

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Sweet Little Projects
Proposed Implementation Date:	Beginning December 2011
Proponent:	Clearwater Unit, Montana DNRC
Location:	Near gravel pit adjacent to Highway 200, N ½ Section 16 T13N R15W
County:	Missoula

I. TYPE AND PURPOSE OF ACTION

This project analyzes the impact of two separate actions; a timber permit and a pre-commercial thinning. The timber permit would salvage ponderosa pine that are either infested with mountain pine beetle (*Dendroctonus ponderosae*) or are likely to be attacked. Over the past several years, the beetle infestation has increased in the area. Many areas along the highway have been attacked on both Montana DNRC and Lubrecht Experimental Forest land. There are also large patches of smaller (pulp sized) ponderosa pine that have been hit and killed by this pine beetle. These projects will treat a majority of the slash produced in many places by piling, and will provide a further fuel breaks within the pre-commercial stands.

The Montana DNRC is proposing to harvest up to 375 thousand board feet of trees from this section. Harvesting would primarily involve removal of ponderosa pine 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 objectives of the proposed action would be to: 1) restore the forest to its income-generating potential; 2) capture value of dead and dying trees and prevent future value loss; 3) reduce understory trees and their stocking to promote health and vigor; 4) help reduce available wildland fuels especially along open roads; and 5) generate revenue for the trust beneficiary. If necessary, some mountain pine beetle populations that may be missed under this original timber permit may be treated in follow-up actions. This would be done after the beetle flight within the next few years. All revenue would go to the Common Schools Trust and would be generated through the implementation of the proposed action. The proposed pre-commercial thinning may be done on up to 75 acres. Activities may begin in December of 2011.

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) and the Administrative Rules for Forest Management (ARM 36.11.401 through 450) as well as other applicable state and federal laws.

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.

Frank Maus of the University of Montana, Lubrecht Experimental Forest was also scoped for this project. We walked portions of the proposed harvest areas on December 6, 2011. It was agreed at that time to treat several smaller areas immediately this winter. Other areas, such as the "thinning trials", would be discussed by the Lubrecht Experimental Forest (University of Montana) and the DNRC to determine further actions.

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.

Department of Natural Resources and Conservation (DNRC): Harvesting adjacent to streams would be done in compliance with the state streamside management zone (SMZ) law.

Montana Department of Transportation (MDT): Log hauling and other activities would be done in a manner to allow MDT to use gravel stockpile unimpeded.

3. ALTERNATIVES CONSIDERED:

No Action

None of the proposed harvest or pre-commercial thinning would occur at this time. Other current land use activities and the recreational use would continue. No salvage of trees affected by mountain pine beetle would take place.

Action Alternative

Under the Action Alternative, the DNRC would continue current land use activities, pre-commercial thinning proposed in this EA, and also salvage harvest or harvests of mountain pine beetle infested timber (please see attached map). DNRC would continue to assess rehabilitation needs following harvest activities.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT
<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>

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.

Soils within the project area are primarily Greenough soils. Other areas within the proposed timber permit are Winkler and Udorthents-Glaciercreek Complex.

The Greenough soil, a fine silty Eutroboralf, is generally very weak and can be rutted easily. The parent material is alluvium. It is a silty clay loam with low percolation that displays dustiness in the summer. This soil has a likelihood of frost heaving. No unstable slopes or unique geologic features are present. Soils are moderately deep silty loams on 5-30% slopes. Erosion is moderate and increases on short steep slopes. Equipment restraints during wetter conditions will reduce erosivity and prevent operations on soil with poor bearing strength. The primary risks to soil productivity are rutting, compaction, and displacement by surface equipment. Soil rutting and compaction occur when equipment operates on wet soils or repetitive trips over the same trails. Harvest during winter months with frozen and/or snow covered ground, or the driest portion of the year is most judicious. Surface runoff is slow and would reduce any opportunity to begin work in the spring.

The Winkler soil is a very gravelly sandy loam made of Colluvium parent material. It is a loamy-skeletal, mixed frigid Udic Ustochrepts. Windthrow is of little likelihood. This soil is good for road construction and is an excessively drained soil.

Udorthents-Glaciercreek Complex is generally a stream terrace or part of the glacial outwash. This location leads to the prior description. This is a sandy loam with low shrink swell potential and has low variability. Some dustiness can be seen within the summer.

Previous selection harvest was mainly on moderate slopes and skid trails have revegetated with less than 10% of impacted area based on distribution of skid trails. The proposed harvests would be completed during times that would result in minimal ground effects given contract standards.

Planned ground skidding operations during the permit should have low risk of direct, in-direct and cumulative impacts based on implementing BMP's, mitigation measures and contract specifications. Mitigations include season of use limits to winter or dry conditions, general skidding plans, use of old trails and landings, retaining

woody debris and fines for moisture and nutrients, and prompt revegetation of disturbed sites on roads to protect soil resources. All pre-commercial thinning would be done without the use of mechanical equipment.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed harvest and thinning areas are located north of Highway 200. Union Creek is located south of the highway. This DNRC parcel does not have any larger streams. There are several discontinuous Class III streams that are disconnected tributaries to Union Creek. These ephemeral streams have intermittent segments of channel and have rare surface flow during spring runoff. This is a relatively dry site with minor surface runoff. Cattle grazing has impacted parts of the channel that hold surface runoff in the spring and adjacent riparian areas have been trampled.

No Action: No changes to water quality or water quantity would result. Ponderosa pine would continue to die and openings would be created. This could produce an increase of water yield from small locations, but given the normal pocket like effects of a mountain pine beetle infestation, it is less likely to affect Union Creek and below. Cattle grazing would continue and the potential for future land uses would be maintained. Grazing effects are expected to improve over time.

Action: Under the Action Alternative, up to 375 thousand board feet may be harvested at this point in time. Given a potential likelihood of missed populations of mountain pine beetle on the section, we may need to return for future harvest (up to 50 thousand feet). The combined operations and the pre-commercial thinning are expected to have very low risk of impacts to water yield or water quality. All operations would be during dry, frozen or snow covered ground conditions with an effort to minimize ground disturbance and maintain road drainage. There is a planned harvest of some trees within small segments of a Class III stream within this parcel. Any treatment along this Class III SMZ's (streamside management zones) would comply with the SMZ law for tree retention and Best Management Practices. Only occasional trees within this are may be harvested and tree size and number will be reserved. All actions will meet directives within the State Forest Land Management Plan (36.11.425).

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. All disturbed roads and landings would be stabilized and grass seeded where needed to control 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 3a which encompasses much of eastern Missoula County. Currently, this airshed does not contain any impact zones. This project is located approximately 3 miles south of Greenough, Montana and 5 miles east of Potomac, Montana. Numerous residential properties are found interspersed throughout the project area. The Bob Marshall Wilderness area lies approximately 18 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 3a.

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.

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 the ponderosa pine and Douglas-fir cover types. Most of the project area is in the sawtimber size class and has low to high total stocking. Stands within the project area currently have a high susceptibility and risk of mountain pine beetle damage, based on the species, age, stand density, elevation, and existing mountain pine beetle presence. Areas of smaller (pulp-sized) ponderosa pine within the project area also are dead, infested, or at risk from attack by mountain pine beetle.

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 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). The stands proposed for harvest are between 40 and 120 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 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. Weed treatment could occur as funding allows. Potentially, some areas treated before by Lubrecht could be treated again.

Action

The silvicultural plan is to remove recently killed, green infested, and potentially affected green ponderosa pine. 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. Much of the overstocked understory would be cut and could potentially be harvested. 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 the adjacent highway this is of some concern. Changes to the vegetation would include an immediate reduction in numbers of live and dead pine trees. Some potential areas of the proposed pre-commercial thinning may be areas where the smaller stems are growing under older stands. This understory would be treated, potentially to reduce fire hazard and potential fire ladders. Other species, including Douglas-fir may be retained. The remaining trees would have increased growth as more resources would be available per tree. Some potential treatment could be done, if it is decided to occur by Lubrecht (University of Montana) and the DNRC in a cooperative manner.

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 would be treated with herbicide. The proposed action of salvage harvest (s) and the pre-commercial thinning, 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.

No streams supporting fish or stream segments with connectivity to down slope fisheries occur within the proposed harvest area. The project access road enters Highway 200 and does not cross or parallel any fish supporting streams. The likelihood of sediment delivery is very unlikely. There is very low risk of direct, in-direct or cumulative effects to fish habitat or aquatic life with the proposed action.

Elk , White-tailed Deer, & Mule Deer- The proposed action would treat ponderosa pine and a minimal amount of lodgepole pine that have been affected by mountain pine beetles. As such, under baseline conditions the snow intercept cover that these tree species provide would be lost due to the effects of the mountain pine beetle infestation. This could show a minor increase in affect to winter range for these animals. Given the previous timber sale, some areas show minimal snow intercept. Removal of these small beetle pockets is fairly minimal

in size. As such, there would likely be only a minimal increase in direct, indirect, or cumulative effects to big game winter range beyond what would be expected under the no action alternative.

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.

Fisheries- No streams supporting fish or stream segments with connectivity to down slope fisheries occur within the proposed harvest area. The project access road enters Highway 200 and does not cross or parallel any fish supporting streams. The likelihood of sediment delivery is very unlikely. 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. There is very low risk of direct, in-direct or cumulative effects to fish habitat or aquatic life with the proposed action.

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.

Grizzly Bear- Due to the close proximity to human habitations, Highway 200, previously mentioned timber sales, and industrial timber harvesting within the cumulative effects analysis area, the temporary (15 to 20 years) loss of visual screening cover in portions of the project area may have a minor cumulative negative effect on grizzly bears. In conjunction with the aforementioned timber harvests on nearby State, private, industrial, and University lands, there is a slightly increased potential for negative interactions with the surrounding human population. Due to the proximity of the project area to the Greenough area, Lubrecht camp, and the adjoining highway, human use of the area is of sufficient intensity that vegetative screens are valuable as buffers to bears from human habitations and use within the project and cumulative effects analysis areas.

The proposed harvest and thinning would reduce vegetative screening. Grizzly bear use of habitats near human habitations would be deterred through these habitat alterations. Topography could be used as screening by grizzly bears, but given the adjacent highway and private property, any grizzly in the area would likely be travelling through. The risk of direct, indirect, and cumulative effects to grizzly bears is assumed to be low.

Gray Wolf- Two groups of wolves inhabit the area near Greenough: the 9-member Belmont Creek pack north of the project area and four wolves that have appeared in the Union Peak area. The proposed action would further reduce screening cover, which could temporarily increase wolf vulnerability in this parcel. The proposed action would make use of topographic features, non-pine species, and existing regeneration for screening cover post-harvest. As a result, there would likely be low potential for direct, indirect, and cumulative effects to wolves from 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 part of the federally designated critical lynx habitat although it does not contain lynx habitat as part of the DNRC SLI database. 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.

Bald Eagle—The proposed action and associated hauling route would be located >3 miles from the nearest active bald eagle nest, with topographic relief between the known nest site and project area. 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.

Pileated Woodpecker- The proposed action would remove overstory trees and stems up to 18 inches in diameter. The existing stand is the result of a harvest several years ago. There are trees over 18 inches within the stand, but they would likely not be harvested (ponderosa pine that have not been attacked by beetles, western larch, and Douglas-fir). Currently the stand has regeneration over most height classes. Given the small amount of harvest area proposed and the existing stand levels, there would likely be low risk of direct, indirect, or cumulative effects to pileated woodpeckers as a result of the proposed action.

Black-backed Woodpecker- In 2003, a University of Montana study inspected the general area and included several DNRC sections. They investigated the use of commercial thinning, fire, and the occurrence of black-backed woodpecker habitat. More than a half dozen nests were found within the area. Black-backed woodpecker habitat tends to be very fleeting and only lasts approximately 5 years. Given the time period, we are beyond that possible window. Within an approximately 32 mile radius, approximately 76,684 acres of forest burned in 2007 on four large fires. Due to the abundance of recently burned habitat, and this species' affinity for burned areas, the proposed harvest would likely have low risk of direct, indirect, or cumulative effects to black-backed woodpeckers.

Flammulated Owl- The proposed action would remove affected lodgepole and ponderosa pine within the proposed harvest units and affect some of habitat types preferred by this species. Through the proposed harvest, group selections would likely occur, creating small openings in the forest that would be conducive to regenerating small pockets of forest. Such conditions could create suitable habitat for this species in approximately 20 years. The proposed thinning could improve flammulated owl foraging habitats by reducing stem density in the stands proposed to be thinned. As a result, there would likely be low risk of direct, indirect, or cumulative effects as a result of the proposed action.

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. Some test areas within this section, performed by Lubrecht Experimental Forest and other groups exist. Some sites have been in existence and have been used. These sites will be discussed by the DNRC and the University of Montana to determine their future use.

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 sale would be partially visible from Highway 200 in the Greenough area. Only portions of the harvest units would be visible from any of these locations, and in many instances, the openings created would be minimal. Large portions of the proposed harvest units would be blocked from view by topography or by vegetation. The removal of bark beetle attacked trees could change the middleground view from Highway 200. 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 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 systems and activities would be ground-based and could be done during the winter. 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.

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.

West Lubrecht Timber Sale (DNRC TS-1400, 1998), Potomac Timber Sale (DNRC TS-1361, 1999), Greenough P.O. TP (TP-15,177), Lubrecht Thinning (DNRC 115350), and the Temporary Road Use Permit (SWLO-CLS-10-03) are recent or current agreements on or near this parcel.

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

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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. Signs at the highway access 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 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 is currently working on an HCP for several terrestrial and aquatic species. At this time, the DNRC uses the State Forest Land Management Rules.

DNRC and Lubrecht have developed a Memorandum- Of- Understanding (MOU) outlining procedures to be used in the management of lands within the boundaries of the Lubrecht Experimental Forest.

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. The mountain pine beetle population is expected to spread to additional trees, infested timber would rot or check making it unusable for most wood products. Smaller stems would continue to grow, potentially at a decreased rate without the pre-commercial thinning.

Action: This project should return to the Common Schools trust approximately \$10,600.00 in stumpage. The total amount of forest improvement money that is projected should be \$11,733.75. This number is calculated by multiplying the expected sawlog volume 2,625 tons or 375 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 \$4.00/ ton (\$28.00 / mbf.) will be paid and the money collected for forest improvement projects will be \$4.47 / ton (\$31.31 / mbf.). Stumpage payments for non-sawlog material will be \$100.00 paid lump sum. The overall total should be around \$23,333.75

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.

Direct Costs associated with this project are estimated to be \$9,375.00. This figure is achieved by multiplying the estimated number of acres (75) by estimated cost per acre (\$125.00). This cost estimate is assumed from previous projects. The assumed direct cost should be recovered, by a net increase in growth, thus lessening rotation between harvests by up to thirty years. This would affect the Common Schools Trust by increasing harvestable ground after that potential timeline.

EA Checklist Prepared By:	Name: Craig V. Nelson	Date: December 7, 2011
	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 with the selection of the action alternative. Harvest during winter months with frozen and/or snow covered ground will mitigate concerns of sensitive soils and the removal of dead, dying and potential of infected Ponderosa pine trees will decrease chances of catastrophic fire activity in this area as well as leaving the stand growing more vigorous and making the residual stand more resistant to future infestations of insect and disease. The area identified on the attached map as "LEF DNRC agreed on Dec. 6" is expected to be treated first. Other areas identified within this project would be addressed later.

Significant impacts are not expected as a result of implementing the proposed activity. There are no unique resources or habitats associated with the project area which would indicate anything but short term or minor impacts would occur as a result of the harvest actions. There are hundreds of thousands of forested acres affected by the mountain pine beetle epidemic and even with aggressive salvage of beetle killed timber, only a very small percentage of the infested timber is being harvested. The project area is appropriate for timber harvest and normal, regularly applied mitigation measures (BMPS) will be effective in minimizing impacts.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

EA Checklist Approved By:	Name: Dave Poukish
	Title: Unit Manager, Clearwater Unit
Signature: /s/ David M. Poukish	Date: 12/13/11

SWEET LITTLE PROJECTS

