

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Rudge Match Timber Permit
Proposed Implementation Date:	7/19/11- 7/19/12
Proponent:	Montana DNRC, Clearwater Unit
Location:	SE 1/4 Sec 4 T14N R14W N 1/2 W1/2 Sec 2 T14N R14W
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

The Clearwater Unit is proposing to harvest up to 300 mbf of sawlog material from approximately 83 acres. The proposed harvest area is located 1-3 miles south and east of Clearwater Junction (Attachment A). Under the proposed action, DNRC would harvest ponderosa pine that is dead, dying, and susceptible to mountain pine beetle attack as well as Douglas-fir with poor growth characteristics (crook, sweep, fork, poor leader growth). This harvest will generate money for the trust, promote healthy ponderosa pine and western larch and reduce fuels near Clearwater Junction.

The lands involved in this proposed project are held in two separate trusts by the State of Montana. Section two is held in trust for the State Industrial School and Section four is held in trust for Pine Hills School (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and the DNRC are required by law to administer these trust lands to produce the largest measure of reasonable and legitimate return over the long run for the beneficiary institutions (Section 77-1-202, MCA). Specific objectives of the project are to capture value of dead and dying trees, prevent future value loss, and promote appropriate forest types within the project area.

II. PROJECT DEVELOPMENT

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

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

DNRC specialists were consulted, including: Mike McGrath, Wildlife Biologist (has since taken a position with another agency) and Jeff Collins, Hydrologist.

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

N/A

3. ALTERNATIVES CONSIDERED:

No Action: None of the proposed harvest would occur at this time. Current land use activities would continue.

Action: The Action Alternative: Under this alternative, DNRC would continue current uses, and also harvest dead and dying ponderosa pine, as well as those highly susceptible to mountain pine beetle. Douglas-fir with poor growth characteristics (crook, sweep, fork, poor leader growth) would also be harvested.

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.

This project will use existing landings and skid trails whenever possible. There will be no new road construction. Skidding will only be permitted on dry or frozen soils. Steeper slopes in the area are primarily winkler gravelly loam, areas of less slope are generally Yourame gravelly loam.

For Further details see comments in EA Part 5. Water Quality, Quantity & Distribution.

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.

No water quality impacts were observed from existing roads. No new roads would be constructed and standard BMP's and Forest Management Rules would be applied. This small scale project is on moderate slopes and has low risk of direct, indirect or cumulative effects to soils, water quality or fish resources and meets the procedural requirements for a Categorical Exclusion Project (ARM 36.11.447). The following items were considered.

- 1) No sites with high erosion risk were identified that would be affected.
- 2) No Federally listed threatened and endangered fish species or critical habitat for threatened and endangered fish species as designated by the USFWS would be affected by this project.
- 3) The project is not in a Municipal watershed.
- 4) No SMZ's or fish bearing streams would be affected.

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.

The DNRC is a member of the Montana/Idaho Airshed Group which was formed to minimize or prevent smoke impacts while using fire to accomplish land management objectives and/or fuel hazard reduction (Montana/Idaho Airshed Group 2006). The Group determines the delineation of airsheds and impact zones throughout Idaho and Montana. Airsheds describe those geographical areas that have similar atmospheric conditions, while impact zones describe any area in Montana or Idaho that the Group deems smoke sensitive and/or having an existing air quality problem (Montana/Idaho Airshed Group 2006). The project area is in Airshed 3b which encompasses much of eastern Missoula County. Currently, this airshed does not contain any impact zones. All prescribed burning would be approved by Missoula County using the daily phone approval site as well.

No Action: No slash piles would be burned within the project areas. Thus, there would be no effects to air quality within the local vicinity and throughout Airshed 3b.

Action: Under the Action Alternative, slash piles consisting of tree limbs and tops and other vegetative debris would be created throughout the project area during harvesting. These slash piles would ultimately be burned after harvesting operations have been completed. Burning would introduce particulate matter into the local airshed, temporarily affecting local air quality. Over 70% of emissions emitted from prescribed burning is less than 2.5 microns (National Ambient Air Quality PM 2.5). High, short-term levels of PM 2.5 may be hazardous.

Within the typical column of biomass burning, the chemical toxics are: Formaldehyde, Acrolein, Acetaldehyde, 1,4 Butadiene, and Polycyclic Organic Matter.

Burning within the project area would be short in duration and would be conducted when conditions favored good to excellent ventilation and smoke dispersion as determined by the Montana Department of Environmental Quality and the Montana/Idaho Airshed Group. Prior to burning a "Prescribed Fire Burn Plan" would be done for the area. The DNRC, as a member of the Montana/Idaho Airshed Group, would burn only on approved days. Thus, direct and indirect effects to air quality due to slash pile burning associated with the proposed action would be minimal.

Burning that may occur on adjacent properties in combination with the proposed action could potentially increase cumulative effects to the local airshed and the Class I Areas. The United States Forest Service and large scale industrial forestry operations in the area participate as airshed cooperators and operate under the same Airshed Group guidelines as the DNRC. Non-industrial timberland operators are regulated by the Montana Department of Environmental Quality and burning is only allowed during seasons that provide good ventilation and smoke dispersion.

Prior to burning be used, a "Prescribed Fire Burn Plan" will be been done for the area. Given these conditions the proposed action would show minimal risk of direct and indirect effects on air quality.

Cumulative effects to air quality would not exceed the levels defined by State of Montana Cooperative Smoke Management Plan (1988) and managed by the Montana Airshed Group. Prescribed burning by other nearby airshed cooperators (for example Plum Creek Timber Company) would have potential to affect air quality. All cooperators currently operate under the same Airshed Group guidelines. The State, as a member, would burn only on approved days. This should decrease the likelihood of additive cumulative effects.

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.

No Action: No harvest would occur at this time. Mountain pine beetle would likely continue to infest and kill ponderosa pine within the DRNC ownership and surrounding area. Some of the dead trees would likely be blown down creating openings within the stands. Over time, some natural conifer regeneration would probably establish in areas with a seed source and favorable microclimate. Douglas-fir would continue to perpetuate the area and crowd out western larch and ponderosa pine.

Action: DNRC would harvest and remove ponderosa pine that are dead, dying, or highly susceptible to mountain pine beetle attack as well as Douglas-fir with poor growth characteristics (crook, fork, sweep and poor leader growth). This action would allow additional sunlight and nutrients to reach the forest floor that were previously blocked by the closed canopy. The opportunity for natural regeneration would also increased after the canopy was opened up.

No rare plants have been identified in the project area. To prevent introduction of new weeds, off-road equipment will be cleaned and inspected prior to entry into harvest areas.

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: See comments in EA Part 4. **Geology and Soil Quality, Stability and Moisture.**

Terrestrial, Avian and Aquatic: This project meets the procedural requirements for a Categorical Exclusion (ARM 36.11.447).

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.

This project meets the procedural requirements for a Categorical Exclusion (ARM 36.11.447).

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

No historical or archaeological sites are known to exist within the project area. If a site is discovered operations would be halted immediately and DNRC archeologist Patrick Rennie would be notified. No direct, indirect, or cumulative effects to cultural resources are expected as a result of the proposed action.

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.

Any change to the scenery in the area from these alternatives would be in addition to past timber harvests, road building, vegetation management (grazing, pre-commercial thinning, etc.) and future fire activity within the project area. This analysis includes all past and present effects.

No Action: If the no action alternative is selected, patches created by dead trees will exist. The trees that would be killed by the beetle attack would lose all foliage, and eventually branches (over several years). Although the tree bole would still be in existence, this would not be very apparent in the distance, but would be more noticeable when observed close range. The color would be lighter than the current view after the attacked trees die. Thus, direct, indirect, and cumulative effects to aesthetics would be minimal.

Action: A small portion of this harvest would be visible from highway 200. Following the treatment the area visible from highway 200 will look almost unchanged except for the absence of red crowns. The remaining areas will be opened up and have a park like appearance conversely to the crowded and often closed canopy appearance that currently exists.

Through the proposed sale area, slash from the harvest would be noticeable yet temporary. Generally slash disappears from the site within five years, and is often covered by other vegetation within three years.

Harvest systems and activities would be ground-based. The skidding equipment and log trucks may cause temporary dust clouds that will quickly disperse and would only occur during harvest. The proposed harvest would most likely occur during the general "work week". Direct, indirect, and cumulative effects to aesthetics due to harvesting and hauling associated with the proposed action would be minimal.

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.

No impacts are likely to occur under either alternative.

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.

The following timber permits have been completed in this area:

Pitch Tube Baby: Sec 16 T14N R14W

Holy Beetles: Sec 2 T14N R14W.

Rudge Ridge: Section 2T14N R14W.

Squirrel Tail Timber Sale: Sec 16 T14N R14W

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.

Log truck traffic would increase slightly on area roads for the duration of the permits associated with the proposed action. Signs at appropriate locations on county roads and access roads would be used to warn motorists and local residents.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

The proposed action would lead to a small, temporary increase in industrial activity during implementation. The proposed action would include timber harvesting and log hauling.

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.

A few short time jobs would be created for the duration of the proposed action.

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.

The proposed action has only indirect, limited implications for tax collections.

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

Aside from contract administration, the impact on government services should be minimal due to the temporary nature of the proposed action.

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.

The DNRC operates under the State Forest Land Management Plan (SFLMP, DNRC 1996) and Administrative Rules for Forest Management (ARM 36.11.401 through 450, DNRC 2003). The SFLMP established the agency's philosophy for management of forested trust lands. The Administrative Rules provide specific guidance for implementing forest management projects

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.

Both sections are surrounded by private property, access is limited and the area receives little use by the general public. Therefore this project will have little effect on recreational and wilderness 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.

NONE: The project has no direct implications for density and distribution of population and housing

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No measurable impacts related to social structures and mores would be expected.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

No measurable impacts related to cultural uniqueness and diversity would be expected under either alternative.

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.

The proposed project should return approximately \$15,600 to the Pine Hills trust and \$7,800 to the State Industrial School trust at an estimated stumpage rate of \$12.00/ton. Estimated forest improvement fees generated from this permit will be \$6,266 to the Pine Hills trust and \$3,133 to the State Industrial School trust at a rate of \$4.82/ton.

EA Checklist Prepared By:	Name: Amy Helena	Date: 7/14/11
	Title: Management Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative

26. SIGNIFICANCE OF POTENTIAL IMPACTS

No significant impacts are to be expected due to this treatment. The harvest of bug infested trees should help reduce the local impact of the Mountain Pine Beetle infestation.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

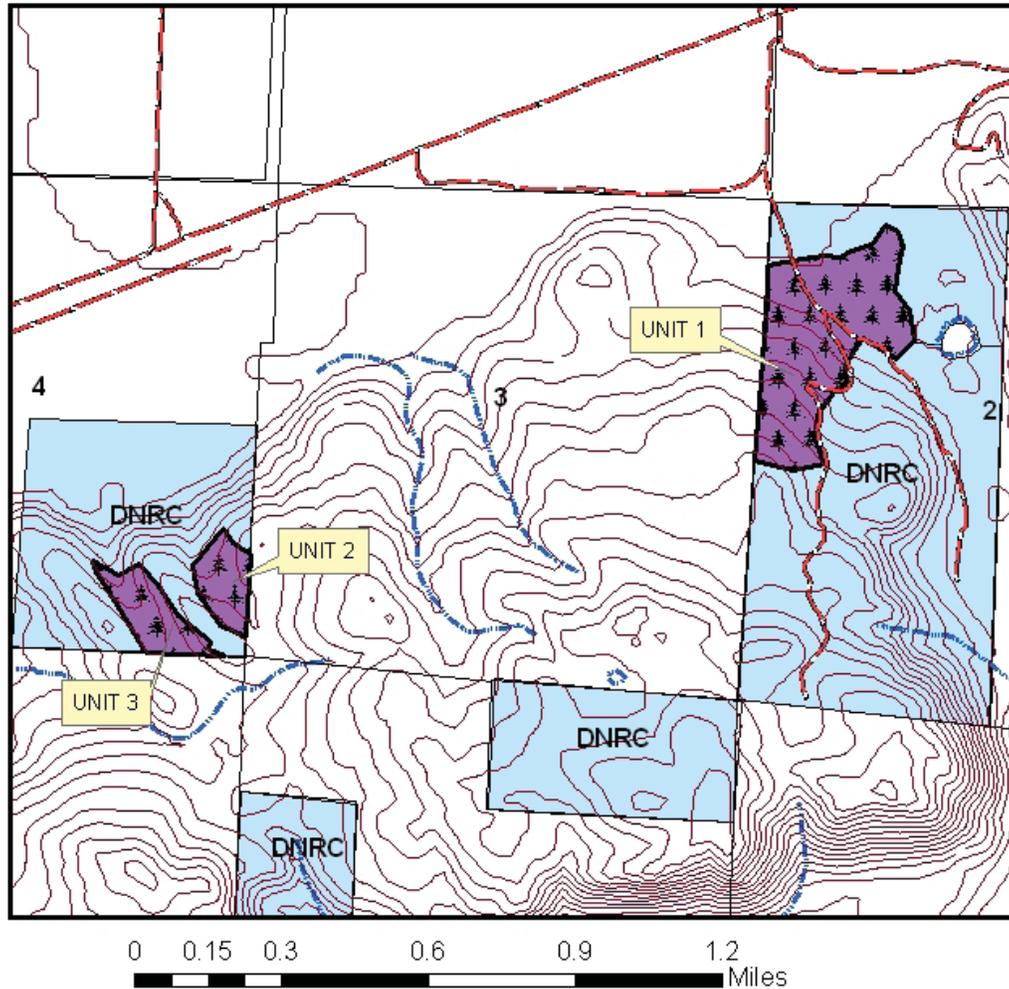
No Further Analysis

EA Checklist Approved By:	Name: Craig V. Nelson
	Title: Supervisory Forester, Clearwater State Forest
Signature: /s/ Craig V. Nelson	Date: 7/14/2011



RIDGE MATCH
Sections 2 & 4 T14N R14W
DNRC-CLEARWATER UNIT

Attachment A



Unit 1: Remove mountain pine beetle hit ponderosa pine.
Units 2 & 3: Retain all trees with a yellow horizontal stripe around the bole of the tree and all trees with a yellow "W".

Don't skid on slopes greater than 45%. Use existing landings and skid trails whenever possible.
Protect wildlife trees and snags whenever safety permits.

Unit Boundary: Blue Flags
Unit 2 & 3 Leave Trees: Yellow Paint



Unit 1: 59 acres
Unit 2: 11 acres
Unit 3: 13 acres

