

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Cleared Pre-commercial Thinnings and timber permit
Proposed Implementation Date:	Summer 2011 – Fall 2015
Proponent:	Clearwater Unit – MT DNRC
Location:	Sections 18,19, 20, 30 and 32 T 15N, R 14W M.P.M.
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

These projects are multi year, multi contract pre-commercial thinnings and a timber permit. Work would be completed primarily contract labor. There is the possibility of using unit fire crews for small portions of these thinnings, but the general size will make them unable to be done by small, non-professional crews. This project would cut sub-merchantable trees to promote seral species, and increase annual growth of crop trees. The severing of these stems increases the amount of usable sunlight, water, and nutrients for the remaining stems. This project may require slash treatment in the form of hand piling and burning, or lopping and scattering. The small timber permit that would be put up for bid is designed to salvage ponderosa pine that have been attacked and infested with mountain pine beetle.

The total project area covers over 650 acres. A majority of these acres have been commercially treated in the past ten years. The Timber Sales associated with these treatments were Clearwater River Numbers 1,2, and 3. This undertaking may consist of several smaller thinning projects. The timber permit would be harvested early this summer. The thinnings would take place over the next five-year period depending on time. These projects would be accomplished given availability of fire crew assistance, volunteer help, and budget constraints that would affect funding for pre-commercial thinnings, and the quality of the wood for sale.

The objectives of the permit part of this project are to:

- 1) Salvage dead and dying timber before it loses its economic value,
- 2) Reduce the susceptibility of residual trees to epidemic insect infestations,
- 3) Reduce potential fuel concentrations after harvest,

The lands involved in this project are held by the State of Montana in trust for the support of specific beneficiary institutions such as public schools & state colleges (Enabling Act of February 22, 1889; 1972 Montana Constitution, Article X, Section 11). The Board of Land Commissioners and Department of Natural Resources and Conservation (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 these beneficiary institutions (Section 7 –1–202, MCA). In 2003, the DNRC adopted Administrative Rules for Forest Management ARM 36.11.401-36.11.450 (the "Rules"). This project is planned and developed in accordance with the Rules.

II. PROJECT DEVELOPMENT

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

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

Mike McGrath, DNRC Wildlife Biologist, Jeff Collins, DNRC Soils Scientist / Hydrologist were the specialist contacted. Jon Hayes, DNRC Area Silviculturist, provided approval of the idea of the pre-commercial thinning, and various other DNRC employees that gave advice regarding wildland fuel concerns within this area.

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

None

3. ALTERNATIVES CONSIDERED:

Alternative A: No Action

Alternative B: Pre-commercial thinning and timber permit (action)

III. IMPACTS ON THE PHYSICAL ENVIRONMENT
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| <ul style="list-style-type: none">• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i> |
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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.

None. Soils across the areas are mainly cobbly silt loams (Glacier Creek, Yourname, and Bigarm). Other soils are gravelly loams (Totelake stoney loams, Wildgen Dry – Winkler Complex and Perma gravelly loams). Some of these areas have gravelly soils (Perma) where the shallow surface soils will retain the water on the site. These areas, if they are part of the timber permit, must be protected. No high erosion sites were identified and no soil disturbance expected with hand crew labor on thinning areas. Pre-commercial thinning does not use motorized vehicles off of established roads and only use them to access thinning units. No roads will be constructed and there is very low risk of soil disturbance, direct, in-direct or cumulative effects with the proposed action.

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 project covers a radius of over 2 miles. It will include potentially 10 thinning units that range in size from 5.5 acres to 172 acres that are not located in riparian areas. One unit will be located outside the SMZ (streamside management zone). No treatment would be done in this area and this would keep the existing shade on the stream after the thinning.

No high erosion risk soils were identified in the proposed project sites. These soils are excessively drained and primarily have minor slopes. No ground disturbance in the thinning units is expected from hand labor except for small spot burning of hand piled slash. The thinning crews would use existing roads and there is low risk of soil erosion or sedimentation during this project. This would not affect sedimentation. The proposed timber permit would be done during the summer and would also be far from any larger body of water. Some smaller potholes would be adjacent to some treatment, but the SMZ law would be followed. Given these conditions the proposed action would show minimal risk of direct, indirect, or cumulative effects on water quality, quantity, and distribution as a result of the proposed action.

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. This project is located approximately 7 miles south of Seeley Lake, Montana. The Bob Marshall Wilderness area lies approximately 13 miles north northeast 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.

All prescribed burning would be approved by Missoula County using the daily phone approval site as well.

No Action: Under the No Action Alternative, 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

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.

RARE PLANTS AND WEEDS

No rare plants have been identified in the project area. Weeds that are common to the area, such as knapweed, houndstongue, and thistle occur along the roads and open areas found on this section.

STANDARD VEGETATIVE COMMUNITY

The project area consists primarily of cover types of ponderosa pine and Douglas-fir/western larch. Some of these cover types have a component of lodgepole pine and Englemann spruce. Most of the project area is in the sawtimber size class and has low to moderate total stocking. Stands within the project area currently have a high susceptibility and risk of mountain pine beetle damage, based on the species (ponderosa pine and lodgepole pine), age, stand density, elevation, and existing mountain pine beetle presence. Areas of smaller ponderosa pine within the project area are dead, infested, or at risk from attack by mountain pine beetle.

Other areas, where the proposed pre-commercial thinnings are planned, have understory levels that are highly overstocked. These parts

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 lodgepole pine, followed by 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 with the exception of older plantations where it is more single 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). A majority of the stands that are used to create salvage units for the proposed timber permits have ages that are between 40 and 149 years of age. The areas of potential pre-commercial thinning may enter these older stands as understory would be treated, but may be in a younger stand age class. None of these stands meet the age requirement for old growth specified by Green et al (1992).

Stands targeted for pre-commercial thinning would be in areas where existing trees per acre are often over 4,000 stems.

No Action

No harvest or pre-commercial thinning would occur at this time. Compared to the existing condition, no immediate changes would be expected. Mountain pine beetle would likely continue to infest and kill ponderosa and lodgepole pine within the DRNC ownership and surrounding area. The increased fuel loading within these stands could become a concern as these trees die. With the existing rate of infestation, and the likelihood that dead trees will be blown down, openings would occur within the stands regardless of harvest. As the attack of these beetles is a natural event, it is conceivable that the sale area has experienced it in the past. Over time, some natural conifer regeneration would probably establish in areas with a seed source and favorable microclimate. Areas that are not pre-commercially thinned would continue to grow at their reduced rate and the fuel conditions would not be treated. Weed treatment could occur as funding allows.

Action

The silvicultural plan is to remove recently killed, green infested, and potentially affected green ponderosa and lodgepole pine. Some Douglas-fir would be removed, but would primarily be done on skid trails and if damaged during the falling process of the timber permit. This would remove trees that are being, or have been attacked by the mountain pine beetle, and trees within an area that are highly susceptible to the beetle attack. These areas will be more open than they are currently. Areas of pre-commercial thinning would see a decrease in

stems from the numbers seen now. These stands are overstocked and are also a fuel source in the event of a wildfire. Given the locality of an open road and the near-by highway this is of some concern. Changes to the vegetation would include an immediate reduction in numbers of live and dead pine trees. Other species, including western larch, and Douglas-fir would be retained. The remaining trees would have increased growth as more resources would be available per tree.

Areas of pre-commercial thinning would reduce existing stands of 4,000 to 13,000 stems per acre down to a more healthy 150 to 250 stems per acre. This would reduce senescence within the stand and also the available fuel quantity.

Fuel loading concerns 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 would be treated with herbicide. The proposed action would be expected to result in no measurable direct, indirect, and cumulative impacts on forest vegetation.

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.

Grizzly Bear – The proposed project area is located approximately nine miles south of the NCDE grizzly bear recovery zone and is located within occupied grizzly bear habitat. The proposed action would thin adjacent to roads that are open to motorized activity. The project area currently has a mixture of topography, and vegetation to provide visual screening. Post-thinning, topography and much of the overstory would continue to provide visual screening. In areas where this will provide insufficient cover, patches of regeneration would be left in their current dense state. Given current conditions and the proposed vegetative changes, the proposed action would likely have low risk of direct, indirect, or cumulative effects to grizzly bears.

Gray Wolf – Much like the grizzly bear, wolves are susceptible to illegal killing from open roads that have good sight distances into the surrounding landscape. The proposed thinning may improve conditions for wolves through reducing hiding cover for big game and subsequently increasing prey vulnerability. However, increased sight distances may leave wolves more vulnerable to illegal killing. The recent Blackfoot Valley wolf-tracking project did show wolves in the greater area, Tracks of three to five wolves were found in the Belmont Creek area (approximately 9 miles west of the project area). Three wolf tracks were found on the Blackfoot Clearwater Wildlife Management Area. This may have been individuals that split from other known packs. Two DNRC individuals also found tracks and beds in the Blanchard Creek area last fall, but this was not part of the track survey described above. Because the presence of wolves in the area is unknown but potentially likely, there would still likely be low risk of direct, indirect, and cumulative effects to wolves as a result of the proposed action.

Peregrine Falcon – The nearest known peregrine falcon nest is located approximately 20 miles SW of the project area. Thus, there would be minimal risk of direct, indirect, or cumulative effects as a result of the proposed action.

Pileated Woodpecker – The proposed action would thin within stands of seedlings and saplings, habitat that is not considered suitable for this species. Thus, there would be minimal risk of direct, indirect, or cumulative effects as a result of the proposed action.

Black-backed woodpecker - The proposed action would thin within stands of seedlings and saplings, habitat that is not considered suitable for this species. Thus, there would be minimal risk of direct, indirect, or cumulative effects as a result of the proposed action.

Flammulated Owl - The proposed action would thin within stands of seedlings and saplings beneath a recently reduced canopy of ponderosa pine and Douglas-fir, habitat that may be considered suitable for this species. Preferred habitat for the flammulated owl is primarily an overstory of open canopied (30 to 50% canopy closure) ponderosa pine or Douglas-fir, with dense clumps of seedlings and saplings in the understorey. The recently completed Clearwater River timber sales created such conditions within the project area. While the effects of pre-commercial thinning on flammulated owl nesting habitat suitability may not be understood, such thinning may reduce the abundance of insects upon which this species feeds. Thus, there may be low to moderate risk of direct and indirect effects, and minimal risk of cumulative effects to flammulated owls as a result of the proposed action.

Fisher - The proposed action would thin within stands of seedlings and saplings, habitat that is not considered suitable for this species. Additionally, fisher habitat is uncommon in the project area, any riparian areas would be avoided, and downed material would be left intact when possible. Thus, there would be minimal risk of direct, indirect, or cumulative effects as a result of the proposed action.

Townsend's Big-eared Bat – N/A

Coeur d'Alene Salamander - N/A

Columbian Sharp-tailed Grouse - N/A

Common Loon – While loons are known to use nearby Elbow Lake and portions of the Clearwater River, the proposed action would not be expected to increase background noise levels or create water quality issues that might affect this species. Thus, there would be low risk of direct, indirect, or cumulative effects to loons as a result of the proposed action.

Harlequin Duck – Habitat for this species generally consists of fast flowing mountain streams with high water quality, aquatic invertebrates for food, escape cover, some slack water, and relative isolation or solitude. Nests may be on the ground in thick vegetation, in rocky outcrops, in piles of woody debris, hollow trees or snags in adjacent forests, and in a variety of other habitats. The proposed action is not expected to affect the water quality of the Clearwater River or Blanchard Creek, or alter riparian habitat along the river. As a result, the proposed action is not expected to affect harlequin ducks or their habitat.

Northern Bog Lemming - N/A

Mountain Plover - N/A

Big Game – The proposed action would not reduce snow-intercept cover or degrade big game winter range. However, the proposed action would reduce hiding cover that is currently provided by seedlings and saplings. This may slightly increase big game vulnerability during the hunting season. In recent years, many acres of timber have been harvested throughout the project area, which effectively increases sight distance, and reduces hiding cover for big game species. The proposed action would likely only affect deer during the hunting season; thus, there would likely only be minor direct and indirect effects to big game as a result of the proposed action. However, given the recent timber harvest activities on surrounding lands, there have been cumulative losses in snow-intercept cover and hiding cover. During Harvest on DNRC lands islands of hiding cover were left scattered throughout harvest areas and adjacent to roads. These mitigation measures would continue in the layout of pre-commercial thinning units. Considering these mitigation measures the project would likely add only minor cumulative impacts.

Fisheries and Aquatics Lost Prairie Creek is a Class 1 streams that flows through a portion of the DNRC project area and supports fish habitat. MTFWP MFISH waterbody report identifies Lost Prairie Creek as having some westslope cutthroat trout and minor species in the lower reaches. The proposed thinning would be done outside of the SMZ, and the timber permit would not be within this area. No overstorey trees would be removed and stream shading would be maintained and likely enhanced by promoting deciduous shrubs over small conifers within the SMZ. There is low risk of effects to stream shading, water temperature, sedimentation, or fish habitat components of large woody debris, nutrients or channel stability associated with the proposed action. No changes in road conditions would occur and no sediment sources from existing roads were identified along the

access route. There is very low risk of 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.

Bald Eagle – There is a Bald Eagle nesting site in section 29, adjacent to the project area. There are several units that are proposed along the Lost Horse Road and to the west. None of these units are within a half mile (nest restrictions between February 1 – August 15) of the eagle nest. All other units have suitable distance and topographic relief between them and the known nest site. As a result, there would likely be low risk of direct, indirect, or cumulative effects to bald eagles as a result of the proposed action.

Lynx – Currently, the DNRC uses the Forest Management Administrative Rules (MCA 36.11.104 and MCA 36.11.435) to manage lynx. This parcel is not part of the federally designated critical lynx habitat. Due to the fact that stands on this site are not likely to be lynx habitat it is believed that there would be minor risk of direct, indirect, or cumulative effects to lynx given the proposed action.

Westslope Cutthroat trout is a sensitive fish species that inhabit Lost Prairie Creek. Bull trout have not been found and these streams are not part of bull trout core or nodal areas. Minimal thinning operations are planned near the SMZ and no road activities are planned. All overstory trees, sub merchantable shrubs and well stocked sub merchantable conifers would be retained in the SMZ. There would be no measurable project related impacts to stream channel stability, sedimentation or habitat fish components of connectivity, large woody debris or water temperature. There is very low risk of direct, in-direct or cumulative effects to threatened or sensitive fish or aquatic life with the proposed action as outlined in the hydrology and aquatic life sections.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

None.

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. Potentially these openings will likely be more given the currently seen mountain pine beetle outbreak timeline. 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 easily seen within the middleground viewshed. 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

The proposed timber permit would primarily be hidden from view and would not be visible from Highway 200. Only portions of the pre-commercial thinning units would be visible. Large portions of the proposed harvest units would be blocked from view by topography or by vegetation. Over the long term, these areas would be noticed by the absence of tree crowns, occurrence of regeneration, and potential change in species present.

Through the proposed sale area, slash from the harvest and the thinning 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.

Harvest activities would be quite audible, and, depending upon air conditions, equipment could be heard many miles from their location. The proposed harvest of this volume would most likely be done within a month and would 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.

None.

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.

Clearwater River Timber Sale Environmental Assessment (for Clearwater I, II, and III T.S., EA 1999), Bugchuck Salvage TS (EA 2008), Lakewood PCT (EA 2008), Woodchuck Pre-commercial thin (EA 2008), and Clearwater River Pre-commercial thin (EA 2009), and Clearwater Flats Thinning (EA 2010).

IV. IMPACTS ON THE HUMAN POPULATION

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| <ul style="list-style-type: none">• <i>RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.</i>• <i>Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.</i>• <i>Enter "NONE" if no impacts are identified or the resource is not present.</i> |
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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.

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 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.

None. A few short-term jobs in the local area may 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.

None. 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

None. Aside from administration of the project (done by DNRC personnel), 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.

None.

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.

None. The project area receives extensive use by motorized recreationists and walk-in use off roads open to public use. 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.

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.

None. 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?

None. 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.

Direct Costs associated with this project are estimated to be \$110,500.00. This figure is achieved by multiplying the estimated number of acres 650 by estimated cost per acre \$170.00. This cost estimate is assumed from previous projects. The most recent pre-commercial thinning contract yielded a cost per of \$149.00 and required a higher amount of piling. Given the work done by the Clearwater Unit fire crew and volunteer crews, the estimate for the thinning should increase on units that will be open for bid. The assumed cost should be recovered, by a net increase in growth, thus lessening rotation between harvests by up to thirty years. This would affect land of two trust funds, Common Schools and Pine Hills Trust.

This project should return to the Common Schools trust approximately \$12,080.00 in stumpage and forest improvements. This is calculated by multiplying the expected sawlog volume of 1,050 tons or 150 mbf. (Approximately 7 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 \$6.00/ ton (\$42.00 / mbf.) will be paid and the money collected for forest improvement projects will be \$5.51 / ton (\$38.57 / mbf.). Stumpage payments for non-sawlog material would be charged \$100.00 to be paid lump sum if requested.

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. A recent revenue-to-cost ratio of the Southwestern Land Office was 2.43. This means that, on average, for every \$1.00 spent in costs, \$2.43 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.

EA Checklist Prepared By:	Name: Craig V. Nelson	Date: July 6, 2011
	Title: Supervisory Forester, Clearwater Unit	

V. FINDING

25. ALTERNATIVE SELECTED:

B- Action

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts are expected by these treatments.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS More Detailed EA No Further Analysis

EA Checklist Approved By:	Name: David Poukish
	Title: Unit Manager, Clearwater State Forest
Signature: /s/ David M. Poukish	
Date: 7-11-11	

Cleared PCT and Timber Permit

