CHECKLIST ENVIRONMENTAL ASSESSMENT

FLATWILLOW-TP

Prepared by Ron Buck
Northeastern Land office - DNRC/Lewistown
April, 2013

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CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Flatwillow Timber Sale
Proposed Implementation Date:	June 2013 - December 2014
Proponent:	DNRC, Northeastern Land Office
Location:	NE4 section29 and NW4 section 28, T13N, 21E
County:	Fergus

I. TYPE AND PURPOSE OF ACTION

The Montana DNRC, Northeastern Land Office, plans to harvest up to 100 MBF (thousand board feet) or approximately 550 tons of saw logs and 400 tons of pulp wood on approximately 40acres. Harvesting would be done with ground-based equipment during the summer. Approximately 2,000 feet of new road construction would be needed The purpose of the action is to generate income for the Public Common School Trust Fund, increase tree growth rates, and reduce the likelihood of loss due to pine beetles, disease and stand replacement wildfire.

II. PROJECT DEVELOPMENT

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

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

On April 10, 2013, letters describing the proposed project and requesting comments were sent to the following: (An add was also placed in the Lewistown Argus on April 13 and 20, 2013).Michael Hansen, an adjacent land owner requested a map. No comments were received.

Adjacent Landowner and Lessee: Mickel & Esther Negard, Michael Hansen, Ronald Hougland, Louise Kombal, Philip Seaholm, Ruth Wicks and the Thayer Ranch,LLP.

Montana State Agencies: Montana DNRC, Forest Management Bureau, Montana DNRC, Agriculture and Grazing Management Bureau, Montana DNRC Centralized Services Division, Montana Department of Fish Wildlife and Parks.

Others: Friends of the Wild Swan, F. H. Stoltze Land and Lumber, Plum Creek Timber Co., Alliance for the Wild Rockies, Wild West Institute, Stuart Lewin, Confederated Salish and Kootenai Tribes, Montana Wood Products Association, Stuart Lewin, David Murnion and the Fergus County Conservation District.

Individuals Consulted: Patrick Rennie, DNRC, Archaeologist and Jeff Schmalenberg, DNRC Soil Scientist.

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

Montana Idaho State Airshed Group and Fergus County Sheriff's office for hazard reduction and slash burning.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: This alternative would postpone any timber harvest at this time, but would continue current grazing lease agreement. Potential effects of the "No Action Alternative" include reduced tree growth rates, declining forage and grazing potential and increased risk of stand replacement wildfire. Additionally, revenue opportunity may be lost as dead and dying timber is lost to pine beetles, wind-throw and wildfire.

Action Alternative: The proposed action would commercially harvest 100 MBF (thousand board feet) or approximately 550 tons of saw logs and 400 tons of pulp on approximately 40 acres. No new road construction would be necessary. The sale of forest products would produce revenue for the Public School Trust Fund, while ensuring the long-term productivity and revenue generating capacity. The sale would utilize selective harvest practices to reduce competition and improve stand and forage productivity and reduce effects of pine beetles. A reduction in fuel loads would reduce the Wildland-Rural Intermix Fire Hazard that currently exists.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Select timber harvest using ground based equipment on slopes ranging from 0-10% on 40 acres during summer conditions presents a low level of risk for low level direct and indirect impacts to soil resources within the project area if mitigation measures are effectively implemented. Mitigation measures designed for this project include Montana BMP's for forest practices as well as the following:

- Limit equipment operations to periods when soils are relatively dry, (less than 20% soil moisture), to minimize soil compaction and rutting, and to maintain drainage features.
- The Forest Officer shall approve a plan for felling, yarding and landings in each harvest unit prior to the start of operations in the unit. The locations and spacing of skid trails and landings shall be designated and approved by the Forest Officer prior to construction.
- Levels of coarse and fine woody material will be retained on site as prescribed by the forest officer and recommended by the project soil scientist using guidance from the best available science. 2-4 tons/acre of material >3" is recommended for the Flatwillow Timber Permit project area with as many needles and fine material as possible which are typically retained during skidding operations.

No previous timber harvest has occurred within the project areas. There is no potential for cumulative soil impacts resulting from the implementation of the action alternative.

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.

There are no streams within the project area or along the haul route to the county road. The semi-arid project area receives approximately 22-24 inches of precipitation a year. All Montana BMP's for forest practices will be implemented on haul roads and during harvest activites. When harvest activities are completed, all roads will be grass seeded, slashed and access controlled to prohibit unauthorized motorized use. By limiting post-harvest road traffic, road surfaces will grass in more quickly and erosion from road surfaces will be reduced and/or eliminated.

If the above mitigation measures are implemented, no measureable or detectable direct, indirect or cumulative impacts to water quality or quantity are expected.

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 project area is located within Arished 9. State Hazard Reduction Standards will be mitigated by initiating slash disposal (by DNRC personnel) during seasonal burning periods and completed by following procedures established by the Montana Idaho Airshed Coordination Group. No cumulative impacts to air quality are likely to occur as a result of this proposal.

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.

The timber stands in the project area are composed of Ponderosa Pine and do not meet DNRC's definition of old growth. Approximately 60% of the merchantable (>10" DBH) trees would be removed. Primary effects would be de decreased canopy cover and reduced stems per acre. No cumulative impacts to vegetation are likely to occur as a result of this proposal and no rare plants or cover types have been identified by the Montana Heritage Program.

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.

The project area is frequented by game animals. Displacement of certain species during harvest operations and some reduction of hiding cover could be a direct impact of the project.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

No federally listed threatened or endangered species or identified habitats are known to exist within the project area. No sensitive species or species of special concern have been observed within the project area. No cumulative impacts to sensitive species or species of special concern or their habitat are likely to occur as a result of this proposal.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

The DNRC staff archeologist, Patrick Rennie, thought that there would be no direct, indirect or cumulative effects to these resources as a result of this proposal.

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.

The project area is located on and within common topographical features typical of the area and would not be visible from populated areas. No excessive noise, light or cumulative impacts are likely to occur as a result of this proposal.

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.

The project area will not use resources that are limited in the area. No cumulative impacts to environmental resources of land, water, air or energy are likely to occur as a result of this proposal.

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 project area is classified grazing land. No adverse effects are anticipated to occur in conjunction with activities proposed under the action alternative. No cumulative impacts are likely to occur as a result of other private, state or federal current actions within the analysis area or state actions currently under MEPA review by any state agency.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Human safety risks may vary with the workers actively involved in "on site" harvest operations. Safety rules and regulations applied through Occupational Health and Safety Act (OHSA) and are administered by workers dealing with that program.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

This project is expected to increase forestland and rangeland productivity.

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.

People are currently employed in the wood products industry in the region. Due to the relatively small size of the timber sale program, there will be no measurable cumulative impact from this proposed action on employment. No cumulative impacts are likely to occur as a result of this proposal.

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.

People are currently paying taxes from the wood products industry in the region. Due to the relatively small size of the timber sale program, there will be no measurable cumulative impact from this proposed action on tax revenues. No cumulative impacts are likely to occur as a result of this proposal.

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

There will be no measurable cumulative impacts related to demand for government services due to the relatively small size of the timber permit program, the short-term impacts to traffic. No cumulative impacts are likely to occur as a result of this proposal.

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 March 2003, DNRC adopted new Forest Management Rules and began a phased-in implementation of them. The full intent and content of the Rules have been incorporated into the design of the proposed action. No cumulative impacts are likely to occur as a result of this proposal.

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.

No wilderness or recreational areas are nearby or accessed through this tract. There is public access to this tract. Timber harvesting would be completed before the 2013 big game hunting season. No cumulative impacts to recreational or wilderness activities are likely to occur as a result of this proposal.

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 will be no measurable cumulative impacts related to population and housing due to relatively small size of the timber sale program, and the fact that people are already employed in this occupation in the region. No cumulative impacts are likely to occur as a result of this proposal.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

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

None.

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.

The estimated return to the trust under the action alternative would be approximately $3,150.00 for 550 tons of saw logs at $5.00/ton and 400 tons of pulp at $1.00/ton. 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. The estimated stumpage is based on comparable sales analysis. No cumulative impacts are likely to occur as a result of this proposal.

EA Checklist Prepared By:	Name: Ron Buck	Date: May, 2013
	Title: DNRC-NELO Area Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Action Alternative

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

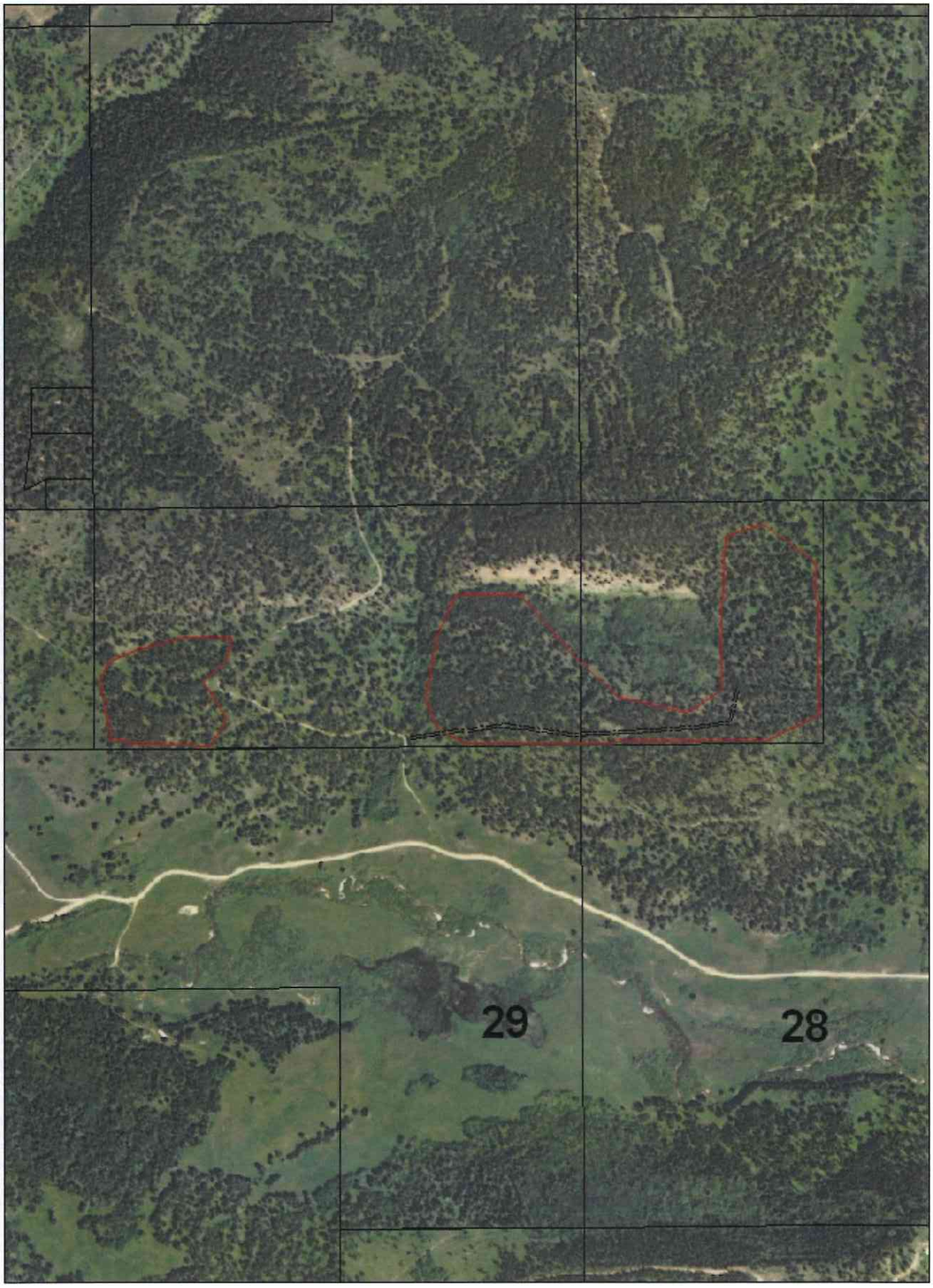
There will be no significant environmental impacts from the action alternative.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

EA Checklist Approved By:	Name: Clive Rooney	
	Title: NELO Area Manager	
Signature:		Date: 5/24/13

FLATWILLOW TP



sec.28 & 29,13N,21E

Attachment –A-1

VEGETATION STAND DESCRIPTION

Sale Name: **Flatwillow Timber Permit** **Date:** May, 2013

Prepared by: Ron Buck

Location: Sec. 28 & 29, T.13 N. R.21E. **Acres:** 40

Elevation: 4,500 – 4,800 feet **Aspect(s):** South

Slope: 0 – 10% (average of 6%)

Habitat type: *PSME/SYAL* (Douglas Fir/ Snowberry)

Soils: (Whitecow–Hugheville Complex) gravely loams and cobbly, silty clay loams

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Description of stand(s): Overstories are generally dominated by Ponderosa pine. The current stands consist of 100 year old Ponderosa pine and overall the stands average approximately 140-160 trees per acre in the 10 to 14 inch DBH class. Most of the stands are even aged with some stands of multi-storied areas of dominant and suppressed trees resulting from fire suppression.

Many areas show signs of decadence and mortality due to overstocking, the absence of fire and/or forest management, insects and disease. New stands of Ponderosa pine are encroaching into areas which historically were natural openings and meadows.

Insect and disease agents are commom throughout the harvest units, with increasing impact from Pine Beetles. Diseases include root rot and damage from bark beetles is present. Physiological effects caused by these agents include stem decays, cankers and mortality.

Attachment – A-2

FLATWILLOW TIMBER PERMIT

Silvicultural Prescription

Section NE4 s29 & NW4 s28, T.13N, R.21E

Existing Stand:
The current stands consist of 100 year old Ponderosa pine. Overstories are generally dominated by Ponderosa pine. The stand is currently at high risk of stand replacement wildfire and increased loss of growth potential due to over competition and significant insect mortality due to increasing impact of Pine Beetles.

Estimated Harvest Acres: 40 acres
Estimated Standing Volume: 250MBF
Estimated Harvest Volume: 100 MBF
Estimated Volume Per Acre: 2.5 MBF

Treatment Objectives:
All treatments will address forest health issues such as insects and disease, stand density, stand structure and fuel loading. Harvest units will convert stands to shelterwood condition, with Ponderosa pine as the primary species in the overstory. Direct affects of harvest activities will include a reduction in the number of trees per acre and an increase in the average tree size due to the retention of larger trees and removal of dense understory trees. All habitat types will have much more open understories and a reduction in ladder fuels.

Prescribed Treatment:
1. Harvest up to 40 acres of timbered land through cutting two shelterwood units.
2. Remove mature timber susceptible to disease and insect damage (100 MBF) or 550 tons of saw logs and 400 tons of pulp wood.
3. Increase growth and health of residual stand by decreasing stocking levels. Reduce Basal area to 40 square feet on average with 40 foot spacing.
4. Reduce fuel loads by removal of dense understory.
5. Snag recruitment of two trees/acre and leave 2-4 tons/acre of woody debris for maintenance of soil nutrition.