0 in proximity to Segment A work); and associated bridge and roadway improvements. Segment B and C, planned for subsequent years, address five other bridges and related repairs. Refer to Figure 1 for approximate project limits and project segment activity locations. General impacts anticipated from the overall project along with the specific impacts (and any associated mitigation and significance) related to Segment A are identified and discussed in this CE. Future CE documents will be prepared for segments B and C of this project.

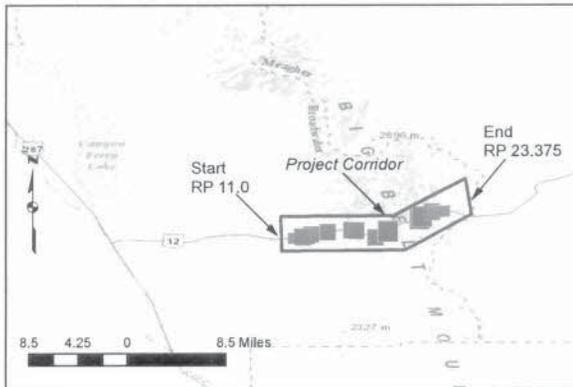
### Project Location

The overall project area is on Highway 12 east of Townsend Montana in Broadwater County beginning at approximately RP 11 and extending easterly for approximately 14 miles to RP 23.375 at the Meagher County Line. Segment A of the project begins at approximately RP 17.3





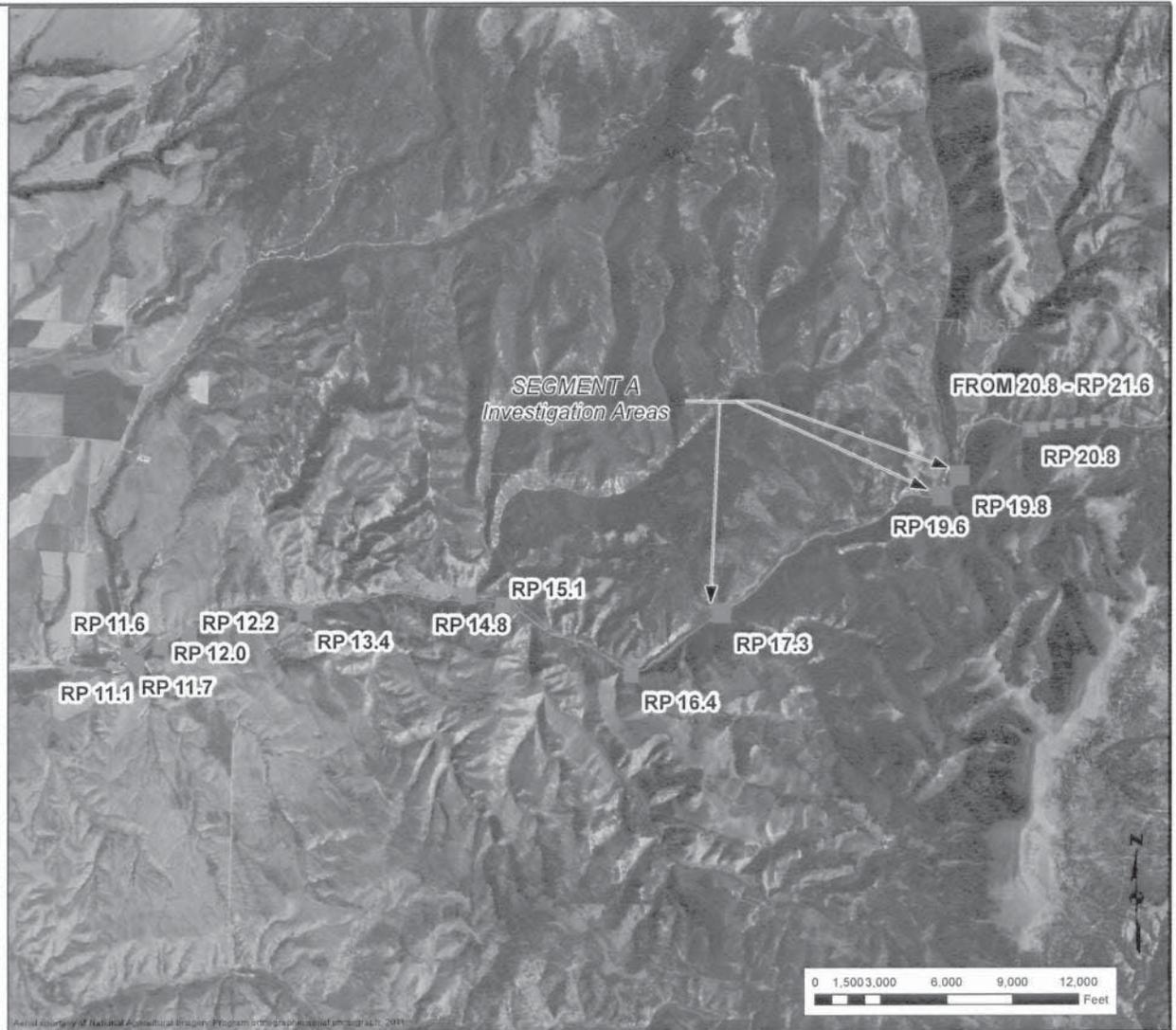
Montana Department of Transportation  
 Deep Creek Canyon (US12)/MT:  
 STPP 14-1(27)12 UPN 7750000  
 Broadwater County, Montana



Project Vicinity

**Legend**

- SEGMENT A
- SEGMENT B
- SEGMENT C



**MORRISON MAIERLE, INC.**  
 Engineers, Surveyors, Scientists, Planners  
 1 Engineering Place  
 Helena, MT 59602  
 Phone: (406) 442-3000  
 Fax: (406) 442-7882

DRAWN BY: KES  
 CHK'D BY: MTR  
 APPR. BY: MTR  
 DATE: 04/04/13

Broadwater County  
**Deep Creek Canyon (US12)/MT**  
 STPP 14-1(27)12 UPN 7750000  
 MT

PROJECT NO.  
 0275.133  
 FIGURE NUMBER  
**FIG. 1**

R:02751333 Deep Creek GIS Vicinity Map (fig1) - 10.mxd

Project Location and Phasing

and extends easterly for 3.5 miles to approximately RP 20.8. This segment begins in Section 25, Township 7 North, Range 4 East and continues easterly to Section 20, Township 7 North, Range 5 East, P.M.M. Broadwater County, Montana.

### **Existing Condition**

The existing road was built in the 1930's and was widened in the 1950's or 1960's. The road was last milled and filled in 2005. The existing road was built utilizing numerous Deep Creek channel changes in order to fit the current alignment. The channel changes have contributed to long-term stream instability and continual maintenance issues. In addition, recent fires, logging activity, beetle kill, and significant flood events in 2010 and 2011 have altered the hydrologic characteristics of Deep Creek, resulting in accelerated degradation of the highway infrastructure throughout the canyon.

The project resides in rural mountainous terrain with riparian and riverine habitat confined to a narrow canyon. Existing fill and cut slopes and ditch sections vary considerably depending on proximity of the creek channel and location of rock outcrops. The Segment A project takes place on National Forest land at RP 17.3 and exits at RP 19.8.

### **Purpose and Need**

The following needs between RP 11 and RP 22 in Deep Creek Canyon have been identified:

- The roadway embankment adjacent to the existing timber bridges is not stable.
- The bridge back wall retaining elements is failing.
- The bridge traffic rail is substandard.
- The bridge rail blunt ends are substandard.
- The stream and riparian areas that were stabilized with riprap during flooding in 2011 offer an opportunity for bio-engineered bank stabilization.

The purpose of project Segment A is to address the identified needs while emphasizing quality, safety, cost, effectiveness, economic vitality and sensitivity to the environment. The following descriptions for each project segment list the work proposed for Segment A and the other segments.

### **Project Description**

The proposed scope of work will include spot improvements and pavement preservation. Reconstruction to full design standards is not practicable given the topographic and environmental constraints of the Deep Creek Canyon. The project limits are tied to RPs as spot improvements throughout the project corridor, which include seven timber bridge replacements, horizontal roadway re-alignment, guardrail installation/revision, rock slope modifications to reduce rock fall hazards and improve sight distance, bank stabilization and revegetation along Deep Creek, roadway ditch modifications to improve drainage, subgrade improvements to address frost heaves, culvert replacements and stream enhancements. These spot improvements have been spilt out in the individual segments as follows:

### **Segment A**

#### Deep Creek Structures

- RP 17.3: Replace existing structure with new bridge
- RP 19.6: Replace existing structure with new bridge
- RP 19.8: Replace existing structure with new bridge
- Stabilize roadway embankment erosion at various locations from RP 17.3 to RP 20.0
- Provide stream and riparian repairs/enhancements at locations where emergency repairs were made by maintenance during high water events between RP 17.3 to 20.0 in proximity to planned Segment A work and associated with bridge and roadway improvements

### **Segment B**

#### Deep Creek Canyon Structures and Improvements

- Replacement of the North Fork Road over Deep Creek off-system bridge near RP 11.6
- RP 11.7: Replace existing bridge with a culvert at lower grade for improved sight distance
- RP 12.0: Replace existing bridge with a new bridge
- Note that a temporary bridge will be designed for RP 12.0 as part of Segment A but the design will not be implemented unless necessary since it is anticipated that the permanent bridge will be constructed in 2014.
- RP 12.2: Raise grade to prevent stream overtopping roadway
- RP 13.4: Improve sight distance
- RP 14.8: Improve sight distance, realign Cabin Gulch approach & replace existing structure with new bridge
- RP 15.1: Replace existing structure with new bridge
- RP 20.8: Mitigate rock fall hazard
- Stabilize roadway embankment erosion at locations from RP 11.7 to RP 20.8
- Provide stream and riparian repairs/enhancements at locations where emergency repairs were made by maintenance during high water events between RP 11.7 to RP 20.8 and associated with bridge and roadway improvements in Segment B.
- Install guardrail at various locations throughout corridor

### **Segment C**

#### Deep Creek Canyon (US-12)

- RP 11.1: Seal bridge deck cracks
- RP 16.4: Install cut off wall and rip rap at downstream end of box culvert
- Replace failing culverts as determined throughout corridor
- Eliminate frost heaves near RP 21
- Stabilize roadway embankment erosion at various locations from RP 11 to RP 22
- Provide stream and riparian repairs/enhancements at locations where emergency repairs were made by maintenance during high water events between RP 11 to RP

- 22 and associated with bridge and roadway improvements (those not addressed under Segment A or Segment B)
- Mill and fill length of the project between spot improvements

### **Impact Assessment Methodology**

In order to assess the environmental consequences of the proposed action, the direct, indirect, and cumulative effects must be identified and their significance determined. Direct effects are caused by the action and occur at the same time and place (as defined in 40 CFR 1508.8). Indirect effects are also caused by the action but farther removed in distance or are later in time—in the reasonable and foreseeable future. This may include growth inducing effects.

The impacts of the proposed action also must be evaluated in context with other past, present, and reasonable foreseeable future actions regardless of what agency or person undertakes such activities. This process of cumulative effects analysis may indicate increased level of impacts or may reveal unique or new impacts that are not identifiable at an individual project level.

The significance of the specific impacts is determined by considering both context and intensity. Significance determinations of the proposed action are made by evaluating the direct, indirect and cumulative effects.

### **Past, Present, and Future Actions**

U.S. Highway 12 is a minor arterial that runs through a rural canyon with very little development. Historic mining and logging occurred in the area. U.S. Highway 12 was constructed in 1930s. In the late 1990's, the Broadwater Conservation District sponsored the Deep Creek Watershed and Spawning Enhancement project that was designed to implement watershed restoration, stream stabilization, and habitat enhancement activities to address water quality and fisheries concerns in Deep Creek.

In addition to the Deep Creek Canyon (US12)/MT11-1 project, the Deep Creek Canyon (US12) – East project (STPP 14-1(25)12 CN 7581) project will occur at the Broadwater County/Meagher County line and proceed east to RP 33.1. This project is a mill and fill project. These projects are adjacent to each other and specific timing of construction is unknown at this time. Given the limited capacity of the roadway and USFS ownership of portions of the surrounding area, development is not expected to occur as a result of MDT's proposed projects. **Segments B and C of the proposed project are anticipated in the next few years and will be analyzed in future separate categorical exclusion requests.** No other current or future activities were identified for the project area.

**Project Impacts, Proposed Mitigation & Determination of Significance**

Table 1 summarizes the direct, indirect and cumulative impacts anticipated for the proposed Deep Creek Canyon project; the proposed mitigation, monitoring, and/or special coordination for each resource; and the determination of significance. Significance determinations were based on the criteria specified in 40 CFR 1508.27 and ARM 18.2.238.

**Conclusions:**

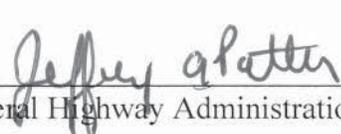
In accordance with 23 CFR 771.117(a), this pending action would not cause any significant individual, indirect (secondary), or cumulative environmental impacts. No extraordinary circumstances as specified in ARM 18.2.261(2), or unusual circumstances as specified in 23 CFR 771.117(b), have been identified. Therefore, the FHWA's concurrence is requested that this proposed project is properly classified as a Categorical Exclusion.

  
\_\_\_\_\_  
Barry Brosten  
Engineering Section

Date: 6/6/13

  
\_\_\_\_\_  
Heidy Bruner, P.E.  
Engineering Section Supervisor

Date: 6/6/13

Concur:   
\_\_\_\_\_  
Federal Highway Administration

Date: 6/7/13

- copies: Jeff Ebert, P.E. Butte District Administrator  
Tom Martin, P.E. Environmental Services Bureau Chief  
Kent Barnes, P.E. Bridge Engineer  
Robert Stapley, P.E. Right-of-Way Bureau Chief  
Roy Peterson, P.E. Traffic and Safety Engineer  
Deb Wambach, District Biologist  
Jerry Gray, P.E., Morrison-Maierle, Inc.  
Mark Brooke, P.E., Morrison-Maierle, Inc.  
File

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Vegetation	<p>Deep Creek Canyon is a narrow canyon comprised of mountainous conifer forest, numerous tributary drainages, and a high quality riparian/wetland complex associated with Deep Creek at its base. The project area consists primarily of subalpine fir, Douglas-fir, and ponderosa pine forests. The roadside is well vegetated to within 1-2' of pavement edge.</p>	<p><b>Temporary:</b> During construction, vegetation will be trampled, scraped and damaged in various ways. Some of these damages are temporary and the vegetation will recover.</p> <p><b>Permanent:</b> Road construction associated with the bridge replacements and new alignment will eliminate approximately 0.43 acres of vegetation.</p> <p>A primary concern with disturbing vegetation and soil is the potential for weed invasion, establishment and spread. Indirect and long-term impacts to vegetative communities would occur if invasive weeds become established, thereby changing the type and value of the vegetative community.</p> <p>Clean-up of riprap associated with bridge sites and the implementation of bioengineered bank stabilization and strong woody revegetation components would be a long term benefit to natural resources.</p>	<p>In accordance with Standard Specification 201, clearing and grubbing activities would occur only within staked construction limits. To control the spread of noxious weeds, the contractor would be required to wash all equipment prior to transport into the project area as specified in the Supplemental Specifications.</p> <p>To re-establish permanent vegetation and to reduce the spread and establishment of noxious weeds, disturbed areas within MDT right-of-way and easements would be seeded with desirable plant species, as soon as practicable, as recommended and determined feasible by the MDT Botanist.</p> <p>Post-construction, the site would be monitored until final stabilization criteria are met.</p>	<p>Additional impacts from bridge replacements included in Segment B and Segment C and roadway embankment stabilization will result in additional impact to vegetation. This is a minor impact.</p>	<p>Not Significant. Although some loss of trees and vegetation is expected, the loss is considered minor when compared to the amount of trees and vegetation present in the project area.</p>
Prime Farmland	<p>No prime farmland is present in the project area.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Not Significant. No impacts anticipated.</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
<p>Cultural and Historic sites, including Section 4(f) Properties</p>	<p>Historical Research Associates, Inc. conducted a literature review and cultural resources inventory for the Deep Creek Canyon project and submitted a final report published September 2012.</p> <p>The Area of Potential Effects (APE) for the inventory consisted of places where ground disturbing activities related to proposed actions between RP 11.2 and RP 23.4 of U.S. Highway 12. A total of four previously recorded historic era timber stringer bridges were identified within the project area (the off system bridge near 11.6 will be evaluated as part of Segment B activities).</p> <p>These bridges had been previously recorded and determined ineligible for the NRHP and there is no change in that original determination. Therefore no further cultural work is recommended and section 4(f) evaluations are not required.</p> <p>No additional cultural resources were identified during the inventory within the project area.</p>	<p>Three historic era timber stringer bridges at RP 17.3, 19.6 and 19.8) will be removed and replaced as part of this project.</p> <p>No new cultural resources were identified in the project area therefore there are no direct or indirect impacts to other cultural resources identified within the project area.</p>	<p>Although no adverse impacts to cultural or historic resources are anticipated, should evidence of historic or pre-historic sites be discovered during construction, in accordance with MDT Standard Specifications 107, the contractor would be required to immediately stop work in the area until the significance of the site is determined and appropriate measures implemented.</p>	<p>No cumulative effects were determined.</p>	<p>Not significant since bridges are not eligible for inclusion in the NRHP. No additional cultural resources identified in project area.</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Air Quality	The project area is not in a non-attainment area. Air quality is generally considered good.	<b>Temporary:</b> A localized, temporary decrease in air quality is anticipated during project construction due to particulate and combustion emissions generated by heavy equipment and support vehicles. Wind erosion of exposed areas and material would generate particulate matter.	In accordance with MDT Standard Specification 107, the contractor would be required to adhere to applicable air quality rules and regulations, which may require the use of dust suppression and emission control measures to minimize short-term construction-related impacts.  Additionally, the Contractor would be required to re-vegetate disturbed areas as described above.	No potential cumulative impacts have been identified.	Not Significant. All anticipated impacts are localized, temporary and considered minimal.
Water Quality	The project limits are tied to RP's as spot improvements throughout the project corridor. Three of the bridge replacements will occur during segment A.	Refer to Fish & Wildlife Section for discussion on water quality.  Long-term impacts to water quality within the project corridor are not anticipated because the proposed construction activities will be temporary. Additionally, construction activities will occur in the fall, during low- flow conditions. Conservation and coordination measures will likely include the installation of temporary water diversion structures to redirect water flow around the area of construction. Minor increase in sedimentation and turbidity will likely occur within and downstream from	In accordance with MDT Standard Specifications 107 and 208, the contractor would be required to adhere to applicable water quality rules, regulations, and permit conditions.  Erosion and sediment control(s) would be required as necessary to minimize damage to the highway and adjacent properties and abate pollution of surface and ground water resources. Routine site monitoring would be conducted as necessary to ensure all pollution control measures are installed, maintained, and functioning correctly.	A total of seven bridge replacements over Deep Creek will occur during project segments A through C. Additional impacts from bridge replacements included in Segment B could temporarily cause a decrease in water quality. This is considered a minor impact.	Not Significant. The effects of increased sedimentation and turbidity are anticipated to be short term and minor.

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
		these areas.	<p>If practicable, direct drainage of bridge deck runoff would be eliminated.</p> <p>Tree clearing adjacent to streams would be limited to the minimum amount necessary to construct the project.</p>		
Floodplains	The project is not within a FEMA delineated floodplain. However, the proposed bridge and culvert designs are being engineered to accommodate the design flood event. In addition, the bridges are being positioned and lengthened as practical to span not only the ordinary high water mark but to allow for natural channel migration within the floodplain where terrain and design allows.	Localized impacts may occur; however since these are replacement bridges, the overall impact to the floodplain is anticipated to be improved in locations where terrain and design constraints allow.	No mitigation or monitoring is proposed.	<p>Cumulative impacts from existing bridges on floodplain are anticipated to be reduced.</p> <p>The project will result in an overall net benefit to the floodplain.</p>	Not Significant
Wild and Scenic Rivers	No Wild or Scenic Rivers are within the project area.	N/A	N/A	N/A	N/A
Wetlands	<p>Deep Creek Canyon is a narrow canyon with numerous tributary drainages and a high quality riparian/wetland complex spans the project area.</p> <p>Approximately 0.053 acre of wetlands (interwoven within</p>	<p><b>Temporary:</b> Some wetland/riparian areas may be compacted or trampled due to movement and operation of construction equipment.</p> <p>Functionally, a minor loss of local wetland habitat would occur for a couple years until the</p>	<p>Impacts to wetlands would be avoided and minimized to the maximum extent practicable, including consideration of design exceptions.</p> <p>No mitigation for lost wetland function and value will be necessary for this project.</p>	<p>A very minor amount of wetland will be permanently impacted during Segment A project activities. Impacts to wetlands for Segments B and C are unknown at this time.</p> <p>Within the watershed, no</p>	<p>Not Significant. These impacts are considered minor for Segment A.</p> <p>Significance of impacts to wetlands to be evaluated for future segments of</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
	<p>the riparian areas) were delineated within the bridge replacement sites for Segment A. All wetlands delineated within the project corridor were classified as Category III.</p>	<p>wetland recovers from the temporary disturbance.</p> <p><b>Permanent:</b> Approximately 0.0055 acre of wetland will be permanently impacted during Segment A project activities.</p>		<p>other projects were identified for use in cumulative analysis.</p>	<p>project.</p>
<p>Fish and Wildlife</p>	<p>Deep Creek Canyon provides wildlife habitat for a range of species including bear, deer, elk, large cats, raccoon, weasels, neotropical migrant birds, raptors, game birds, and waterfowl. Aquatic species present in the general project area include numerous fish species.</p> <p>Nine animal species of concern occur or potentially occur in the project area. These are: great blue heron, Clark’s nutcracker, brown creeper, Pacific wren, veery, Cassin’s finch, hoary bat, and western pearlshell mussel. Based on communication with the USFWS, the western pearlshell mussel is considered extirpated from Deep Creek.</p>	<p><b>Temporary:</b> Construction activity would likely disrupt some animal use including foraging, denning, nesting, and migration.</p> <p>Construction activities could disrupt migratory movements of elk and mule deer and their use of adjacent habitat through their temporary avoidance of the area. This should not prevent them from moving between seasonal ranges.</p> <p>Sediment generated from construction activities, especially bridge and culvert activities could have short-term impacts on water quality and fish. Fish and their offspring generally are most vulnerable to increase in sediment delivery during their spawning season. Rainbow trout, white sucker, long-nosed dace, mottled sculpin spawn in spring and early summer. Brook and brown trout spawn in the</p>	<p>Timing restrictions on certain construction activities are anticipated and will be coordinated with MTFWP or other agencies. Construction would ideally occur from late spring through fall to substantially reduce potential impacts to migrating big game.</p> <p>Additionally, to further reduce potential impacts to native fish, construction activities at stream crossings and culverts would occur late summer/fall. Specific dates would be determined through agency coordination.</p> <p>To minimize potential loss of individuals, nesting activities should be discouraged by removing trees and shrubs identified for elimination prior to nesting season (August 16 to April 15). Similar considerations should be given for removal of vegetation for</p>	<p>The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction-related noise, construction traffic and water quality impacts could occur upon subsequent project activities related with additional segments.</p>	<p>Not Significant.</p> <p>Although some habitat would be permanently lost, impacts to fish and wildlife are expected to be short-term and minor after mitigation measures succeed.</p> <p>Due to the natural sediment trapping features on site and along with proper sedimentation controls and a late summer/fall construction timing the effects of increased sedimentation and turbidity are anticipated to be short term and minor.</p> <p>The incorporation of</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
		<p>fall.</p> <p>Bridge removal and replacement activities could result in an increase in sedimentation. These effects could be local and/or downstream and are anticipated to be short-term.</p> <p>Noise disturbance associated with construction activities that displaces animals or renders habitat less desirable or unusable.</p> <p>The long term benefit of stream and riparian enhancements incorporated in the project design will outweigh the short term impacts of increased sedimentation and turbidity.</p> <p><b>Permanent:</b> Direct and permanent loss of wildlife, fisheries, and aquatic habitat would occur with the removal and installation of new bridges and the stabilization of roadway embankment. Although the replacement bridges are anticipated to have a longer span as terrain and design constraints permit, there will likely be some loss of riparian area. However, areas impacted are anticipated to be small and not of high quality due to the</p>	<p>ground nesters.</p> <p>Timing restrictions for vegetation and structure removal, as outlined in the Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act, would be implemented through special provisions</p>		<p>stream and riparian repairs/enhancements within project design should have long term benefits to fisheries, water quality, and general wildlife that use the area.</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
		<p>proximity of a developed roadway.</p> <p>A loss of individual birds, nests, and/or broods could occur if ground disturbing activities, such as clearing ground for the new alignment, take place during the nesting and brood-rearing period (May through August) and if nests or broods are in the construction zone.</p>	<p>provisions, as appropriate. If active nests are found, additional agency coordination would occur and timing restrictions may apply.</p> <p>Construction sites should be kept free of garbage to avoid attracting the parasitic brown-headed cowbird, thereby reducing threat of predation to the veery and other migratory birds.</p> <p>In accordance with MDT Standard Specifications 107 and 208, the contractor would be required to adhere to applicable water quality rules, regulations, and permit conditions.</p> <p>Additional coordination with agencies would be required if any individuals or active nesting are found and timing restrictions may be required.</p>		
Plant Species of Special Concern	Two plant species of special concern, the long-styled thistle and Austin's knotweed, have the potential to occur within the project area. The long-styled thistle	Although no long-styled thistle or Austin's knotweed were observed during the 2012 field investigation, there is a high likelihood that these plants exist within the project area. Further	<p>Survey riprap areas or other sites identified for stabilization or enhancement activities for species of concern.</p> <p>Survey construction zones</p>	None were identified	Not Significant.

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
	<p>occurs in a variety of habitats including montane to subalpine meadows, roadsides, herbaceous-dominated riparian areas, and open forests. Austin’s knotweed habitat includes gravelly and often shale-derived soil on open slopes and banks in montane regions.</p>	<p>survey work is needed before impact analysis can be conducted and a determination of effects can be made for each segment of the project.</p>	<p>around bridge replacements and slope work especially near Segment A – RP19.6 and RP 19.8.</p> <p>If species of concern are located with the construction area, then protective mitigation measures should be implemented to avoid or minimize direct impact such as fencing or transplanting populations.</p>		
<p>Threatened and Endangered Species</p>	<p>One listed T&amp;E species and one listed proposed species could potentially occur within the project area. Ute ladies’ tresses is listed threatened, however habitat is not common within Segment A of the project area. The wolverine, a species proposed for listed threatened, may occur incidentally. Denning habitat does not occur within the project area.</p> <p>It is unlikely that the Ute ladies tresses occur in Deep Creek Canyon due to the narrow nature of the wetlands and floodplain. Habitat within the project area is not typical Ute ladies tresses habitat. More likely habitat occurs further downstream</p>	<p><b>Temporary:</b> Short-term, construction-related impacts to fish and wildlife are expected as described above.</p> <p><b>Permanent:</b> Limited loss of fish and wildlife habitat may occur as described above. While wildlife-vehicular collisions were not identified as a significant issue in this area, vehicular-related wildlife mortalities do and would continue to occur. However, the likelihood of a wolverine being killed by a vehicle on US 12 is low due to rarity of animals, route type, and low traffic volume numbers.</p> <p>Wolverine use is considered incidental and transient. The project is not likely to adversely affect the wolverine.</p>	<p><b>Wolverines:</b> In the event that a wolverine is observed during project construction activities, MDT will contact USFWS for instruction. Scavenging opportunities should be minimized by removing garbage and road-killed animals from the project corridor during construction. No additional mitigation or monitoring for the wolverine has been identified.</p> <p><b>Ute ladies’ tresses:</b> Ute ladies’ tresses habitat does not exist within Segment A of the project area.</p>	<p>The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction-related noise and construction traffic could occur for several years.</p>	<p>Not Significant. Temporary construction-related impacts to threatened and endangered species expected to be minimal for Segment A.</p> <p>Significance of impacts to T&amp;E species to be evaluated for future segments of project.</p>

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
	outside the canyon where the floodplain widens and wet meadows and old meanders exist	Ute ladies' tresses typical habitat is not common within Segment A of the project area.			
Utilities and Railroads	<p>Utilities within the project area include buried phone line and overhead power lines along the corridor.</p> <p>No railroads exist within the project area.</p> <p>Utility mapping indicates that a fiber optic line is present near the southwest bridge corner at RP 12.0. A telephone pedestal is present off of the northeast bridge corner at RP 12.0 and the fiber optic line crosses the highway and connects to the pedestal.</p>	<p>Utility relocates may be necessary as a part of this project.</p> <p>If a detour is built at RP 12.0, it is likely that the telephone pedestal will be impacted.</p>	Proposed mitigation for segment A includes relocating a telephone pedestal outside of the project limits.	The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction-related utility relocates could be necessary for additional segments of this project.	Not Significant. Relocating one telephone pedestal for activities related to Segment A of the project is not considered a significant impact.
Hazardous Materials	No hazardous waste or substances are currently on and/or adjacent to the proposed project.	N/A	N/A	N/A	Not Significant. No impacts anticipated.
Visual Resources	The project lies within a narrow, rural, mountainous, and forested canyon.	<p><b>Temporary:</b> Short-term, visual impacts are anticipated from construction equipment and activity.</p> <p><b>Permanent:</b> No long-term visual impacts are anticipated from construction equipment and activity.</p>	Disturbed areas would be re-vegetated as quickly as feasible.	The proposed project is expected to be constructed in segments, with the Segment A taking place in 2013 with subsequent segments in the following years. Therefore, construction-related equipment could be present for several years.	Not Significant. Visual impacts are considered minor.

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
Noise	The activities associated with the proposed road/bridge construction do not meet a “Type 1” project, as defined in 23 CFR 772.5(h) and therefore, no noise study is anticipated to be necessary.	<b>Temporary:</b> Short-term, noise impacts are anticipated from construction equipment.	In accordance with MDT Standard Specification 107, the contractor would be required to comply with applicable laws and regulations regarding noise pollution.	The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction-related noise could occur for several years.	Not significant. Although short-term, construction related impacts are anticipated, these impacts are considered minor.
Land Use	Land use adjacent to the project corridor is Helena National Forest, undeveloped mountainous forest and rural residential.	This road and bridge improvement project is not expected to change land use.  Although right-of-way will be acquired, it is not expected that this acquisition would result in any significant land use changes.	No mitigation or monitoring is proposed.	No cumulative impacts were identified.	Not significant. The proposed project is not anticipated to induce any changes to the surrounding land use.
Locally-Adopted Plans, Policies and Controls	No locally-adopted plans, policies and controls have been identified in association with this project.	N/A	N/A	N/A	Not significant. No impacts are anticipated. The proposed projects would not induce growth, nor promote changes in land use. No conflicts with the plans have been identified.
Publicly-owned Parklands and Recreation Areas, including Section 4(f) and Section 6(f) Properties	As previously stated, a total of four previously recorded historic era timber stringer bridges were identified within the project area. The off system bridge near 11.6 will be evaluated as part of Segment B activities. These resources have been	No publicly owned parklands or recreation areas will be impacted during this project.	No mitigation or monitoring efforts will be necessary as a part of this project.	No potential cumulative impacts were identified.	Not Significant.

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
	<p>previously determined to not be eligible for inclusion in the National Registry for Historic Places. No additional cultural resources were identified during the inventory.</p> <p>No land in Segment A will be used from a publicly owned park, recreation area, wildlife refuge or historic site.</p> <p>The existing MDT easement on USFS lands will likely require modification based on final construction limits.</p>				
Recreational Opportunities	<p>Deep Creek Canyon and the surrounding Helena National Forest provides year-round for recreational opportunities. It is used by hikers, hunters, anglers, campers, skiers, and other assorted recreationalists.</p>	<p><b>Temporary:</b> Short-term impacts are expected as access to recreational areas could be temporarily impeded.</p> <p><b>Permanent:</b> No permanent impacts to recreational opportunities are expected.</p>	<p>Recreational access would be maintained during construction to the extent practicable.</p>	<p>No potential cumulative impacts were identified.</p>	<p>Not Significant. Access to recreational access would be maintained during construction to the extent practicable.</p>
Right-of-Way Acquisition and Relocations	<p>Project boundaries around RP 17.3 and RP19.8 fall into the Helena National Forest boundary. Project boundaries surrounding RP 19.6 are within private property. Right-of-way acquisition will not be necessary for Segment A project activities. However,</p>	<p><b>Temporary:</b> Construction easements and temporary use permits for construction may be required.</p> <p><b>Permanent:</b> No permanent right-of-way acquisitions will be necessary for Segment A project activities.</p>	<p>No mitigation and monitoring will be necessary for right-of-way acquisitions and relocations.</p>	<p>No potential cumulative impacts were identified.</p>	<p>Not Significant. Existing easements with USFS may need to be modified and minor, temporary construction use permits for construction may be necessary. This is not considered</p>

Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
	minor temporary construction use permits may be necessary for Segment A project activities. Existing easements with USFS may need to be modified.				significant.
Environmental Justice	The Deep Creek Canyon is a narrow canyon comprised of mountainous conifer forest, numerous tributary drainages, and a high quality riparian/wetland complex associated with Deep Creek at its base. Minor amounts of new right-of-way would be required from private land owners and existing easements with the USFS may need to be modified. No impacts to minority/and or low-income persons have been identified.	<p><b>Temporary:</b> Road improvements will take place and construction activities will occur.</p> <p><b>Permanent:</b> The road will be improved and bridges will be made safer and more stable to improve transportation in Deep Creek Canyon. Environmental justice will not be compromised as a part of this project.</p>	N/A	N/A	Not Significant. No disproportionate impacts to minority and/or low-income persons are anticipated.
Social	The road provides access between Townsend, MT and White Sulphur Springs, MT and is an alternative east-west route to Interstate 90.	<b>Permanent:</b> The proposed project involves improving road and bridge conditions creating a safer travel way. Travel would be improved.	No mitigation or monitoring is proposed.	Improvements to Deep Creek Canyon (US12) east will occur. This would result in a safer road and an improved alternative to Interstate 90 in the event of an emergency closure.	Not Significant. No adverse impacts are anticipated.
Changes in Grade and Traffic Patterns	There are several roads that enter US 12 throughout Deep Creek Canyon. These roads include: Ross Gulch Road, Cabin Creek Forest Service Road, and Cabin Gulch Road.	<b>Temporary:</b> Minor short-term inconveniences to the traveling public, including occasional increased travel times, detours, and temporary closures would be expected during construction of the project.	<p>A traffic control plan will be developed.</p> <p>Strategies that will be considered include:</p> <p>Limit work requiring closures to off-peak hours or to night</p>	The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction traffic could	Not Significant. Although short-term localized impacts are anticipated from the construction of the proposed project, a traffic control plan would be developed

**Table 1. Impact Assessment – DEEP CRK STRUCTURES/MT 11-1 (Segment A)**

Resource	Description <sup>1</sup>	Potential Direct and Indirect impacts	Proposed Mitigation and Monitoring	Potential Cumulative Impacts	Significance Determination and Reasoning
		<p><b>Permanent:</b> There would be no permanent changes to traffic patterns.</p>	<p>time. Accelerated bridge construction as proposed. Incentives for early completion. Sequencing of the project to minimize construction time and closures. News releases during construction to inform the public in coordination with the traffic control and sequence of operations of the project.</p>	<p>occur for several years.</p>	<p>to ensure appropriate access is maintained and/or provided and delays are kept to a minimum.</p>
Pedestrian and Bicycle Facilities	<p>There are no pedestrian or bicycle facilities located or proposed along the project.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Not Significant. No impacts to pedestrian or bicycle facilities are anticipated.</p>
Economic	<p>Commercial and residential growth is low in the project area. Anticipated use of the Deep Creek Canyon is not expected to significantly change.</p>	<p><b>Temporary:</b> Short-term beneficial impacts to the economy are anticipated from construction of the proposed project. Local contractors would have an opportunity to bid on the project and/or offer services as subcontractors. <b>Permanent:</b> No permanent, long-term impacts are anticipated.</p>	<p>No mitigation or monitoring is proposed.</p>	<p>The proposed project is expected to be constructed in segments, with the initial segment (Segment A) taking place in 2013 with subsequent segments in the following years. Therefore, construction-related employment opportunities could occur for several years.</p>	<p>No Significant. No adverse impacts are anticipated.</p>
Public Controversy	<p>Public involvement will be Level B. No public controversy is anticipated with this project.</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>Not significant. No impacts anticipated.</p>