CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	**Ashes Timber Permit**
Proposed Implementation Date:	**Late Winter 2013**
Proponent:	**Clearwater Unit, Montana DNRC – 612 application**
Location:	**Northeast of Fish Lake (Big Sky Lake), West of Woodworth, MT. Section 28 T16N R14W**
County:	**Missoula**

I. TYPE AND PURPOSE OF ACTION

This project analyzes the impact of a timber permit on State owned land in the Fish Creek drainage. The timber permit would harvest trees that are overstocked, provide fuel concerns along a main road used by neighbors to this DNRC parcel, and remove trees that are within the road prism. This area is part of the Montana DNRC wildland fire protection, and this harvest would provide a usable tool if fire threatened this area. This project will treat a majority of the slash produced in many places by equipment piling. Some potential pre-commercial thinning could also take place along a road that travels east from this location.

The Montana DNRC is proposing to harvest up to 100 thousand board feet of trees from this section. Harvesting would primarily involve removal of overstory trees. Harvesting and removal of pulp sized material would also take place providing there is an economic market. If there is not a viable pulp market, this material would be piled and burned. The need to skid logs across the neighboring Big Sky Lake Homeowners Association land would be necessary, as would the need for their logs to be skidded across the DNRC during this project. This has been tentatively approved by them, but a written permission slip would be found in the project file if this permit is sold. The objectives of the proposed action would be: 1) help reduce available wildland fuels especially in areas adjacent to private property; 2) improve the ingress and egress for neighboring residents in the occasion of a wildfire; 3) return the stand to a desired future condition that favors seral tree species; 4) remove trees that currently grow within the road prism and make maintenance more difficult; and 5) generate revenue for the trust beneficiary. All revenue would go to the Pine Hills Permanent (State Reform School) Trust and would be generated through the implementation of the proposed action.

The land involved in this proposed project is held by the State of Montana in trust for the Public Buildings (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). The DNRC would manage lands involved in this project in accordance with the State Forest Land Management Plan (DNRC 1996), the Administrative Rules for Forest Management (ARM 36.11.401 through 450), the recently adopted Habitat Conservation Plan, as well as other applicable state and federal laws. The DNRC, in coordination with the USFWS, has developed a Habitat Conservation Plan (HCP) for grizzly bear, lynx, bull trout, westlope cutthroat trout, and Columbia redband trout. The HCP is a required component of the application for an Incidental Take Permit.

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: Garrett Schairer, Wildlife Biologist; Jeff Collins, Hydrologist.

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

Montana Department of Environmental Quality (DEQ): Slash burning would be done in compliance with air quality rules and regulations through compliance with statewide cooperative smoke management agreements.

- All prescribed burning must also be approved by Missoula County Airshed Desk prior to ignition.

3. ALTERNATIVES CONSIDERED:

No Action
None of the proposed harvest would occur at this time. Other current land use activities and the recreational use would continue. No harvest or pre-commercial thinning of trees would take place. There would be no removal of trees within the road prism would take place.

Action Alternative
Under the Action Alternative, the DNRC would continue current land use activities. Harvest of timber (please see attached map) or pre-commercial thinning would be allowed. Removal of trees within the road prism would take place.

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.

The project area consists of one main soil series, the Wildgen soils are deep cobbly silt loams. Moisture content is a concern for these soils before and during harvest operations.

Alternative A No Action Alternative:
The effects of No-Action would be the same as those described under the existing conditions and are not expected to cause direct, indirect and cumulative impacts to soils.

Alternative B Action Alternative:
The proposed harvest would use ground-based harvest methods. Ground-based yarding can affect soil productivity through soil displacement and compaction of productive surface layers of soil, mainly on heavily used trails. Soil productivity can be greatly reduced with displacement of surface soils.

Removal of overstocked Douglas-fir and other species would use using existing roads. Proposed harvest is for less than 200 mbf (thousand board feet) and treatment of slash for fuels reduction. No unstable slopes or unique geology features are present. Soils are mainly Wildgen, deep cobbly silt loams, on 0-40% slopes. Erosion potential is moderate and soils are subject to rutting if operated on when wet. Previous selection harvest was mainly on moderate slopes and skid trails have revegetated with no apparent BMP departures. The planned salvage and fuels reduction project is on moderate terrain using existing landings and skid trails where feasible and dispersed skidding. To minimize soil impacts, operations will be limited to moderate slopes less than 40% and dry, frozen, or snow covered conditions.

Proposed ground skidding operations should have low risk of direct, in-direct and cumulative impacts based on implementing BMP's and mitigation measures. Mitigations include season of use limits, and retaining a portion of woody debris for nutrients, while providing of hazardous fuel reduction and prompt revegetation as needed to protect soil resources.
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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.

This small scale project is on moderate slopes and has low risk of direct, indirect or cumulative effects to water quality or fish resources and meets the procedural requirements for a Categorical Exclusion Project (ARM 36.11.447). The following items were considered. There are no streams, lakes or wetlands in the proposed salvage area. No sites with high erosion risk were identified that would be affected. The project is not in a

Municipal watershed. No SMZ's or fish bearing streams would be affected and there is low risk of water quality impacts from use of existing roads. No new roads would be constructed and standard BMP's and Forest Management Rules would be applied.

Salvage harvest would occur on a minor area, during dry, frozen or snow covered ground conditions with an effort to minimize ground disturbance. Skid trails would be stabilized by slashing and installing drainage where needed to prevent erosion. There is very low potential for sediment delivery. All disturbed roads and landings would have be stabilized and grass seeded where needed to control erosion. The small dispersed salvage harvest would not measurably affect water yields in the area. Based on implementation of BMP's, Forest Management Rules and mitigation measures, there is very low risk of direct, in-direct or cumulative effects to water quality or water resources.

Existing Water Yield
Water yield was not calculated for this drainage because there is no return flow to any other body of water and the existing channel is intermittent and discontinuous.

Alternative A No Action Alternative:
Under the No Action Alternative, no roads need to be maintained and access is restricted to foot traffic only. There would be no risk of direct, indirect or cumulative impacts to the resource.

Alternative B Action Alternative:
All harvest would be done in a manner to reduce potential sediment delivery to the adjacent draw.

A buffer zone required under the HCP is not needed in this case. As a result of implemented mitigation measures, direct, indirect and cumulative impacts are expected to be minimal.

Cumulative effects:
Although timber harvesting can affect the timing and amount of runoff, this harvest would be done to remove trees that are either dead are or most likely become dead within a short period of time. The small scale of this project would not affect water yield or sediments. Skid trails would be stabilized by slashing and installing drainage where needed to prevent erosion. Based on implementation of BMP's, Forest Management Rules and mitigation measures, there is very low risk of direct, in-direct or cumulative effects to water quality or water resources.

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 includes an impact zone near Seeley Lake. This project is located approximately 5 miles southeast of Seeley Lake, Montana and 3 miles west of Woodworth, Montana. The Bob Marshall Wilderness area lies approximately 9 miles north of the project area. This wilderness area exceeds 5,000 acres and as such, is considered a Federal Class I Area that ultimately receives protection under the Federal Clean Air Act of 1977.

No Action: Under the No Action Alternative slash piles would not be created or burned. 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. Thus, cumulative effects to air quality due to slash pile burning associated with the proposed action would also be expected to be minimal.

Harvesting and log hauling could create dust which may affect local air quality. Harvesting operations would be short in duration and could occur during the winter months which would minimize dust dispersal. Thus, direct, indirect, and cumulative effects to air quality due to harvesting and hauling associated with the proposed action would be minimal.

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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.

RARE PLANTS AND NOXIOUS WEEDS ANALYSIS

No rare plants have been identified in the project area. To prevent introduction of new weeds, off-road equipment will be cleaned prior to entry into harvest areas. Newly disturbed roads and landings may be seeded to grass to reduce the spread of weeds if necessary. Noxious weed spread would not be greatly increased by this action or cause cumulative impacts to vegetation based on the mitigation measures.

STANDARD VEGETATIVE COMMUNITY

The project area consists primarily of a mixed conifer stand that is primarily contains ponderosa pine, western larch, and Douglas-fir. Most of the project area is in the sawtimber size class and has moderate total stocking. Areas of smaller (pulp-sized) trees occur within the project area.

At the larger scale, DNRC lands managed by the Clearwater Unit are approximately 85% forested, mostly in the ponderosa pine and western larch/Douglas-fir cover types. Compared to the desired future condition at this scale, Douglas-fir, subalpine fir, and mixed-conifer cover types are slightly over-represented while ponderosa pine and western larch/Douglas-fir are slightly under-represented. Overall, however, about 84% of these lands do have a cover type that matches the desired future condition. This area falls within climatic section 332B, which was historically about 79% forested. Within the climatic section, the historically dominant cover type was Douglas-fir and ponderosa pine on lower slopes (Losensky, 1997).

Stand structure characterizes stand development, disturbances, and how a stand may continue to develop. Stand structure found on this section is primarily multi-storied. Much of this structure is the result of past harvesting. With regard to Clearwater Unit, there is a more even distribution of the various stand structure types.

DNRC has adopted old-growth definitions based on Green et al. (1992). The stands proposed for harvest are around 130 years of age. None of these stands meet the age requirement for old growth specified by Green et al (1992).

No Action
No harvest or road re-location would occur at this time. Compared to the existing condition, no immediate changes would be expected. The increased fuel loading within these stands could become a concern as time continues. Over time, some natural conifer regeneration, likely to be Douglas-fir, would establish in areas given the seed source and favorable microclimate. Weed treatment would occur as funding allows. No changes to the existing fuels would occur and the concern over the ingress / egress for Fish Lake (Big Sky Lake) residents and the ability for Clearwater to defend the residences if there are larger fires within the area.

Action
The silvicultural plan is to remove a larger portion of the stands along the road that is used by Big Sky Lake Homeowners. Areas will be more open than they are currently. The harvest of this overstory will serve three main purposes; 1) reduction of stand density which will reduce the opportunity for a crown fire to exist, 2) to make a general switch to seral species such as ponderosa pine and western larch with a reduction in Douglas-fir, 3) and to provide income to the Pine Hills trust. The proposed pre-commercial thinning would also reduce the overstocked trees that also are also a fuel source in the event of a wildfire. Changes to the vegetation would include an immediate reduction in numbers. The remaining trees would have increased growth as more resources would be available per tree. This would also allow the potential for regeneration of the seral species.

Fuel loading within these stands would decrease. Reduction of the standing stems by the harvest of trees would reduce standing fuels. Piling of logging and pre-commercial slash created by these projects at the landing or within the stand would reduce slash fuel concerns. This piling "consolidates" slash that would be at the harvest landing or still within the logging or pre-commercial thinning unit into smaller piles throughout the stand. This creates a situation where the DNRC is able to burn the fuel created, do it safely with fewer people, and it will create small openings that can support future seedlings in harvest areas.

To prevent introduction of new weeds, off-road equipment would be cleaned and inspected prior to entry into harvest areas. Newly disturbed roads and landing would be seeded to grass. Roadsides with existing weeds may be treated with herbicide given funding to do so. The proposed action of timber harvest would be expected to result in no measurable direct, indirect, and cumulative impacts on forest vegetation.

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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.

No streams supporting fish or stream segments with connectivity to down slope fisheries occur within the proposed harvest area. There is low potential for sediment delivery or effects to fish habitat. Based on no operations near streams and low potential effects to water quality, there is low potential for direct, in-direct or cumulative effects to fish habitat or aquatic life with the proposed action.

Terrestrial Wildlife: Deer and elk likely use the project area much of the year; deer and elk winter range exists in the project area. No elk security habitats exist in the project area. Some use by those wildlife species using mature forested stands could occur.

No-Action Alternative
No change from the existing condition would occur. Thus, no adverse direct, indirect, or cumulative effects would be anticipated with the no-action alternative.

Action Alternative
This alternative would alter habitats for those wildlife species requiring mature forests that may be using the area, while creating habitats for species needing more open stands. Proposed harvesting would reduce canopy closure, which could alter snow intercept and thermal cover for big game. Thus, a low risk of adverse direct, indirect, or cumulative effects would be anticipated with the proposed activities. ***(The complete wildlife checklist can be found in attachment B).***

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.

DNRC is managing the habitats of threatened and endangered species on this project by implementing the Montana DNRC Forested Trust Lands Habitat Conservation Plan (HCP) and the associated Incidental Take Permit (Permit) that was issued by the United States Fish & Wildlife Service (USFWS) in February of 2012 under Section 10 of the Endangered Species Act. The HCP identifies specific conservation strategies for managing the habitats of grizzly bear, Canada lynx, and three fish species: bull trout, westslope cutthroat trout, and Columbia redband trout. This project complies with the HCP. The HCP can be found at www.dnrc.mt.gov/HCP.

Fisheries- 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

The following species were considered but eliminated from detailed study due to lack of habitat present: Peregrine Falcon, Common Loon, Harlequin Duck, Townsend's Big-eared Bat, Coeur d'Alene Salamander, Northern Bog Lemming, Mountain Plover, Fisher, and Columbian Sharp-tailed Grouse.

Terrestrial Wildlife: Potential habitats for grizzly bears and Canada lynx exist in the project area. Potential habitat exists in the project area for gray wolves, fisher, flammulated owls, and pileated woodpeckers. Habitats for any of the other sensitive species are not found in the project area.

No-Action Alternative

No appreciable changes would occur. Thus, no direct, indirect, and cumulative effects to grizzly bears, Canada lynx, gray wolves, fisher, flammulated owls, or pileated woodpeckers would be expected.

Action Alternative

Should proposed activities occur during the denning period, no direct effects would occur to grizzly bears; otherwise activities would occur during time periods when grizzly bears would least likely to be using areas. Activities would occur in areas likely receiving less use by grizzly bears due proximity to open roads and human developments. Generally, a low risk of direct, indirect, or cumulative effects to grizzly bears would be anticipated. Proposed activities would avoid Canada lynx habitats, thus no effects to lynx would be anticipated. Proposed activities could cause slight shifts in use by wolves and their prey, however, no key habitat components are known to exist in the project area and long-term use is not expected to appreciably change. Thus, a low risk of direct, indirect, and cumulative effects to gray wolves could occur. Proposed harvesting in dry, less suitable upland fisher habitats could occur. Thus a low risk of direct, indirect, or cumulative effects to fisher would be anticipated. Potential flammulated owl and pileated woodpecker habitats exist in the project area. Proposed harvesting would open up the canopy, which would reduce the quality of habitats for pileated woodpeckers, but could improve the quality of habitats for flammulated owls. The proposed harvest area would blend with adjacent, open stands resulting from past harvesting, which would be expected to have additive effects to each of those species. Thus, a low risk of direct, indirect, or cumulative effects to pileated woodpeckers and flammulated owls would be anticipated. ***(The complete wildlife checklist can be found in attachment B).***

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

No archaeological sites are known to exist within the general area of this timber permit.

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, stand development will continue. Regeneration from existing Douglas-fir would continue. Thus, direct, indirect, and cumulative effects to aesthetics would be minimal.

Action
The proposed sale would barely be visible from the road that is used by Fish Lake (Big Sky Lake) residents. It will not be visible from Fish Lake (Big Sky Lake) itself given the rolling hills that are in this general area. The project area is behind a locked gate and isn't visible by the general population. Large portions of the proposed harvest unit and pre-commercial thinning would be blocked from view by topography or by vegetation. The removal of trees within the area is expected to change the general stocking. Areas along the roadway would be harvested to reduce potential fuels and to promote seral species. This may be noticeable after the harvest, but the viewers eye will focus upon the larger ponderosa pine that will be easily viewed. Over the long term, these areas would become "normal" to the viewer.

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. Again, sites would be generally lighter in color than can be seen currently. Slash is proposed to burned in slash piles and these piles will be away from the roadway.

Harvest systems and activities would be ground-based. These activities would be quite audible, and, depending upon air conditions, equipment could be heard many miles from their location. The proposed harvest would most likely be done 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.

Environmental Assessments for the Sour Fish Timber Sale (TS-1404),Tippers Timber, Timber Permit. (TP-15,129), Kozy Tepee Letter Permit (L-15,190), and the Bandy Poles Letter Permit (L-15,228) are recent or current agreements on or near this parcel. As stated in Section 9, the DNRC is currently employing the Habitat Conservation Plan.

No effects (cumulative or immediate) are expected from these actions regarding the Action or No-Action and past uses. No other uses are planned for this section currently.

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 proposed action. Signs in the general area would be used to warn motorists and local residents. The reduction of the potential capability of residents leaving the Big Sky Lake area in a wildfire situation, the concern regarding fuels on DNRC land adjacent to private property in the event of a wildfire, and the potential in-growth of conifers on this road and the increasing cost of maintenance, are all concerns that are addressed by this timber permit and pre-commercial thinning.

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 minor temporary increase in 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-term jobs in the local area 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 has adopted the HCP for several terrestrial and aquatic species and continues to use the State Forest Land Management Rules.

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 project area receives use by walk-in recreationists. Recreation opportunities would continue under the proposed action

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.

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.

The proposed action has no direct implications for social structures and mores.

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

The proposed project has no direct implications for cultural uniqueness and diversity.

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.

No Action: The existing grazing lease on this DNRC parcel would continue. Other activities would be looked at again in the future. Smaller stems would establish and continue to grow. No cooperative uses of the area would occur without proper licensing. No removal of roadside trees would take place and the costs of maintaining this road would remain the same or increase.

Action: This project should return to the Pine Hills (State Reform School) trust approximately $7,150.00 in stumpage. The total amount of forest improvement money that is projected should be $2,268.50. This number is calculated by multiplying the expected sawlog volume 650 tons or 100 mbf. (approximately 6.5 tons per thousand), and the amount paid to the DNRC (including forest improvement fees and stumpage for non sawlog

material). For sawlog, an estimated price of $11.00 / ton ($71.5 / mbf.) will be paid and the money collected for forest improvement projects will be $3.49 / ton ($22.72 / mbf.). Stumpage payments for non-sawlog material will be $100.00 paid lump sum. The overall total should be around $9,518.50.

Costs related to the administration of the timber sale program are only tracked at the Land Office and Statewide level. DNRC doesn't track project-level costs for individual timber sales. An annual cash flow analysis is conducted on the DNRC forest product sales program. Revenue and costs are calculated by land office and statewide. These revenue-to-cost ratios are a measure of economic efficiency. The most recent revenue-to-cost ratio of the Southwestern Land Office was 1.16. This means that, on average, for every $1.00 spent in costs, $1.16 in revenue was generated. Costs, revenues, and estimates of return are estimates intended for relative comparison of alternatives. They are not intended to be used as absolute estimates of return.

Cooperative uses of the area would occur without the need for proper licensing. This would include use of skid trails, landings, and roads that would be used by both the DNRC and the Big Sky Homeowners during this project.

Removal of trees that are in the road prism would occur and this would improve the ability to maintain this road at a lower cost (easier ability to blade snow, easier ability to bring smaller materials back onto the road while blading, etc.).

EA Checklist Prepared By:	**Name: Craig V. Nelson**	**Date: February 5, 2013**
	Title: Supervisory Forester, Clearwater Unit	

V. FINDING

25. ALTERNATIVE SELECTED:

I select the action alternative.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts are expected from this action. Reducing fuel loads and enhancing forest health while opening the canopy along the access road will benefit Pine Hill Trust and the Big Sky Development on Fish Lake for fire control and future management opportunities.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐	EIS	☐	More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name: Dave Poukish** **Title: Unit Manager, Clearwater Unit**
Signature: /s/ David M. Poukish	**Date**: **2/6/13**

Memorandum

To: Craig Nelson, Project Leader

From: Garrett Schairer, Wildlife Biologist

Date: 12/13/2012

Re: Ashes Project -wildlife comments

I completed the analysis for the terrestrial wildlife resources for the proposed Ashes TP project. The sections are included below, along with the completed wildlife table, and lastly suggestions on how to address the HCP checklist.

Section 8-

Terrestrial Wildlife: Deer and elk likely use the project area much of the year; deer and elk winter range exists in the project area. No elk security habitats exist in the project area. Some use by those wildlife species using mature forested stands could occur.

No-Action Alternative

No change from the existing condition would occur. Thus, no adverse direct, indirect, or cumulative effects would be anticipated with the no-action alternative.

Action Alternative

This alternative would alter habitats for those wildlife species requiring mature forests that may be using the area, while creating habitats for species needing more open stands. Proposed harvesting would reduce canopy closure, which could alter snow intercept and thermal cover for big game. Thus, a low risk of adverse direct, indirect, or cumulative effects would be anticipated with the proposed activities. ***(The complete wildlife checklist can be found in attachment B).***

Section 9-

Terrestrial Wildlife: Potential habitats for grizzly bears and Canada lynx exist in the project area. Potential habitat exists in the project area for gray wolves, fisher, flammulated owls, and pileated woodpeckers. Habitats for any of the other sensitive species are not found in the project area.

No-Action Alternative

No appreciable changes would occur. Thus, no direct, indirect, and cumulative effects to grizzly bears, Canada lynx, gray wolves, fisher, flammulated owls, or pileated woodpeckers would be expected.

Action Alternative

Should proposed activities occur during the denning period, no direct effects would occur to grizzly bears; otherwise activities would occur during time periods when grizzly bears would least likely to be using areas. Activities would occur in areas likely receiving less use by grizzly bears due proximity to open roads and human developments. Generally, a low risk of direct, indirect, or cumulative effects to grizzly bears would be anticipated. Proposed activities would avoid Canada lynx habitats, thus no effects to lynx would be anticipated. Proposed activities could cause slight shifts in use by wolves and their prey, however, no key habitat components are known to exist in the project area and long-term use is not expected to appreciably change. Thus, a low risk of direct, indirect, and cumulative effects to gray wolves could occur. Proposed harvesting in dry, less suitable upland fisher habitats could occur. Thus a low risk of direct, indirect, or cumulative effects to fisher would be anticipated. Potential flammulated owl and pileated woodpecker habitats exist in the project area. Proposed harvesting would open up the canopy, which would reduce the quality of habitats for pileated woodpeckers, but could improve the quality of habitats for flammulated owls. The proposed harvest area would blend with adjacent, open stands resulting from past harvesting, which would be expected to have additive effects to each of those species. Thus, a low risk of direct, indirect, or cumulative effects to pileated woodpeckers and flammulated owls would be anticipated. ***(The complete wildlife checklist can be found in attachment B).***

CHECKLIST ENVIRONMENTAL ASSESSMENT

For

Endangered, Threatened and Sensitive Species

Threatened and Endangered Species	[Y/N] Potential Impacts and Mitigation Measures N = Not Present or No Impact is Likely to Occur Y = Impacts May Occur L = Low Potential for Effects
SPECIES/HABITAT	**DETERMINATION – BASIS**
THREATENED AND ENDANGERED SPECIES	
Grizzly bear (*Ursus arctos*) Habitat: Recovery areas, security from human activity	[L] The project area is roughly 4 miles from the NCDE Recovery Area and is in the '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). Should proposed activities occur during the denning period, no direct effects would occur to grizzly bears, otherwise activities would occur during time periods when grizzly bears would least likely be using the area. Additionally, activities would occur in areas likely to receive less use by grizzly bears due to the proximity to human developments. Thus a low risk of adverse 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	[N] Trace amounts of lynx habitats occur in the project area, but proposed activities would not occur near those habitats. 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	[N] The proposed project area is outside of any home range associated with bald eagle territories in the vicinity. Thus, 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	[N] No preferred, 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	[N] 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	[N] 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	[N] 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	[L] Roughly 80 acres of lower-quality, upland habitats exist in the proposed project area, however given the species composition and the relatively dry nature of the area, little or no use by fisher would be anticipated. Existing habitats and the elevated human disturbance levels in the vicinity likely limits fisher use of the proposed project area. Thus, a low risk of adverse direct, indirect, or cumulative effects to fisher would be anticipated with the proposed activities.

Flammulated owl (*Otus flammeolus*) Habitat: Late-successional ponderosa pine and Douglas-fir forest	[L] 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. Proposed harvesting would also partially blend with areas harvested in the past, further contributing to potential flammulated owl habitats. 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	[L] The project area is in the vicinity of the suspected Morrell Mountain wolf pack. Some use of the project area could occur. 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	[N] 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	[N] 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	[N] 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	[N] No preferred cliffs or suitable rock outcrops suitable for use by peregrine falcons occur on, or within 1 mile of the proposed project area. Thus, no direct, indirect, or cumulative effects to peregrine falcons would be anticipated as a result of either alternative.
Pileated woodpecker (*Dryocopus pileatus*) Habitat: Late-successional ponderosa pine and larch-fir forest	[L] Potential pileated woodpecker foraging habitats exist in the project area. Retention of large ponderosa pine and existing snags could facilitate some pileated woodpecker use into the future. Proposed harvesting would reduce quality of available habitats, and would partially blend with areas harvested in the past. 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	[N] No suitable caves or mine tunnels are known to occur in the project area or vicinity. 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	[L] 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. 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.

As for the **terrestrial wildlife portions** of the HCP checklist, you will need to check the following on the Project_Info_&_Instructions tab:

GB-PR
GB-NR
LY-HB
LY-LM

On the HCP_Checklist tab answer as follows:
GB-PR4 - Yes (I assume)
GB-PR5 - N/A
GB-PR6 – NA if no RMZs/WMZs (I believe)
GB-PR7 - N/A
GB-PR8 – N/A

GB-NR1 – N/A (I assume)
GB-NR2 – N/A
GB-NR3.1 –Yes, allowance #2 include EA language
GB-NR3.2 – Yes
GB-NR4 – N/A

LY-HB 2.1 – Yes
LY-HB 2.3 – N/A
LY-HB 3 – N/A
LY-HB 4.1 – N/A
LY-HB 4.2 – N/A
LY-HB5 – N/A
LY-HB 6 – N/A

And in the comments for LY-HB 2.3; LY-HB4.1, LY-HB4.2, LY-HB 5, and LY-HB6 add the following comment in the comment field:
"No lynx habitat"

January 2, 2013

TO: Craig Nelson, Garrett Schairer, Jon Hayes
FROM: Jeff Collins
RE: Ashes-Fish Lake 612 Permit in Section 28, T16N-R14W

The following are my hydrology, soil, geology and noxious weeds environmental checklist assessment for the proposed permit. This project would qualify for a CATEX, but I added details if a checklist is completed.

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.

Removal of overstocked Douglas fir and salvage of dead and dying Ponderosa Pine from mountain Pine beetle, using exiting roads. Proposed harvest is for less than 200 mbf (thousand board feet) and treatment of slash for fuels reduction. No unstable slopes or unique geology features are present. Soils are mainly Wildgen deep cobbly silt loams on 0-40% slopes. Erosion potential is moderate and soils are subject to rutting if operated on when wet. Previous selection harvest was mainly on moderate slopes and skid trails have revegetated with no apparent BMP departures. The planned salvage and fuels reduction project is on moderate terrain using existing landings and skid trails where feasible and dispersed skidding. To minimize soil impacts, operations will be limited to moderate slopes less than 40% and dry, frozen or snow covered conditions.
Planned ground skidding operations should have low risk of direct, in-direct and cumulative impacts based on implementing BMP's and mitigation measures. Mitigations include season of use limits, and retaining a portion of woody debris for nutrients, while providing of hazardous fuel reduction and prompt revegetation as needed to protect soil resources.

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.

This small scale project is on moderate slopes and has low risk of direct, indirect or cumulative effects to water quality or fish resources and meets the procedural requirements for a Categorical Exclusion Project (ARM 36.11.447). The following items were considered. There are no streams, lakes or wetlands in the proposed salvage area. No sites with high erosion risk were identified that would be affected. The project is not in a Municipal watershed. No SMZ's or fish bearing streams would be affected and there is low risk of water quality impacts from use of existing roads. No new roads would be constructed and standard BMP's and Forest Management Rules would be applied.

Salvage harvest would occur on a minor area, during dry, frozen or snow covered ground conditions with an effort to minimize ground disturbance. Skid trails and temporary roads would be stabilized by slashing and installing drainage where needed to prevent erosion. There is very low potential for sediment delivery. All disturbed roads and landings would have be stabilized and grass seeded where needed to control erosion. The small dispersed salvage harvest would not measurably affect water yields in the area. Based on implementation

of BMP's, Forest Management Rules and mitigation measures, there is very low risk of direct, in-direct or cumulative effects to water quality or water resources.

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.

Rare plants and Noxious Weeds Analysis:
No rare plants have been identified in the project area. To prevent introduction of new weeds, off-road equipment will be cleaned prior to entry into harvest areas. Newly disturbed roads and landings will be seeded to grass to reduce the spread of weeds. Noxious weed spread would not be greatly increased by this action or cause cumulative impacts to vegetation based on the 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.

No streams supporting fish or stream segments with connectivity to down slope fisheries occur within the proposed harvest area. There is low potential for sediment delivery or effects to fish habitat. Based on no operations near streams and low potential effects to water quality, there is low potential for direct, in-direct or cumulative effects to fish habitat or aquatic life with the proposed action.

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 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.

Proposed Ashes timber permit