CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Generalized Beetle Salvage Alternative Practice For the Greater Georgetown Lake Area
Proposed Implementation Date:	Upon Signature
Proponent:	Sean Steinebach- DNRC Service Forester
Location:	Various Locations In the Greater Georgetown Lake Area (see map)
County:	Granite and Deer Lodge

I. TYPE AND PURPOSE OF ACTION

The Montana Department of Natural Resources and Conservation (DNRC), Forestry Division, is proposing to issue Streamside Management Zone (SMZ) Alternative Practices for up to 50 small, non-industrial private forest (NIPF) landowners who own property adjacent to streams and lakes in the Flint-Rock Creek and Upper Clark Fork 5th order Hydrologic Unit Code watersheds (see attached map). There is approximately 130 miles of stream and lakefront property in the project area. Of these 130 miles, the project would be expected to impact approximately 5 lineal miles total, or 4%. This area has been significantly affected by mountain pine beetle in the lodgepole pine stands and this Alternative Practice would facilitate safe removal of dead and dying trees that would become a safety hazard near homes, cabins and other improvements.

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ. The proximity of the beetle infested trees to homes, cabins, docks, roads and recreation areas has created safety issues that may require treatments outside of the allowances of the SMZ law. Treatments would be approved on a case by case basis and would be limited to operation of a feller-buncher inside the 50 foot SMZ, but no closer than 25 feet to the ordinary high water mark (OHWM). These treatments would be conducted on slopes less than 15% and would allow removal of lodgepole pine to below minimum retention standards as identified under Rules 4 and 5 in the *Montana Guide to the Streamside Zone Law and Rules 2006* (ARM 36.11.310-313). Removal to below minimum retention standards would only be allowed in areas that lie within 150 feet of improvements or where dead or infested lodgepole pine comprises less than 50% of the standing trees. Additional stipulations of this request would include:

- Operation of the feller-buncher inside the SMZ would be in a straight-in and straight-out manner to minimize disturbance inside the 50 foot boundary.

- Operation would only occur during periods when soil disturbance can be minimized under conditions of frozen ground to a depth of four inches, snow to a depth of eight inches, or periods when ground moisture is less than 20%.

- If operations take place during periods of dry ground conditions, mitigation measures would include grass seeding and slash filter windrows placed on disturbed areas to prevent run-off and sediment from reaching water.

- Felled trees would be placed outside of the 50 foot SMZ boundary for skidding.

- Small, un-infested lodgepole pine, in addition to other species of trees such as Douglas-fir, Engelmann spruce, quaking aspen and all brush species, would be retained and protected to the greatest extent possible.

- When practical, and as directed by either the DNRC Hydrologist or DFWP Fisheries Biologist, a tree or trees would be placed across streams to provide for shading and woody debris.

AP's would be issued under this EA Checklist for a period of two years.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:
Provide a brief chronology of the scoping and ongoing involvement for this project.

MT DNRC MEPA Coordinator, MT DNRC Trust Lands Program Manager and MT DNRC Anaconda Unit Manager, DNRC Fisheries Biologist, DNRC Archaeologist, Deer Lodge Valley and Granite County Conservation Districts and Pintlar Vista and Georgetown Lake Homeowners Associations.

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

N/A

3. ALTERNATIVES CONSIDERED:

Alternative A –No Action.

This alternative would not operate machinery inside the fifty foot buffer. Beetle-killed trees would be hand-felled to minimum retention standards, left standing or removed in a non-commercial manner, such as by an arborist. In instances when the trees are removed non-commercially, the DNRC has no jurisdiction over operations and excessive disturbance or increased risks to safety may occur.

Alternative B – Action.

Up to 50 SMZ Alternative Practices would be issued for small, NIPF landowners who own property adjacent to streams and lakes that lie within the Flint-Rock Creek and Upper Clark Fork 5th Order Hydrologic Unit Code watersheds (see attached map). Please see *Type and Purpose of Action* for a full description of this alternative.

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.

Alternative A - No Action

No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Trees would be hand-felled and skidded by cable through the SMZ. Felling and skidding may occur on various types of soils and on various degrees of slopes. Cable skidding each tree out of the SMZ would likely create more soil disturbance than a feller-buncher carrying multiple trees out of the SMZ for skidding.

Alternative B – Action

Equipment operation would be limited to soils that are described as "moderately or well suited" for timber harvest in the Web Soil Survey. Equipment operation would be limited to areas where slope is less than 15%. Mitigation measures would include operating season restrictions that require frozen ground to a depth of four

inches, snow depth of eight inches or ground moisture of 20% or less. In addition, grass-seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of activity would be required. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the soil rating restrictions, operation restrictions and mitigation measures.

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.

Alternative A - No Action

No equipment operation would be allowed inside the 50 foot SMZ. Minimum retention standards would be recognized. Trees would be hand-felled and skidded by cable through the SMZ or left standing. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Sedimentation delivery from existing roads, other land treatments and developments would continue. Minimal direct, indirect, and cumulative impacts to water quality and quantity would be expected.

Alternative B – Action

The harvest of trees within the first 25 feet of the SMZ may introduce low levels of sediment delivery to adjacent waterbodies. However, the 25 foot equipment exclusion zone would be expected to provide adequate filtration for any displaced soils or increased runoff due to compacted soils in the 25 to 50 foot AP zone. Increases in sedimentation would be expected to be minimal and temporary due to operations only occurring on slopes less than 15% and application of mitigation measures. Mitigation measures include imposing seasonal operating restrictions that require frozen ground to a depth of four inches, snow depth of eight inches or ground moisture of 20% or less; and requiring grass seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of operations. DNRC may monitor AP sites to verify effectiveness. Minimal direct, indirect, and cumulative impacts to water quality and quantity are expected due to operation restrictions and mitigation measures.

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.

N/A

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

If no action is taken the dead trees will fall over, potentially causing damage to improvements and people. Trees may be hand-felled to minimum retention standards, but it would be expected that as retention trees fell the landowner would remove them anyway. Hand-felling and skidding hand-felled trees have the potential to be more damaging to the residual stand than the directional felling of a feller buncher. This is due to trees being pulled through the residual stand with less maneuverability, potentially removing bark and pulling over the residual stand.

Alternative B – Action

Vegetative communities would be affected to the extent that lodgepole pine would be reduced to below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook. Other species of trees such as Douglas-fir, Engelmann spruce and quaking aspen would be retained where present and understory vegetation would be protected to the greatest extent possible. Removal of the dead trees would expedite natural regeneration and cumulative effects to vegetative communities would decrease as trees regenerate and replace those that are harvested.

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.

Alternative A – No Action

Minimum retention standards would be adhered to as well as equipment restrictions. Due to the areas being heavily used for recreation and their proximity to roads and cabins, the suitability of the proposed sites would continue to be marginal at best for terrestrial and avian habitat. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner.

Alternative B – Action

Due to the areas being heavily used for recreation and their proximity to roads and cabins, the suitability of the proposed sites would continue to be marginal at best for terrestrial and avian habitat. Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat where present. The AP would reduce recruitable woody debris in bull trout and westslope cutthroat trout streams. In areas of pure lodgepole pine stands, stream shading would be reduced and peak seasonal stream temperatures may see an increase in July and August. All other species of trees and brush would be retained and protected to the greatest extent possible. When practical, and as directed by either the DNRC Hydrologist or DFWP Fisheries Biologist, a tree or trees would be placed across streams to provide for shading and woody debris. Cumulative impacts would be expected to be short term and isolated to areas within a tree length of improvements.

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.

Alternative A – No Action
A query of the Montana Natural Heritage Program identifies the area as being possible habitat for gray wolf, Canada lynx, wolverine and fisher. Due to the proximity of heavy recreational activities and access to cabin sites, this area is not ideal habitat for grey wolf, Canada lynx, wolverine or fisher. Minimum retention standards would be adhered to as well as equipment restrictions. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner.

Alternative B - Action
Due to the proximity of heavy recreational activities and access to cabin sites, this area would continue to not be ideal habitat for gray wolf, Canada lynx, wolverine or fisher. If a sighting of any of the listed species of concern (or evidence such as nests, dens etc…) occurs, operations would be halted, or not allowed, until further assessment can take place.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

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

Although no cultural or paleontologic resources are known to exist in the project APE, a systematic inventory of such resources has not occurred. Because none of the projects are located on state land, the DNRC has no jurisdiction to require private landholders to conduct professional level inventories to identify, or develop treatment plans for, privately owned National Register eligible properties.

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.

Alternative A – No Action
Minimum retention standards would be adhered to as well as equipment restrictions. Dead lodgepole pine would eventually fall over and/or be removed in a non-commercial manner. Aesthetics would be degraded as green trees transitioned to red and eventually fell over.

Alternative B - Action
Potential impacts may be perceived as adverse by recreationists, landowners and travelers. The removal of beetle killed lodgepole pine would look unsightly in the short term, but would encourage regeneration. This regeneration would eventually soften and replace aesthetic quality damaged by mountain pine beetle infestation.

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.

N/A

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.

There have been six SMZ AP's issued in the last two years in this area. All of them have required similar operating restrictions and mitigation measures and have proved beneficial with minimal impacts.

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.

Cabins and recreational sites would become unsafe as beetle killed trees begin to fall over and improvements such as culverts and bridges would be put in jeopardy as falling trees impede water movement. The removal of beetle killed tree would improve safety to homeowners and those that use the area for recreation.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

N/A

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.

Projects would be allowed for a period of two years. Harvest of trees may generate 10 mbf per site and would employ three or four crews over the entire area. In addition this project would provide raw material for local mill operations.

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.

Negligible amounts.

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

N/A

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.

Projects under this Alternative Practice would allow timber salvage in areas considered at high risk for wildfire under Granite and Deer Lodge Counties' Community Wildfire Protection Plans.

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.

N/A

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.

N/A

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

N/A

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

N/A

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.

N/A

EA Checklist Prepared By:	**Name:** Sean Steinebach	**Date:** 5/18/10
	Title: Service Forester	

V. FINDING

25. ALTERNATIVE SELECTED:

Alternative B - Action

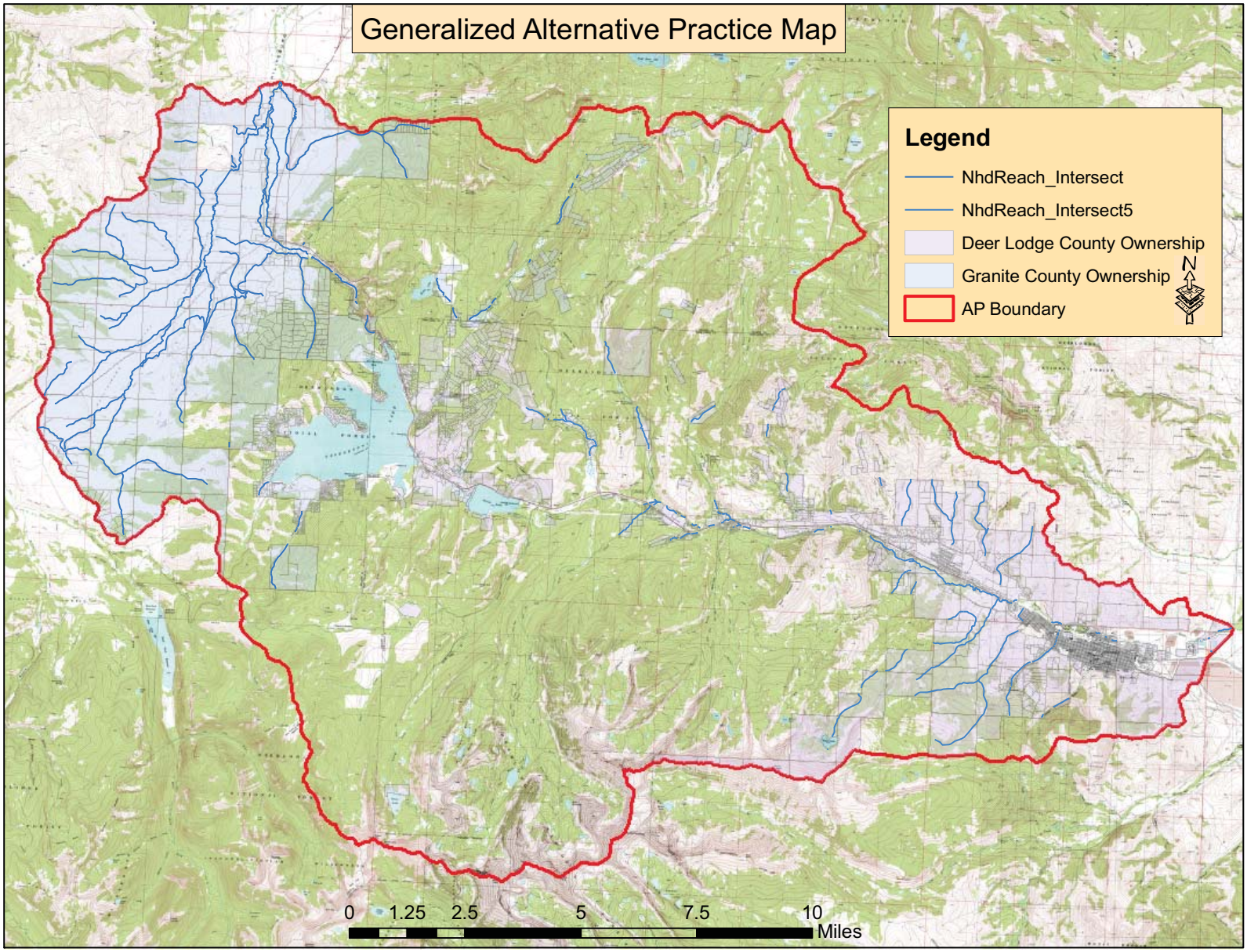
26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

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

EA Checklist Approved By:	**Name:** Fred Staedler
	Title: Anaconda Unit Manager
Signature: /S/ Fred Staedler	**Date**:5/21/10


Generalized Alternative Practice Map
Legend
NhdReach_Intersect
NhdReach_Intersect5
Deer Lodge County Ownership
Granite County Ownership
AP Boundary
N
0
1.25
2.5
5
7.5
10
Miles