CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Sweeney Creek Salvage
Proposed Implementation Date:	December 5, 2011
Proponent:	State of Montana – DNRC
Location:	S1/2 Section 16, T10N-R20W
County:	Ravalli

I. TYPE AND PURPOSE OF ACTION

The purpose of this action is to salvage and commercially thin approximately 53 acres of forested trust land resulting in the harvest and removal of approximately 40 MBF (8 to 10 log truck loads) of green ponderosa pine trees that have been infected or are at risk of being infected by the Mountain Pine Beetle. Operations would also remove approximately 50 tons (2-3 log truck loads) of sawlog-sized trees that blew down in the spring of 2011. In addition, pre-commercial thinning would also take place on approximately 40 acres to improve stand health and to reduce fire hazard in the urban interface.

II. PROJECT DEVELOPMENT

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

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

Garrett Schairer, DNRC Wildlife Biologist; Paul Moore, DNRC Hamilton Unit Manager; Jeff Collins, DNRC, Hydrologist/Soil Scientist; Doug Wasileksi, Pyramid Mountain Lumber Company, Kirk Bloxham, adjacent Landowner.

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

None

3. ALTERNATIVES CONSIDERED:

Proposed action and no action.

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.

No unstable or unique geology occurs within the project area. Predominant soils in Section 16 are Bass, Blodgett, and Como cobbly and stony sandy loams. Soil descriptions are included in the project file and described in more detail from memo of 1/24/03. These are moderate to deep soils forming in residual and tertiary parent materials. These are also well drained, productive and resilient soils. The proposed operations are on moderate slopes, and mainly winter use, which reduces the potential risk of disturbance . There are several short steep draws that would be avoided or protected with equipment restrictions. These are moderate erosion hazard soils, with moderate risk of compaction and displacement associated with equipment operations. There is a long season of use on this site, yet avoid operation on wet soils as native material roads may rut and could require maintenance of road drainage features.
Previous harvest effects are minimal. There are several unauthorized ATV trails. Consider slashing unneeded ATV trails, skid trails and grass seeding. The total area of operation is up to 100 acres and would improve tree spacing that in turn is expected to reduce competition for nutrients and moisture and improve forest growth. Planned thinning operations present low risk of direct, in-direct and cumulative soil impacts based on light traffic and implementing BMP's.

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.

The proposed salvage harvest of blown down trees and commercial tree thinning would occur on moderate slopes of a face drainage to Child Creek above the Bitterroot River. There are no streams or surface water within the proposed thinning area and no proposed operations would occur in SMZ's or on sites that would deliver sediment to stream channels or affect water quality down slope. This is a low precipitation site that is prone to droughty conditions. There are several dry draws in the section, and one site was noted that may have ephemeral flow in the spring and would be provided Class 3 protection. The parcel is not in a municipal watershed and Child Creek is not listed as an impaired stream. The haul route would use existing access. Road drainage features will be maintained. The proposed small salvage and thinning of overstocked trees would have very low risk of impact on sedimentation and or water yield increase compared to the current conditions. The planned thinning presents very low risk of direct, in-direct and cumulative impacts to water resources or beneficial uses based on implementing BMP's.

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.

Some accumulations of slash will be created at log landings. All burning will be conducted under good dispersion and coordinated through the Montana Air Shed Group to protect Air Quality.

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.

Knapweed is common across adjacent land ownerships, including DNRC lands. Toadflax does occur along the forest rangeland ecotone and biocontrol insects have been released in that area to reduce the seed source. To prevent introduction of new weeds, off-road equipment will be cleaned and inspected prior to entry into harvest areas. Newly disturbed roads and landing will be seeded to grass. There is low risk of direct or cumulative impacts to weeds

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.

Fisheries: There are no streams or surface water within the proposed treatment area and no aquatic life that would be impacted. The access road is well drained and is not a sediment source. For these reasons there is no risk of sedimentation or impacts to fish habitat.

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.

No sensitive or endangered fish species occur or would be affected off-site and there is no risk of direct, indirect or cumulative impacts to fisheries with the proposed thinning operation.

Recommended mitigations
Maintain drainage features on road as designated by forest officer. Bitterroot Forest salvage harvest use of the access road across DNRC lands should be required to maintain drainage and meet BMP's. Limit equipment to slopes less than 45% or as needed to avoid excessive disturbance that may cause overstocking of regeneration

The following table shows how each Threatened species, Endangered species, Sensitive species, or big game was either reviewed with anticipated effects of the proposal or dismissed because suitable habitat does not occur within the project area or proposed activities would not affect their required habitat components.

SPECIES/HABITAT	DETERMINATION – BASIS
THREATENED AND ENDANGERED SPECIES	
Grizzly bear (*Ursus arctos*) Habitat: Recovery areas, security from human activity	The project area is outside of any grizzly bear recovery zone or "occupied habitat" area as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger 2002). Proximity to human residences and other human developments likely limits habitat quality in the project area; use of the project area by grizzly bears is not likely. Thus no direct, indirect, or cumulative effect to grizzly bears would be anticipated.
Canada lynx (*Felis lynx*) Habitat: Subalpine fir habitat types, dense sapling, old forest, deep snow zone	No lynx habitats occur in the project area. Additionally, the project area is generally outside of the elevations where lynx are located in Montana. Thus, no direct, indirect, or cumulative effects would be anticipated to lynx.
SENSITIVE SPECIES	
Bald eagle (*Haliaeetus leucocephalus*) Habitat: Late-successional forest more than 1 mile from open water	The proposed project area is outside of any home range associated with bald eagle territories in the vicinity. Use of the project area by the pair is not likely. Given the distance from the nest, habitats present, timing of the proposed activities, and proximity to human developments, no direct, indirect, or cumulative effects to bald eagles would be anticipated.
Black-backed woodpecker (*Picoides arcticus*) Habitat: Mature to old burned or beetle-infested forest	No recently (less than 5 years) burned areas are in the project area. Thus, no direct, indirect, or cumulative effects to black-backed woodpeckers would be expected to occur as a result of either alternative.
Coeur d'Alene salamander (*Plethodon idahoensis*) Habitat: Waterfall spray zones, talus near cascading streams	No moist talus or streamside talus habitat occurs in the project area. Thus, no direct, indirect, or cumulative effects to Coeur d'Alene salamanders would be expected to occur as a result of either alternative.

Columbian sharp-tailed grouse (*Tympanuchus Phasianellus columbianus*) Habitat: Grassland, shrubland, riparian, agriculture	No suitable grassland communities occur in the project area. Thus, no direct, indirect, or cumulative effects to Columbian sharp-tailed grouse would be expected to occur as a result of either alternative.
Common loon (*Gavia immer*) Habitat: Cold mountain lakes, nest in emergent vegetation	No suitable lakes occur in the project area. Thus no direct, indirect, or cumulative effects to common loons would be expected under either alternative.
Fisher (*Martes pennanti*) Habitat: Dense mature to old forest less than 6,000 feet in elevation and riparian	No suitable fisher covertypes exist in the project area. Given the lack of habitat, the limited area, the proximity to human developments, and the surrounding landscape, no direct, indirect, or cumulative effects to fisher would be anticipated.
Flammulated owl (*Otus flammeolus*) Habitat: Late-successional ponderosa pine and Douglas-fir forest	Potential flammulated owl habitats exist in the project area. Proposed activities would open the stands up, which could improve flammulated owl foraging habitats and prescriptions would improve future quality by favoring those species used by flammulated owls for nesting and roosting. Retention of large ponderosa pine and large snags could facilitate flammulated owl use into the future. Thus, a low risk of adverse direct, indirect, or cumulative effects to flammulated owls would be anticipated with the proposed activities.
Gray Wolf (*Canis lupus*) Habitat: Ample big game populations, security from human activities	The suspected Brooks Creek wolf pack may be in the vicinity of the project area. Some use of the project area could occur, but proximity to residences and other human developments likely limits habitat quality for wolves. Negligible changes to big game use of the project area and minor changes to big game habitats would be anticipated with the proposed activities. No wolf den or rendezvous sites are known to occur in the vicinity; standard contract stipulations would address the potential of these habitat attributes occurring in the vicinity. Due to the minor changes to big game, lack of known habitat attributes, and inclusion of mitigation clauses in the contract, a low risk of adverse direct, indirect, or cumulative effects to wolves would be anticipated.
Harlequin duck (*Histrionicus histrionicus*) Habitat: White-water streams, boulder and cobble substrates	No suitable high-gradient stream or river habitats occur in the project area. No direct, indirect or cumulative effects to harlequin ducks would be expected to occur as a result of either alternative.
Mountain Plover (*Charadrius montanus*) Habitat: Short-grass prairie, alkaline flats, and prairie dog towns	No prairie dog colonies or other shortgrass prairie habitats occur in the project area. Thus, no direct, indirect, or cumulative effects to mountain plovers would be anticipated to occur as a result of either alternative.
Northern bog lemming (*Synaptomys borealis*) Habitat: Sphagnum meadows, bogs, fens with thick moss mats	No suitable sphagnum bogs or fens occur in the project area. Thus, no direct, indirect, or cumulative effects to northern bog lemmings would be expected to occur as a result of either alternative.
Peregrine falcon (*Falco peregrinus*) Habitat: Cliff features near open foraging areas and/or wetlands	An eyrie that has been active in the past exists roughly 0.75 miles from the project area. Peregrine falcons typically forage in habitats such as marshlands and croplands, which do not occur in the project area. Proposed activities would occur during the winter period, and would not likely extend into the early breeding season. Given the distance from the eyrie, aspect of the eyrie (facing away from the project area), lack of suitable habitats in the project area, and season of the proposed activities, a low risk of adverse direct, indirect, or cumulative effects to peregrine falcons would be anticipated.

Pileated woodpecker (*Dryocopus pileatus*) Habitat: Late-successional ponderosa pine and larch-fir forest	Limited potential pileated woodpecker foraging habitats exist in the project area. Few snags exist given the proximity to open roads and human residences. Retention of large ponderosa pine and existing snags could facilitate some pileated woodpecker use into the future. Thus, given the habitats present, proximity to human developments, and the small area, a low risk or adverse direct, indirect, or cumulative effects to pileated woodpeckers would be anticipated.
Townsend's big-eared bat (*Plecotus townsendii*) Habitat: Caves, caverns, old mines	No suitable caves or mine tunnels are known to occur in the project area. Thus, no direct, indirect or cumulative effects to Townsend's big-eared bats would be anticipated as a result of either alternative.
BIG GAME SPECIES	
Big game	The project area includes white-tailed deer, mule deer, and elk winter range. Year-round use by deer and elk is likely. Some reductions in thermal cover and snow intercept would be anticipated with the proposed harvesting, however much of the material proposed for removal was recently blowndown and therefore is not providing thermal cover or snow intercept capacities. Overall the negligible effects to winter range quality would have little or no effect on big game populations using the larger winter range. No elk security habitat exists in the project area and no changes in human access would be expected. Overall a low risk of adverse direct, indirect, or cumulative effects to big game would be anticipated.

Conclusion:
In general, the potential for effects to threatened and endangered species would be very low and overall negligible effects to wildlife would be anticipated. None of the extraordinary circumstances listed under ARM 36.11.447 (2) (b) and (i) affecting the wildlife resources would preclude the use of a categorical exclusion for this proposal.

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

An archeological review was done for the Sweeney Creek Timber Sale in 2003 and no known historical, archeological, or paleontological sites are present in the area.

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.

The action alternative is not expected to adversely affect views from US Highway 93; however, those driving through the project area will experience more open stand conditions and further site distances. Some noise from harvesting equipment and log hauling may be heard by adjacent landowners. This is expected to be short in duration and temporary (see also Logging & Truck Traffic).

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 Identified

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.

Sweeney Creek Ponderosa Pine Restoration Project for 126 acres of commercial thinning, 695 acres of ecosystem underburning, and 36 acres of boundary fuels treatment in Sections 17, 18,19, 20, & 21 of T10N R20W. Proponent: USDA Forest Service, November 1997; this is a planned project for the winter of 2011 that borders the West and Southwest portions of the proposed project area.

Sweeney Creek Timber Sale, March 2003; This project was completed on Section 16, T10N,R20W in 2005. Proponent: Department of Natural Resources, Southwestern Land Office, Hamilton Unit Office.

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.

All active sale roads would be posted in order to minimize potential truck traffic hazards and some log hauling restrictions may be necessary on Sweeney Creek Road # 1315 when students are traveling to and from school.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

No impacts

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.

No impacts

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 impacts

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

No impacts

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.

State Forest Management Plan

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.

Hunting, hiking and horseback riding are some of the activities enjoyed by the public on the section, especially adjacent landowners. The public has access to this tract by way of the Sweeney Creek Road (forest road 1315). The proposed harvest will not affect these activities.

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 impact

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

No impact

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

No impact

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.

Expected return:
Stumpage for Green Sawlogs (40 MBF)(5.93 tons/MBF) = 237.2 Tons X ($10.00/T = $2,372
Forest Improvement Charge for Green Sawlogs @ 31.31 MBF = $1,252.
Stumpage for Pulp and other products 98 Tons @ $1.00 = $98.00;

Total = $2,470 to the common school trust account and $1,252 to the Forest Improvement account.

EA Checklist Prepared By:	**Name:**	Paul Moore	**Date:**	12-5-2011
	Title:	DNRC, Hamilton Unit Manager		

V. FINDING

25. ALTERNATIVE SELECTED:

I select the proposed action (rather than no-action).
This alternative best meets the objectives of trust land management by recovering monetary value for the common school trust from wind thrown and beetle infested trees that would otherwise die and rot. Implementation of pre-commercial thinning on a portion of the project area will create favorable conditions for continued vigorous tree growth and future income generation opportunities through forest management. Placing logs and slash across unauthorized ATV trails will help to discourage use and reduce environmental damage (erosion, weeds, wildlife disturbance) caused by off road motorized use

I find that the environmental assessment (EA) checklist is the appropriate level of analysis. All resources and environmental values pertaining to the proposed action have been properly identified and thoroughly evaluated.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

	EIS		More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name:**	Robert H. Storer
	Title:	Southwestern Land Office, Deputy Area Manager
Signature: /s/ Robert H Storer		**Date**: December 6, 2011

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Sweeney Creek Salvage
Section 16 T10N, R20W
53 Acres

ATTACHMENT A
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