

## CHECKLIST ENVIRONMENTAL ASSESSMENT

<b>Project Name:</b>	South Lincoln Revised Harvest Plan
<b>Proposed Implementation Date:</b>	October 2010
<b>Proponent:</b>	Lincoln Station, Clearwater Unit, Southwestern Land Office, Montana DNRC
<b>Location:</b>	Section 34 T.14N., R.8W
<b>County:</b>	Lewis and Clark

### I. TYPE AND PURPOSE OF ACTION

The Montana DNRC, Clearwater Unit, is proposing to change the location and harvest prescription of approximately 115 acres of harvest units that were analyzed for harvest under the South Lincoln Environmental Assessment that was published October 2009. The total estimated harvest volume would remain approximately 3.0 MMBF from approximately 365 acres.

In the initial proposal harvesting included primarily lodgepole pine trees. The new harvest units contain a higher component of Douglas-fir. These Douglas-fir are in poor health due to Western spruce budworm, stem decays, and Douglas-fir bark beetle, therefore most of the Douglas-fir in these stands would also be harvested.

The project objectives remain the same as the South Lincoln EA, they are:

- 1) Seek to maximize revenue over the long-term for the School Trust accounts from the timber resources and salvage timber on state forests that is dead, dying or is threatened by insects, disease, fire, or windthrow as mandated by State Statute 77-5-207, MCA,
- 2) Manage the identified parcel intensively for healthy and biologically diverse forests to provide long-term income for the Trust.
- 3) Improve timber stand health and vigor.

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).

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 456) 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.*

The initial proposal, which was published in the Blackfoot Valley Dispatch and mailed to interested parties in July 2009, proposed to harvest approximately 3.0 MMBF and included the possibility of new road construction being required to access harvest units. In addition to public scoping, resource professionals in state agencies were scoped. Comments were received from within the DNRC, Montana Fish Wildlife and Parks, Defenders of Wildlife, F.H. Stoltze Land and Lumber and two private individuals. Comments were used to help guide the development of the action alternative.

The mailing list of parties receiving initial scoping notices for this project is located in the project file at the Lincoln Field Office. Public scoping comments are also located in the project file at the Lincoln Field Office.

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

Montana Department of Environmental Quality, burning restrictions.

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**3. ALTERNATIVES CONSIDERED:**

**Alternative A – No Action Alternative.** Under the No Action Alternative for the South Lincoln Revised Harvest Plan, there would be no changes from the South Lincoln EA published in October of 2009.

**Alternative B – Revised Harvest Alternative.** Under this alternative, the DNRC would harvest approximately 3.0 MMBF of timber from approximately 365 acres as was analyzed in the South Lincoln EA. Changes from the proposed action in the South Lincoln EA would include; a change in location of harvest units and the harvest of live Douglas-fir trees.

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

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- 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.

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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.*

The revised location of harvest units would have low risk of additional direct, in-direct or cumulative effects to soil resources based on the use of the existing road system, and implementation of the mitigations outlined in the South Lincoln Environmental Analysis. All rules would be adhered to and the minor harvest of green trees would not measurably affect water yield.

**Please see South Lincoln EA attachment B for a detailed geology and soils analysis.**

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**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.*

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No changes in effects to air quality that were analyzed under the South Lincoln Environmental Assessment would be expected.

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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.*

**Alternative A – No Action Alternative.** Please see the South Lincoln EA for detailed description of Existing conditions and the No Action Alternative (South Lincoln EA's Timber Harvest Alternative).

**Alternative B – Revised Harvest Alternative.**

The proposed harvest is still primarily designed to remove bark beetle attacked and highly susceptible lodgepole pine. However additional live trees would be harvested.

Approximately 90 acres is proposed for harvest in a new location within section 34 T14N R08W as shown in attachment A-1. The newly proposed harvest units consist of approximately 55 acres of shelterwood harvest, 21 acres of overstory removal, and 10 acres of lodgepole pine salvage.

The shelterwood harvest stands consist of approximately 65 percent Douglas-fir and 30 percent lodgepole pine. Ponderosa pine, spruce, and sub-alpine fir make up the remaining 5 percent of the stand. Within these the stands nearly 100 percent of the lodgepole pine are dead from mountain beetle. The Douglas-fir is approximately 130 years old and in poor health and vigor. Reasons for the poor health and

vigor include; western spruce budworm, schweinitzii root and butt rot, old fire scars causing stem decay and general over-maturity.

Harvest in these stands are designed to retain the healthiest Douglas-fir and ponderosa pine in the stand as a natural seed source for the establishment of a new forest stand. Retention would be approximately 10 to 35 trees per acre depending on availability. This would result in approximately 35 to 65 foot spacing between leave trees. Harvesting would be followed by site preparation for natural regeneration and hand tree planting seral species such as ponderosa pine, western larch and Douglas-fir if necessary.

The overstory removal harvest would remove widely spaced overstory (seed) trees from a previous harvest, with the exception of those that would be retained to meet snag and snag recruit requirements. The overstory trees exist above a well stocked stand of conifer saplings that became established after the previous harvest. Currently these overstory trees are in poor health, primarily due to the western spruce budworm. Additionally, the budworm is defoliating the saplings. Removing the overstory trees would create less suitable conditions for the budworm to damage the saplings.

The new location of approximately 10 acres of lodgepole pine salvage harvest is comparable to those stands analyzed for harvest under the South Lincoln Environmental analysis. It consists of approximately 60 percent lodgepole pine 35 percent Douglas-fir and 5 percent other species. Nearly all the lodgepole in this stand has been killed by the mountain pine beetle. All lodgepole pine within the stand would be harvested resulting in a seed tree harvest.

**Table 1:** Comparison of South Lincoln EA residual Stands and Revised South Lincoln residual stands

	<b>Shelterwood Harvest acres</b>	<b>Seed Tree or Clearcut acres</b>	<b>&lt;50% removal acres</b>	<b>Overstory Removal acres</b>	<b>Total Harvest Acres</b>
<b>South Lincoln EA</b>	91	91	183	0	365
<b>New EA 365 acre Alt.</b>	120	65	160	20	365
<b>Difference</b>	+29	-26	-23	+20	same

**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.*

During scoping for the South Lincoln EA a list of issues and concerns was developed regarding wildlife species that are not considered sensitive, threatened or endangered. These issues and concerns may be found in the South Lincoln EA part 8, Terrestrial, Avian and Aquatic life Habitats. A detailed analysis may be found in the South Lincoln Environmental Analysis Attachment B.

No additional effects, beyond what is analyzed in the South Lincoln Environmental Analysis timber harvest alternative would be expected for the following reasons:

- The estimated acreages and total harvest volume for the proposed timber sale would remain the same as in the South Lincoln Environmental Analysis.
- While live trees are now proposed for harvest there would be nearly equal reduction in acreage of residual stands resembling clearcuts and seedtree as there would be in the stands that would retain a dense forested appearance following harvest. The reduction in these categories would coincide with the increase in acreage stands resembling a shelterwood following harvest and the overstory removal unit which is fully stocked with moderately healthy regeneration (table 1).

**Fisheries-**

The revised location and silviculture prescription of harvest units would have very low effect on fisheries, based on the use of the existing road system and implementation of the mitigations outlined in the South Lincoln Environmental Analysis.

**Please see South Lincoln EA attachment B for a detailed fisheries analysis.**

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## 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.*

During scoping the following list of issues and concerns was developed regarding wildlife species that are considered sensitive, threatened, or endangered.

- There is concern that the proposed action would negatively affect grizzly bear habitat beyond habitat changes expected to result from the mountain pine beetle infestation.
- There is concern that the proposed action would reduce the quantity of suitable lynx habitat in the project area beyond what is expected to result from the mountain pine beetle infestation.
- There is concern that the proposed timber harvest would negatively impact bald eagles, pileated woodpeckers, and flammulated owls beyond what is expected to result from the mountain pine beetle infestation.
- There is concern that the proposed timber harvest would negatively impact northern goshawks beyond what is expected to result from the mountain pine beetle infestation.

After a detailed analysis that can be found in the South Lincoln EA Attachment C the following was determined for the South Lincoln EA timber harvest alternative.

- With the implementation of the grizzly bear mitigation measures outlined in attachment C there would likely be low risk of the proposed action increasing the direct, indirect and cumulative effects above baseline conditions.
- Under the proposed action alternative there would likely be minimal to low risk of increasing the direct and indirect effects to lynx habitat beyond baseline conditions. The cumulative effects of the proposed action would not likely reduce suitable Canada lynx habitat beyond what is expected under the no action alternative.
- There is a low risk of direct, indirect, or cumulative effects to bald eagles under both alternatives. Under both alternatives there is a low to moderate risk of direct or indirect effects to flammulated owls and pileated woodpeckers. The risk of cumulative effects to pileated woodpeckers is minimal to low under the no action alternative and low to moderate under the action alternative. The risk of cumulative effects to flammulated owls is minimal to moderate under the no action alternative and a low to moderate risk under the action alternative.

For the Following reasons the above conclusions would remain the same for the revised harvest alternative.

- The estimated acreages and total harvest volume for the proposed timber sale would remain the same as in the South Lincoln Environmental Analysis.
- While live trees are now proposed for harvest there would be nearly equal reduction in acreage of residual stands resembling clearcuts and seedtree as there would be in the stands that would retain a dense forested appearance following harvest. The reduction in these categories would coincide with the increase in acreage stands resembling a shelterwood following harvest and the overstory removal unit which is fully stocked with moderately healthy regeneration (table 1).
- The revised harvest units do not contain any lynx habitat.
- The nearest open road is over a mile away.

## **Fisheries**

**Bull trout and westslope cutthroat trout**— The revised location of harvest units would have very low effect on fisheries, based on the use of the existing road system and implementation of the mitigations outlined in the South Lincoln Environmental Analysis.

**Please see South Lincoln Environmental Analysis attachment B for more information regarding potential impact to fisheries.**

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### **10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

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

The DNRC archaeologist conducted a Class III level inventory for cultural and paleontological resources during August of 2009. No such resources were identified within the area of potential effect, so there should be no effect to Antiquities.

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### **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.*

Effects of the revised harvest plan would be expected to be the same as the South Lincoln EA timber harvest alternative.

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### **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 negative direct, indirect or cumulative effects are expected to occur as a result of the proposed timber harvest revision.

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### **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.*

State Forest Land Management Plan EIS, DNRC 1996, set the strategy that guides DNRC management decisions statewide.

South Lincoln Timber Salvage EA, DNRC 2009, Harvest 3.00 MMBF on sections 28 and 34 T14N R9W, Sections 22, 28, 34 T14N R8W.

Beaver Lodge Salvage Timber Sale EA, DNRC 2009, harvest 3.00 MMBF on sections 4 and 16 T14N R9W and section 16 T14N R10W.

Whiskey Gulch Salvage Timber Sale EA, DNRC 2008, harvest 2.5 MMBF on section 36 T15N R7W.

Draft Humbug Creek Restoration/Management Plan, Montana Fish Wildlife and Parks and Big Blackfoot Chapter of Trout Unlimited 2008.

Still Cool Bugs Salvage Timber Sale EA, DNRC 2007, harvest of 1.0 MMBF on section 10 T14N R8W.

Keep Cool Bugs Timber Sale EA, DNRC 2005, harvest of 1.3 MMBF on section 10 T14N R8W.

Golden Arches EA, DNRC 2004, harvest of 5.6 MMBF in the Landers Fork drainage.

Cool Flat 4X4 EA, DNRC 2005, harvest of 1.5 MMBF on Sections 8, 16, 19, and 22 of T14N, R8W.

Snow Talon Burned Area Emergency Rehabilitation Plan, FS 2003, assesses post-fire conditions.

Helena National Forest Weed EIS, FS 2004, proposes weed control on FS ground in the Lincoln area.

Lincoln Post-Fire Rehabilitation Project Categorical Exclusion, FS 2004, proposal to address non-emergency fire rehabilitation needs within the Snow Talon and Moose Wasson burned areas such as tree and shrub plantings, biological weed control, insect monitoring, pesticide, and pheromone treatments, and administrative site maintenance and repair.

Snow Talon Fire Salvage FEIS, FS 2005, proposal to salvage approximately 25 MMBF, from approximately 2700 burned acres, and associated reclamation all within the Copper Creek drainage and associated haul road in the Landers Fork and Copper Creek drainage.

See the cumulative effects analysis for associated effects to resources.

#### **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.*

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#### **14. HUMAN HEALTH AND SAFETY:**

*Identify any health and safety risks posed by the project.*

Human health would not be impacted by the proposed changes in timber sale harvest unit location.

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#### **15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:**

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

Effects of the revised harvest plan would be expected to be the same as the South Lincoln EA timber harvest alternative.

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#### **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.*

Effects of the revised harvest plan would be expected to be the same as the South Lincoln EA timber harvest alternative.

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#### **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.*

Effects of the revised harvest plan would be expected to be the same as the South Lincoln EA timber harvest alternative.

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#### **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*

Effects of the revised harvest plan would be expected to be the same as the South Lincoln EA timber harvest alternative.

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#### **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.*

In June 1996, DNRC began a phased-in implementation of the State Forest Land Management Plan (SFLMP 1996) and the State Forest Land Management Rules (ARM 36.11.401-450 DNRC) followed. The management direction provided in the Plan comprises the framework within which specific project planning and activities take place. The Rules and Plan philosophy and appropriate Resource Management Standards have been incorporated into the design of the proposed action.

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**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 is used by the public primarily for hunting, and snowmobiling. There are snowmobile trails within the South Lincoln EA project area. However none of these trails are located in section 34 T14N R8W and would therefore not be impacted the same under the no action or revised harvest plan alternative.

The closest wilderness is located approximately ten miles north of the project area. No direct, indirect, or cumulative effects would be expected under the no action or revised harvest plan alternative.

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**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.*

There would be no measurable direct, indirect, or cumulative impacts related to population and housing under the no action or revised harvest plan alternative.

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**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

No negative direct, indirect, or cumulative effects would be expected under either alternative.

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**23. CULTURAL UNIQUENESS AND DIVERSITY:**

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

No negative direct, indirect, or cumulative effects would be expected under either alternative.

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**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:** A grazing lease on section 34 would continue to generate approximately \$445.00 per year. The timber harvest would generate approximately \$270,000 for the school trust. This is based on a stumpage rate of \$15.00 per ton, multiplied by the estimated volume of 19,500 tons. This stumpage rate was derived by comparing attributes of the proposed timber sale with attributes and results of other DNRC timber sales recently advertised for bid. 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. The most 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.

**Revised Harvest Alternative:** A grazing lease on section 34 would continue to generate approximately \$445.00 per year. The revised timber harvest would likely generate more revenue than the timber harvest planned under the no action alternative. This is due to all the acreage proposed for treatment under the revised harvest plan being accessible to ground based harvest equipment. Approximately 25 acres of the no action alternative would have to be logged using cable yarding which is more expensive than ground based logging.

<b>EA Checklist Prepared By:</b>	<b>Name:</b> Neil Simpson	<b>Date:</b> 8/26/2010
	<b>Title:</b> Management Forester	

**V. FINDING**

**25. ALTERNATIVE SELECTED:**

**Action Alternative-** *Revised Harvest Alternative*

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

As with the original project, three objectives were put forth:

- 1) Seek to maximize revenue over the long-term for the School Trust accounts from the timber resources and salvage timber on state forests that is dead, dying or is threatened by insects, disease, fire, or windthrow as mandated by State Statute 77-5-207, MCA,
- 2) Manage the identified parcel intensively for healthy and biologically diverse forests to provide long-term income for the Trust.
- 3) Improve timber stand health and vigor.

I find that this project would further address the needs described in number one. As part of the previous decision in the South Lincoln EA, it was shown that the harvest alternative would remove a larger portion of the timber affected by the infestation of mountain pine beetle. It would also help control outbreaks of Douglas-fir beetle and spruce budworm that are also affecting these timber stands.

The new revised harvest plan also looked at threatened and endangered species and there was not a change from the original EA. Concerns over bull trout and westslope cutthroat trout also were not affected.

The original planned acreage for this EA has not changed. Effects will be similar on stands, and there will be a larger likelihood of improved growth on Douglas-fir regeneration after the harvest.

**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

- EIS     
 More Detailed EA     
 No Further Analysis

<b>EA Checklist Approved By:</b>	<b>Name:</b> Craig V. Nelson	
	<b>Title:</b> Supervisory Forester	
<b>Signature:</b> /S/ Craig V. Nelson		<b>Date:</b> 10/4/2010