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Georgetown Lake Hazardous Fuels Reduction

Pintler Ranger District
Beaverhead-Deerlodge National Forest
Granite and Deer Lodge Counties

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PURPOSE OF AND NEED FOR ACTION AND PROPOSED ACTION

Background Information

In 1997, the Beaverhead-Deerlodge National Forest (BDNF) proposed the Double Sec Timber Sale and Vegetation Management project. A Draft Environmental Impact Statement (DEIS) analyzing five alternatives was prepared and released in September 1999. Additional analysis after the release of the DEIS was necessary due to an increase in timber harvesting on private lands within and adjacent to the project area. In the fall of 2000 the U.S. Congress and Clinton Administration enacted the National Fire Plan. This plan emphasized treating hazardous fuels to reduce the threat of severe and damaging wildfires to forests and homes. In response to the emphasis of the National Fire Plan, the Double Sec Timber Sale and Vegetation Management project was revised. The purpose and need was changed and a new proposed action was developed. This new proposed action was called the Georgetown Lake Vegetation Management project.

In December 2002, the BDNF conducted scoping for the Georgetown Lake Vegetation Management project. A Notice of Intent to prepare an Environmental Impact Statement (EIS) was issued. The purpose and need of the project included objectives to reduce hazardous fuels and risk to firefighter and public safety, maintain or improve forest and grassland health, and provide opportunities to utilize wood products. This proposal included 1,100 acres of fuel reduction and forest health treatments in the form of thinning and shelterwood harvest; 1,150 acres of mechanized and prescribed fire treatments to control conifer encroachment and reduce grassland fuels; and approximately 1.5 miles of temporary road. A Cancellation of the Notice of Intent to prepare an EIS was mailed to the Office of the Federal Register in April 2004.

In May 2004, the Forest again scoped the Georgetown Lake project. The project was identified as the Georgetown Lake Hazardous Fuels Reduction project. This modified proposal included 859 acres of thinning; 568 acres of broadcast and under burning; 138 acres of conifer encroachment reduction; and 1.5 miles of temporary road. The modifications to the project included a revised purpose and need to focus on hazardous fuels reduction, firefighter and public safety, addition of strategically-located treatment units, and elimination of treatment units that did not meet the new purpose and need. The intent was to categorically exclude the proposed action from further analysis and documentation in an EIS or EA under Category 10, FSH 1909.15, Chapter 31.2, Category 10: Hazardous fuels reduction activities using prescribed fire, not to exceed 4,500 acres, and Mechanized methods for crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing, not to exceed 1,000 acres.

In response to comments received during the May 2004 scoping period, the Georgetown Lake Hazardous Fuels Reduction project was further modified. The total treatment acreage was reduced to approximately 969 acres; temporary road construction was reduced to approximately 300 feet; some treatment units were eliminated; areas containing old growth were excluded from treatment; and all treatment units were located within the Wildland Urban Interface.

On March 31, 2006, BDNF Forest Supervisor, Bruce Ramsey, documented his decision to treat hazardous fuels in the Georgetown Lake area in the Georgetown Lake Hazardous Fuels Reduction Decision Memo. On December 5, 2007, the Ninth Circuit Court ruling in *Sierra Club v. Bosworth* invalidated the use of CE Category 10 as described in FSH 1905.15 31.2 and remanded the case back to the District Court. In November 2008, the U.S. District Court issued a ruling stating the use of the category related to hazardous fuels reduction projects could not be used until the effects of the category were further analyzed under NEPA.

As of November 2008, approximately 25 percent of the project had been completed. Because of the invalidation of the CE category, the BDNF has taken the proposed action, public involvement, and environmental effects analysis used to support the 2006 Decision Memo and developed this Environmental Assessment.

Purpose and Need For Action

The purpose of this project is to reduce hazardous fuels and subsequently the risk of loss to private in-holdings and infrastructure from wildland fire in the Georgetown Lake Wildland Urban Interface (WUI). By reducing fuel loads and breaking up fuel continuity, the ability to effectively suppress fires within the project area would increase. Not only would treatment help to protect the Georgetown Lake WUI area from fires originating outside and burning into the project area, the proposed treatment would also increase firefighter's ability to actively suppress human-caused fires that may start inside the project area.

This proposal responds to the National Fire Plan which provides a strategy for a comprehensive approach to the management of wildland fire and hazardous fuels on Federal and adjacent State, tribal and private forest and range lands in the United States. This strategy emphasizes reducing the risk to communities and the environment. As part of the National Fire Plan, a 10-Year Comprehensive Strategy has been prepared. One of the goals of this strategy is to reduce hazardous fuels.

The specific objectives related to the purpose and need for the Georgetown Hazardous Fuels Reduction project include:

- **Reduce hazardous fuels in the wildland-urban interface**

The forested stands in the project area are generally lodgepole pine with dead-downed woody debris and ladder fuels in the understory. The tree canopy is closed because the trees are closely spaced. The current fuel conditions promote high intensity fire under high to extreme fire weather conditions i.e. strong winds and hot, dry days. The expected fire behavior under these fuel and weather conditions can be characterized as active crown fire. By reducing the surface, ladder, and canopy fuels, the resulting fire behavior would decrease. Reduction of these fuels would reduce both the hazard associated with active crown fire and increase firefighter capability to suppress fire in the project area. Anaconda-Deer Lodge County and Granite County defined their own WUI's, as described in their respective Community Wildfire Protection Plans (CWPP). These definitions expand upon the nationally-recognized HFRA WUI definition. The Georgetown Hazardous Fuels Reduction project area is within the county-defined WUI's. The Anaconda-Deer Lodge CWPP identifies the Echo Lake and Georgetown Lake East subdivisions at very high to extreme risk to wildfire (CWPP, p. 32); the Granite County CWPP identifies the Georgetown Lake South and West subdivisions at very high risk to wildfire (CWPP, p. 32). The two CWPP's identify Priority Protection Zones; the proposed treatment units lie within zones rated as Medium Priority and High Priority.

- **Reduce the potential of damage to public and private values at risk within the project area from wildland fire.**

The area surrounding Georgetown Lake and Echo Lake contains a considerable amount of private land intermixed with National Forest System lands. There are over 1400 homes and other structures within the project area with subdivisions and new home construction continuing on private property. Additional subdivision proposals are pending and subject to county approval. There are approximately 70 permitted recreation residences and structures on Forest Service administered lands, several campgrounds and recreation facilities, and the Discovery Basin Ski Area. The area is classified as an urban interface intermix community because of the number of structures and developments in portions of the project area and the distribution of the structures throughout the forest. The infrastructure in much of the area is such that firefighting capabilities are limited or hindered in many areas by narrow dead-end roads and one-way in/out routes. The reduction of fuels in the project area will in turn reduce the hazard to public and private property, structures, and recreation values.

- **Increase firefighter and public safety**

The difficulty of suppressing intensely burning wildfires increases significantly when populated areas are threatened. Not only are firefighters at risk, but forest users and the citizens of the threatened community are also in danger. Reducing fuel loads through thinning, prescribed fire and other mechanized treatments would help to decrease the intensity of a wildfire and increase fire fighter and public safety. The treatments would help create defensible spaces near private and Forest Service

values at risk. This, in conjunction with actions taken on other ownerships, would result in a safer environment for firefighters and the public.

The following photos show portions of Unit 8 (comprehensive treatment) without treatment as well as after treatment approved in the 2006 Decision Memo. Figure 2 illustrates what we are trying to achieve with the proposed action.

Please reference Maps 1, 2, and 3 at the end of the document for specific treatment locations.

Figure 1. Unit 8 without treatment



Figure 2. Unit 8 after treatment



Proposed Action

The Forest Service proposes to reduce fuels on approximately 808 acres in the Wildland Urban Interface area of Georgetown and Echo Lakes on the Pintler Ranger District on the Beaverhead-Deerlodge National Forest. The project is located in T5, 6N; R13, 14W, approximately 10 miles south of Philipsburg, Montana. The project area location and individual treatment units are delineated on the maps attached to this EA.

Fuels reduction would be accomplished by reducing surface, ladder and canopy fuels in lodgepole pine and Douglas-fir by thinning trees and removing woody debris. These treatments would reduce the flame length, torching index, and crowning index of a wildfire.

Slash created as a result of these treatments would be piled and burned; chipped; lopped and scattered; hauled away for disposal at another site; and/or used as biomass for energy production. Three slash-disposal areas totaling approximately 5 acres would be used to dispose of slash from those treatment units that lie in management areas that prohibit prescribed burning.

Tables 1, 2, and 3 summarize the treatment types and the typical equipment normally used for each treatment type.

Table 1. Summary of treatment types by unit

Unit #	Approximate Acres	Treatment Type	Typical Equipment for Fuels Reduction Activities
1	8	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
2	5	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
3	21	Comprehensive treatment, removing stems 1" DBH to 14" DBH	Mechanized harvester, grapple skidder, delimeter, forwarder
4a	10	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
5	6	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
6	45	Remove stems up to 6.5" DBH	Chainsaw
7	56	Remove stems up to 6.5" DBH	Chainsaw
7a	12	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
8a	36	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
9	10	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
9a	10	Comprehensive treatment, removing stems 1" DBH to 14" DBH	Mechanized harvester, grapple skidder, delimeter, forwarder
9b	31	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
10	34	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
11	59	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
12a	10	Remove stems up to 6.5" DBH	Chainsaw

Unit #	Approximate Acres	Treatment Type	Typical Equipment for Fuels Reduction Activities
12b	18	Comprehensive treatment, removing stems 1" DBH to 14" DBH	Mechanized harvester, grapple skidder, delimeter, forwarder
12c	31	Comprehensive treatment, removing stems 1"DBH to 14" DBH	Mechanized harvester, grapple skidder, delimeter, forwarder
12d	10	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
12e	55	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
12f	9	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
14	30	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
025	4	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
026	27	Remove stems up to 6.5" DBH	Chainsaw, ATV, small tractor
071	65	Remove conifers up to 6.5" overtopping sage and grass	Chainsaw
074	16	Remove conifers up to 6.5" overtopping sage and grass	Chainsaw
100	37	Slash/Burn conifers	Chainsaw, drip torch
101	153	Slash/Burn conifers	Chainsaw, drip torch

Table 2. Summary of Treatment Types

Treatment Type	Approximate Acres
Remove stems up to 6.5" DBH	457
Comprehensive, remove stems 1"DBH to 14" DBH	80
Remove conifers up to 6.5" DBH overtopping sage and grass	81
Slash/Burn conifers	190
Total approximate acres for all treatments	808

Table 3. Treatment Type Descriptions

Treatment Type	Approximate Acres	Treatment Description
Remove trees up to 6.5" DBH (Mechanized)	457	Remove trees up to 6.5" DBH from the understory. Slash residue from these thinning activities would be disposed of using a mix of methods that include piling and burning, chipping, lopping and scattering, hauling the material away for disposal at another site, or used as biomass for energy production.
Comprehensive Treatment: Remove trees of all sizes up to 14" DBH from the canopy (Mechanized)	80	This treatment includes removing trees up to 14" DBH. Slash residue from these thinning activities would be disposed of using a mix of methods that include piling and burning, chipping, lopping and scattering, hauling the material away for disposal at another site, or used as biomass for energy production. The primary emphasis would be on removing trees less than 6.5" DBH first. Additional trees between 6.5" DBH and 14" DBH would be removed to the extent necessary to reduce Crowning Index and Torching Index.

Treatment Type	Approximate Acres	Treatment Description
Remove conifers from meadows using mechanical methods (Mechanized)	81	Conifers are colonizing sagebrush/grass meadows. Stems 6.5" DBH and smaller would be cut. The slash would be lopped and scattered. No burning is planned.
Remove conifers from meadows using prescribed burning (Fire)	190	Stems 6.5" DBH and less would be cut. Slash disposal would include jackpot burning or broadcast burning of slash and standing small trees. A common method for accomplishing this type of burning would be ground crews using hand-firing devices. Engines, hand crews, fuel breaks and constructed fire line would be used where needed to contain and control prescribed fires.

The treatment units were designed to help protect Values at Risk. These include cabins; homes; other structures; roads for ingress and egress; campgrounds, picnic sites, and boat launches; and property boundaries between National Forest System lands and private property. All treatment units are adjacent to or surrounding Values at Risk. Table 4 displays Values at Risk in each treatment unit.

Table 4. Values at Risk by Treatment Unit

Unit #	Cabins/Homes at risk in or near unit	Roads for ingress and egress at risk in or near unit	Campgrounds or boat launches at risk	Is unit located along Private/Fed. Boundary?
1	Yes, within unit	Yes, through unit	Nearby	-
2	Yes, within unit	Yes, at base of unit	Nearby	Yes
3	Yes, homesites and homes within a few yards of unit	-	-	Yes
4a	Yes, homesites and homes within a few yards of unit	-	-	Yes
005	Yes, homesites and homes within a few yards of unit	-	-	Yes
6	Yes, homesites and homes within a few yards of unit	-	-	Yes
7	Yes, homesites and homes within a few yards of unit	-	-	Yes
7a	Yes, within unit. Private homes against unit. Denton's Point Lodge within a few hundred feet	Main ingress/egress road at base of unit	Boat marina within a few hundred feet	Yes
8a	Yes, within unit	Access to cabins and picnic sites goes along edge of unit.	-	No
9	No- but electrical transmission lines within 100 feet of unit boundary	No	No	Yes
9a	Yes – private home within 500 feet of unit	No	No	Yes
9b	Yes. Homes within 500 feet; more homesites within a few hundred feet of unit boundary	Yes – road to Echo Lake	Yes – Lodgepole Campground	Yes, private land along north west edge.
10	Yes, cabins within unit	Yes	No, although some private boaters tie up along edge of unit	No
11	No	Yes	Yes – Philipsburg Bay Boat Launch and Campground	No

Unit #	Cabins/Homes at risk in or near unit	Roads for ingress and egress at risk in or near unit	Campgrounds or boat launches at risk	Is unit located along Private/Fed. Boundary?
12a	Yes, cabins within unit	Yes – to Piney Campground	Piney Campground at edge	Yes
12b	No	Yes- south end of unit touches main road around lake	Yes – Piney Campground is within 700 feet	No
12c	No	Yes- main access around lake goes through unit	Yes – boat launch near end of unit	Within a few feet of boundary.
12d	No	Yes-main access around lake	No	Within 200 feet of private
12e	No	Yes-main access around lake	Yes – adjacent to Piney Campground and Boat Launch and to Girl Scout Camp	No
12f	No	Yes-main access around lake	No	No, but close to private land
14	Yes – private subdivision and homes next to unit. In fact unit wraps clear around private	Yes, one road accessing subdivisions through unit	No	Yes, unit lies between pieces of private land
25	Yes – Guest ranch adjacent to south end private homes at north end	Yes	No	Yes- lies between two pieces of private
26	Yes – private homes on north edge of unit	No	No	Yes- private on north boundary
71	No	Yes – main access road around lake	Yes, launch on west side	No- but within 200 feet
74	Yes – private homes within a few hundred feet	No	No	Yes
100	No	Yes – borders Pintler Scenic Highway and ingress/egress route to Echo Lake	No	No – although unit lies within the larger wildland/urban interface
101	Yes – unit lies near private homes	Yes -- roads to private and public access are next to unit	No	Yes, portion of unit extends along private/federal boundary

Old Growth: Each proposed treatment unit was surveyed for the presence of old growth. Areas containing old growth are excluded from treatment.

Mitigation. The proposed action incorporates all mitigation identified in Appendix A of this EA.

Scoping and Public Involvement

On May 10, 2004, a scoping notice was mailed for the Georgetown Lake Hazardous Fuels Reduction project. The scoping package was sent to approximately 1250 individuals and groups. In addition, a news release was distributed to local media contacts on May 13, 2004. Eighteen individuals and groups provided comments to the scoping notice.

As part of public involvement, collaboration meetings were held on June 12, 2004 at the Georgetown Lake Volunteer Fire Department, and June 14, 2004 at the Anaconda Courthouse.

The Georgetown Lake Hazardous Fuels Reduction project appeared on the NEPA Schedule of Proposed Actions from May 2004 through April 2007. The quarterly report provides information on ongoing and planned project proposals. This report is available on the Beaverhead-Deerlodge Forest website.

In a recent decision on the lawsuit *Earth Island Institute v. Ruthenbeck*, the Federal District Court for the Eastern District of California struck down the Forest Service provision at 36 CFR 215.4(a). That provision had excluded projects such as this one from public notice, comment, and appeal. In compliance with the *Earth Island Institute* decision, this project was sent out for comment on December 12, 2005. The comment package was mailed to approximately 480 individuals and groups and was also available on the Beaverhead-Deerlodge web page on the World Wide Web. The legal notice of the comment period was published in the *Montana Standard* on December 15, 2005. Eleven individuals and groups provided comments during the comment period. One comment was received after the official comment period closed. Specific responses to all comments are contained in the project file.

As mentioned in the Background Information, the BDNF has taken the proposed action and environmental effects analysis used to support the 2006 Decision Memo and developed this Environmental Assessment.

Concerns. The ID team has reviewed the public comments and determined there were no concerns that require development of additional alternatives for this EA. During the previous public involvement process, the public expressed some concerns or provided suggestions for analysis considerations; these concerns and suggestions helped shape project design, or are addressed in the analysis as part of our standard and/or required analysis process. The analysis disclosed in this EA, with supporting and detailed documentation in the project file, is consistent with the purpose and need and scope of the analysis. The analysis allows for full disclosure under NEPA and for the responsible official to make a reasoned choice between the two alternatives.

Responsible Official and Decision to be Made

The Responsible Official is the Forest Supervisor of the Beaverhead-Deerlodge National Forest. Based on the analysis in this EA, the responsible official will make a decision to implement the proposed action, the no action alternative, or the proposed action with changes.

Alternatives

Alternative 1 – No Action

The no action alternative provides a baseline from which to compare the amount and rate of change against the proposed action. Under this alternative, hazardous fuels reduction activities on National Forest System (NFS) land near Georgetown Lake would not occur. If no action is taken, hazardous fuels and the hazard that they pose to both public and private values at risk from wildland fire in the Georgetown Lake Wildland Urban Interface (WUI) would remain the same.

The no action alternative includes any “clean-up” work associated with the units that were treated under the 2006 Decision Memo prior to the recent court decisions invalidating the use of the CE category. Clean-up work includes such activities as: treatment of any project-created vegetation debris (lopping and scattering, chipping, piling and burning, and/or area burning of tree stems, limbs and tops); watershed protection (road and skid trail closing, water bar installation, seeding and/or scatter vegetation debris on disturbed areas); and skidding and hauling of any already felled timber.

Alternative 2 – Proposed Action

This is the proposed action as described above, including the mitigation measures contained in Appendix A.

Forest Plan Management Direction

The National Forest Management Act (NFMA) requires the development of long-range land and resource management plans. NFMA also requires all projects and activities be consistent with the Forest Plan. The Deerlodge National Forest Plan provides guidance for all natural resource management activities on the Deerlodge portion of the Beaverhead-Deerlodge National Forest. The Georgetown Lake Hazardous Fuels Reduction project is guided by the Deerlodge National Forest Land and Resource Management Plan (Forest Plan), approved in 1987. A detailed summary of management area direction for each MA and Forest Plan compliance can be found in the Project File. Table 5 below displays the Management Area direction for each affected MA in the project area, and the interdisciplinary team’s response to compliance with the MA direction.

The Georgetown Lake Hazardous Fuels Reduction project area is located in four different Management Areas (MA’s): E1, ME1, MA1, MA7, and C2. The “M” in the management area designations denotes those MA’s within a municipal watershed.

Table 5. Management Area Direction and Interdisciplinary Team Response

APPLICABLE MANAGEMENT AREA DIRECTION AND STANDARDS	INTERDISCIPLINARY TEAM RESPONSE
<p>Deerlodge Forest Plan MA A1 -- Provide Forest Service developed recreation sites which are attractive, safe, well maintained, and which provide a variety of experience levels. Provide recreation special use sites which fulfill a public need, and which are attractive, safe, sanitary, and in harmony with the environment. Allow prescribed fire (planned ignitions) to reduce fire hazards or enhance the vigor of vegetation on the area. Limit tree removal to that needed to maintain or improve recreation values and provide public safety.</p>	<p>The project complies. The Purpose and Need (P&N) of the project is not timber production. The project is not purposely growing and tending trees for commercial production. The P&N of the project is: Reduce hazardous fuels in the wildland-urban interface; Reduce the potential of damage to public and private property and structures within the project area from wildland fire; and increase firefighter and public safety. The project would reduce hazardous fuels within the project area. The project includes developed recreation sites and recreation special use sites that contain numerous special-use recreation residences. The reduction in potential damage to public and private property and structures would help maintain or improve recreation values. Reducing fuel loads through thinning, prescribed fire and other mechanized treatments would decrease the intensity of a wildfire and increase fire fighter safety. The treatments would help create defensible spaces near private and Forest Service values at risk. This, in conjunction with actions taken on other ownerships, would result in a safer environment for firefighters and the public.</p>
<p>Deerlodge Forest Plan MA A7 – Preserve the natural character of the land and protect the soil, water, vegetation and visual resources. Permit uses that are attractive, safe, sanitary, meet people’s needs, and are compatible with resource and environmental quality standards. Limit tree removal to that needed to maintain or improve recreation values and provide public safety. Permit no prescribed fire (planned ignitions) in the area.</p>	<p>The project complies. The reduction in potential damage to public and private property and structures would help maintain or improve recreation values.</p> <p>Reducing fuel loads through thinning and other mechanized treatments would decrease the intensity of a wildfire and increase fire fighter safety. The treatments would help create defensible spaces near private and Forest Service values at risk. This, in conjunction with actions taken on other ownerships, would result in a safer environment for firefighters and the public. The three treatment types that would be conducted in this MA are: Comprehensive; remove conifers up to 6.5” dbh; and remove conifers from meadows using mechanical methods. Slash disposal methods would include one or more of the following: chipping, lopping and scattering, hauling the material away for disposal at another site, or used as biomass for energy production. No prescribed burning would occur within this MA.</p>

APPLICABLE MANAGEMENT AREA DIRECTION AND STANDARDS	INTERDISCIPLINARY TEAM RESPONSE
<p>Deerlodge Forest Plan MA C2 -- Manage as deer, elk, and moose winter range emphasizing the big game forage and thermal cover requirements. Permit harvesting of logs and forest products, such as Christmas trees and post and poles when compatible with winter range thermal cover needs. Allow firewood gathering. Use prescribed fire with planned and unplanned ignitions for the enhancement and maintenance of winter range forage.</p>	<p>The project complies. Forage condition would improve in the grassland / park that is prescribed burned. Unit 100 is the only treatment unit that lies in MA C2. The treatment prescribed for Unit 100 is: Stems 6.5" DBH and less would be cut. Slash disposal would include jackpot burning or broadcast burning of slash and standing small trees. Forage condition would improve in Unit 100 because of the prescribed burning.</p>
<p>Deerlodge Forest Plan MA E1 -- Provide healthy timber stands and economic levels of timber while maintaining overall levels of wildlife habitat, livestock grazing and dispersed recreation. Prescribed fires with planned and unplanned ignitions may be used as resource improvement tools. Prescribed fire is used as a timber and forage improvement tool.</p>	<p>The project complies. Treatments units located in this MA include: comprehensive, remove stems up to 14"; remove stems up to 6.5"; and slash / burn conifers using prescribed fire. Prescribed fire in Unit 100 would improve the forage condition in this unit.</p>

Based on the above information, the interdisciplinary team determined implementation of the Georgetown Lake Hazardous Fuels Reduction project is consistent with Forest Plan direction.

ENVIRONMENTAL EFFECTS

This section provides a summary of the potential environmental impacts of the proposed action and no action alternative. It provides the necessary information to determine whether or not to prepare an Environmental Impact Statement. This EA is consistent with the National Forest Management Act, 16 U.S.C 1604(g)(1) and with the management direction described in the Deerlodge National Forest Plan. The following analysis was compared against this and other management direction for consistency purposes. Further analysis and conclusions about the potential effects are available in reports for each resource and other supporting documentation cited in those reports which are located in the project file.

Summary of Cumulative Effects

No negative cumulative effects to watersheds/water quality, fisheries, amphibians, sensitive plant species, soil, terrestrial wildlife species, or cultural resources are anticipated from the proposed action when combined with other past, present, and reasonably foreseeable activities (contained in the project file).

Resources

Fuels.

Modeled fire behavior shows that on the hottest, windiest days in a typical summer, fire behavior could produce flame lengths and independent running crown fire conditions that threaten human safety and values at risk. See Table 4 – Values At Risk By Treatment Unit. The definition of acceptable fire behavior includes predicted surface flame length; and predicted wind speed necessary to cause individuals trees to torch (Torching Index) or for an independent running crown fire to occur (Crowning Index). This fire behavior is measured by Torching Index (TI) and Crowning Index (CI). The use of crowning index coincides with Fiedler et al's (2001) definition of moderate hazard. For the Georgetown analysis, torching index and surface flame length were added as modeling parameters to determine acceptable fire behavior. These fire behavior predictors were used to make a more refined estimate of fire behavior in the project area.

Flame length is one indicator of whether a fire can be suppressed by hand crews. Flame lengths greater than two feet create a condition in which hand crews have difficulty directly attacking a surface fire. Torching

Index indicates the likelihood a surface fire will climb into the tree canopy via ladder fuels. Crowning Index indicates the likelihood of a sustained, independent, running crown fire. Table 6 displays a summary of acceptable predicted fire behavior for the Georgetown project.

Table 6. Summary of acceptable predicted fire behavior for Georgetown

Fire Descriptor	Acceptable Fire Behavior –
Flame Length	2 feet or less
Torching Index	Would not torch into crowns unless wind speed exceeds 25 mph (desired condition expressed as 25 miles per hour (mph) or greater)
Crowning Index	Would not carry an independent, running crown fire unless wind speed exceeds 25 mph (desired condition expressed as 25 miles per hour (mph) or greater)

Predicted fire behavior in all treatment units (prior to treatment) is outside the acceptable ranges identified in Table 6 (Silviculture Report, Project File). Under the No Action alternative, the predicted fire behavior would remain unacceptable and firefighting capabilities would continue to be hindered; values at risk would remain at risk.

Under the proposed action, all treatments would occur within an area referred to as a community protection zone (DellaSala et al, 2003; Nowicki, 2002). Proposed treatments are the result of modeling fire behavior using various treatment regimes (Silviculture Report, Project File) to reach acceptable predicted fire behavior.

Recreation.

The Georgetown Lake area is a portion of a highly developed recreational area on the Pintler Ranger District. The area offers year round recreational opportunities that are utilized by primarily a Regional population. From downhill skiing at Discovery Basin to boating on Georgetown Lake to snowmobile riding on a high mountain ridge, there is something for everyone. The following is a brief description of some of the existing conditions and recreational opportunities to be found in the area. More detailed information may be found in the Recreation Report in the Project File.

Georgetown Lake is one of the more heavily used lakes in Western Montana. Located within a 1/2 mile distance on all sides of the lake are numerous full time residences, recreational residences, businesses, campgrounds, marinas, and fishing access sites. Located on National Forest are 3 fee campgrounds, 9 day use areas, 4 boat launches, 2 picnic areas, 34 recreation residences, an organization camp and 1 marina. Most of the private land is either developed or soon to be developed with numerous subdivisions in the works. The Georgetown Lake area affords year round recreational opportunities that include summer fishing, boating, sight-seeing, ice fishing, snowmobiling, cross-country skiing, motorized riding, camping and picnicking.

Echo Lake is located about 2 miles northeast of Georgetown Lake; it is mostly a summer use area with a season from Memorial Day weekend to Labor Day weekend. There are approximately 25 residences around Echo Lake, 21 of which are on National Forest. There is also a popular picnic area located on the south side of the lake.

Located on the North Fork of Flint Creek is Cable Creek campground, a small 11 unit campground that is currently being managed by a Concessionaire in conjunction with the fee campgrounds on Georgetown Lake. The campground is generally open from mid-June to mid-September.

The more popular dispersed recreational activities include sightseeing, dispersed camping, hunting, fishing, firewood gathering, and motorized riding

Under the No Action alternative, there would be continued risk to the Georgetown Lake area and to the surrounding forest. Fuels would continue to accumulate increasing fuel loading and potential fire intensity, decreasing time to evacuate the public, increasing the amount of fire resources to suppress the fire.

Under the Proposed Action, the safety of the recreating public, private structures, and forest land would be improved. The reduction in potential damage to public and private property and structures would help maintain or improve recreation values. Reducing fuel loads through thinning, prescribed fire and other mechanized treatments would decrease the intensity of a wildfire and increase fire fighter safety. The treatments would help create defensible spaces near private and Forest Service values at risk. This, in conjunction with actions taken on other ownerships, would result in a safer environment for firefighters and the public.

Fish and amphibian species.

There are three USFS Northern Region sensitive aquatic and one ESA listed fish species that may potentially be affected by this project: westslope cutthroat trout (*Oncorhynchus clarki lewisi*), northern leopard frog (*Rana pipiens*), boreal toad (*Bufo boreas boreas*), and bull trout (*Salvelinus confluentus*). Bull trout and westslope cutthroat trout are present in the vicinity of the project (Flint Creek and its tributaries. Travelers Home and Sawmill creeks and the North Fork Flint Creek and “Discovery Creek”, the stream flowing towards Echo Lake from the vicinity of Discovery Basin Ski Area).

Bull trout are likely not native to Georgetown Lake. The few fish observed in the lake over the years likely gained access by moving from Silver Lake through a water conveyance ditch known as Hardtla Creek. Recent work on the dams and ditches associated with Silver Lake now preclude the possibility of fish moving between the two lakes.

Westslope cutthroat trout exist in small, fragmented habitats in two of the three 6th field watersheds encompassing the project area. They inhabit the headwaters of the North Fork Flint Creek, Discovery Creek, Travelers Home Creek and Sawmill Creek. All of these populations are small and exist in a very limited amount of habitat. Initial results of genetic analysis indicate the WCT population in Discovery Creek may be genetically pure. Samples have been collected from both Sawmill and Travelers Home creeks but have not been submitted to the Wild Trout and Salmon Genetics Lab at the University of Montana for analysis. No samples have been collected from the headwaters of the North Fork Flint Creek where we suspect a population of WCT may reside.

Boreal toad breeding is confirmed in two locations in Georgetown Lake and one site near Echo Lake. A review of the literature (Maxell, 2002) indicates the nearest confirmed location of northern leopard frog is in Ravalli county (pre-1971), while the only known current populations of this species, west of the continental divide are located in Flathead and Lincoln counties.

The Biological Evaluation for sensitive and threatened fish and amphibian species located in the Project File contains the following determination:

	Bull Trout	Westslope Cutthroat Trout	Northern Leopard Frog	Boreal Toad
DETERMINATION	NE	NI	NI	MIIH

NE= NO EFFECT

NI = NO IMPACT

MIIH = MAY IMPACT INDIVIDUALS OR HABITAT, BUT WILL NOT LIKELY CONTRIBUTE TO A TRENDS TOWARDS FEDERAL LISTING OR LOSS OF VIABILITY TO THE POPULATION OR SPECIES.

Plant species.

No Federally proposed, threatened, or endangered plant taxa occur in the project area. No effects to proposed, threatened, or endangered plant species would occur as a result of either alternative.

There are four USFS Northern Region sensitive plant species that are present in the project area: *Phlox kelseyi* var *missoulensis*, *Botrychium paradoxum*, *Botrychium crenulatum*, and *Thalictrum alpinum*. *Botrychium paradoxum* is common in Unit 101. Unit 011 is likely habitat for *B. paradoxum*. *Botrychium crenulatum* was found in an abandoned road bed in Unit 071. *Phlox kelseyi* var *missoulensis* occurs on road

shoulders and cut banks but is not located in treatment units. *Thalictrum alpinum* is located in the project area, but does not occur in any of the treatment units.

The Biological Evaluation for sensitive plant species located in the Project File contains the following determination:

	<i>Botrychium paradoxum</i>	<i>Botrychium crenulatum</i>	<i>Phlox kelseyi</i>	<i>Thalictrum alpinum</i>
DETERMINATION	MIIH	NI	NI	NI

NI = NO IMPACT

MIIH = MAY IMPACT INDIVIDUALS OR HABITAT, BUT WILL NOT LIKELY CONTRIBUTE TO A TRENDS TOWARDS FEDERAL LISTING OR LOSS OF VIABILITY TO THE POPULATION OR SPECIES.

Wildlife species.

The US Fish and Wildlife Service determined Gray Wolf may be present in the analysis area (Project File).

Gray Wolf. Recent or historic use of the analysis area by a breeding wolf pack or transient individuals has not been documented, therefore the key wolf habitat components (den or rendezvous sites) identified in the Gray Wolf Recovery Plan (USDI-FWS 1987) are not an issue. An analysis of the three limiting factors identified in the Gray Wolf Recovery Plan used in the evaluation of impacts from forest management is contained in the Biological Assessment (BA) located in the Project File. The BA disclosed the effects of the project would not increase wolf/human interactions, would maintain the wolf prey base, and would not impact key wolf habitat components. The project is not expected to cumulatively affect wolf population viability in the analysis area or the Forest. Consistent with the screens developed by the Regional Level 1 Team, this project is not likely to jeopardize the continued existence of the wolf within the nonessential experimental population area. Conference with the USFWS is not necessary.

The Biological Assessment/Evaluation for terrestrial wildlife species located in the Project File contains the following determination:

	Grey Wolf
DETERMINATION	NO JEOPARDY

Sensitive species. The following terrestrial animal species listed as Forest Service sensitive are known to occur in the analysis area and/or have potential habitats for at least a portion of the year. Table 7 displays these sensitive species, their occurrence in the analysis area, the projects impacts, and the Biological Evaluation determination for each species. Detailed information can be found in the Wildlife Report in the Project File.

Table 7. Sensitive species known or suspected of occurring in the Georgetown Lake Hazardous Fuels Reduction Project analysis area, their occurrence in the analysis area, project impacts, and Biological Evaluation determination.

SPECIES	SPECIES OCCURRENCE IN THE ANALYSIS AREA	PROJECT IMPACTS	BIOLOGICAL EVALUATION DETERMINATION
Fisher	Rare	Negligible impacts on potential fisher habitat. No spruce/fir treated. No old growth treated. 78 acres moist, mature lodgepole thinned from below.	MIIH
North American Wolverine	None documented in the analysis area.	No effect on existing security habitat. No change in available ungulate carrion.	NI
Northern Bog Lemming	None documented in the analysis area.	0 acres sedge meadows or bog fens affected.	MIIH
Townsend's Big-Eared Bat	None documented in the analysis area.	Cave habitat not impacted. No old growth treated. Thinning smaller trees available in 698 acres of mature LP, larger trees maintained for snag recruitment. No net change in riparian foraging.	NI
American Peregrine Falcon	May be seasonal transients in the analysis area, but there are no suitable nest sites	No effect on cliff nesting. No net change in riparian foraging.	NI
Bald Eagle	No known current or historic nests or communal bald eagle roost sites occur in the analysis area. Bald eagles are spring, fall and early winter migrants around Georgetown Lake. Beginning in 1996, up to 48 bald eagles have been counted at any one time around the lake. Echo Lake may provide a suitable forage base of fish for migratory bald eagles but eagle use has not been documented there.	The project would not effect eagle nesting or foraging habitat or the eagle prey base because the project is limited in scope and short in duration. The project may indirectly increase bald eagle/human interactions in the short term.	MIIH
Flammulated Owl	Species detected in the analysis area in Sawmill Creek in ponderosa pine forest.	No DF or PP treated.	NI

SPECIES	SPECIES OCCURRENCE IN THE ANALYSIS AREA	PROJECT IMPACTS	BIOLOGICAL EVALUATION DETERMINATION
Black-backed Woodpecker	None documented in the analysis area.	No old growth treated. Thinning smaller diameter trees available in 698 acres of mature LP would maintain larger available trees for snag recruitment. 21 acres thinning smaller diameter trees in beetle-infested areas, all larger diameter trees maintained, snags maintained unless a safety concern.	MIIH
Trumpeter Swan	Seasonal migrants of Georgetown Lake in late October. Trumpeters do not nest in the analysis area.	No net change in lake foraging habitat.	NI

NI = NO IMPACT

MIIH = MAY IMPACT INDIVIDUALS OR HABITAT, BUT WILL NOT LIKELY RESULT IN A TREND IN FEDERAL LISTING OR REDUCED VIABILITY

AGENCIES OR PERSONS CONTACTED

The following people participated in and prepared the analysis:

Tammy Cherullo	North Zone Archeologist
Lorraine Brewer	Wildlife Biologist
Steve Gerdes	Fish Biologist
Dave Ruppert	Soil Scientist
Robert Wooley	Forest Ecologist
Dave Salo	Hydrologist
Tom Komberec	Wildlife Biologist
Lee Harry	Silviculturist
Bill Sprauer	Recreation
Joe Brabender	Fuels

Other agencies contacted include:

Bureau of Land Management
Montana Fish, Wildlife, and Parks
Montana Department of Natural Resources and Conservation
Montana Department of Environmental Quality
Montana State Historic Preservation Office
Granite County
Anaconda-Deer Lodge County