CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	North Hills Big Apple
Proposed Implementation Date:	8/20/2015
Proponent:	DNRC Helena Unit
Location:	North Hills Helena T12N R03W Section 30
County:	Lewis and Clark

I. TYPE AND PURPOSE OF ACTION

The Helena Unit (HU) of the Montana Department of Natural Resources and Conservation (DNRC) is proposing a forest improvement and fuel reduction in the North Hills of Helena. The purpose of the North Hills Big Apple Timber Stand Improvement and Fuel Reduction project is to remove dead and dying ponderosa pine that have been impacted by mountain pine beetle, space trees out to improve health and vigor, and reduce the likelihood of high intensity stand replacing wildfire. This project will increase the growth of the timber stand, and reduce the fuel available to fire near structures, communications sites, and interstate 15.

The action alternative would involve DNRC fire personnel hand falling, limbing, chipping, and piling cut woody material. Material may be moved with an ATV or UTV to areas where a truck pulled chipper can access or to a centralized location for piling. Piles would be burned when it is safe to do so, and air-quality will not be negatively impacted. Chips would be dispersed not more than 3" in depth. The trees that are left on the site would be spaced to 10-20' average crown spacing, be of the best available crown form, generally the largest size class available of living trees. Additionally 2 snags, with 2 snag recruits per acre would be left on site, snags and snag recruits would be of the largest size class available. This project would take place over the next four years. Project work would be conducted as the crew becomes available.

II. PROJECT DEVELOPMENT

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

Provide a brief chronology of the scoping and ongoing involvement for this project. List number of individuals contacted, number of responses received, and newspapers in which notices were placed and for how long. Briefly summarize issues received from the public.

DNRC Helena Unit contacted neighboring landowners to secure access. DNRC has secured access for a period of 10 years into the project site for fuel mitigation and forest improvement work.

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

Examples: cost-share agreement with U.S. Forest Service, 124 Permit, 3A Authorization, Air Quality Major Open Burning Permit.

- **Montana Department of Environmental Quality (DEQ)-** DNRC is classified as a major open burner by DEQ and is issued a permit from DEQ to conduct burning activities on state lands managed by DNRC. As a major open-burning permit holder, DNRC agrees to comply with the limitations and conditions of the permit.

- **Montana/Idaho Airshed Group-** 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). As a member of the Airshed Group, DNRC agrees to burn only on days approved for good smoke dispersion as determined by the Smoke Management Unit.

3. ALTERNATIVE DEVELOPMENT:

Describe alternatives considered and, if applicable, provide brief description of how the alternatives were developed. List alternatives that were considered but eliminated from further analysis and why.

No-Action Alternative: The insects and disease issues will continue to degrade the stand. If the dead and dying trees are not removed there is potential for loss to the timber resource.

Action Alternative: The action alternative was developed to mitigate the impacts of the mountain pine beetle in the forested portions of the tract, to increase growth rate, and to improve the resistance of the forest to catastrophic loss by wildland fire.

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 direct, indirect, and cumulative effects to soils.

Inventoried soil types in the project area are 61E, 163D, 563E, 663E, 763E, 861D, 963F as listed by the USDA NRCS Web Soil Survey. Soils are generally slight to moderately erodible, with the exception of 963F, Tolex-Mocmont-Rock outcrop complex, 25-60 percent slopes. See Attached Soil Report.

No-Action Alternative: Trees would remain on site un thinned, fuels would build up, Tolex-Mocmont-Rock outcrop complex, on 25-60 percent slopes are highly susceptible to creating a water repellant layer, volatilization of essential soil nutrients, destruction of soil biological activity, and vulnerability to water and wind erosion prior to reestablishing adequate vegetative cover on the burned site.

Action Alternative: Equipment used for this project will be an ATV, a UTV, and pickup truck with a towed chipper and will not be operating on slopes greater than 35%, and operations will be limited to times when the soil is dry or frozen. Any disturbed areas will be covered with wood chips or slash to prevent soil erosion.

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 direct, indirect, and cumulative effects to water resources.

There are no known streams Class I, II, or III Streams in the project area.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

6. AIR QUALITY:

What pollutants or particulate would be produced (i.e. particulate matter from road use or harvesting, slash pile burning, prescribed burning, etc)? Identify the Airshed and Impact Zone (if any) according to the Montana/Idaho Airshed Group. Identify direct, indirect, and cumulative effects to air quality.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: Small handmade slash piles may be burned. Pile burning would emit some particulate matter and smoke in Airshed 6. Any burning will be done with the approval of Montana-Idaho Airshed group and burned on days with good smoke dispersion. The majority of the material will be chipped reducing the amount of smoke created.

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 direct, indirect, and cumulative effects to vegetation.

No-Action Alternative: The insects and disease issues will continue to degrade the stand.

Action Alternative: Dead, dying, diseased, intermediate and suppressed trees would be removed from the project area. The largest and healthiest trees would be left on site, thinned to a 20' spacing. This would open up space for regen to grow freely. All equipment will be washed prior to entering project area to reduce the spread of noxious weeds.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify direct, indirect, and cumulative effects to fish and wildlife.

No-Action Alternative: The stand would continue to deteriorate. There would be an abundance of snags. If a fire were to burn the area there would be an increased likelihood of extreme fire behavior. Fallen trees may make area impassible for ungulates.

Action Alternative: Stand density would be reduced, opening up more ground for grass to grow.

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 direct, indirect, and cumulative effects to these species and their habitat.

See attached Montana Natural Heritage Program Plant and Animal Report

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur. Should a listed threatened or endangered species be seen in the project area operations will halt until further analysis can be done.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

No known historic, archeological or paleontological sites are known to exist in the project area.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur. Should any historic, archeological, or paleontological sites be discovered operations would halt until further analysis can be done.

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 direct, indirect, and cumulative effects to aesthetics.

No-Action Alternative: Dead and dying trees would remain an eyesore to the public. There would be a higher density of live trees left on the site.

Action Alternative: Dead and dying trees would have less visual impact, live trees on site would be of generally good crown form, tree growth rates would increase, grass would establish in areas opened up from removing dense stands of suppressed timber, and the dead and dying.

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 direct, indirect, and cumulative effects to environmental resources.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

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

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: A slight increase to the amount of forage available for grazing may occur several years post treatment.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify direct, indirect, and cumulative effects to the employment market.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify direct, indirect, and cumulative effects to taxes and revenue.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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 direct, indirect, and cumulative effects of this and other projects on government services

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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 direct, indirect, and cumulative effects to recreational and wilderness activities.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

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

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

23. CULTURAL UNIQUENESS AND DIVERSITY:

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

No-Action Alternative: No direct or indirect, or cumulative impacts would occur.

Action Alternative: No direct or indirect, or cumulative impacts are anticipated occur.

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 direct, indirect, and cumulative economic and social effects likely to occur as a result of the proposed action.

No-Action Alternative: Reduction in the value of the tract, one lessee forfeited the lease on this tract due to high mortality in the timber.

Action Alternative: Minor increase in the value of the tract, increase in forage for grazing, and increased growth rates of timber, reducing the likelihood of stand replacing fire that would cause substantial damage to the timber resource.

EA Checklist Prepared By:	**Name:** Devin Healy	**Date:** 7/20/15	
	Title: Helena Unit Forester		

V. FINDING

25. ALTERNATIVE SELECTED:

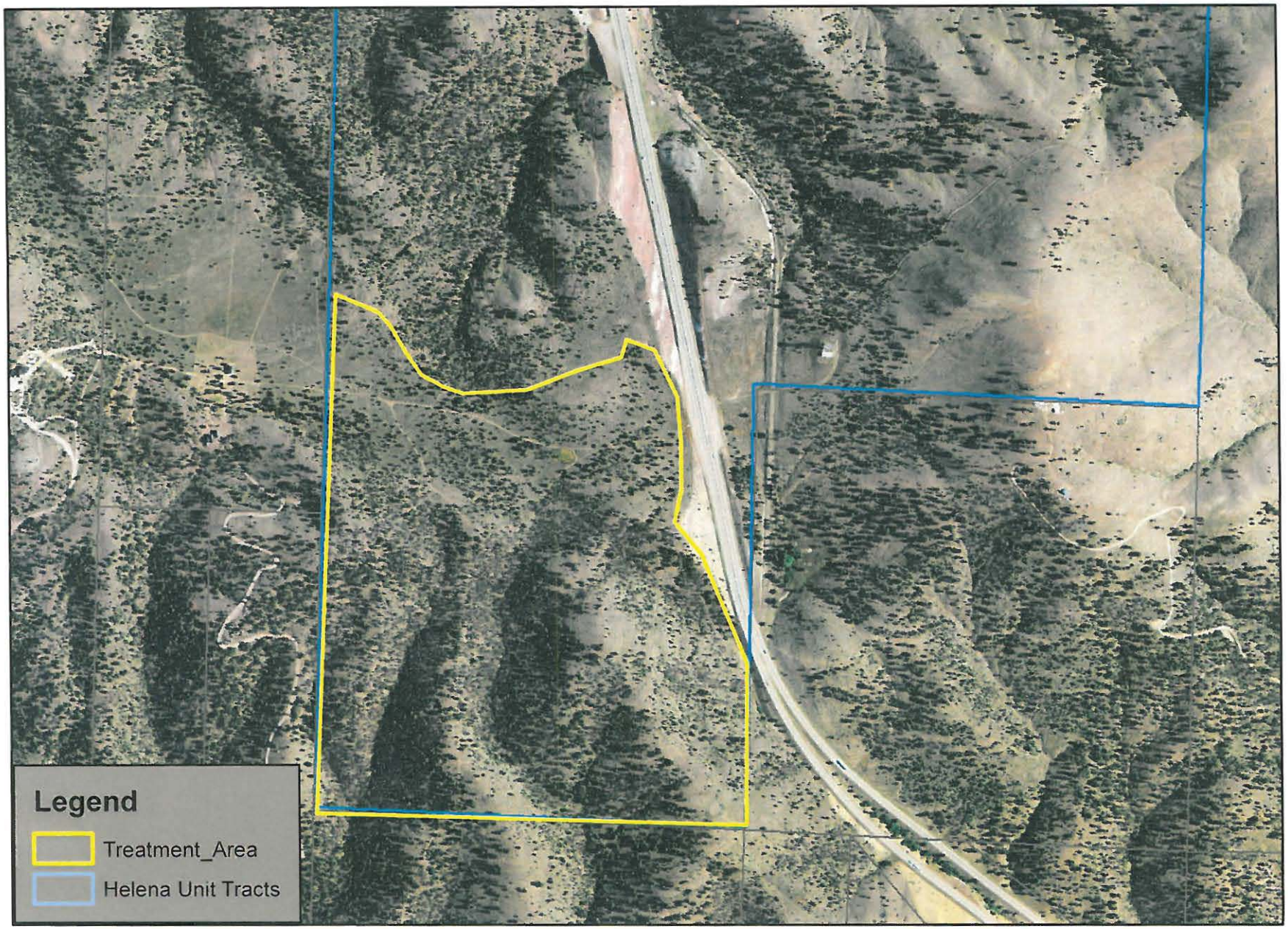
The action alternative: DNRC fire personnel will complete hand falling, limbing, chipping, and piling cut woody material. Material may be moved with an ATV or UTV to areas where a truck pulled chipper can access or to a centralized location for piling. Piles would be burned when it is safe to do so, and air-quality will not be negatively impacted.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

As proposed, I do not anticipate any direct, indirect or cumulative effects from the implementation of the selected alternative. This alternative was developed to mitigate the impacts of the mountain pine beetle in the forested portions of the tract, to increase growth rate, and to improve the resistance of the forest to catastrophic loss by wildland fire. Improvement to forest health and vigor combined with hazardous fuels removal will result. Other positive results include: grazing production, returns to the trust, and improved initial attack of wildland fire in the project area.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[x]	No Further Analysis

EA Checklist Approved By:	**Name:** Andy Burgoyne	
	Title: Helena Unit Manager	
Signature:		**Date:** September 4, 2015

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