SITE SPECIFIC ALTERNATIVE PRACTICE
CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Beigel Crossing
Proposed Implementation Date:	Upon Signature
Proponent:	Jacob Beigel
Location:	Sections 4, T4N, R4W
County:	Jefferson
Land Owner:	Doug Salisbury
HRA #:	N/A

I. TYPE AND PURPOSE OF ACTION

Type of Action: SMZ Alternative Practice:

Proponent is requesting an SMZ Alternative Practice to Rule 4:(36.11.304), *Operation of Equipment in the SMZ.*

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ.

Jacob Beigel, Cedar Hills Logging, is proposing to utilize a temporary crossing for log trucks on Douglas Salisbury's property to remove the timber as part of a timber harvest on BLM property located near Boulder, MT.

To capture lost timber value, reduce fuel loading on the landscape, and to increase health and vigor of Douglas-fir, the proponent is requesting the following:

- Haul logs across an unnamed Class-1 stream channel at one location over a temporary crossing. Installation of a temporary bridge would fully suspend log material above the stream channel.
- Equipment would enter and exit the stream channel at right angles, getting into, and out of the SMZ as quickly as possible.
- Operational period would be during frozen conditions to reduce potential soil disturbance in the SMZ. All bridge material/structure would be removed from the SMZ prior to spring break-up each year.
- When harvesting operations are completed, if soil disturbance has occurred in the SMZ along the approaches to the crossing sites, they should be slash-filtered and grass seeded. This should prevent sediment runoff into the stream channel.

Purpose of Action: Timber Harvest

Proponent has a contract to harvest timber as a result of damage caused by the MPB, western spruce budworm, as well as increasing forest health and vigor.

II. PROJECT DEVELOPMENT

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

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

Cedar Hills Logging (Jacob Beigel), proponent
Montana DNRC (Devin Healy)
Jefferson Valley Conservation District
Douglas Salisbury, the landowner

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

A 310-permit from the Jefferson Valley Conservation District will be required. Proponent will need to obtain and provide documentation to DNRC of a 310-permit from the Jefferson Valley Conservation District to place a temporary bridge in the Class-1 stream channel, or documentation from Jefferson Valley Conservation District stating that a permit is not needed.

3. ALTERNATIVES CONSIDERED:

3.1 Alternative "A": Not approve Alternative Practice (No Action)

Proposed SMZ Alternative Practice would not be approved. The proposed forest management and harvesting actions would likely be abandoned. Current forest stand conditions would most likely deteriorate in the remaining non-infested lodgepole, ponderosa pine. Douglas-fir would not be thinned increasing potential impacts by western spruce budworm. The proposed forest management and harvesting actions would likely be abandoned.

3.2 Alternative "B": Alternative as Proposed

Allow SMZ Alternative Practices as proposed with additional mitigation measures.

Equipment Operation: To facilitate harvesting operations being able to access the proposed harvest area, ***an Alternative Practice*** to operate wheeled or tracked equipment in the SMZ (at designated crossing site as identified on the attached map) would be allowed under the following conditions:

1. Operating period should be during periods of frozen ground conditions to prevent soil disturbance.
2. Disturbed or exposed soil would be grass seeded to provide a vegetative filter to trap sediment.
3. A temporary bridge would be installed for the crossing. These structures would fully suspend log material above the stream channel.
4. Equipment would enter, and exit the stream channel at right angles, getting into and out of the SMZ as quickly as possible.
5. Structures would be remove upon completion of timber sale or prior to spring runoff.

6. If necessary, a slash-filter windrow would be constructed on each side of the stream channel at all crossing locations. They would be built approximately 10' from banks edge to reduce potential sediment from reaching stream channel. Straw mulching may also be required.

7. Provide documentation to DNRC from Jefferson Valley Conservation District authorizing the crossing.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B. Harvest operations will be done during frozen ground conditions to prevent rutting. Degradation to the soil should be minimal due to the relatively small amount of forest products being cut. Mitigation measures such as grass seeding exposed soil areas should reduce the potential of sediment runoff. Soils at the proposed crossing site are "moderately suited" to log hauling according to the Web Soil Survey (see attached soil survey). Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the operation restrictions and mitigation measures.

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.
Is it possible that implementing this Alternative Practice would impact the integrity of the SMZ and these specific functions?

1. Ability to act as an effective sediment filter.
2. Ability to provide shade to regulate stream temperature.
3. Protection of stream channel and banks.
4. Ability to provide large woody debris for eventual recruitment into the stream to maintain riffles, pools and other elements of channel stability.
5. Promotes floodplain stability.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B – Action The proposed project would be implemented during frozen ground conditions and should not adversely impact the six functions of a SMZ, as identified in the SMZ law (77-5-301[1] MCA).

1. Harvest operation will take place during frozen ground conditions to prevent soil rutting. Because of this and the small amount of wood being harvested, minimal disturbance to the soil is expected. If soil displacement would happen, the area in question would be grass seeded immediately following the harvest to reestablish vegetation.

2. No timber harvesting will take place in the SMZ, other than the potential removal of a few trees along the crossing to provide passage.

3. The use of a temporary bridge will provide adequate protection to the streambed and banks by providing a ridged structure to cross over.

4. Ample tree/shrub material will be maintained to provide future recruitment into stream channel to maintain riffles, pools, and other element of channel structure as no timber harvesting will take place in the SMZ.

5. Grass seeding disturbed soil locations and maintaining minimum tree retention requirements on a majority of this ownership will provide ample floodplain stability.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: Minimal direct, indirect or cumulative impacts to vegetation cover, quantity and quality are anticipated due to the operation restrictions and mitigation measures.

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.
Would implementing this Alternative Practice impact the ability of the SMZ to support diverse and productive aquatic and terrestrial habitats?

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: Mountain pine beetle is prevalent in mature lodgepole and ponderosa pine and western spruce budworm can be found in the Douglas-fir. Minimal direct, indirect or cumulative impacts to terrestrial, avian and aquatic life and habitats are anticipated due to the operation restrictions and mitigation measures.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: A query of the Montana Natural Heritage Program identifies the area as being possible habitat for wolverine. Hoary Bat, Fringed Myotis, Great Blue Heron, Evening Grosbeak, Cassin's Finch, Clark's Nutcracker, and Brewer's Sparrow are other listed species of concern in the query of the Montana Natural Heritage Program. If a sighting of any of the listed species of concern (or evidence such as nests, dens etc...) occurs, operations will be halted, or not allowed, until further assessment can take place. (See attached list for *Species of Concern*)
Due to the relatively small nature of the proposed timber harvest, impacts are not expected.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

Although no cultural or paleontologic resources are known to exist in the project APE, a systematic inventory of such resources has not occurred. Because the project is not located on state land, the DNRC has no jurisdiction to require private landholders to conduct professional level inventories to identify, or develop treatment plans for, privately owned National Register eligible properties.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: Minimal direct, indirect, or cumulative impacts are anticipated to occur from the temporary stream crossing. Potential impacts may be perceived as adverse by recreationists, landowners and travelers. The removal of quaking aspen for the installation of the temporary crossing could look unsightly in the short term. However, the temporary crossing will be removed and the limited removal of trees would promote regeneration. This regeneration would eventually soften and replace aesthetic quality .

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

IV. IMPACTS ON THE HUMAN POPULATION

- *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.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action:
While the removal of beetle killed trees would improve safety to landowners and those that use the area for recreation, no direct, indirect, or cumulative impacts are anticipated to occur from utilizing the temporary stream crossing.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: Project has a small positive impact on employment.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

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.

Alternative A - No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B - Action: No direct, indirect, or cumulative impacts are anticipated to occur.

EA Checklist Prepared By:	Name:	Devin Healy	Date:	1-15-2015
	Title:	Helena Unit Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B-Action: an ***Alternative Practice*** to operate wheeled or tracked equipment in the SMZ (at designated crossing site as identified on the attached map) would be allowed under the following conditions:

1. Operating period should be during periods of frozen ground conditions to prevent soil disturbance.
2. Disturbed or exposed soil would be grass seeded to provide a vegetative filter to trap sediment.
3. A temporary bridge, using native timber found on site would be used at potentially five locations. These structures would fully suspend log material above the stream channel.
4. Equipment would enter, and exit the stream channel at right angles, getting into and out of the SMZ as quickly as possible.
5. Structures would be remove upon completion of timber sale or prior to spring runoff.
6. If necessary, a slash-filter windrow would be constructed on each side of the stream channel at all crossing locations. They would be built approximately 10' from banks edge to reduce potential sediment from reaching stream channel. Straw mulching may also be required
7. Provide documentation to DNRC from Jefferson Valley Conservation District allowing crossing.

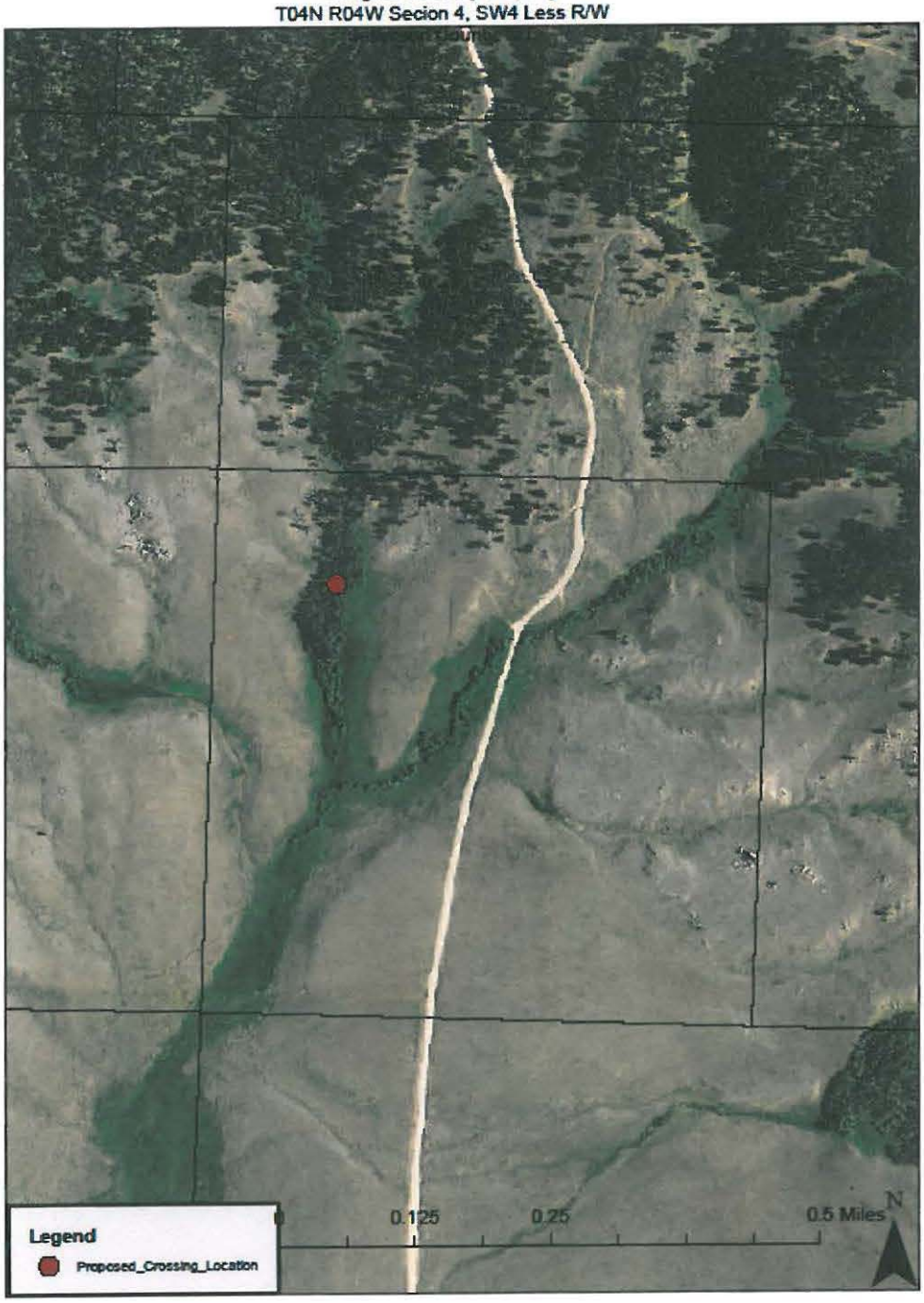
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures. As proposed, with mitigations, I do not anticipate any significant direct, indirect or cumulative effects from the implementation of the selected alternative.

Measures Recommended To Mitigate Potential Impacts: None expected. See Section 25 of this document, mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

		EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	Name:	J. Andrew Burgoyne		
	Title:	Helena Unit Manager		
Signature:			Date:	1/24/2015

Biegel Crossing AP
Douglas Salsbury Property
T04N R04W Secion 4, SW4 Less R/W