

Environmental Analysis

For the

Reid Divide Timber Salvage

Prepared By

Kalispell Unit, Northwestern Land Office

Montana Department of Natural Resources and Conservation

August 2010

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CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Reid Divide Timber Salvage
Proposed Implementation Date:	August 2010
Proponent:	Kalispell; Northwestern Land Office: Montana DNRC
Location:	Whitefish, Montana
County:	Flathead

I. TYPE AND PURPOSE OF ACTION

The Kalispell Unit, Montana Department of Natural Resources and Conservation (DNRC) is proposing the Reid Divide Timber Salvage. The project area is located approximately 13 miles southwest of Whitefish, Montana within Section 36, T30N, R24W (see Vicinity Map in Attachment I). The acreage of state land involved in the project is held by the State in trust for the support of specific beneficiary institutions (*Enabling Act, 1889: 1972 Montana Constitution, Article X, Section 11*). s. 36 – Common Schools

Under the proposed action, approximately 300 thousand board feet would be harvested from approximately 230 acres in Section 36. Estimated revenue of \$30,000 would be generated for the beneficiary. Specific objectives of this project are to capture the value of dead and dying timber, maintain and improve forest health, and increase forest productivity beneficial to future trust actions. If the Action Alternative is selected, activities could begin in August 2010.

Project Purpose and Need:

- 1) Salvage beetle killed Douglas-fir and other dead standing trees
- 2) Implement silvicultural treatments to improve forest health and vigor.
- 3) Sell forest products from trust lands within the project area to generate revenue for various trusts to produce the largest measure of reasonable and legitimate return over the long run for specific beneficiary institutions (*Section 77-1-202, Montana Codes Annotated (MCA)*).

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 Flathead National Forest was contacted as an adjacent landowner and to request a Temporary Road Use Permit. DNRC resource specialists and pertinent staff were informed and visited the project area.

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

A temporary road use permit will be needed from the Flathead National Forest, Tally Lake Ranger District.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: Under the No Action Alternative, no timber would be salvaged and the opportunity to capture its value would not be realized. Fuel loadings would likely increase within the project area. This alternative would not produce revenue for the Trust Beneficiary. Effects of the No Action Alternative are further described in the Resource Analyses in EAC.

Action Alternative: Under the Action Alternative, DNRC would salvage up to 300 thousand board feet from approximately 230 acres in Section 36. Timber would be harvested using tractor logging with conventional, ground based harvesting techniques (hand falling and winch line skidding). Only dead standing or bug hit trees would be cut.

Issues surrounding this proposed action have either been resolved or mitigated through project design or would be included as specific contractual requirements of this project. Recommendations to minimize direct, indirect and cumulative effects have been incorporated in the project design.

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 in the project area were mapped in the soil survey *Flathead National Forest Area, Montana* and were reviewed using the Natural Resources Conservation Service's Web Soil Survey (<http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>).

Soils are listed as volcanic ash-influenced glacial till on slopes up to 60% although small areas of steeper slopes are present in the project area. The erosion hazard for the soils that would be affected as part of the Action Alternative is considered moderate. Although some evidence of past management activities (stumps) is present within the proposed units, soil impacts (compaction/displacement/erosion) beyond those likely present during pre-settlement conditions were not observed. No unique or fragile soils were identified during office or field review.

Direct, Indirect and Cumulative Effects of the No Action Alternative

No additional direct, indirect or cumulative effects would result from this alternative beyond the existing condition and natural changes.

Direct, Indirect and Cumulative Effects of the Action Alternative

Due to the scattered nature of the dead and Douglas fir bark beetle infected trees, only a portion of the 231 acres included in units would be trafficked with skid trails. Because of the scattered harvest, an estimated impacted would be difficult to disclose with any certainty or accuracy. However, by limiting the skid trail density by requiring a skid trail spacing of no less than 60 feet on average would ensure that the direct, indirect and cumulative soil impacts from compaction, displacement and/or erosion would be less than 15 percent of the harvest area. The 15 percent threshold meets the recommendations for adequate protection of soil resources displayed in the State Forest Land Management Plan (DNRC, 1996).

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.

A field review of the streams identified on the USGS topographic maps was conducted to assess the potential for stream channel impacts. Additionally, sediment delivery potential was qualitatively assessed during the field review.

Harvest areas 2 and 3 do not contain any streams, however harvest area 1 contains springs and intermittent class III stream segments. The Class III stream segments were dry on the field review date and showed no evidence of surface water for several years, however a defined bed and banks was present intermittently. Near the western section line, the draw which contains the Class III stream segments shows signs of intermittent surface flow and is considered to be a Class II stream due to the connectivity to downstream waterbodies. This Class II area was not included in harvest area 1.

Direct, Indirect and Cumulative Effects of the No Action Alternative

No additional direct, indirect or cumulative effects would result from this alternative beyond the existing condition and natural changes.

Direct, Indirect and Cumulative Effects of the Action Alternative

Because the proposed salvage of dead and beetle-infected trees would remove approximately 5% or less of the trees, no measurable annual water yield increase would result from the selection of the action alternative. Furthermore, the remaining stand would remain as a fully stocked stand.

Proposed harvest areas 2 and 3 which contain the vast majority (95% estimated) of the trees that would be harvested, does not have streams within the boundaries. Therefore, the risk of sediment delivery to streams from these harvest areas would be very low. The remaining harvest area would have a low degree of risk for sediment delivery to streams because the slope into the stream is gentle (<15%) and the flow regime is very infrequent.

Due to the limited proposed harvest and lack of surface flow in the harvest areas, the risk of measureable cumulative impacts to water quality or quantity would be very low.

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.

No impact to Class 1 Airshed would occur as a result of implementing the Action Alternative.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No appreciable changes in vegetative cover, quantity, and quality would occur in the project area. Fuel loadings and the amount of downed woody debris would increase over time as dead standing trees fall down.

Direct, Indirect, and Cumulative Effects of the Action Alternative

It is estimated that approximately 5% of the existing merchantable (greater than 7 inch D.B.H) overstory is dead within the project area. This salvage would only remove dead standing trees. Field observations indicated that about 80% of the dead standing trees are Douglas-fir with the remaining 20% being sub-alpine fir. Mortality in the Douglas-fir was caused by bark beetle infestations. Mortality in the sub-alpine fir was likely caused by fir engraver or western balsam bark beetle.

Existing cover types, age classes, and stocking levels will remain unchanged from the current condition. Small pockets of dead trees (less than 1 acre) will create small openings in the canopy. Since the trees are dead standing, salvage operations would have no change from the current condition other than to reduce the amount of woody debris that is likely to be present over time as trees fall down. Due to the small percent of the existing tree cover that is being affected, no direct, indirect, or cumulative effects to vegetation are expected if the action alternative is selected.

No rare or sensitive plants or vegetative communities are present within the project area.

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.

A mixture of young and mature conifer stands make up the dominant vegetation within the project area; the project area provides habitats for a variety of wildlife resources requiring those differing stand conditions. Snags and coarse woody debris have been retained with past harvesting in the project area; dead-wood habitats are available for those species that rely on those resources. The project area includes moose winter range, but does not include winter range for deer or elk. Non-winter use of the area by big game occurs. Portions of the project area are providing snow intercept and thermal cover attributes for big game; other portions of the project area have been harvested and are not providing thermal cover or snow intercept. Hiding cover is common across much of the project area.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No appreciable changes in existing habitats would occur in the project area. Ongoing mortality would increase snag and coarse woody debris availability in the area. No changes in stand age, stand composition, human disturbance, thermal cover and snow intercept, or hiding cover would be anticipated. Overall, no direct, indirect, or cumulative effects would be anticipated to general wildlife species.

Direct, Indirect, and Cumulative Effects of the Action Alternative

The proposed salvage logging would reduce snags and coarse woody debris habitats across much of the 231 acres. Habitats for species that rely on forested conditions would see a negligible reduction in available habitats. No appreciable changes in stand age or stand composition would be anticipated. Negligible changes in big game hiding cover would be anticipated and no appreciable changes in thermal cover would be expected given the mortality the individual trees have experienced. Proposed activities could disturb wildlife; no further changes in general disturbance would occur to the species using the project area. Overall, negligible direct, indirect, or cumulative effects would be anticipated to general wildlife species.

Aquatics

Due to the lack of surface water in the project area and the limited proposed timber harvest, the risk of direct, indirect or cumulative impacts to aquatic habitat would be very low and immeasurable.

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.

The project area is in “occupied habitat” as mapped by grizzly bear researchers and managers to address increased sightings and encounters of grizzly bears in habitats outside of recovery zones (Wittinger, 2002). The project area occurs between 4,640-5,800 feet. The majority of the project area was identified as lynx habitats with reasonably equal amounts of denning, mature foraging, forested travel/other, and temporary non-lynx habitats. Potential gray wolf, pileated woodpecker, and fisher habitats exist in the project area.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No appreciable changes in existing habitats would occur in the project area. Ongoing morality could create additional snags and coarse woody debris, which could provide habitat for pileated woodpeckers, fisher, and Canada lynx. Overall, negligible direct, indirect, or cumulative effects would be anticipated to threatened, endangered, or sensitive species.

Direct, Indirect, and Cumulative Effects of the Action Alternative

Proposed salvage harvesting would increase disturbance to grizzly bears should they be in the area. Any disturbance would be additive to ongoing activities in the vicinity. No changes in open road densities or security habitat would be anticipated. No appreciable changes in hiding cover would be anticipated. Thus negligible direct, indirect, or cumulative effect to grizzly bears would be anticipated. No young foraging habitats would be modified with the proposed salvage harvesting. Slight reductions in horizontal cover could be realized with the proposed harvesting. Collectively, no changes in the categories of habitats would be anticipated with the proposed activities; existing amounts of denning, foraging, and temporary non-lynx habitats would persist at the project level and within the cumulative effects analysis area to meet ARM 36.11.435 [8][a] and [b]). The reduction in future coarse woody debris could reduce available lynx den sites; however appreciable coarse woody debris would be expected to persist. These changes would not appreciably alter use of the area by lynx or their prey. Any disturbance and habitat changes would be additive to ongoing harvesting and thinning in the vicinity. Minor effects to Canada lynx would be anticipated with the proposed activities. Overall, minor direct, indirect, or cumulative effects would be anticipated to the threatened or endangered species.

Proposed activities would alter potential gray wolf, fisher, and pileated woodpecker habitats in small portions of the project area. Suitable pileated woodpecker habitats and upland fisher habitats would be altered with the proposed activities. Reductions in snags and coarse woody debris could reduce pileated woodpecker foraging and nesting habitats as well as fisher resting habitats. Disturbance from proposed activities could alter big game availability as prey for gray wolves, but would only be expected to be present when activities are occurring. Suspected den sites or rendezvous sites do not exist in close proximity to the proposed units. Additionally, proposed harvesting would likely occur outside of the time those habitat features are being used. Forested stands in the vicinity could still provide pileated woodpecker, gray wolf, and fisher habitats. Any disturbance and habitat changes would be additive to ongoing harvesting and thinning in the vicinity. Overall negligible direct, indirect, or cumulative effects would be anticipated to pileated woodpeckers, gray wolves, and fisher. Habitats for other sensitive species are either not present and or would not be affected with the proposed activities.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

No historic or archaeological sites have been located or identified in this area.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No appreciable changes in visuals would occur in the project area.

Direct, Indirect, and Cumulative Effects of the Action Alternative

Some small openings (1 acre or less) would be created as pockets of dead standing trees are salvaged. Over time this change would be similar to the no-action alternative.

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 changes to demands on limited environmental resources would occur as a result of implementing the No-Action or Action Alternatives.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The US Forest Service, Flathead National Forest, Tally Lake Ranger District issued the Logan Creek Ecosystem Restoration Project EIS in February 2004.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in human health and safety.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in human health and safety.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in industrial, commercial and agriculture activities and production.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in industrial, commercial and agriculture activities and production.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in quantity and distribution of employment.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in quantity and distribution of employment.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in local and state tax base and tax revenues.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in local and state tax base and tax revenues.

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

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes demand for government services.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in demand for government services.

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.

On June 17, 1996, the Land Board approved the SFLMP. The SFLMP provides the philosophy adopted by DNRC through programmatic review (DNRC, 1996). The DNRC will manage the lands in this project according to this philosophy, which states:

Our premise is that the best way to produce long-term income for the trust is to manage intensively for healthy and biological diverse forests. Our understanding is that a diverse forest is a stable forest that will produce the most reliable and highest long-term revenue stream...In the foreseeable future, timber management will continue to be our primary source of revenue and our primary tool for achieving biodiversity objectives.

On March 13, 2003, the DNRC adopted Rules (Administrative Rules of Montana [ARM] 36.11.401 through 450). These Rules provide DNRC personnel with consistent policy, direction, and guidance for the management of forested trust lands. Together, the SFLMP and Rules define the programmatic framework for this project.

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.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in access to and quality of recreational and wilderness activities.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in access to and quality of recreational and wilderness activities.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in density and distribution of population and housing.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in density and distribution of population and housing.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in social structures.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in social structures.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

Direct, Indirect, and Cumulative Effects of the No-Action Alternative

No changes in cultural uniqueness and diversity.

Direct, Indirect, and Cumulative Effects of the Action Alternative

No changes in 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, Indirect, and Cumulative Effects of the No-Action Alternative

The no-action alternative would not generate any return to the School Trust. No forest improvement fees would be collected. Fuels loadings would likely increase over time which could increase the potential for stand replacement fires.

Direct, Indirect, and Cumulative Effects of the Action Alternative

The Action alternative would generate approximately \$30,000 in stumpage revenue and forest improvement fees. The value of dead standing trees would be realized to the fullest extent practicable. The Trust Beneficiary for the proposed project is Common Schools. No other uses other than forest management have been identified for the project area.

EA Checklist Prepared By:	Name: Pete Seigmund	Date: 08/05/2010
	Title: Forest Management Supervisor	

V. FINDING

25. ALTERNATIVE SELECTED:

Upon review of the Checklist EA and attachments I find the Action Alternative as proposed meets the intent of the project objectives as stated in section I, Type and Purpose of Action. It complies with all pertinent environmental laws, DNRC State Forest Land Management Plan, and a consensus of professional opinion on limits of acceptable environmental impact. The No Action Alternative does not meet the project objectives. For these reasons I have selected the Action Alternative for implementation on this project.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

After a review of the scoping documents, Department policies, standards, guidelines, and the State Forest Land Management Plan (SFLMP), I find all the identified resource management concerns have been fully addressed in this Checklist EA and its attachments. Specific mitigation measures for each resource concern are listed in Attachment IV. The action alternative provides for income to the school trust and promotes the development of a healthy, biologically diverse, and productive forest. I find there will be no significant impacts to the human environment as a result of implementing the action alternative. Specific project design features and various resource management specialist recommendations have been implemented to ensure that this project will fall within the limits of acceptable environmental change and result in no significant impacts.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

EIS

More Detailed EA

No Further Analysis

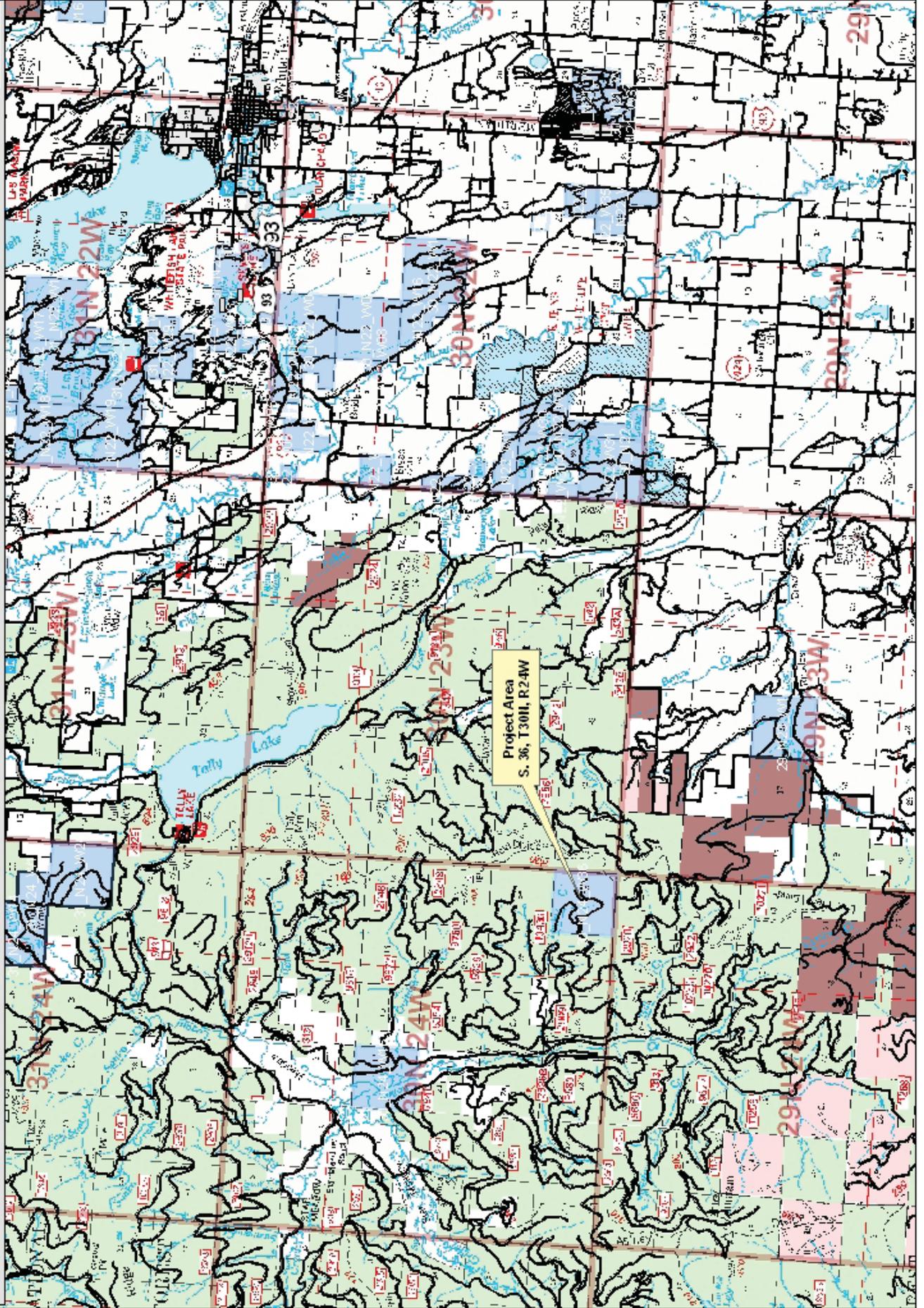
EA Checklist Approved By:	Name: Greg Poncin
	Title: Kalispell Unit Manager
Signature: <i>Greg Poncin</i>	Date: 08/05/2010

REID DIVIDE TIMBER SALVAGE VICINITY MAP

ATTACHMENT A



NORTH



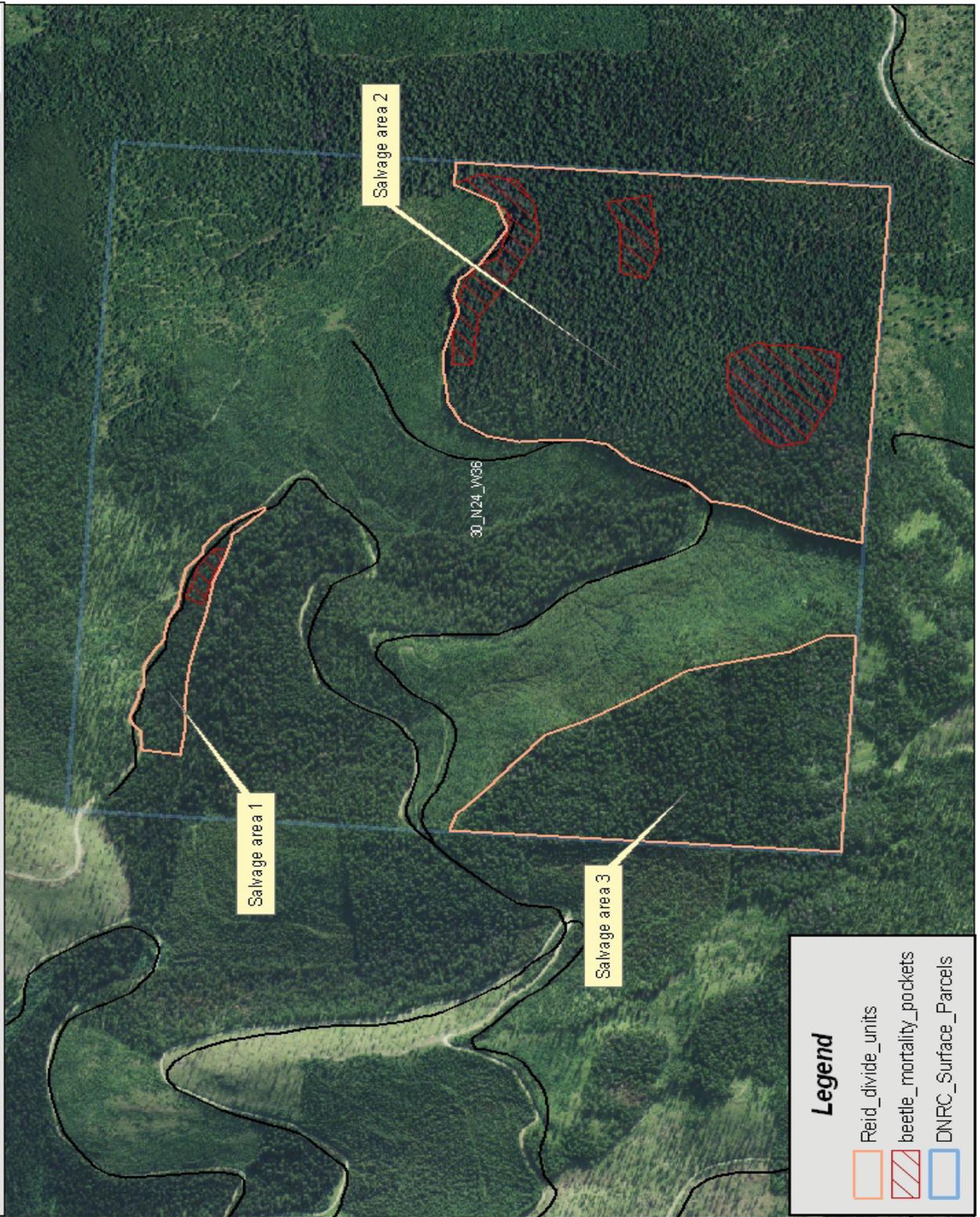


ATTACHMENT A

0.2 Miles



REID DIVIDE TIMBER SALVAGE HARVEST MAP



Legend

-  Reid_divide_units
-  beetle_mortality_pockets
-  DNRC_Surface_Parcel

Attachment B Preparers and Consultants

Preparers:

Pete Seigmund, MT DNRC, Kalispell Unit, Forester

Marc Vessar, MT DNRC, Northwestern Land Office, Kalispell, Montana-Area
Hydrologist, soils specialist

Garrett Schairer, MT DNRC, Northwestern Land Office, Kalispell, Montana-Area Wildlife Biologist

Consultants Individuals Consulted

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