

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	Lyons Creek Flood Damage Repairs
<b>Proposed Implementation Date:</b>	6/22 through 10/10/2009
<b>Proponent:</b>	MT DNRC – CLO & MT FWP - R-4
<b>Location:</b>	20, T14N, R4W & 14, T14N, R5W
<b>County:</b>	Lewis & Clark
<b>Trust:</b>	20, T14N, R4W = CS; 14, T14N, R5W = SRS

### I. TYPE AND PURPOSE OF ACTION

During the spring of 2008, flood damages occurred to various areas in the Lyons Creek and Wolf Creek drainages. In section 20 of Lyons Creek, stream flows eroded a new cut bank, taking ~ half the width of a private driveway which had been on trust land since the at least the 1980s. (This driveway has since been relocated up and away from the stream, and onto private land.) This eroded bank poses some future risk to the County road, both adjacent to the washout and downstream from the area. The proposal at this site is to stabilize the area with sloping, fabric, rip rap and possibly other means, to prevent further erosion, and subsequent sediment delivery to Lyons Creek.

In section 14, flood damage coupled with failed road surface drainage washed out the upstream faces of the bridge abutments and undermined the footing of the SE abutment. The proposal at this site is to make minor adjustment to an in-stream rock formation (to help direct flow to the center of the bridge), to place flat rock under the eroded footing, to stabilize the slope and place rip rap on the fill slopes and along the footing face, and to reconstruct road surface drainage (drain dips) on the bridge approaches. Without these actions, there will be continued delivery of sediment to the North Fork of Lyons Creek, and a risk that the bridge could collapse into the stream.

### II. PROJECT DEVELOPMENT

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**1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:**

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

MT FWP was contacted and has reviewed the sites. The adjacent land owners (Sieben Ranch, Wayne Johnson) and L&C Road Dept.

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**2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:**

FWP for required "124" and other permits/authorizations for stream work.

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**3. ALTERNATIVES CONSIDERED:**

No Action – leave the washed out bank and damaged bridge as existing, accept the risk of future damages to the roads and bridges and adverse effects to fisheries from on-going erosion and sedimentation.

Proposed actions – stabilize the washed out bank and the eroded bridge structure as described.

### III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES* potentially impacted are listed on the form, followed by common issues that would be considered.
- Explain **POTENTIAL IMPACTS AND MITIGATIONS** following each resource heading.
- Enter "NONE" if no impacts are identified or the resource is not present.

#### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

Soils in the area are generally rocky and relatively stable, excepting for exposure to above average flood flows. A similar washout on a different segment of the stream was repaired a couple years ago, and remained stable during this flood event. The proposed repairs would be expected to provide stability and protection from erosion without repeated maintenance.

#### 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

Lyons Creek is an important perennial stream, tributary to Little Prickly pear and the Missouri River. The washout has created an unstable bank in section 20, and eroded the abutment of a bridge in section 14. Without actions to stabilize these two sites there is risk that the stream would continue to cut the bank (and eventually threaten the County road a few feet away) and could result in the bridge in section 14 collapsing into the stream, leading to increased erosion around the structure.

#### 6. AIR QUALITY:

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

No effects anticipated.

#### 7. VEGETATION COVER, QUANTITY AND QUALITY:

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

Minimal stream side vegetation would be affected. Plantings of willow and dogwood are proposed for the sites after the stabilization work is completed.

#### 8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

Lyons Creek is an important fishery and spawning stream for Rainbow and Brown trout. Actions to minimize sedimentation would be beneficial to these species.

#### 9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

Transient use by Bald Eagles, Wolves, and Grizzly Bear may occur in the project area. The scope of activity is so limited that no adverse affects are anticipated.

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**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

There are no known sites or evidence of sites at either project area. No further review is recommended. (Personal communication with Pat Rennie, DNRC archaeologist.)

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**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

Projects are both along the roadway. At section 20, the road is County, and is the primary access into the Lyons Creek drainage. At section 14, the roadway is state (and private, depending on location) open for recreational use through coordinated plan under the Block Management Program.

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**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

None expected.

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**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

No other recent or current proposals.

<p style="text-align: center;"><b>IV. IMPACTS ON THE HUMAN POPULATION</b></p>
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| <ul style="list-style-type: none"><li>• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i></li><li>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i></li><li>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i></li></ul> |
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**14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

If the main Lyons Creek County road became washed out in section 20, access to numerous private home owners would be compromised.

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**15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

*Identify how the project would add to or alter these activities.*

The bridge in section 14 provides important land management and fire suppression access to the North Fork of Lyons Creek, as well as recreational access to lands under the Block Management Program.

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**16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:**

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

Repairs would only provide a small equipment contract and a few days of work for the contractor and State seasonal crews.

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**17. LOCAL AND STATE TAX BASE AND TAX REVENUES:**

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

No effects.

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**18. DEMAND FOR GOVERNMENT SERVICES:**

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services*

Under the No Action alternative, if the washout in the future affects the County road, or the bridge collapses into the creek, there would be considerable expense and urgency to repair actions.

Under the proposed Alternative, repair actions could be undertaken now before conditions become critical.

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**19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:**

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

None.

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**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

The Lyons Creek road provides access to several private land owners as well as to a large block of ranch and DNRC land which is open to recreational use through coordinated Block Management.

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**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

No effect.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

None expected.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

No changes expected.

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**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

Estimated cost for equipment work and rip rap at the wash out site in section 20 is ~\$2315. FWP proposes to secure funding for this contract work.

Estimated cost for equipment work and rip rap at the bridge site in section 14 is ~\$1275. Plus, DNRC would provide seasonal crews to do the hand labor at this site, treated lumber for bridge abutment work (FWP

provided a treated timber for the bridge), and DNRC would provide a culvert for the Sieben Ranch to use to replace a damaged log culvert on Ranch land in that same area. This funding would be from DNRC Forest Improvement funds.

The Sieben Ranch will donate mobilization costs for the heavy equipment as their share in the project, as they indirectly benefit from the protection of these access routes.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> D.J.Bakken	<b>Date:</b> 6/22/2009
	<b>Title:</b> Helena Unit Manager	

**V. FINDING**

**25. ALTERNATIVE SELECTED:**

I have selected the proposed action alternative, to stabilize the wash out and bridge structure.

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

Lyons Creek is an important fishery and spawning stream. Protection of this stream from ongoing erosion and sedimentation will benefit these values. Stabilizing the washout in section 20 will also protect the adjacent County road from damage, stabilizing the bridge in section 14 will prevent its collapse into the stream and the undesirable consequences should that happen. Completing these repair actions at this time, before the situation worsens, will result in less cost and less potential for adverse effects.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

EIS                     
  More Detailed EA                     
  No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Garry T. Williams	
	<b>Title:</b> CLO Area Manager	
<b>Signature:</b> /s/ Garry Williams	<b>Date:</b> 6/22/2009	