



Flathead National Forest
Tally Lake Ranger District

Ashley-Herrig Resource Management Project

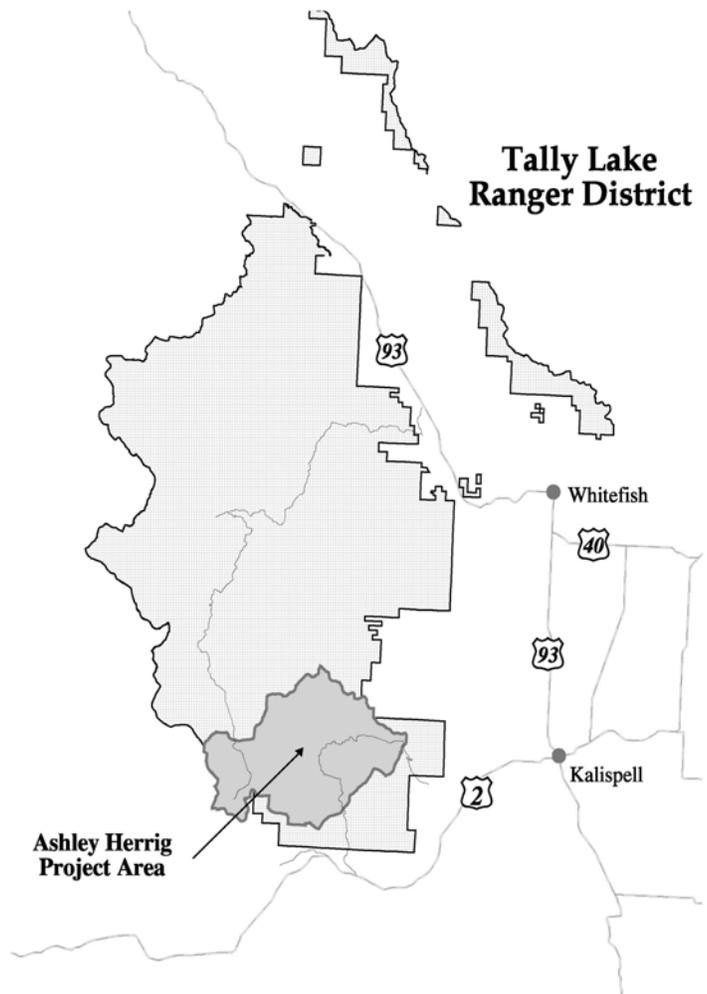
Purpose of the Project and Proposed Action
February 25, 2009

Introduction

Tally Lake Ranger District employees have identified an area surrounding Ashley Lake and in the Herrig Creek drainage near Marion, Montana, as appropriate for study to determine possible resource management opportunities. The Ashley-Herrig analysis area encompasses approximately 37,300 acres, of which about 8,160 acres is National Forest System (NFS) land. District personnel have conducted field and data surveys of this area to review the current condition of resources. The project is called the **Ashley-Herrig Resource Management Project**.

From that analysis, an interdisciplinary team of resource specialists developed recommendations to move the area toward a desired future condition as outlined for the various resources in the Flathead National Forest Land and Resource Management Plan (Forest Plan). They then identified proposed management actions for the area to address resource issues.

This document presents a *summary of analysis findings, the purpose and need for action, and the proposed action*. Proposed action maps are enclosed for your review.



Vicinity of the Project Area to Whitefish and Kalispell

Summary of Area Analysis Findings

The following are summaries by resource area of analysis findings and recommendations from the preliminary analysis.

Vegetation

The vegetation patterns present today on NFS lands in the Ashley-Herrig analysis area are the result of past management activities and natural processes such as drought, wildland fire, and insect and disease outbreaks. Historically, wildland fire was the dominant force of change for the vegetation on this landscape. Organized fire suppression since about 1930 has significantly reduced fire's role in shaping the landscape. Approximately one-third of the analysis area burned between 1889 and 1919; thick stands of lodgepole pine regenerated in the burned areas. A mountain pine beetle epidemic in the 1970s and 1980s killed mature lodgepole pines across thousands of acres of NFS and private land. Many of these beetle-infested stands were harvested, both on public and private lands, between 1976 and 1990. These stands are now sapling-sized or larger and vary in species composition from almost pure lodgepole pine to mixed species, including western larch, ponderosa, pine, Douglas-fir, and others.

Some stands that suffered high mortality during the bark beetle epidemic were not harvested. They now are dominated by dead lodgepole pines, both standing and fallen, and few live trees. These areas have extremely high levels of dead fuels, which is a concern to wildland fire managers on the Flathead National Forest and other ownerships. In addition, the high volumes of dead and dying trees are retarding growth of a new forest. In many stands, young seedlings are struggling to grow amidst a clutter of fallen trees and in the shade of the remaining live trees. Removing some of the dead, dying, and stagnated live trees would reduce the fuel load and allow for regeneration and growth of desirable shade-intolerant trees such as western larch and western white pine. The photo on the next page illustrates this type of stand.

Thinning in the more vigorous stands, especially those with western larch; and regenerating the deteriorating mixed-species stands would create forests that are more resilient to wildfire, insects, and disease. On north and east-facing slopes, western larch is often found with spruce, subalpine fir, and Douglas-fir. Most of the mature stands have dense understories of saplings and larger trees. The high density of trees and abundance of mid-story "ladder fuels" make these stands particularly vulnerable to stand-replacing wildland fire. Thinning these stands would increase the proportion of western larch and improve the growing conditions for the remaining trees. Thinning would also reduce the potential of a wildland fire becoming severe enough to kill all the trees within the stand. On drier, south- and west-facing slopes, Douglas-fir is often the dominant tree species, with less larch in the overstory. Some stands have Douglas-fir and more shade-tolerant species such as Engelmann spruce in the understory. Also, many of the Douglas-fir stands on dry sites have dead and dying trees from bark beetles and root disease.



Insects and disease processes are always present to some degree in any forest, and the Ashley-Herrig area is no exception. While no longer at epidemic levels, mountain pine beetles remain active in the lodgepole pine stands, along with dwarf mistletoe. Douglas-fir bark beetles and fungal root disease are active in some stands where Douglas-fir is the dominant species. Some harvest within these stands may be appropriate to salvage dead and dying trees and manage the activity of these pathogens.

Fire and Fuels

As noted above, wildland fires have been largely excluded from the analysis area for the past eighty years, leading to high fuel loading in some areas. During this same time period, increased development has occurred on private land throughout the area, particularly surrounding Ashley Lake. The rate of development has increased in the past decade, with numerous homes constructed around the lakeshore and extending in all directions into the surrounding uplands.

The volume of residential development amidst timbered forest lands raises concerns about the risk to human life and property when wildland fire occurs. This concern recently prompted Flathead County, in cooperation with area fire districts, land management agencies, and corporate timber land owners to develop a county-wide fire protection plan. Known as the *Flathead County Community Wildfire Fuels Reduction /Mitigation Plan* (FCWP), the plan defined areas where communities and other enclaves of residential development are at greatest risk from wildland fire. These Wildland/Urban Interface (WUI) areas have been designated throughout the county as part of the FCWP development process. The WUI in the Ashley-Herrig area surrounds all of Ashley Lake and extends several miles in all directions around the lake. The WUI line is shown on the enclosed Proposed Action map.

An assessment of overall fuel loads and wildland fire risk is part of the analysis we are conducting in the Ashley-Herrig area. We have focused this analysis on NFS lands within the WUI, particularly those lands in close proximity to Ashley Lake. Several stands in this area are proposed for various types of harvest treatment, which would allow us to reduce fuels while simultaneously addressing one or more concerns related to the health and composition of the forest.

Hydrology

We have identified some Forest Service roads in the analysis area that are causing impacts to water quality by allowing runoff and sediment to reach area streams and lakes. Road drainage systems could be improved by replacing culverts to accommodate 100-year flows, increasing the number of ditch-relief features, and general road maintenance. Fish Creek, a tributary of Ashley Lake, is currently on the Montana Department of Environmental Quality (MDEQ) 303(d) list as impaired from excess sediment and nutrients; we are investigating opportunities to address issues related to water quality in this stream as part of this project.

Fisheries and Aquatic Habitat

Fish are distributed throughout the streams and lakes within the Ashley-Herrig analysis area. Ashley Lake and nearby Little Bitterroot Lake are two very popular fisheries in Flathead County, particularly noted for their large cutthroat/rainbow trout hybrids and Kokanee salmon. Amphibian occurrence is also widespread among the many wetlands and riparian areas. Measures designed to reduce road-related sediment and shoreline erosion control would benefit aquatic habitat. We have also identified several stream culverts that are creating barriers to fish migrations, which can be especially critical to stream spawning species such as rainbow trout.

Wildlife

The area provides a diversity of habitats for numerous wildlife species. Grizzly bears are apparently traveling visitors, while black bears are more common. The area also appears to provide all of the elements for a wolf pack's territory and reports of wolf presence have increased in recent years. Potential habitats for lynx are generally abundant above 4100 feet in elevation. A pair of bald eagles nest close to Ashley Lake and up to four pairs of common loons nest on the lake. An important habitat in the area is deer winter range, a band of which encircles much of Ashley Lake. Secure habitat for elk during the hunting season is limited. Numerous ponds, seeps, and streams provide a diversity of habitat for wildlife such as amphibians, birds, and rodents. Snags and large downed-wood habitat are lacking in most previously logged areas and are vulnerable to loss to firewood cutting. Fire suppression may have altered the availability of open-understory feeding habitat for species such as flammulated owls and goshawk.

The Ashley-Herrig Project could improve wildlife habitat and security. Shrub planting can improve forage for deer and elk while providing nesting sites for songbirds. Fuel reduction may help protect old growth and other habitat areas. Nest boxes for owls and ducks could be constructed and important wildlife trees could be signed for protection.

Visuals

The Flathead National Forest has carried out very little timber harvest in the Ashley-Herrig area since the harvest related to the mountain pine beetle epidemic in the 1980s, while private timber lands have been more actively utilized for timber production. In some places where private timber lands abut NFS lands, timber harvest has created a sharp visual contrast between the two ownerships by creating an unnatural appearing “straight edge” effect along the property boundary where mature trees and harvest units meet. Several areas on national forest land are designated as Management Area (MA) 7, wherein vegetation management receives a visual emphasis that complies with the appropriate Visual Quality Objective (VQO). The visual impact of proposed activities is an important consideration of national forest management.

Recreation

The Ashley-Herrig area is a popular destination for people pursuing a variety of recreation activities. There are three developed campgrounds and numerous dispersed campsites in the area. The campgrounds are rustic with low standard roads for access, metal Forest Service fire-rings, picnic tables, and a vault toilet at each area. There are no developed spurs, hardened tent spots, or water systems. One campground, Ashley Lake North Boat Launch, has a boat ramp that is in fair condition. Use levels at the Ashley Lake area are moderate to high during the summer months. During the winter, two of the sites are walk-in only due to snow-blocked roads but the Ashley Lake North Boat Launch site offers the only plowed driving access for public use. In the winter, ice fishing is popular as is snowmobiling. Off highway vehicle (OHV) and all terrain vehicle (ATV) use continues to increase in the area. There is one designated ATV trail above the north shore of the lake and one hiking/horse/motorcycle trail (#289) that begins east of the lake.

The increasing recreational use of the Ashley-Herrig area has resulted in some damage to public land and other resources. This is particularly true at the three campgrounds on Ashley Lake, where vehicle traffic has damaged vegetation, compacted soils, and resulted in erosion along the shoreline of the lake itself (please see the photograph on the following page).



Purpose of this Project

The Ashley-Herrig project is proposed to respond to the goals and objectives of the Flathead National Forest Land and Resource Management Plan and direction found in the Forest Service Manual. The Forest Plan provides the basis for managing the Flathead National Forest. A variety of current conditions as described above and guidance from the Forest Plan provide the purpose and need for management action in the Ashley-Herrig area. The purpose of the proposed management actions are:

- Improve forest stand conditions related to Forest Plan objectives for vegetative structure and species composition.
- Reduce hazardous fuel to varying degrees across the landscape. Create and expand fuel reduction zones to enhance fire suppression control efforts and increase fire-fighter safety by reducing fire intensity.
- Maintain and improve terrestrial wildlife species habitat and security.
- Provide quality outdoor recreation opportunities.
- Reduce sediment and improve water quality and aquatic species habitat in project area streams and lakes.

The Proposed Action

The proposed action is a strategy to satisfy the purpose and need for action as described above. This strategy is composed of individual activities proposed in forested areas, along roads, in recreation sites, and along shorelines. The following tables and paragraphs, along with the enclosed maps, describe the proposed action.

Proposed Activity	Approximate Units or Activity Description
Stand Level Vegetation/Fuel Treatments	
Commercial Thinning	408 acres
Shelterwood	231 acres
Seed Tree	249 acres
Clearcut	37 acres
Overstory Removal	306 acres
Sapling Thinning	345 acres
Understory Fuels Reduction	28 acres
Transportation Proposals	
New temporary road construction	3.7 miles
New permanent road construction	1.9 miles
Recreation Improvements	
Improvements at Ashley Lake North Campground	Road & Boat Launch Upgrades; Campsite, Fencing, Boat Dock & Well Installation
Improvements at Ashley Lake South Campground	Road, Campsite & Parking Upgrades
Improvements at Ashley Lake North Boat Launch	Road, Parking, & Boat Launch Upgrades; Gate & Fencing Installation
Fisheries Habitat and Watershed Improvements	
Road rehabilitation (BMP drainage improvements)	35 miles
Road Decommissioning	2.6 miles
Culvert Replacement for Fish Passage	3 each
Ashley Lake Shoreline Restoration	0.5 miles
Wildlife Habitat Improvement	
Shrub planting to improve big game browse	up to 500 acres

Some of these values are derived from our Geographic Information System and are estimates.

Stand Level Vegetation/Fuel Treatments

Various levels of tree retention are proposed to meet the multiple ecological objectives described above. Trees retained after treatments would be dispersed over the entire harvest unit. The structure and composition of trees currently in each harvest unit and the desired future conditions for the stand determined what treatment type and level of retention is proposed. Retention would emphasize the largest dominant and co-dominant root-firm trees, typically western larch and Douglas-fir. Please see the table on the following page for numerical descriptions of these treatment types.

Shelterwood, seedtree, and clearcutting treatment types are timber harvesting methods with the intention of creating a new forest. These harvest methods would change the stands from large and medium tree structure classes to the seedling stage. The species composition would also change. Fewer shade tolerant trees would occupy the site and shade-intolerant trees would dominate for at least 20 to 50 years.

Commercial thinning in pole-sized and larger stands would select the healthiest leave trees with large, well-formed crowns. Leave tree selection would favor shade-tolerant and fire-resistant species, especially western larch. These trees would then have more growing space, light, nutrients, and water to allow them to develop into large overstory trees with improved insect, disease, and fire resistance. Commercially thinned stands generally would not require reforestation, nor is it an objective. Fully stocked stands would remain after harvesting.

Overstory removal treatments are proposed in stands with high levels of dead lodgepole pine from past insect and disease outbreaks. Timber harvest would remove standing and down trees, primarily lodgepole pine, while maintaining and managing an existing understory. Stands with larch or Douglas-fir in the overstory would have most of those trees retained as well. Some areas are not adequately stocked with desired seedlings and may require “fill-in” planting. Other areas are overstocked and precommercial thinning may be needed.

The proposed action was designed to not treat vegetation in areas that meet old growth conditions or are mapped as riparian landtypes.

Prescribed fire use is an integral part of the proposed treatments in some of the units. In those harvest areas, large-diameter fire-resistant trees would be left followed by a low intensity prescribed burn. The objective of this treatment is to reduce ladder and ground fuels and create conditions for conifer regeneration, while protecting the large larch, ponderosa pine, and Douglas-fir, thus deriving the ecological benefits of fire while protecting the long-lived trees that survived past fires.

Prescribed fire use is not desirable in other areas due to topographic or landownership considerations, expectations of high levels of fuel, or a high percentage of Douglas-fir retention trees (Douglas-fir is susceptible to bark beetle damage after being exposed to even low intensity fire). Machine piling using tracked excavators is the preferred method for fuels reduction in these areas.

Proposed Vegetation Treatment Key

Stand Level Vegetation/Fuel Treatment Type	Retention Description	
	Trees per acre	Canopy Cover
Commercial Thin (CT)	30 to 100 pole to large trees per acre.	30-70% (avg 40%)
Shelterwood (SW)	10-40 medium to large trees per acre.	10-30%
Seed Tree (ST)	5-20 medium to large trees per acre.	5-10%
Clearcut (CC)	0 to 10 medium to large trees per acre.	<5%
Overstory Removal (OSR)	0 to 40 medium to large trees per acre and 50 to 300 seedling/saplings per acre	0-30%
Sapling Thin	200 to 400 saplings per acre (Some units also have scattered pole to large trees).	5-40%
Understory Fuels Reduction	50 to 200 small (pole) to large trees per acre.	25-90%

Some areas of past timber harvest are now growing high densities of sapling sized trees (5 to 25 feet tall). We propose to thin these areas in an operation called sapling or precommercial thinning. The proposed sapling thinning is located in areas identified as the WUI by the Flathead County Community Wildfire Fuels Reduction /Mitigation Plan.

Understory fuel reduction is proposed to minimize hazardous fuel accumulation and ladder fuels in mature stands adjacent to private lands. Due to the forest structure and composition in these stands, only smaller trees would be treated. Slash would be hand piled and burned. This type of treatment is intended to reduce the potential for crown fire and allow firefighters to safely protect dwellings on private land. Overstory canopy cover would change very little because only understory trees would be removed.

Transportation Proposals

New road construction, as shown on the enclosed map, is proposed to allow access to the vegetation treatments described earlier. Temporary roads would be removed soon after harvest and specified or permanent roads would remain in the road system for future use.

Recreation Improvements

To address resource damage at the campgrounds and boat launch, some restorative and preventative rehabilitation actions are proposed. These include improving road surfaces and drainage, fencing or use of rock barriers along roadsides and campsites, and leveling and graveling campsites. The ramps at both the north campground and the boat launch site would be enlarged and redesigned to reduce erosion and facilitate larger boats. Parking at each of the three sites would be upgraded to accommodate more vehicles and reduce erosion.

The Ashley Lake North Campground would have ten new overnight camp sites constructed. Each site would consist of a parking spur, tent pad, picnic table, and a fire ring. Additional improvements to this area would include drilling a water well to accommodate a hand pump and installing a forty foot long floating boat dock.

The Ashley Lake North Boat Launch Site would be converted to a day-use only site. A gate would be installed at the main entrance off Forest Road 912 and no overnight camping would be allowed.

Fisheries Habitat and Watershed Improvements

Several roads are proposed for decommissioning, while others would receive rehabilitation treatments. Decommissioning is a process that closes the road to all vehicular travel, installs drainage features such as waterbars, treats noxious weeds, and removes drainage features that require active maintenance, such as culverts. Rehabilitation involves improving roads to meet or exceed Best Management Practices guidelines, a process that generally installs or improves drainage features. Rehabilitation is proposed for roads that we anticipate having heavy traffic.

Three sites on Forest Service roads have been identified for culvert replacement to facilitate fish passage. Currently these culverts are either undersized or poorly placed and do not allow migrating fish to utilize habitat in the streams above these culverts.

Shoreline restoration to reduce erosion near the Ashley Lake North Campground would consist of signing and traffic control devices to restrict vehicle access, placement of erosion control cloth near the shoreline, and native shrub planting and slash placement. Straw waddles (weed-seed free straw wrapped in canvas type material) may be placed along the shoreline where wave action and over-use has occurred.

Wildlife Habitat Improvement

Many areas proposed for timber harvest would benefit from shrub planting to supplement naturally occurring big game browse or hiding cover. These areas would generally be near water sources and would not conflict with reforestation objectives.