

Scenic Quality Existing Conditions

Forest Plan Direction: The Clearwater Forest Plan goal for visuals, p. II-1 states, “In association with other resource management activities, maintain a natural appearing Forest landscape as viewed from designated travel corridors, recreational sites, wilderness and high use recreational areas, and administrative sites. The Forest-wide standard for visuals is “Manage the visual resource in the Clearwater National Forest by using the visual management system (VMS) which specifies visual quality objectives (VQOs) on designated landscapes as described in the current U.S. Department of Agriculture Handbook on National Forest landscape management.” Appendix G shows the visual quality objectives as viewed from Management Area A-4. Management Area A-4 consists of land along both sides of selected travel corridors where timber harvest is permitted.

Landscape Character and Inherent Scenic Attractiveness: The North Lochsa Face area and surrounding landscape are part of the Bitterroot Mountain Range, which is typified by generally rounded landforms dissected by numerous river canyons. Most of the area has a natural appearing forest landscape with a continuous vegetative cover composed mostly of coniferous species. Openings created by rock outcrops, rockslides, and grassy meadow areas are common.

Fire contributed significantly to the evolution of the visual character of this region. Some areas along the river canyon breaklands experienced numerous large lethal fire events that left extensive brush fields with only small irregular timbered patches. In the more gently rolling, wetter uplands, fire created openings are limited to small isolated enclaves of brush and snags found within the continuous coniferous canopy.

The rivers and creeks are the focal point of most of the views from the roads and trails. The distinctive river canyons often have large waterfalls, cascades, pools, rock outcrops, islands, and other pool characteristics. Tributary streams more commonly have small waterfalls and cascades, minor rock features, meanders, and pools. High elevation views, such as the view from the Lolo Trail, are composed of repetitive river canyons and ridge structures that continue across the landscape toward the prairies to the west and the peaks of the Selway Bitterroot Wilderness to the south. These uninterrupted views create a feeling of vastness that is much different from the confined view of the canyon found in the U.S. Highway 12 corridor.

Native American use of this region has been documented as early as 7,000 years ago. The ridge system located on the northern portion of the analysis area was used as a travel route between the fishing grounds in the west and the buffalo country in the east. This travel route contains sacred sites, located in areas where there are extensive views of the surrounding lands. Views from several locations along the Lolo Trail route stretch from the Camas Prairie to the peaks of the Selway Bitterroot Wilderness.

One of the first written descriptions of this area was recorded during the Lewis and Clark expedition. Both Lewis and Clark wrote of the vegetation of the area and of the views from the Lewis and Clark Trail. Entries in Clark's journal indicated that their party viewed the surrounding hills and open prairies to the south and west from a site thought to be Sherman Peak, which is still an important part of the scenic resource of the Lolo Trail System. As they entered the Hungry Creek drainage, they remarked that the landscaped changed to one that was "tolerably level and covered with timber" and that the long leaf pine ends at the higher elevations found in Hungry Creek. This area corresponds to the old surfaces of the analysis area. They also observed that the southwest sides of the hills had a great deal of fallen timber and burnt woods, and that the northeast sides of the hills were thickly timbered with pine and undergrowth. This is similar to what is found there today.

The scenic beauty of the Lochsa River Canyon was recognized in 1964, when it was designated as one of the nation's first Wild and Scenic Rivers. For nearly 80 miles between the communities of Lowell and Powell, only U.S. Highway 12, campgrounds, picnic areas, and trailheads interrupt the natural appearing forest landscape. The deep canyon with its large side canyons, massive rock outcrops, cliffs, and boulders provides a dramatic backdrop for the associated water features. Coniferous and deciduous vegetation, which are especially scenic during the fall, are intermingled throughout the canyon area. Also found in this area is a large community of coastal disjunct plant species (Pacific dogwood). The Lochsa River itself is composed of numerous cascades, rapids, large boulders, islands, and pools. Tributaries flowing into the Lochsa also exhibit distinctive characteristics including waterfalls and cascades. These unique features found in the south and east sections of the analysis area contribute to its classification as a distinctive or Class A landscape.

The interior of the Lochsa Face analysis area is natural appearing forestland composed of ridges and rounded hills that are not visually dominant in the landscape. Although it contains some features including minor rock outcrops, talus slopes, and avalanche chutes; this landscape is typified by a series of interconnected ridgelines and subordinate canyons. The streams in the area may have small waterfalls, cascades, meanders and pool features, but generally are considered to be minor drainages that exhibit shoreline characteristics. This area to the north and west of the Lochsa River Canyon is classified as a common or Class B landscape.

In regards to scenic integrity, public comments indicate that visitors to the area value the natural-appearing forest landscape of the river corridor, the Lolo Motorway, and the dispersed areas found in between. The analysis area is viewed from several visual travel corridors, developed recreation sites, administrative sites, and areas of dispersed use as shown in Table 3-100. Critical views are from U.S. Highway 12, the Lolo Trail System (includes the Lolo Motorway), and from the complex of trails found in the Fish and Hungry Creek drainages.

Table 3-100: Forest Plan Visual Quality Objectives - Travel Corridors, Use Sites, Admin. Sites, Appendix G

Road or Trail Number	Name	Length	Foreground VQO	Middleground VQO	Background VQO
Roads					
16	US Highway 12	74.3	R	PR	M
500	Lolo Motorway	39.6	R	M	M
Trails					
69	Lewis and Clark	9.3	R	M	M
237	Lewis and Clark	9.3	R	M	M
224	Lower Fish Creek	13.1	R	M	M
234	Hungery Creek	1.5	R	M	M
Administrative Sites					
	Mex Mountain Work Center		PR	M	M
Recreation Sites					
	Apgar		R	PR	M
	Knife Edge		R	PR	M
	Lochsa Historic Station		R	PR	M
	Glade Creek (closed)		R	PR	M
	Major Fenn (closed)		R	PR	M

R=Retention, PR=Partial Retention, M=Modification.

Views from the highway are limited to the canyon breaklands with some narrow views up major tributaries on each side of the river. Development is of low visual impact and is related to the highway and developed recreation sites. Users of this corridor are mostly moving through the area rather quickly, and campers and day use occupants of the campgrounds and picnic areas generally use the facilities for short durations. This corridor has a high scenic integrity level and the scenic nature of the corridor is a critical element in the visitor’s enjoyment of the area.

Views from the Lolo Trail System stretch across to the Selway Bitterroot Wilderness Area to the south, the North Fork of the Clearwater Drainage to the north, and the Palouse Plateau to the west. Due to the extensive vegetative cover adjacent to most of the travel corridor, much of the views from this area are limited. There are only four critical viewpoints from this section of the Lolo Motorway. At the head of Gass Creek and Obia Creek the existing vegetation opens creating sweeping vistas of the area to the south of the roadway. Viewpoints on Bowl Butte and Sherman Peak are accessed by short trails. Views from these sites stretch both north and south of the ridge-top trail system. The Lolo Trail / Lolo Motorway corridor has a high scenic integrity level and a high visual sensitivity due to its importance as an historic and recreation resource. Users of this corridor are varied. Some users pass through the area quickly and are looking for a one time recreational or cultural experience. Some visitors use the area extensively as a traditional recreational and cultural area. The views of the large, wild expansive country are an essential part of their experience.

Although a number of trails link U.S. Highway 12 with the area to the north and west of the river, the most visually complex of trails follows Fish Creek and later Hungery Creek

as they travel toward the Lolo Trail. Most of this area has not been modified from its natural state. There are some remnants of past human occupation in the form of historic cabins, but these cultural features are a very insignificant element in the landscape. Visual impacts from improvements are very minor, and a majority of the area exhibits a very high scenic integrity level.

Mex Mountain Work Center is an administrative site located on the western border of the analysis area. It is also considered to be a public contact site. The sensitivity level for this viewshed is high.

The concern level for scenery from other roads and trails within the central and western portions of the analysis area is considered to be low. Modifications of the landscape in the form of timber harvest and road building are found here on the more gently rolling old surfaces. Evidence of timber harvest is also present in the steeper breaklands of the headwater sections of several of the major tributary drainages including Deadman Creek, Glade Creek, Canyon Creek, Rye Patch Creek, and Pete King Creek. The scenic integrity level is low, and users of the area are looking for dispersed camping, motorized and non-motorized trail experiences, and gathering activities (wood cutting, berry picking, etc.). The remote nature of the area contributes to their recreational experience, but the scenic integrity of the area is not as critical a component of the recreation experience for these visitors. There are areas adjacent to Forest Road 101 where the combined effects of the various harvesting activities create an unacceptably low scenic integrity level.

Scenic Quality Environmental Consequences

Analysis Process: Each alternative was evaluated to determine what activities could be viewed in three main areas:

- (1) The U. S. Highway 12 Corridor (Lewis and Clark Highway);
- (2) The Central Portion - Trail Corridor for Trail #69 (West Fork Windy Saddle), #224 (Fish Creek West), #237 (Willow Ridge);
- (3) The Lolo Trail Corridor

The analysis evaluates how the activities would change the viewing experience and whether or not the activities are consistent with the Clearwater Forest Plan direction.

Alternative 1: There would be no immediate affect on the scenic integrity of the area if this alternative were selected. There would be an increased chance of catastrophic wildfire if the current vegetative conditions continue.

Alternative 2: Portions of units 32, 33, 43, and 46 found in Pete King Creek, Rye Patch Creek, Tick Creek and Deadman Creek would be visible from the U. S. Highway 12 and the Lochsa River Wild and Scenic River. The harvesting visible from U. S. Highway 12 would be designed to leave openings of 1/4 acre to 1/2 acre in size interspersed with leave tree patches and riparian corridors. These openings would mimic the appearance of

existing openings in the corridor, which are the result of rock outcrops, natural vegetative diversity and openings created by natural fires. A minimum of 70 percent of the existing structure would remain in the ¼ mile viewshed from the Lochsa Wild and Scenic River. Outside of this Wild and Scenic river viewshed, a minimum of 50 percent of the existing stand structure would remain.

Burning activities would be visible in Rye Patch Creek, Glade Creek, Tumble Creek and Macaroni Creek from the U. S. Highway 12 and the Lochsa River Wild and Scenic River. Both the mixed severity burns and the understory burns would leave a large percentage of the existing stand in place either as an open park-like forest or as a mosaic of open areas with concentrations of vegetation in the riparian area.

The proposed harvesting and burning would result in a landscape character that appears natural from the most common viewing corridor, U.S. Highway 12 and from the Lochsa Wild and Scenic River. Although the analysis area would appear different from the current condition of continuous forest canopy, any opening created would repeat the form, line, color, texture and patterns of natural openings, which are commonly found now in other locations within the river corridor breaklands. The proposed activities would reflect the natural patterns of the existing landscape so completely that the landscape appears “intact” and therefore meets scenic integrity objective of high (VQO of Retention). The road construction proposed along the ridge above Tick Creek would not be visible and would therefore having no effect on the scenic quality of the area.

Alternative 2

Views from the US Highway 12 and Wild and Scenic River Corridor

- ?? Harvest activities retain 70 percent canopy – would be ¼ to ½ acre dispersed opening
- ?? Prescribed fire would result in a mosaic landscape
- ?? Landscape would appear natural
- ?? Meets retention criteria
- ?? Road construction not visible

Within the central portion of the analysis area, harvesting activities would be concentrated near the Mex Mountain Work Center, where portions of units 25 and 26 can be viewed from viewpoints along trails 69, 237 and 224. Significant amounts of harvesting are also found in the headwaters of Bimerick Creek where the activities would be unseen from designated travel corridors. Other proposed activities would occur in areas that have low or very low scenic integrity objectives (VQOs of Modification and Maximum Modification). Planned harvest units are found in middleground areas, background area, or in areas unseen from any travel corridor.

While there are some notable areas along trails 69, 237 and 224, that have broad views of proposed activity areas, for the most part views are limited to the immediate trail corridor and adjacent landscapes due to thick vegetative screening and/or narrow canyon walls. In this proposal a minimum of 25 percent of the existing stand structure would remain outside of the riparian corridors in the rolling uplands and a minimum of 50 percent would remain on the breaklands. Activities within the foreground-viewing zone from the previously listed trails are designed to retain a screening vegetative zone between the trail and the harvest area to protect the views from the trail as much as possible. As with the activities in the breaklands of the U. S. Highway 12 corridor, the proposed harvesting is designed to retain significant portions of the existing stand structure. Vegetative removal and burn units would be designed to emulate natural openings found in the adjacent landscape and therefore meet the scenic integrity objectives of high in the foreground area from trails 69, 224, and 237, low in the middleground area from the trails, and low in the background and unseen areas from the trails.

Alternative 2

Views from central portion of the analysis area

- ?? Areas in Bimerick Creek would be unseen from major travel ways
- ?? Foreground areas of trails would retain screening vegetative zone
- ?? Breaklands retain 50 percent of existing vegetation and emulate natural openings
- ?? Meets Forest Plan criteria

From the Lolo Trail corridor, harvesting activities in the central and southern portion of the analysis area would be visible from the trail in the background-viewing zone. In particular the regeneration harvest units 25 and 26 near Mex Mountain would be visible from several areas along the Lolo Trail corridor. Since these units would be in the background viewshed, the design of the activities would be such that they would appear natural when compared with similar natural landscapes in the area. While the existing continuous forest canopy would be modified, the resulting mosaic of openings interspersed with riparian corridors and patches of remnant trees would borrow from existing attributes of size, shape, edge effect and pattern of natural openings, and vegetative type found naturally in the analysis area. Vegetative removal and burn units are designed to emulate natural openings found in the adjacent landscape and would meet the scenic integrity objectives of high in the foreground area from the Lolo Trail corridor, low in the middleground area from the corridor, and low in the background and unseen areas from the corridor.

The impact of burning would be also be obvious from the Lolo Trail corridor, including the Lolo Motorway and viewpoints such as Sherman Peak and Bowl Butte. Burning treatments in the area would be especially evident in the areas adjacent to the motorway at the headwaters of Gass Creek and Obia Creek. Effects of burning would also be obvious from viewpoints at Bowl Butte, Sherman Peak and the area surrounding Weitas Meadows. Gass Creek and Obia Creek are the only major vista points looking south from the roadway that are found in the western section of the Lolo Motorway (between Beaver Dam Saddle and Sherman Peak area). Other vistas points with views to the south are only accessible if the visitor walks along the hiking trail system for some distance. Weitas Meadow is an area where there is a significant amount of dispersed camping.

Alternative 2

Views from the Lolo Trail Corridor

- ?? Harvest of units 25 and 26 would be visible from the trail as background viewing.
- ?? Appear natural due to mosaic of openings interspersed with riparian corridors and patches of remnant trees
- ?? Burning would be obvious but would appear as a natural event
- ?? Mixed severity burns may decrease the scenic beauty in some peoples eyes
- ?? Harvest and prescribed burning meet Forest Plan standards because they result in a varied, mosaic landscape, mimicking natural fire patterns and including interspersions of tree cover

Proposed mixed severity burning and understory burning found in this alternative would have the appearance of a natural event since the remnants of the fire (burnt trees and the mosaic of unburned trees) would remain intact after the burn. Proposed burning is designed to mimic natural fire patterns for each LTA and therefore would be consistent with the forest mosaic patterns that make up the historic scenic character of the analysis area. Although the proposed burning activities would change the appearance of the area from what it is currently, the overall character of the landscape would not change and the burning activities would therefore meet the scenic integrity objectives (VQOs) for the area. In the long term the introduction of fire to the area would help to achieve the desired future condition for scenery of a coniferous forest composed of a varied mosaic of old and young forest. Although these activities would appear as a natural event and therefore would meet the scenic integrity objectives of the trail, it should be noted that mixed severity fires in this area may have both a short-term and long-term effect on how the site is used and perceived by recreation visitors. The Lolo Trail is noted for its scenic beauty and therefore addition of large burned areas may detract from that scenic beauty in some visitor's eyes.

Alternative 3: Same as Alternative 2 except for a slight reduction of the impact of harvesting activities near Tick Creek (unit 32) in the U. S. Highway 12 corridor and in the Deadman drainage in the central portion of the analysis area.

Alternative 3a: As in alternatives 2 and 3, there would be harvesting and burning activities which are visible from the highway and river corridor.

Concentrations of regeneration harvest are proposed for Pete King Creek, Rye Patch Creek, Tick Creek, and Deadman Creek. The vegetation removal areas, which would be visible from U. S.

Highway 12, are designed to be small patch openings of 1/4 acre to 1/2 acre in size interspersed with leave tree patches and riparian corridors. Openings created from harvesting and burning should mimic the appearance of existing openings in the corridor, which are the result of rock outcrops and of natural fires. Natural openings in the coniferous canopy are found frequently throughout the corridor and are especially obvious in the fall when the deciduous vegetation changes color. In the proposal, a minimum of 25 percent of the existing stand structure would be retained in the rolling uplands (found mostly in background views), a minimum of 50 percent of the canopy would remain on the breaklands outside of the Wild and Scenic River corridor (found mostly in middleground views) and a minimum of 70 percent of the existing tree canopy would be retained within the 1/4 mile viewshed boundary within the designated Lochsa Wild and Scenic River Corridor (foreground views from U. S. Highway 12 and the Lochsa River). The timber harvest adjacent to U. S. Highway 12 is reduced from alternatives 2 and 3; therefore the visual effects would be minimal.

Burning activities would be visible in Rye Patch Creek, Glade Creek, Tumble Creek, and Macaroni Creek. Both the mixed severity burns and the understory burns would leave a large percentage of the existing stand in place either as an open park-like forest or as a mosaic of open areas with concentration of vegetation in the riparian areas. This is very similar to the existing mosaic of deciduous and coniferous vegetation that exists in areas that have previously burned in the corridor.

The proposed harvesting and burning should result in a landscape character, which appears "natural", although it would be different from the current condition of a continuous forest canopy. The proposed activities would be designed to repeat the form, line, color, texture, and patterns, which are commonly found in the river corridor. The activities would reflect the natural patterns of the existing landscape so completely that the landscape appears intact and therefore meets the scenic integrity objective of high (VQO of Retention) in the foreground.

Within the central trail corridor section of the analysis area, most proposed activities would occur in the low (VQO of Modification) and very low (VQO of Maximum Modification) areas that are unseen from any designated visual travel corridor or are in the background viewshed of designated visual travel corridors. Harvesting activities would be concentrated in the Mex Mountain and Bimerick Creek areas. While views from Trail 69, 237, and 224 are generally limited to the immediate river corridor and adjacent breakland, there will be the potential to view harvesting in units 25 and 26 from all of these trails. As with the activities in the breaklands of the highway corridor, the

Alternative 3a

Similar to Alternative 2 except:

- ?? There is no harvesting or mixed severity burning adjacent to the Lolo Trail corridor

proposed harvesting is designed to retain considerable portions of the existing vegetative canopy cover. Where activities may be visible from the trail corridors screening vegetation would be retained to protect the viewshed of the trails. Other activities in the area would be found in middle and background views with little modification of the existing scenic integrity and therefore should meet or exceed the scenic integrity objective of low (VQO of Modification) for this viewing zone.

There are no harvesting or mixed severity burning proposals adjacent to the Lolo Trail corridor in this alternative; therefore the scenic integrity should be very high (VQO of Retention) in the foreground-viewing zone of the Trail. The impact of underburning activities in the northern portion of the analysis area would not be obvious from the Lolo Trail corridor. The proposed underburning is located in the middleground and background viewing areas from the Trail, where fine detail is no longer visible. These burning activities may create some small openings, but should not be visually apparent from the Lolo Trail corridor.

There are harvesting activities in the central and southern portions of the analysis area that would be visible from the Lolo Trail corridor. In particular, the offsite species conversion in the headwaters of Bimerick Creek and the units near Mex Mountain would be viewed from the trail corridor, but the design of the activities should make them appear natural in the background viewshed from the Trail. The continuous forest canopy that exists would be modified, but the resultant mosaic of openings interspersed with riparian corridors and patches of remnant trees should borrow from the existing attributes of size, shape, edge effect and pattern of natural openings and vegetative type found naturally in the analysis area.

Alternative 4/4a: In the U. S. Highway 12 and Lochsa Wild and Scenic River Corridor the effects would be the same as in Alternative 2 and 3 from Canyon Creek west. Harvesting would be visible in the viewshed from the road and the river, but should mimic natural patterns so completely that the natural appearing forest character is retained. There would be no harvest or burning from Canyon Creek east.

In the central portion of the analysis area there would be a reduction of activities near trail 69, 237, and 224 corridors.

Harvesting activities in the Mex Mountain area (units 25 and 26) would still be visible, but would meet the scenic integrity objectives from the trails through retention of screening adjacent to the trails. No burning is proposed in this area and therefore there would be no change in the scenery other than from natural events.

Alternative 4/4a

Similar to Alternative 2 except the magnitude of change would be less because:

- ?? There is a reduction of activities near trails 69, 237, and 224
- ?? No burning is proposed near Mex Mountain
- ?? No burning would occur within the Wild and Scenic River Corridor
- ?? No harvest in Bimerick Creek (which is unseen from any critical trail corridors)

From the Lolo Trail corridor, harvesting activities in the central and southern portion of the analysis area would be visible from the trail in the background-viewing zone. In particular the regeneration harvest units 25 and 26 near Mex Mountain would be visible from several areas along the Lolo Trail corridor, but these activities would meet the scenic integrity objectives for the background-viewing zone.

Alternative 4a: Same as Alternative 4 except for a slight reduction of the impact of harvesting activities.

Alternative 5: Visual effect of timber harvesting would be reduced in this alternative since units 32, 33, and 43 are not found in this alternative. There would be a change in the appearance of the corridor from burning activities throughout the corridor but they would appear as natural events so completely that the valued landscape character appears intact, meeting the scenic integrity objective of High (VQO of Retention) in the river corridor.

Alternative 5

?? Similar to Alternative 4/4a except burning activities would occur in the Wild and Scenic River Corridor and in Fish and Hungry Creeks

Effects on scenic quality would be the same in this alternative as alternatives 2 and 3 except for a reduction of activity in the headwaters of Bimerick Creek. This area is unseen from the Lolo Trail corridor and from critical trail corridors found in the central portion of the analysis area.

Alternative 6: Harvesting activities would be visible in the Highway 12 and Lochsa Wild and Scenic River Corridor near Rye Patch Creek (Unit 43) and near Tick Creek (Units 32 and 33). A minimum of 70 percent of the forest canopy would be retained in the ¼ mile corridor adjacent to the Lochsa Wild and Scenic River to protect wild and scenic river values. Vegetative removal, which would be visible from U.S. Highway 12, would be designed to be small patch openings of ¼ acre to ½ acre in size separated by leave tree patches and riparian corridors. Some of the standing structure left after the activity may be in the form of dead snags following site preparation burning.

Alternative 6

?? Similar to Alternative 2. Harvest and prescribed burning would result in a varied, mosaic landscape, mimicking natural fire patterns and including interspersions of tree cover

Outside of the ¼ mile Wild and Scenic River corridor a minimum of 50 percent of the existing stand structure would remain on the breaklands and a minimum of 25 percent in the rolling uplands.

Burning activities would be evident near Lowell, Rye Patch, Canyon, Apgar, Glade, Deadman, Tick, Tumble, Macaroni, and Bee Creeks. Most of the burning units would be underburn prescription, but activities near Glade Creek, Tumble, and Macaroni Creek would be mixed severity burns. It is anticipated that a larger percentage of the standing

timber would be killed during these prescribed fires. Unit 23 near Glade Creek and Unit 21 (especially for the east-bound traffic) near Tumble Creek would be the most visible to highway travelers. Both the mixed severity burns and the understory burns would leave a large percentage of the stand in place either as an open park-like forest or as a mosaic of open areas with concentrations of vegetation in riparian areas. Evidence of natural fire events, which produced the same stand structure, can be found throughout the U.S. Highway 12 corridor. There would be areas such as Unit 23 where “black” tree would be evident and while it appears similar to a natural event, would be a visible change in the scenery of the river corridor.

Scenic quality in the central portion of the analysis area and the Lolo Trail Corridor would be similar to Alternative 2. The vegetative treatments would be visible from U.S. Highway 12 and the Lochsa Wild and Scenic River, trails #224, #237, and #69 in the central portion of the analysis area, and from the Lolo Trail Corridor. However, since design measures would create treatment areas that mimic natural openings in foreground, middleground and background viewing areas the scenic integrity objectives would be met or exceeded in all areas.

All Action Alternatives: Pre-commercial thinning, commercial thinning, salvage, and stocking control activities would have no measurable effect on the scenic resource of the analysis area and may actually help to rehabilitate past harvesting activities by creating unit boundaries that are less harshly defined on the landscape. When these activities are located immediately adjacent to past geometrically shaped harvest units, thinning and salvage activities tend to soften hard edges and make these existing openings more natural appearing the background views. This would help improve the views of the face drainages from the Lolo Trail.

Proposed riparian plantings in Pete King drainage would restore native plant species along the creek in areas that have been modified in the past. These riparian plantings in the Pete King drainage would also help return this area to its historical visual condition, therefore having a positive effect on scenic quality.

Road obliteration projects proposed in all alternatives would improve the visual condition of the landscape in both the short and long term because road prisms would be removed and restored to a more natural state.

While there may be a short-term visual effect from the use of herbicides, the integrated approach proposed for the control of noxious weeds along roads and trails would have a positive effect on scenic quality in the long term. Reduction of non-native invasive plants, which are found most often in road and trail corridors, would create a more natural appearing condition in the foreground-viewing zone of treated travel corridors.

Cumulative Effects. The cumulative effects analysis evaluates the effects to scenic resources of the proposed action when combined with past, present and reasonably foreseeable actions. The U.S. Highway 12 and the Lolo Trail corridors are important components of the Lochsa Face analysis area. U.S. Highway 12 makes up the southern and eastern border of the analysis area and the Lolo Trail corridor forms the northern

border of the area. Both corridors are critical travel corridors identified in the Clearwater National Forest Plan (Appendix G). The U. S. Highway 12 corridor also follows, for the most part, the Lochsa and Middle Fork of the Clearwater Wild and Scenic River. The scenic resource has been identified as an important element of the outstanding resource values in the designation of this Wild and Scenic River. When analyzing the cumulative effects of the actions proposed in the North Lochsa Face project, the western portions of these corridors form the geographic scope of the analysis. Actions proposed in the area of the Lolo Trail corridor from Canyon Junction to Saddle Camp were analyzed. Also actions proposed in the area of the U. S. Highway 12 corridor from Kooskia to milepost 140 of U. S. Highway 12 were analyzed for both the highway corridor and the Lochsa and Middle Fork of the Clearwater Wild and Scenic River.

In general, timber-harvesting activities, which remove a large percentage of the standing timber, are visually evident until regeneration of the vegetation at the site reaches approximately 10 to 15 feet in height. When vegetation reaches this height, openings often are not apparent as unnatural occurrences. Actions proposed are planned for completion in approximately ten years with final site preparation adding an additional two years. Given this time frame, the effects on scenery should no longer be evident by the year 2025.

Past, Present and Foreseeable Future Actions: Outside of the analysis area there are some sites along the U. S. Highway 12 corridor in the area of Syringa and Lowell where the effects of past actions are apparent. Timber harvesting activities from several sales including the South Bend, Cabin Patch, Big Smith, Bridge Creek and the Syringa Creek Sales are still visible, but are starting to revegetate. Rehabilitation of some of the units of the Bridge Creek Sale was accomplished in the Bridge Creek Salvage sale completed during the summer of 1998. There are some units from previous sales that are apparent in the background viewshed from viewpoint along the Sherman Peak Trail, but these are also nearing the point where revegetation would create a more natural appearing condition. Several salvage sales including the Powerline Salvage and the Deadman Salvage have recently been completed, but are not visually evident.

Future projects include the Middle Fork sale on the Nez Perce National Forest located on the south side of the river across from Lowell and the East Bridge Salvage sale located just east of Syringa. Harvesting activities in each of these projects are designed to mimic existing natural openings found in the corridor, so neither of these sales would affect the scenic quality as viewed from the U. S. Highway 12 corridor. Other sales within the geographic area that are planned in the foreseeable future include District salvage sales and the Lower Eldorado sale to the west. The harvesting activities for these sales would also be designed to meet adopted scenic quality objectives, so it is not anticipated that the cumulative effects would exceed the adopted scenic quality objectives for either the U. S. Highway 12 corridor or the Lolo Trail corridor.

The cumulative effects of the proposed action alternatives in addition to past, present and reasonably foreseeable actions would result in a landscape that is more varied. Some units are placed adjacent to past harvest areas and would expand these openings. However, units placed adjacent to past units would feather the boundaries resulting in a

more natural appearance. All vegetative prescriptions result in a mosaic landscape through retention of all trees in the riparian area, and a variety of levels outside the riparian areas. Cumulatively, all alternatives would introduce more variety, form and texture, and cumulatively meet the visual quality objectives from the critical viewing areas. The prescriptions in many cases would improve the scenic quality by adding more variety. However, as stated before, some people may not like the appearance of mixed severity burns. No other mixed severity burns are planned within the analysis area; therefore there would not be cumulative effects of these burns when added to others.

Forest Plan Consistency: All alternatives are consistent with the Clearwater Forest Plan. All alternatives meet the Foreground Visual Quality Objective of retention adjacent to US Highway 12 and the Lolo Motorway, as well as adjacent to the trails. Retaining substantial vegetation and creating a mosaic pattern similar to natural occurrences meets the retention VQO. Timber harvest has been done successfully on private land encumbered by scenic easement by removing a maximum of 30 percent of the canopy cover (leaving a minimum of 70 percent of the canopy cover) and creating openings no larger than ½ acre (see January 8, 2000 Wild and Scenic River Corridor Timber Harvest Memo). This level of harvest protects the visual quality of the corridor by leaving the overall structure of the stand intact. Harvested areas tend to mimic the natural environment. The prescription used on private lands is the same as what is proposed in this action. Activities adjacent to the trails would meet the retention standard by maintaining screening vegetation between the trails and the activities.

All alternatives meet the partial retention and modification VQOs by creating a mosaic pattern of vegetation, emulating natural patterns across the landscape.

Lochsa Research Natural Area Existing Conditions

Introduction: The 1,490-acre Lochsa Research Natural Area (RNA) was established in 1977 to represent rare inland occurrences of coastal disjunct and endemic plants, especially the striking Pacific dogwood. The RNA boundary was redrawn in 1989 to exclude a road and follow topographic lines rather than section lines, resulting in an increase from 1,281 acres 1,490 acres (project file, RNA documents). The RNA is in two units divided by the Lochsa River and US Highway 12. Approximately 1,230 acres of the RNA, known as the Canyon-Deadman unit, occur within the project area.

Regulatory Requirements: In 1977, an Establishment Report was written which provides management direction for the Lochsa RNA. (Project File, RNA section). The Establishment Report states that burning may be necessary to maintain the vegetation that designation as a research natural area hopes to preserve

Forest Plan Direction: The Forest Plan established Management Area M1 to provide management direction for RNAs. The goal for these RNAs is to “Manage established and proposed RNAs to protect their inherent natural features and maintain them in undisturbed ecosystems.” The MA direction also requires that administration the RNA

be done in accordance with site-specific direction in the implementation plan (Establishment Report).

Existing Condition: The Canyon-Deadman unit consists of steep south facing slopes (LTA 21 breaklands) with mosaics of Douglas-fir, grand fir, ponderosa pine, and cedar resulting from historic wildfires of the early 20th century. Small, shady cool drainages dissect these slopes, which, for the most part, have not been affected by large historic fires. Habitat for rare plants occurs in these drainages as well as in microsites scattered across the slopes.

The area contains a number of types of vegetation that more typically occur in the Pacific Coast areas of Washington and Oregon including Pacific dogwood (*Cornus nuttallii*) and at least 13 other plant species that are rarely found in inland locations. Pacific dogwood is the characteristic species for the area and historically has occurred throughout the RNA. Recently an anthracnose disease has killed over 90 percent of the population. The existence of vegetation typical of the Pacific Coast as far inland as the Lochsa River is extremely rare and unusual, and was the primary reason for its designation as a RNA.

Soils throughout the RNA are shallow to deep and generally the surface layers are fairly well mixed due to colluvial activity on steep slopes. A mantle of volcanic ash is present across much of the areas with thickness of up to 20 inches in riparian areas. The volcanic ash has high moisture-holding characteristics which combined with the moderate climatic conditions create a suitable environment for the coastal disjunct plant species.

Fire is a common natural process within the RNA. The historic fire regime across most of the area is a mixed (lethal and non-lethal), frequent type with an average return

Summary of changes to the RNA since established in 1977:

- ?? Nearly all the Pacific dogwoods along the Lochsa and Selway rivers have perished from dogwood anthracnose, a non-native fungus.
- ?? Six of the rare plants listed in the establishment report are now on the Region One sensitive plant list, and 13 are tracked by the Idaho Conservation Data Center
- ?? Fire suppression has resulted in increased fuels and decline of seral communities.
- ?? The Highway 12 corridor is now under jurisdiction of the State of Idaho.
- ?? Spotted knapweed, cheatgrass, and foothills bedstraw have become established along the Lochsa highway and scattered populations have been found inside the RNA up to 1,000 feet above the highway. The Idaho Transportation Department chemically treats spotted knapweed in the highway corridor.
- ?? The RNA boundary was redrawn in 1989 to exclude a road and follow topographic lines rather than section lines, resulting in an increase from 1,281 acres to 1,490 acres.

interval of 26-50 years. The mid-seral species, Douglas-fir (*Pseudotsuga menziesii*), ponderosa pine (*Pinus ponderosa*), and western larch (*Larix occidentalis*) have historically been maintained in this area by the frequent fires. Fire suppression efforts have allowed many areas of the RNA to exceed the historical fire return interval and consequently climax tree species are becoming more prominent.

Lochsa Research Natural Area Environmental Consequences

Effects Analysis Process: Each alternative was evaluated to determine the effects on the RNA, including effects to vegetative conditions and sensitive plant species. In April 2001, a field meeting was held in the RNA to review activities proposed within the RNA. Forest Service RNA management and plant ecologists attended the meeting, including representatives from the Clearwater National Forest, Idaho Conservation Data Center, Rocky Mountain Research Station, and the Northern Region Regional Office (Project File, RNA section).

Alternatives 1 and 4/4a: These alternatives do not propose any management activities within the Lochsa RNA. Mixed, lethal and non-lethal fires with an average return interval of 26-50 years are the dominant ecosystem process in this area. Due to past fire suppression, fuels have built up above historic levels. Species composition is advancing towards more late successional species such as grand fir and western redcedar rather than the early seral species (ponderosa pine, Douglas-fir, and western larch) that were maintained by frequent low-intensity fires. Stand density is increasing without the thinning influence of low intensity fires. As plant succession in the RNA progresses, the likelihood of a lethal, stand-replacing fire would significantly increase due to higher fuel loadings, stand densities, and increased ladder fuels. Such a high intensity wildfire could increase surface erosion and the likelihood of landslides and other soil movements.

Alternatives 2, 3, 3a, 5 and 6: Four units are proposed for summer/fall burning within the RNA. The units include:

Unit 23	180 acres	Mixed severity burn
Units 227, 229, 230	535 acres	Understory burn

A burn plan (Chapter 2, Design Criteria) would be prepared jointly by fire managers, fire ecologists and plant ecologists and would follow the RNA Establishment's Reports recommendations for using fire to maintain a mosaic of communities as well as for protecting certain areas from fire (near climax areas like Apgar Creek). Sensitive plant surveys would be conducted and rare plant and weed locations mapped. Treatment areas and/or methods would be adjusted for fire-sensitive species and remaining dogwoods. Fire would be ignited outside of PACFISH buffers.

Noxious weeds would be managed with an integrated weed management approach with the objective of removing non-native invaders from native plant communities in the RNA. Hand pulling and spot-spraying would be used where appropriate. Bio-control (the

use of non-native insects to reduce noxious weeds) would not be used as a treatment method in the RNA.

Burning would restore the role of fire to this area, reduce fuel loading to prevent an unwanted event such as a high-intensity stand replacing wildfire and create natural fire pattern mosaics of different plant species composition, densities and ages across the landscape. The vegetation in the Lochsa RNA has evolved with wildfire as a common disturbance process over time. These mixed fires have served to recycle nutrients and biomass, maintain early successional species and low to moderate fuel loadings, and reduce stand densities, while maintaining a mosaic of vegetation communities across the landscape.

Rare plant species within the RNA each react differently to fire. For some species fire may be harmful, while others may be benefited. There are six rare plants within the RNA: *Carex hendersonii*, Henderson's sedge; *Cornus nuttalli*, Pacific dogwood, *Cypripedium fasciculatum*, Clustered lady's-slipper; *Dasynotus daubenmirei*, Daubenmire's dasynotus; *Synthyris platycarpa*, Evergreen kittentail; and *Waldsteinia idahoensis*, Idaho barren strawberry. All except the clustered lady's-slipper and Pacific dogwood would be benefited by prescribed fire (SEIS sensitive plant effects analysis). The clustered lady's-slipper can survive mild underburns that retain the duff layer and 60 percent or more of the canopy. If the duff layer is disturbed and the canopy reduced then the species would not survive. Pacific dogwood normally is considered fire tolerant, however trees weakened by dogwood anthracnose have not survived burning.

Surveys would be conducted and rare plant locations mapped. Treatment areas and/or methods would be adjusted for fire-sensitive species and remaining dogwoods (Design Criteria, Chapter 2). Through avoidance and/or adjustment of prescribed fire there would be no effect to these species within the RNA.

Treatment of weeds would be done in accordance with the Design Criteria in Chapter 2. Herbicide treatment would not affect the species for which the RNA was established. Further effects of herbicide treatment can be found in the aquatic, wildlife, and weeds sections of the SEIS.

Cumulative Effects: Cumulative effects were analyzed for all past, present and reasonably foreseeable activities that would occur within the Lochsa Research Natural Area. This area was evaluated specifically to ensure that the proposed activities do not foreclose future options for scientific analysis and to ensure that the objectives of the RNA can be achieved now and in the future. (Note: some other resource analyses such as sensitive plants, noxious weeds, aquatic ecosystems, for the entire North Lochsa Face etc, including cumulative effects is evaluated elsewhere in this Supplemental EIS.)

The direct and indirect effects evaluated the proposed actions when combined with past and present actions, such as noxious weed spraying, landslides, wildfire, wind throw, fire suppression, and insects and disease. Reasonably foreseeable management actions within the RNA only include the continued treatment of spotted knapweed infestations along Highway 12 by the Idaho Transportation Department. No other management actions are

proposed by the Intermountain Research Station, or the Forest Service other than those described in the proposed action. Other reasonably foreseeable actions include natural events such as fire, fire suppression, and continued mortality of the Pacific dogwood.

Alternatives 1 and 4/4a: The cumulative effects of Alternative 1 or 4/4a are associated with the lack of natural and/or management ignited fire within the RNA. This area evolved with frequent, mixed intensity fires that would generally remove understory shrubs, forbs, and smaller trees. Fire suppression over the past 60+ years has allowed plant succession, particularly among understory forbs, shrubs, and trees to continue more toward mid and late seral species. Stand densities have also increased and the likelihood of lethal fires of higher intensity than historical burns has increased. This change in stand conditions may have negative effects on species composition, including coastal disjunct species. Continued fire suppression and/or the lack of management-ignited fire would continue the trend toward later successional species.

Continued exclusion of fire in the RNA would increase the likelihood of large, high-intensity fires due to greater fuel loadings, the presence of ladder fuels, and increased stand densities. If a large, high intensity wildfire does occur in the RNA, it is likely there would be increased risks of surface erosion, landslides, and debris torrents. Following these events, noxious weed invasion may be a problem on freshly exposed soil surfaces. High-intensity fires that are outside the historic range of variability may negatively impact coastal disjunct species populations.

Alternatives 2, 3, 3a, 5 and 6: These alternatives all include management ignited burns to restore the dominant natural disturbance process to the RNA. These burns would be administered under more controlled conditions than a wildfire and should closely mimic the intensity of historical mixed non-lethal/lethal burns. Fuel loadings and ladder fuels would be reduced, stand densities would decrease, and mid to late seral species would be reduced. Coastal disjunct species would respond favorably to the reintroduction of fire in the RNA. This is important since populations of these species, particularly Pacific dogwood, may be declining in other inland areas with coastal climatic conditions. Invasion by noxious weeds may occur in some areas, but native species should still occupy most of the area since they evolved with the low to moderate intensity burns being prescribed.

Noxious weed treatment along the highway corridor is primarily in a maintenance stage. This treatment, along with the treatment proposed under these alternatives should ensure that noxious weeds infestations are contained and/or reduced, therefore protecting the features for which the RNA was established.

Consistency with the Establishment Report and Forest Plan: All alternatives are consistent with the Lochsa RNA Establishment Report and the Clearwater Forest Plan. The actions proposed under Alternatives 2, 3, 3a, 5 and 6 have been submitted to the Rocky Mountain Research Station for their approval. The weed treatment proposed under these alternatives would modify the Establishment Report by allowing the use of herbicides within the RNA. The Rocky Mountain Research Station has approved the

prescribed burning and weed treatment, and the adjustment to the Establishment Report. (Project File, RNA section)

Fish and Hungery Creeks, Eligible Wild And Scenic Rivers Existing Conditions

Eligible Rivers: Fish and Hungery Creeks

Forest Plan Direction: Fish Creek and Hungery Creek were identified as eligible Wild and Scenic Rivers in Clearwater Forest Plan Amendment 2, October 1990. The Clearwater National Forest Plan provides specific direction for protecting the status of eligible Wild and Scenic Rivers. Chapter II, pp. 37-38 states that timber management is not planned in wild river segments and will be considered on an individual project basis. In recreation segment's harvest practices will be designed to minimize adverse impacts on the recreationists, fisheries resource, wildlife populations, water quality, and other riparian dependent resources. Fish Creek is classified as a recreational river from its mouth to the confluence with Hungery Creek. Hungery Creek is classified as a wild river for its entire length.

- ?? Fish Creek is classified as a recreational river from its mouth to the confluence with Hungery Creek.
- ?? Hungery Creek is classified as a wild river for its entire length

Fish and Hungery Creeks primary outstandingly remarkable value was identified as fisheries. Eligible Wild and Scenic Rivers do not have specific boundaries. Designated river boundaries generally include one-fourth mile on either side of the river. Analysis in Fish and Hungery Creeks includes the area approximately one-fourth mile on either side of the creeks.

Forest Service Handbook 1909.12 section 8.12 provides direction for interim management of Study Rivers. Rivers are to remain free flowing. Outstandingly remarkable values must be protected and, to the extent practical, enhanced. Management and development must protect the classification identified for the river, in this case, recreation for Fish Creek and wild for Hungery Creek.

Existing Condition: Fish Creek and Hungery Creek are located in the North Lochsa Slope Roadless Area. The drainages are characterized by steep, breaklands with steep side drainages. Key attractions include the anadromous fishery and elk. Big game hunting is the most popular current use although stream fishing, hiking, backpacking and horseback riding are becoming more popular each year. The natural beauty of Fish Creek is a key attraction. Human activity is considered relatively minor to the overall natural integrity of the area. There has been no past timber harvest in the eligible Wild and Scenic River portion of the drainages (Clearwater National Forest Plan Environmental Impact Statement Appendix C, pages C-135-140).

Five miles of Fish Creek have been determined to be eligible for Wild and Scenic River designation, from the mouth of Hungery Creek to its confluence with the Lochsa River. The Lewis and Clark trail parallels the stream for a short distance near its confluence with Hungery Creek (Fish Creek Eligibility Report 3/13/1989, p. 1). The Fish Creek drainage contains some of the best spawning and rearing habitat in the Lochsa River drainage for steelhead trout and chinook salmon (Clearwater National Forest Plan Environmental Impact Statement Appendix C, pages C-135-140). An unimproved road accesses the southernmost one mile of the stream while a hiking trail parallels the stream for the remaining four miles. Fish Creek experienced stand replacing wildfire activity in 1910 and 1934. The fires created vegetative zones with heavy brush fields on southern aspects and a mosaic of timbered slopes and brush fields on northern aspects.

The entire length of Hungery Creek has been determined eligible for Wild and Scenic River designation. The Lewis and Clark Trail parallels the stream for 10 miles with 5 of the campsites associated with the expedition located in the corridor. This segment of trail is considered the last remaining segment of the entire route that is in a relatively unchanged condition from when Lewis and Clark traveled through the area in 1805-1806. The stream is recognized as one of the three most important anadromous fishery spawning and rearing streams on the Clearwater National Forest. The area also provides key big game winter range. Primitive trails parallel the corridor for approximately 3 miles with the remaining 9 miles remaining relatively primitive. Wildfire occurred in 1910 and 1934 in the lower portion of the drainage. Heavy timber of mixed species dominates the landscape on northern aspects with brush fields on southern aspects (Hungery Creek Eligibility Report, 3/13/1989). There has been no past timber harvest in either drainage and no grazing allotments are located in either corridor (Fish Creek and Hungery Creek Eligibility Reports, 3/13/1989).

Fish and Hungery Creeks, Eligible Wild And Scenic Rivers Environmental Consequences

Direct, Indirect Effects: There are no proposed timber harvest activities in any North Lochsa Face alternatives in the eligible Fish and Hungery Creek drainages.

Table 3-101: Proposed Vegetative Management in Fish and Hungry Creek Drainages

Vegetative Management	Alt 1	Alt 2	Alt 3	Alt 3a	Alt4/4a	Alt 5	Alt 6
Underburn	0	1,495 ac (14 units)	1,495 ac (14 units)	537 ac (3 units)	0	1,495 ac (14 units)	1,495 ac (14 units)
Mixed Severity Burn	0	1,294 ac (5 units)	1,294 ac (5 units)		0	1,294 ac (5 units)	1,294 ac (5 units)
Noxious Weed Treatment	0	9 acres	9 acres	9 acres	9 acres	9 acres	9 acres

Alternative 1 and Alternative 4/4a proposes no activities in Fish and Hungry Creeks. If natural events continue as they have since eligibility was determined, these alternatives would have no effect on Wild and Scenic River eligibility for Fish and Hungry Creeks because the area would remain in essentially the same condition as when eligibility was determined. Natural fire processes would continue and due to increased stand densities it is likely that fires could result in a lethal, large stand replacing fire, versus a non-lethal underburn, or a mixed burn that includes smaller areas of stand replacing fire. If a catastrophic wildfire occurred that resulted in degrading the water quality and fisheries values of Fish and Hungry Creeks then the no action alternative and Alternative 4/4a could have a negative impact on eligibility because no action resulted in a landscape more susceptible to catastrophic wildfire.

Summary of Alternatives 1 and 4/4a

- ?? Would not reintroduce fire
- ?? Continue roles of natural fire, which could alter the landscape character if it is stand replacing versus underburn or mixed severity burn
- ?? Stand replacing lethal fires in the past have affected streams and fisheries, which could affect eligibility

Alternatives 2, 3, 5 and 6: propose identical underburning and mixed severity fire in the eligible segments of Fish and Hungry Creeks. Prescribed fire (underburning and mixed severity fire) is proposed for the purposes of maintaining healthy ecosystems and reducing the risk of catastrophic fires. The proposal is designed to accomplish burning with multiple ignitions over a multi year period determined by weather and burning conditions. Ignitions would occur outside of the riparian areas, however, fire may back into the riparian reserves. Fuel would slowly be removed with a 40 percent total removal target in the mixed severity units.

These alternatives would underburn approximately 1,495 acres, in 14 units, and introduce mixed severity fire on approximately 1,294 acres, in 5 units.¹ Natural fire occurred in portions of Fish and Hungry Creeks in 1919 and 1934. Introducing prescribed fire would allow fire to continue to play its natural role in a controlled manner, therefore,

¹ Units were identified by approximate location near the creeks that would most likely fall within a designated corridor.

reducing future risk of catastrophic wildfires. The methods used to accomplish prescribed fire are designed to mimic natural events creating a mosaic pattern on the landscape.

Watershed specialists have determined there would be no measured sediment to the streams (see Watershed and Fisheries Environmental Consequences). Underburning would have little to no impact on the eligible portion of Fish and Hungery Creeks because sediment impacts and changes to visual quality are not expected. However, any impacts that could possibly occur would be reduced in a very short time frame. Usually after one growing season underburned areas produce new growth that minimizes sedimentation and visual impacts. This has been observed in the Powerline Salvage Project that was underburned after some timber was removed. The outstandingly remarkable value of fisheries would continue to be protected.

The proposed mixed severity fire is likely to have a varying impact on the visual quality of the eligible portion of Fish and Hungery Creeks depending on the period of time the area is viewed. It is expected that a mosaic landscape would be in place when the mixed severity fire is completed. The project proposal targets total fuel removal at 40 percent. There would be a visual change from areas of live trees to areas of burned trees. The landscape would continue to have structure and texture because there would be burned and unburned areas with burned snags remaining in burned areas. As time goes by, the visual impact would be minimized by new growth. The visual impact of prescribed fire is a trade off from the expected, more severe impact of wildfire. However, fire is a natural part of the ecosystem, and the changed visual condition caused by fire, whether natural or man introduced, would not alter the eligibility of Fish and Hungery Creeks as Wild and Scenic Rivers.

Because the primary outstandingly remarkable value (ORV) identified for Fish and Hungery Creeks is fisheries, this is the ORV that demands scrutiny. Introducing mixed severity fire that could negatively impact the fisheries values of Fish and Hungery Creek could affect eligibility, although this is not expected. Not introducing mixed severity fire and subsequently having a catastrophic wildfire occur could also negatively impact eligibility of Fish and Hungery Creek through no action of land managers. The mixed severity fire proposal for alternatives 2, 3, 5, and 6 has been designed so that no measured sediment would be delivered to the streams. Therefore the fisheries values of the streams would be protected and eligibility would not be impaired.

Summary Alternatives 2, 3, 5, and 6

- ?? Reintroduces fire which is a natural part of the ecosystem
- ?? Prescribed burning would not alter eligibility of Fish and Hungery Creeks
- ?? Fisheries habitat is maintained

Alternative 3a proposes 537 acres, in 3 units, of underburning and no mixed severity fire in Fish and Hungery Creeks. Alternative 3a would have an even less effect on the physical environment than alternatives 2, 3, 5, 6 in the short-term because it treats a much

smaller area. Wild and Scenic River eligibility for Fish and Hungry Creeks would not be impaired.

The prescribed fire proposed in Fish and Hungry Creeks has been designed in a manner that would protect the outstandingly remarkable values of the creeks. With the mitigation measures/design criteria in place, the proposed activities would continue to protect and enhance the characteristics that determined these creeks as eligible Wild and Scenic Rivers. This conclusion is based on past experience that prescribed fire, when introduced under controlled conditions, would maintain and enhance the stream corridors.

Summary of Alternative 3a
?? Reintroduces fire on a lesser amount of acres than Alternatives 2, 3, 5 or 6
?? Would not alter eligibility of Fish and Hungry Creeks
?? Fisheries habitat is maintained

Noxious Weed Treatment: All alternatives, except the no action alternative, propose weed treatment on approximately 9 acres in the lower portion of Fish Creek. Weed treatment includes chemical and biological treatment along with seeding and fertilizing along the trail. Under the worst case scenario, levels of herbicide that could reach the stream systems within the project area are far less than those measured to be toxic to aquatic organisms (SEIS Noxious Weed Report). Eligibility of Fish and Hungry Creeks would not be impacted because the outstandingly remarkable value of fisheries is protected (see Noxious Weeds Environmental Consequences).

Cumulative Effects: There are no past actions or other proposed actions, other than potential wildfire suppression, in the eligible portions of Fish and Hungry Creeks. The cumulative effects for the action alternatives would not impair the Wild and Scenic River eligibility of Fish and Hungry Creeks.

Wildfire suppression has allowed the area to become more vulnerable to catastrophic wildfire. Stand replacing wildfires could adversely affect water quality by removing streamside vegetation (shading), and increasing the likelihood of landslides. The effects of a catastrophic wildfire could affect the eligibility of Fish and Hungry Creeks.

Lochsa Wild And Scenic River Existing Conditions

The Lochsa River was designated as a Wild and Scenic River in 1968 as part of the Middle Fork Clearwater system. It is classified as a recreational river. The outstandingly remarkable values of the river are inferred from the Middle Fork Clearwater Wild River Study, August 1964, as scenery, recreation and fish and wildlife.

Forest Plan Direction and Regulatory Direction: In 1972, a River Plan for the Middle Fork Clearwater, including the Selway and Lochsa River was developed to guide management of the Wild and Scenic River Corridor (River Plan, 1972). The plan, p. 7 outlines general coordinating requirements, “Consider timber for recreation, watershed

protection and esthetic values rather than for commercial production.” Recreation classified requirements in the River Plan, p. 11, state “Timber cutting will be done only for the following: ...control of fire, insects and disease when such cutting is determined to be the only practical method of control... Timber cutting will be compatible with or enhance key recreational and scenic values.”

The Clearwater Forest Plan designated this area as Management Area A7, (CNF Forest Plan, pp. III-24-31). The goal of MA A7 is to “Protect and enhance scenic values, cultural values, water quality, big game, nongame, and fishery habitats with special emphasis on the anadromous fishery and developed and dispersed recreation that will contribute to public use and enjoyment.” In addition, the Forest Plan states, “Harvest timber when enhancement of key resources

will occur and adverse impacts to key resources would be of low magnitude and short duration, i.e. one growing season or less. To achieve specific vegetation management objectives including: (a)

Activities are evaluated for consistency with both the River Plan and the Forest Plan.

Protecting surrounding trees by reducing fire, insect or disease hazards...(c) Maintaining certain tree species, sizes or vegetative patterns to enhance visual quality.”

Existing Condition: The Lochsa River corridor includes a wide variety of vegetation from the high elevation tamarack to the coastal communities of dogwood. This provides a variety of wildlife habitats making the area home to many birds and animals. Large shrub fields with scattered stringers of timber are visible on the upper slopes along both sides of the river. Steep riverbanks dominate the landscape. The steepest portion of the corridor is located in what is known as Black Canyon between Split Creek and Fish Creek. Here the corridor narrows to a gorge with towering granite walls and cascading waterfalls that become focal points during the rainy fall and spring periods. Farther east the slopes are dominated by dense timber stands of western red cedar, Douglas-fir, grand fir and tamarack.

Recreation use varies throughout the year. During the spring and early summer whitewater floating is the most popular recreation activity. Heavy use is observed on weekends during May and June, depending on water flow, when most turnouts and parking spaces are filled with vehicles and boat trailers. Several campgrounds and dispersed sites provide opportunities for a variety of recreational activities. Several hiking trails exist throughout the corridor. General recreation use is heaviest from Memorial Day to Labor Day. Big game hunting is the primary recreation activity during the fall. Hunters camp at sites along the highway or access more remote areas via existing trailheads.

Vegetation in the area has been shaped by various natural and management induced processes. Large wildfires in 1910 and 1934 created the large shrub fields desired by the Clearwater elk population. During any year, depending on weather conditions, lightning strikes may result in natural caused fires in the area. Scattered timber harvest has occurred on private land within the Wild and Scenic River corridor. Prescribed burning and limited timber harvest has been introduced on National Forest Land in the western

end of the Wild and Scenic river corridor during the last decade. The Forest Service recently completed Powerline Salvage and East Bridge Timber Sale is about half completed. Burning was not obvious after one burning season had passed and the timber harvest was not visually evident. These projects are located in the vicinity of Syringa and have, thus far, successfully protected the outstandingly remarkable values of the Wild and Scenic River corridor.

There are between 3500 and 4000 acres of private land encumbered by scenic easement along the Wild and Scenic Middle Fork Clearwater including the Lochsa and Selway Rivers. It is unknown how many acres of private land remain that are not protected by scenic easement, however, it is less than what is scenic easement encumbered. Most of the unencumbered private land is in Syringa and Lowell and consists of private property with commercial activities. Scenic easements were purchased from landowners as a land management tool to protect the outstandingly remarkable values of the Wild and Scenic River corridor.

Lochsa Wild And Scenic River Environmental Consequences

Table 3-102: Summary of Actions within the Lochsa Wild and Scenic River Corridor

Vegetative Management	Alt 1	Alt 2	Alt 3	Alt 3a	Alt4/4a*	Alt 5	Alt 6
Regeneration Harvest	0	240 ac (3 units)	240 ac (3 units)	240 ac (3 units)	0	0	240 ac (3 units)
Underburn	0	560 ac (11 units)	560 ac (11 units)	680 ac (11 units)	35 (1 unit)	550 ac (10 units)	690 ac (12 units)
Mixed Severity Burn	0	130 ac (4 units)	130 ac (4 units)	130 ac (4 units)	0	130 ac (4 units)	130 ac (4 units)
Helicopter Landings	0	2	2	2	0	2	2
Noxious Weed Treatment	0	70 acres	70 acres	70 acres	70 acres	70 acres	70 acres

* Alternative 4a does not include any underburning within the Wild and Scenic River Corridor.

The North Lochsa Face Supplemental EIS proposes prescribed fire and timber harvest within the designated portion of the Lochsa River. Noxious weed treatment is proposed within or adjacent to the river corridor in four locations: Swan Creek, Bimerick Creek, Pete King Creek, and Fish Creek. No road obliteration is proposed within the corridor; therefore it will not be discussed.

Alternative 1 is the no action alternative. This alternative would have no impact to the Lochsa Wild and Scenic river corridor because it does not alter the physical environment. Proposing no action continues to “protect and enhance” the river environment in its’ present condition allowing natural forces to determine the condition of the landscape.

Alternative 1 No Action

- ?? Continues with natural succession
- ?? Would not effect outstandingly remarkable values, unless a catastrophic, stand-replacing fire event occurred

Alternatives 2, 3, 3a and 6

Timber harvest: Alternatives 2, 3, 3a and 6 propose identical timber harvest units and helicopter landing sites within the Lochsa Wild and Scenic River corridor. Three units, approximately 240 acres, would be harvested through a regeneration group selection prescription (see example in SEIS Appendix G). The prescription would result in ¼ to ½ acre openings, and would leave 70 percent or more of the canopy cover. The purpose of the group selection harvest is to decrease the presence of climax species, and increase the seral tree component thereby reducing root rot conditions.

Harvest would be centered in root rot pockets or areas of insect and disease activity. Harvest would improve patch resiliency to root rots and insect and disease and reduce potential fire intensities within the patch. In addition, harvest would provide for an interspersed mix of forage and cover and vegetative conditions to enhance big game winter range and visual quality.

Alternatives 2, 3, 3a and 6

- ?? Restore vegetative conditions
- ?? Reintroduces fire into the ecosystem
- ?? Treat root rot and insect and disease pockets
- ?? Increase resiliency by retaining seral species
- ?? Retain substantial cover, structure, texture
- ?? Consistent with the Forest Plan

Timber harvest is proposed for the purpose of improving forest health. The Middle Fork Clearwater, including the Selway and Lochsa, River Plan, p. 7 outlines general coordinating requirements, “Consider timber for recreation, watershed protection and esthetic values rather than for commercial production.” Recreation classified requirements in the River Plan, p. 11, state “Timber cutting will be done only for the following: ...control of fire, insects and disease when such cutting is determined to be the only practical method of control... Timber cutting will be compatible with or enhance key recreational and scenic values.”

Careful timber harvest can occur without negatively impacting the outstandingly remarkable values of the Wild and Scenic River corridor. Impacts to visual quality and fisheries can be successfully mitigated. Timber units proposed in the river corridor would be harvested by helicopter eliminating any ground disturbance and causing no impacts to water quality by harvesting activity.

Timber harvest has been done successfully on private land encumbered by scenic easement by removing a maximum of 30 percent of the canopy cover (leaving a minimum of 70 percent of the canopy cover) and creating openings no larger than ½ acre (see January 8, 2000 Wild and Scenic River Corridor Timber Harvest Memo). This level of harvest protects the visual quality of the corridor by leaving the overall structure of the stand intact. Harvested areas tend to mimic the natural environment. To insure a canopy reduction of no greater than 30 percent the Forest landscape architect and Wild and Scenic Rivers Administrator would inspect the proposed harvest unit marking prior to harvesting. With this mitigation timber harvesting would continue to protect the outstandingly remarkable values of the Lochsa Wild and Scenic River.

Helicopter landings: Helicopter landings have been designated along the Lochsa River near Deadman and Bimerick Creeks. The Deadman site is on a large flat adjacent to the Lochsa River. It is sufficient in size to allow landing with minimal impacts to the surrounding environment. The access road would be improved resulting in a long-term benefit for recreational use in the corridor by providing an additional river access for boaters. The Bimerick site is north of Highway 12 on a short side road. Some clearing would be necessary at the north and west sides of the site to provide sufficient space to yard logs safely. An estimated 2 to 3 dozen large trees would need to be removed. Trees would not be removed between the access road and the highway to maintain a visual screen (See Design Criteria Table Chapter 2). This site has poor highway access because of site distance to the east and safety precautions would be coordinated with Idaho Transportation Department to prevent highway accidents as listed in the mitigation/design criteria table (see Chapter 2).

Activity at both sites meet PACFISH requirements protecting water quality. Use of the sites as helicopter landings would have no detrimental impact to the outstandingly remarkable values of the river corridor. The mitigation measures/design criteria require returning the helicopter landings within the Highway 12 corridor to a natural appearing condition including recontouring and vegetation planting if critical to aesthetics of the site.

The Clearwater Forest Plan direction for MA 7, timber harvest, states that harvest should be avoided during high recreational season. Harvest activities would be restricted to Monday through Friday, from May 1 through Labor Day. No helicopter activities would occur on weekends or holidays that fall on Mondays or Fridays (see Chapter 2, Design Criteria). Boating use of the Lochsa River is highest on weekends in the spring dependent on river levels. Boating activity would not be negatively impacted because harvest activities would not occur on weekends (see North Lochsa Face Landscape and Watershed Assessment report, April 8, 1997). The highest general recreation use season is primarily from Memorial Day through Labor Day, with the majority of use occurring on the weekend. Curtailing activities during the weekends, which are the highest use periods, meets the requirements of the Clearwater Forest Plan.

Underburning: Alternative 2, 3, 3a, and 6 propose similar underburning and mixed severity fire introduction in the Lochsa Wild and Scenic River corridor. Prescribed fire is proposed for the purposes of maintaining healthy ecosystems and reducing the risk of

catastrophic fires. The Clearwater Forest Plan MA A7 states, "Use prescribed fires from planned and unplanned ignitions as needed to achieve Forest Plan direction". The River Plan, pp. 10, 13, 14, general coordinating requirements states, "Fire may be used as a management tool to maintain natural environmental conditions." Recreation river coordinating requirements state, "Any prescribed burning, hazard reduction and incineration will be on a tightly controlled basis to avoid air pollution problems and protect developments and key resource values...Fire may be used as a management tool when required to maintain natural ecological or environmental conditions or sustain key values in the river areas."

Alternatives 2, and 3 would underburn approximately 560 acres, in 11 units. Alternative 3a proposes underburning 11 units on about 680 acres. Alternative 6 proposes 12 underburn units on about 690 acres. The effects for each of these alternatives, 2, 3, 3a, and 6 are very similar to each other. Introducing underburns would allow fire to continue to play its natural role in a controlled manner, therefore, reducing the risk of catastrophic stand replacing wildfires. The methods used to accomplish underburns are designed to mimic natural events creating a mosaic pattern on the landscape.

Underburning is expected to have no impact on the outstandingly remarkable values of visual quality, recreation or fisheries for the Lochsa Wild and Scenic River. Sediment impacts and changes to visual quality are not expected. However, any impacts that could possibly occur would be reduced in a short time. Usually after one growing season underburned areas produce new growth that minimizes sedimentation and visual impacts. Watershed specialists have determined there would be no measured sediment to the streams (see Watershed and Fisheries Environmental Consequences).

Mixed Severity Burns: Alternatives 2, 3, 3a, and 6 propose 130 acres of mixed severity burns in 4 units. The mixed severity burns would be accomplished with multiple ignitions over a multi year period determined by weather and burning conditions. Ignitions would occur outside of the riparian areas although fire may back into the riparian reserves. Fuel would slowly be removed with a 40 percent overall removal target in the mixed severity units.

The proposed mixed severity burns are likely to have a varying impact on the visual quality of the Lochsa River corridor depending on the period of time the area is viewed. Because multiple ignitions would be used the proposed units burned first may have one or more seasons to recover before the remaining units are burned minimizing the visual impact. Units may also be ignited several times to accomplish the goals of the project. This would remove fuel in stages therefore minimizing the visual impact over time. When project goals have been achieved for all mixed severity units it is expected that a mosaic landscape would be the result. The project proposal targets total fuel removal at 40 percent.

There would be a visual change because unburned areas now would be burned. The landscape would continue to have structure and texture because the dead trees would remain in the burned areas. As time goes by, the visual impact would be minimized by new growth. The visual impact of mixed severity burns is a trade off of the expected,

more severe impact of wildfire that may occur. Mixed severity burning meets the requirements of the Wild and Scenic River Act to protect and enhance the outstanding values because fire is a natural part of the ecosystem, and introducing fire, under controlled conditions, would minimize the change in conditions that a stand replacing fire could have.

An outstandingly remarkable value (ORV) of the Lochsa River is fisheries. Mixed severity fire must protect and enhance the fisheries values of the river corridor. Prevention of future catastrophic wildfires that may allow sediment delivery to the river is a long-term benefit. The mixed severity fire proposal for alternatives 2, 3, 3a, 5, and 6 would not deliver measured sediment to streams therefore the fisheries values would be protected (see Watershed and Fisheries Environmental Consequences).

Noxious Weed Treatment: All alternatives, except the no action alternative, propose weed treatment on approximately 70 acres in or near the Lochsa Wild and Scenic River. Six acres are proposed in or near the Middle Fork Clearwater Wild and Scenic River. (Treatment is described as in or near because the exact treatment location may not technically be in the designated corridor. This discussion includes the approximately 9 acres identified for treatment in Fish Creek because the location is also “in or near” the Lochsa Wild and Scenic River corridor.) Weed treatment includes chemical and biological treatment along with seeding and fertilizing. Under the worst case scenario, levels of herbicide that could reach the stream systems within the project area are far less than those measured to be toxic to aquatic organisms (Project File, SEIS Noxious Weed Report). The Lochsa Wild and Scenic River corridor would not be impacted because the outstandingly remarkable value of fisheries is protected (see Noxious Weeds Environmental Consequences).

Alternative 4/4a would not harvest timber therefore there would be no change in vegetative conditions or to the Wild and Scenic River Corridor due to timber harvest. Alternative 4 proposes one unit, 35 acres, of underburning in the Lochsa River corridor resulting in very minimal change. Alternative 4a would not implement this underburning. These alternatives would have less impact than Alternatives 2, 3, 5 and 6 in the short-term. Underburning, when introduced under controlled conditions, would maintain and enhance the river corridor. The proposed activity would continue to protect and enhance the outstandingly remarkable values of the Lochsa Wild and Scenic River with application of the design criteria/mitigation measures.

Alternatives 4, 4a

- ?? Would not treat root rot and insect and disease pockets
- ?? Does not reintroduce fire, except on 35 acres in Alternative 4
- ?? Consistent with the Forest Plan

Alternative 5 would not harvest timber therefore there would be no change in vegetative conditions or to the Wild and Scenic River Corridor due to timber harvest. Alternative 5 proposed to underburn approximately 550 acres (10 units) and implement mixed severity burns on 130 acres (4 units); therefore the effects are similar to those described in Alternatives 2, 3, 3a, and 6.

Alternative 5

- ?? Would not treat root rot and insect and disease pockets
- ?? Reintroduces fire into the ecosystem
- ?? Consistent with the Forest Plan

Summary: Alternatives 2, 3, 3a and 6 would implement vegetative management, through timber harvest, underburn and mixed severity burns on approximately 930, 930, 1050 and 1060 acres respectively. These actions are intended to restore vegetative conditions that historically occurred. The actions would retain seral species that are adapted to fire ecosystems, thereby increasing resiliency within the patches treated. Visual quality objectives would be met through design of the timber harvest and reintroducing non-lethal to mixed severity fire into the ecosystem. Fisheries would be maintained because there would be no measured sediment introduced into the streams (see Aquatics Section).

Alternative 4 would only implement 35 acres of underburn, while Alternative 4a would not affect the Wild and Scenic River corridor at all. Approximately 680 acres would be burned in Alternative 5. The burning would improve resiliency and ecosystem structure and function on those patches treated.

Cumulative Effects

For the purpose of this cumulative effects analysis impacts will be considered for the entire length of the Lochsa and Middle Fork Clearwater Wild and Scenic Rivers. This is because an outstandingly remarkable value of the rivers is fisheries; therefore activities that occur upstream may affect outstandingly remarkable values downstream.

Past and present actions in the cumulative effects analysis area are:

- ☞ Timber harvest on Plum Creek land in the eastern portion of the analysis area and scattered harvest on scenic easement encumbered private property in the western portion of the analysis area.
- ☞ Highway 12 operation and maintenance is a past and present activity of the Idaho Transportation Department. This includes noxious weed treatment within the Highway 12 right of way.
- ☞ Recreation facility operation and maintenance is ongoing at Forest Service sites in the corridor. The Forest Service treats weeds in administrative sites in the Wild and Scenic River corridor.
- ☞ Forest Management activities include the completed Powerline Salvage project and the partially completed East Bridge Timber Sale, both near Syringa.

Reasonably foreseeable actions include:

- ✂✂The Highway 12 Trailhead project,
- ✂✂Jerry Johnson Vegetation project,
- ✂✂Jerry Johnson Campground reconstruction, and the
- ✂✂Wendover Staging Area project.
- ✂✂It is expected that residential private landowners and Plum Creek would continue to harvest timber at the same level as in the past.
- ✂✂Idaho Transportation Department plans to continue to treat noxious weeds along the Highway 12 right of way and perform operation and maintenance functions on the highway.
- ✂✂Potential natural actions include wildfires and mudslides.

The 1999 Hydrology and Water Quality Report for the Lochsa River Subbasin Analysis, page 17, concludes that the Lochsa River Subbasin as a whole, remains relatively undisturbed and cumulatively, effects to the Lochsa River from past timber harvest are considered very light.

There are approximately 227 acres of private land within the North Lochsa Face Analysis area. There are approximately 3500 to 4000 acres of private land within the cumulative effects analysis area, the designated Lochsa and Middle Fork Clearwater Wild and Scenic River corridor encumbered by scenic easement that prevents any activities on these lands from negatively impacting the Wild and Scenic Rivers. Most of the town of Lowell, located adjacent to Highway 12 and the Three Rivers Resort is unencumbered by scenic easement.

Monitoring of past harvest (see January 8, 2000 Wild and Scenic River Corridor Timber Harvest Memo) indicates that timber harvest on encumbered private lands and Federal lands would continue to protect the values of the Wild and Scenic River Corridor. These past, present and reasonably foreseeable timber harvest actions, when combined with any of the alternatives would not alter vegetative conditions to a point that the values of the Wild and Scenic River Corridor are not protected and enhanced.

Highway noxious weed treatment does not cumulatively affect the Lochsa River (see SEIS Noxious Weed Section) and recreation facilities are designed to meet the Forest Plan requirements within the Wild and Scenic River Corridor, therefore there are no cumulative effects from noxious weed treatment or recreation facilities that would not protect the outstanding remarkable values of the corridor.

The no action alternative would have no foreseeable cumulative effects resulting in a decline of the outstandingly remarkable values of the Lochsa Wild and Scenic River unless natural events negatively impacted the outstandingly remarkable values of the river.

Consistency with Wild and Scenic Rivers Act and Clearwater Forest Plan

The Wild and Scenic Rivers Act requires designated rivers to be administered in such a manner as to protect and enhance the values which caused the river to be included in the Wild and Scenic Rivers system. Forest Service Policy requires management of eligible rivers so as not to alter their eligibility status. The Clearwater Forest Plan reiterates this direction for both designated and eligible Wild and Scenic Rivers. All action alternatives meet Forest Plan and the River Plan requirements by:

1. Protecting surrounding trees by reducing fire, insect and disease hazards. Timber harvest in the form of small group openings would occur in root rot areas or areas of insect and disease. Harvest would remove climax species and retain seral species that are more resilient to diseases and root rot.
2. Maintaining certain tree species, sizes or vegetative patterns to enhance visual quality. Harvest and prescribed fire would retain seral species adapted to fire disturbance ecosystems. Vegetative patterns created by timber harvest and prescribed fire meet visual quality objectives by retaining substantial tree canopy, structure, and texture.
3. Harvest activities would be restricted to Monday through Friday, (no helicopter activities on the weekends), from May 1 through Labor Day thereby avoiding harvest activities during the high recreational season.
4. Protecting the fisheries within the Lochsa River.

North Lochsa Slope Roadless Area Existing Conditions

Introduction: The 113,662-acre North Lochsa Slope Roadless Areas #1307 is located in the Lochsa River drainage approximately 70 air miles east of Lewiston, Idaho. Fish, Hungery, Bimerick and portions of Deadman and some of the Face drainages are part of the roadless area. (See the Alternative 4 map in Chapter Two that displays the portion of the North Lochsa Slope Roadless Area contained within North Lochsa Face.)

Forest Plan Direction: The Clearwater Forest Plan established Forest-wide multiple use goals, objectives, and management area requirements as well as management area prescriptions for the North Lochsa Slope Roadless Area. The analysis of roadless lands, documented in Appendix C of the FEIS for the Plan, described each roadless area, the resources and values considered, the range of alternative uses studied, and the effects of management under each alternative. As a result to the analysis some roadless areas were recommended for inclusion in the National Wilderness Preservation System and others were assigned various non-wilderness prescriptions. Table 3-103 shows the management areas assigned to the North Lochsa Slope Roadless Area.

During RARE II and Forest Plan public involvement efforts, there was interest in retaining the roadless values of the Fish and Hungery Creek drainages to the north and northeast. This area was proposed for wilderness in 1993, under the "Idaho Wilderness,

Sustainable Forest and Communities Act of 1993” HR 1570. The Plan designated these areas to be managed as roadless areas, instead of recommending them for wilderness (Forest Plan, Record of Decision, p. 25). The Forest Plan did not make an “irreversible and ir retrievable” commitment of resources to develop the roadless area. Project level decisions, such as this one, must evaluate whether to develop the area.

Table 3-103: Management Areas Pertaining to the Portion of the North Lochsa Slope Roadless Area Included in the Project Area

Location	Management Area	Description
Fish and Hungery	C6	Key Fishery Habitat: Protect soil and water from adverse effects of man’s activities. Rehabilitate big-game habitat for cover and forage as needed to provide optimum habitat conditions.
Fish and Hungery	C3	Big game winter range: Provide winter forage and thermal cover for big game
Fish and Hungery	A6	Historic Lolo Trail Corridor: Manage to provide opportunity for recreational activities oriented to traveling over, understanding and appreciating the route as a historic trail corridor.
Fish and Hungery	C8S	Big game summer range: Maintain high quality wildlife and fishery objectives while producing timber from the productive Forestland.
Bimerick/Deadman	C8S	Big game summer range: Maintain high quality wildlife and fishery objectives while producing timber from the productive Forestland.
Face drainages	A7	Wild and Scenic River Corridor: Protect and enhance scenic values, cultural values, water quality, big game
Face drainages	M1	Research Natural Area: Maintain in natural and undeveloped condition

Stipulation Agreement: In 1993, the Clearwater National Forest signed a Stipulation Agreement that was issued as a result of a settlement agreement between the Clearwater National Forest and the Wilderness Society, et al, regarding a lawsuit on the Clearwater Forest Plan (Project File, Document 732). The agreement states:

“The Forest Service agrees, effective immediately, not to approve any timber sale or road construction project decisions within the area covered by the proposed “Idaho Wilderness Sustainable Forest and Communities Act of 1993” HR 1570 and that such lands will be managed according to Forest Plan standards and guidelines for recommended wilderness (MA B2).”

The intent of the stipulation is that projects such as timber harvest and new road construction within the agreement area would be done in accordance to MA B2, but that projects such as trail construction and prescribed burning would still be done in accordance with the original management area direction, which in this case would be

MAAs C6 and C3 (Project File, Document 733). This interpretation has been applied to these lands since 1993.

Roadless Policy: In January 2001, the Forest Service issued a final rule and record of decision (Roadless Policy) pertaining to prohibitions on road construction, road reconstruction, and timber harvesting in inventoried roadless areas on National Forest System lands (Federal Register, Vol. 66, No. 9, pp. 3244-3273). This decision prohibits road construction, road reconstruction and or timber cutting, sale or removal in inventoried roadless areas except under certain circumstances. On May 10, 2001 the District Court of Idaho issued a preliminary injunction against implementation of the roadless rule. That decision is now before the Ninth Circuit Court of Appeals. Due to the uncertainty of the litigation, the Chief of the Forest Service, Dale Bosworth, issued a letter June 7, 2001 which describes the delegation of authority for issuing decisions regarding timber harvest and road construction in roadless areas. The letter states:

“Effective immediately, I am reserving to myself, the decision authority for timber harvest and road construction in inventoried roadless areas.... I will follow this letter with an Interim Directive...The Interim Directive will include exceptions similar in scope to those provided in 36 CFR 294.12 and 26 CFR 294.13.”

A lower line officer may issue decisions for timber harvest and road construction if they are consistent with the exceptions outlined in 36 CFR 294.12 and 26 CFR 294.13.

The circumstances where timber harvest is allowed include:

- 1) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in 294.11.
 - i) To improve threatened, endangered, proposed, or sensitive species habitat; or
 - ii) To maintain or restore characteristics of ecosystem composition, and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.

North Lochsa Slope Roadless Area Environmental Consequences

Analysis Process: The analysis describes the existing condition of the North Lochsa Slope roadless area including the area that overlaps with North Lochsa Face project. The analysis focuses on three specific geographic areas – Fish/Hungery watershed, Deadman, Bimerick Creek and the face drainages adjacent to the Lochsa River. These are very distinct areas that contain different roadless attributes.

The analysis evaluates the effects to the wilderness features considered in forest planning (FSH 1920) and the roadless characteristics identified in the Roadless Policy (36 CFR 294.11). Table 3-104 describes the wilderness features, the roadless characteristics and how they are addressed in the environmental analysis.

Table 3-104: Crosswalk of Wilderness Features/Roadless Characteristics and Evaluation Criteria

Wilderness Features	Roadless Characteristics	Evaluation Criteria
Natural Integrity (is the extent to which long-term ecological processes are intact and operating)	?? High quality or undisturbed soil, water and air ?? Sources of public drinking water ?? Diversity of plant and animal communities ?? Habitat for threatened, endangered, candidate, proposed and sensitive species dependent on large areas ?? Reference landscapes	?? Effects to ecological processes ?? Effects to water and air ?? Effects to public drinking water ?? Effects to species dependent on large undisturbed areas of land ?? Effects to reference landscapes
Apparent Naturalness (means the environment looks natural to most people)	?? Natural appearing landscapes with high scenic quality	?? Effects to scenic quality
Remoteness (perceived condition of being secluded, inaccessible, and out of the way)	?? Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation	?? Effects to seclusion, remoteness ?? Effects to dispersed recreation opportunities
Solitude (personal, subjective value defined as the isolation from the sights, sounds and presence of others and the development of man)	?? Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation	?? Effects to solitude ?? Effects to recreation settings
Special Features (unique geological, biological, ecological and cultural or scenic features)	?? Other locally identified unique characteristics	?? Effects to special features
Manageability and Boundaries (ability to manage a roadless area to meet the minimum size criteria (5,000 acres) for wilderness)	?? No criteria	?? Effects to roadless area boundaries
Special Places (what is it about the area that causes one to visit for pleasure or their livelihood)	?? Traditional cultural properties and sacred sites	?? Effects on special places, including traditional cultural properties and sacred sites

North Lochsa Face Roadless Area Existing Conditions

The North Lochsa Slope Roadless Area contains a diversity of conditions. Two major types of drainages flow through the North Lochsa Slope Roadless Area: the large Fish Creek drainage, and a series of short (one to six mile long) streams draining directly into the Lochsa River.

U.S. Highway 12, the Lolo Motorway, and Roads #481 and #483, which are low standard and dirt-surfaced roads, provide access to the area. A sparse network of trails maintained at minimal standards crosses the area. Few are suitable for stock use, with many even challenging for recreational hiking.

Large forest fires in the early 1900s had a major influence on the existing vegetation, creating a mosaic of large brush fields with scattered concentrations of various sizes of trees. Trees are beginning to re-establish themselves in brush fields, especially on the north slopes.

The following discussions focus on the wilderness features and roadless characteristics of the North Lochsa Slope Roadless Area, specifically features found in Fish Creek, Bimerick and the Face drainages within the project area. This information is based on the Clearwater Forest Plan EIS, Appendix C, pp. 135-154 and information in the wildlife, aquatic, vegetation, Wild and Scenic Rivers, Research Natural Areas, cultural reports (see sections of the SEIS) and the landscape assessment (Project File, Doc 1a).

Table 3-105: Existing Condition of Wilderness Features and Roadless Characteristics

Drainage	Feature	Description
Fish	Natural Integrity	<p><i>General</i></p> <p>?? Management activities began in the Fish Creek watershed in the late 1960's, but roading and timber harvest were confined to the 1970's. Approximately 2,180 acres of the watershed (4 percent) has been harvested.</p> <p>?? The majority of the watershed is breaklands, old surfaces, frost churned uplands, and colluvial midslopes, with a lesser amount of stream terraces.</p> <p>?? Much of the area burned by the large, intense fires of the early 20th century creating a mosaic of large brush fields with concentrations of various sizes of trees.</p> <p><i>Ecological processes</i></p> <p>?? Fire disturbance processes have been interrupted from historic conditions. Mixed severity fires and underburns were natural disturbance processes that have been interrupted due to fire suppression activities</p> <p>?? Dead wood is lacking</p> <p><i>Soil, water and air</i></p> <p>?? Fish Creek has an excellent steelhead trout population and a few spring chinook salmon may be present.</p> <p>?? The water quality and watershed condition of Fish Creek is considered excellent.</p>

Drainage	Feature	Description
		<p>?? Listed as a water quality limited stream due to temperature because of fires early in the century that removed riparian cover.</p> <p>?? Natural processes have continued, other than fire suppression. Soils are recovering from effects of fire early in the century which burned intensely</p> <p><i>Public drinking water</i></p> <p>?? There are no sources of public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? Contains winter range habitat for big game. Forage production is lacking.</p> <p>?? Contains secure areas for big game</p> <p>?? Suitable habitat for grizzly bears, wolves, lynx, wolverine</p> <p><i>Reference landscapes</i></p> <p>?? Provides a place to compare long-term effects of human induced change on ecological processes</p>
	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? Most of the land as viewed from both within and from the boundary and intruding roads offers a diversity of vegetative types and openings that appear natural.</p> <p>?? Roads from Frenchman Butte to Fish Butte Lookout and from Middle Butte to Van Camp Lookout site were constructed in the 1930s. They were built primarily for wildfire control and reforestation work on areas burned by the large fires in 1934. They are single lane, dirt roads with alignments that fit the topography.</p> <p>?? High elevation views, such as the view from the Lolo Trail, are composed of repetitive river canyons and ridge structures that continue across the landscape. The uninterrupted views create a feeling of vastness.</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? Feels very remote and secluded</p> <p><i>Dispersed recreation</i></p> <ul style="list-style-type: none"> o Excellent opportunities for semi-primitive non-motorized activities
	Solitude	<p><i>Solitude</i></p> <p>?? Provides the best opportunity for solitude. Its broken topography, relatively flat-bottomed streams, and diverse vegetation effectively screens out the sights and sounds of man's activities. Within 1/2-mile of the existing access roads, a person has a feeling of being in a relatively large area that has had very little development. It also provides excellent opportunities for visitor dispersion.</p> <p><i>Recreation settings</i></p> <ul style="list-style-type: none"> o Feeling of remoteness, primitive backcountry
	Special Features	<p><i>Special features</i></p> <p>?? The Lolo Trail is one of the most important features and is discussed later in the SEIS.</p>
	Manageability	<p><i>Manageability</i></p> <p>?? Fish Creek is large, approximately 60,000 acres and has the shape that lend itself to an area that could be managed for Wilderness. It is an enclosed landscape where most wilderness attributes are unaffected.</p>
	Special Places	<p><i>Special Places</i></p> <p>?? Lolo Trail system (registered National Historic Landmark and National Historic Trail) including the Lewis and Clark and Nee-Mee-Poo National Historic Trail corridors – includes the only remaining undeveloped segment of the original Lewis and Clark route</p> <p>?? Fish and Hungery are eligible Wild and Scenic River segments</p>
Bimerick	Natural	<i>General</i>

Drainage	Feature	Description
	Integrity	<p>?? The majority of the watershed is old surfaces, breaklands, and frost churned ridges.</p> <p>?? Harvest has not occurred</p> <p>?? Majority of the watershed was burned in the early 1900s</p> <p>?? Management activities began in the 1930s with roading for fire control and follow-up planting after large wildfires.</p> <p><i>Ecological Processes</i></p> <p>?? Reforestation mainly was done using trees grown from seed not adapted to the site. These trees have poor vigor and are prone to attacks by needle blight and needle casts. These trees have established and grown, producing both pollen and seed that degrade the genetic integrity of native tree populations present in the analysis area. These off-site trees have reduced the natural integrity of the ecosystem by degrading genetic integrity, increasing fuel hazards and subjecting the area to increased insect and disease that normally would not be found on this site. (<i>The Role of Forest Genetics in Managing Ecosystems, Management Decisions Relating to Off-site Plantations</i>)</p> <p><i>Soil, water, air</i></p> <p>?? Contains some brook trout, rainbow and westslope cutthroat trout</p> <p>?? Stream lacks shading due to early century fires</p> <p>?? Off-site ponderosa is primarily on old surfaces</p> <p><i>Public drinking water</i></p> <p>?? There are no sources of public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? Contains secure areas for big game, especially away from the existing road</p> <p>?? Areas reforested with off-site ponderosa pine are unlikely to ever provide old growth habitat or snag habitat.</p> <p>?? Limited habitat for wolf, no suitable denning for grizzly bears, nor sightings</p> <p>?? No suitable habitat for lynx</p> <p>?? Habitat for wolverine</p> <p><i>Reference landscapes</i></p> <ul style="list-style-type: none"> o Can be a reference landscape outside of areas planted with off-site ponderosa pine. Areas planted with off-site ponderosa are not exhibiting natural processes
Bimerick	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? Much of Bimerick appears natural, although there are no really outstanding features like those found in Fish and Hungry Creeks or on the Face drainages</p> <p>?? The portion that was planted in the 1930s appears to have evidence of man on the landscape.</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? Feels less remote due to activities adjacent to the area</p>
	Solitude	<p><i>Solitude</i></p> <p>?? The southwest portion centered in the McLendon Butte/Bimerick area does not offer high solitude. Large timber harvest units to the southwest are clearly visible, and some timber harvest noise is noticeable during various times of the year.</p>
	Special Features	<p><i>Special features</i></p> <p>?? None noted in Bimerick</p>
	Manageability	<p><i>Manageability</i></p> <p>?? Because of the irregular shape and narrow stringers of roadless land along the Lochsa River from Rye Patch to the mouth of Fish Creek, a more logical boundary would exclude this area from wilderness. Also, the narrow strip</p>

Drainage	Feature	Description
		from Deadman Creek to below Rye Patch Creek has been roaded with recent timber sales and retains few wilderness attributes
	Special Places	<i>Special Places</i> ?? None noted in Bimerick
Face Drainages	Natural Integrity	<i>Ecological Processes</i> ?? Primarily breaklands ?? Majority of area burned in the early 1900s ?? Tree densities higher than historical ?? One to three fire intervals missed ?? Higher amount of climax species <i>Soil, water, air</i> ?? Areas flow directly into the Lochsa River <i>Public drinking water</i> ?? There are no sources of public drinking water within the watersheds <i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i> ?? Primarily winter range for big game ?? Winter range forage is lacking – currently 6 percent forage versus 15-25 percent that's desirable ?? Limited habitat for wide ranging threatened, endangered or sensitive species <i>Reference landscapes</i> <ul style="list-style-type: none"> ○ Provides a place to compare long-term effects of human induced change on ecological processes ○ Contains the Lochsa Research Natural Area
	Apparent Naturalness	<i>Scenic quality</i> ?? Most of the land viewed from the Highway 12 corridor and Lochsa Wild and Scenic River Corridor ?? Area is natural appearing, large side canyons, massive rock outcrops, cliffs and boulders ?? Coniferous and deciduous vegetation
	Remoteness	<i>Remoteness</i> ?? Due to closeness of Highway 12 this area does not feel as remote as in Fish Creek
	Solitude	<i>Solitude</i> ?? The steep breaklands (Face drainages) do offer views of the Selway-Bitterroot Wilderness and other roadless areas to the southwest. However, U.S. Highway 12 is a major visual focal point, and its traffic noise detracts from giving one a feeling of solitude.
	Special Features	<i>Special Features</i> ?? The Middle Fork-Lochsa Recreation River corridor, established under the National Wild and Scenic Rivers Act, runs the full length of the roadless area north of U.S. Highway 12. The management of this corridor emphasizes the scenic values of the river environment. ?? Lochsa Research Natural Area. It was established to protect and study the unique Pacific coast vegetation that occurs within its boundaries.
	Manageability	<i>Manageability</i> ?? Because of the irregular shape and narrow stringers of roadless land along the Lochsa River from Rye Patch to the mouth of Fish Creek, a more logical boundary would exclude this area from wilderness
	Special Places	<i>Special Places</i> ?? Lochsa Wild and Scenic River Corridor ?? Lochsa Research Natural Area

North Lochsa Face Roadless Area Environmental Consequences

Direct and indirect effects were evaluated for each of the roadless sections described above, Fish Creek, Bimerick and the Face Drainages because they each contain unique attributes. The cumulative effects analysis evaluates the effects of all roadless activities at two scales: within North Lochsa Face project area and within the entire North Lochsa Slope Roadless Area.

Table 3-106: Activities In The Roadless Area Portion Of Fish Creek (Acres)

Activity	Alt 1	Alt 2	Alt	Alt 3A	Alt 4/4a	Alt 5	Alt 6
Mixed Severity	0	4,025	4,025	0	0	4,025	4,200
Underburn	0	3,275	3,275	2,280	0	3,275	3,275
Regeneration	0	0	0	0	0	0	0
Off-Site Conversion	0	0	0	0	0	0	0
Commercial Thin	0	0	0	0	0	0	0
Total	0	7,300	7,300	2,280	0	7,300	7,475

9 acres of noxious weed treatment
Planting 450 acres along Fish Creek

Table 3-107: Activities In The Roadless Area Portion Of Bimerick/Deadman Creek (Acres)

Activity	Alt 1	Alt 2	Alt 3	Alt 3A	Alt 4/4a	Alt 5	Alt 6
Mixed Severity	0	0	0	0	0	0	0
Underburn	0	305	305	305	0	305	305
Regeneration	0	0	0	0	0	0	0
Off-Site Conversion	0	2,220	2,220	2,220	0	0	2,220
Commercial Thin	0	185	185	185	0	0	185
Total	0	2,710	2,710	2,710	0	305	2,710

Table 3-108: Activities In The Roadless Area Portion Of Face Drainages (Acres)

Activity	Alt 1	Alt 2	Alt 3	Alt 3A	Alt 4/4a	Alt 5	Alt 6
Mixed Severity	0	925	925	925	0	925	925
Underburn	0	2,450	2,450	3,170	0	2,450	2,585
Regeneration	0	720	560	560	0	0	560
Off-Site Conversion	0	0	0	0	0	0	0
Commercial Thin	0	0	0	0	0	0	0
Total	0	4,095	3,935	4,655	0	3,375	4,070

Alternative 2: 1.1 miles of permanent road; .25 miles of temporary road

Alternatives 3, 3a, 4, 4a, 5 and 6: no road construction

Table 3-109: Effects of Alternatives 1 and 4/4a on Wilderness Features/Roadless Characteristics; Fish Creek

Drainage	Feature	Description
		Alternatives 1, 4/4a propose no activities within the roadless portion of Fish Creek.
Fish	Natural Integrity	<p><i>Ecological processes</i></p> <p>?? Natural processes would continue.</p> <p>?? Fire suppression would continue to influence changes in ecosystem composition.</p> <p>?? There would be no direct effect on natural integrity.</p> <p>?? Indirect effects include continued successional processes including increased densities in stands, and increased risk of larger wildfires over time.</p> <p><i>Soil, water and air</i></p> <p>?? No direct change to soil, water and air</p> <p>?? Alternative 1 would not replant riparian areas, therefore it would take years to reestablish streams ide vegetation</p> <p>?? Alternatives 4/4a would reforest adjacent to Fish Creek which would hasten recovery by reducing stream temperatures quicker than no action</p> <p>?? Long-term risk of extensive wildfire increases. Streams are still recovering from fires early in the century. Additional, uncontrolled wildfire could have negative effects on fisheries by removing additional streamside vegetation, totally removing upland vegetation which would increase runoff and increase the potential for landslides</p> <p>?? No effect to air quality in the short term. Long-term could affect air quality if wildfires were to burn for an extended period of time</p> <p><i>Public drinking water</i></p> <p>?? No effect to public drinking water since there are no sources of public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? No improvement in forage for big game</p> <p>?? Indirectly could affect the wolf by reducing big game carrying capacity</p> <p>?? No effect to secure areas</p> <p>?? Retains suitable habitat for wide ranging species</p> <p><i>Reference landscapes</i></p> <p>?? Continues to provide a reference landscape</p>

Drainage	Feature	Description
	Apparent Naturalness	<i>Scenic quality</i> ?? No direct change to scenic quality ?? In the long-term scenic quality could be modified if a large stand-replacing fire were to occur, however it would continue to appear natural ?? The feeling of vastness would remain
	Remoteness	<i>Remoteness</i> ?? Would continue to feel very remote and secluded <i>Dispersed recreation</i> ?? No change in opportunities for semi-primitive non-motorized activities
	Solitude	<i>Solitude</i> ?? No change in solitude <i>Recreation settings</i> ?? No change in the feeling of remoteness, primitive backcountry
	Special Features	<i>Special features</i> ?? No direct effects to the Lolo Trail ?? Long-term stand replacing fire could affect the Lolo Trail corridor by exposing cultural resource sites
	Manageability	<i>Manageability</i> ?? No change in boundaries
	Special Places	<i>Special Places</i> ?? No direct effect to the Lolo Trail system ?? No direct effect to Fish and Hungery are eligible Wild and Scenic River segments ?? Long term if large stand-replacing fire event were to occur there is potential to modify habitat conditions by removing vegetation, triggering landslides, increasing sediment in the streams, increasing stream temperatures and resulting in reducing fish habitat potential. This could affect one of the features for the eligibility of Fish and Hungery Creeks.

Table 3-110: Effects of Alternatives 1 and 4/4a on Wilderness Features/Roadless Characteristics; Bimerick Creek

Drainage	Feature	Description
		Alternatives 1, 4/4a propose no activities within the roadless portion of Bimerick/Deadman Creek.
Bimerick	Natural Integrity	<i>Ecological Processes</i> ?? Maintaining off-site species would continue to effect ecological processes by increasing insect and disease problems, which already are occurring ?? Increasing the amount of dead wood ?? Continue the decline in forest health ?? Increasing the potential for a large, stand-replacing wildfire ?? Reduced ecosystem resiliency <i>Soil, water, air</i> ?? No direct effect on soil, water and air ?? Long-term potential for stand-replacing wildfire would continue to increase. ?? Bimerick is still recovering from fires early in the century; an additional large wildfire would remove additional streamside shade, which would affect stream temperatures and fish habitat. <i>Public drinking water</i> ?? No effect to public drinking water within the watersheds <i>Habitat for threatened, endangered, candidate, proposed and sensitive species</i>

Drainage	Feature	Description
		<p><i>needing large areas</i></p> <p>?? No effect to secure habitat</p> <p>?? Would not provide snag or old growth habitat in areas of off-site ponderosa pine</p> <p>?? No change in habitat conditions for wolf, grizzly bear, lynx or wolverine</p> <p><i>Reference landscapes</i></p> <p>?? Continue inability to provide for a reference landscape in areas of off-site ponderosa pine because these species are not natural to the ecosystem. They are off-site from both a seed source and on the habitat types they are planted.</p>
	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? No effect to scenic quality in the short term</p> <p>?? Scenic quality could be substantially modified if a stand replacing wildfire were to occur in Bimerick</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? No change to the feeling or lack of feeling to remoteness</p> <p><i>Dispersed Recreation</i></p> <p>?? No change in existing dispersed recreation opportunities</p>
	Solitude	<p><i>Solitude</i></p> <p>?? No direct change in solitude</p> <p>?? Long term the area could appear more open, and solitude reduced if a stand-replacing wildfire event were to occur</p> <p><i>Recreation setting</i></p> <p>?? No change in the recreation setting</p>
	Special Features	<p><i>Special features</i></p> <p>?? No effect to special features</p>
	Manageability	<p><i>Manageability</i></p> <p>?? No change in the roadless boundary</p>
	Special Places	<p><i>Special Places</i></p> <p>?? No effect to special places</p>

Table 3-111: Effects of Alternatives 1 and 4/4a on Wilderness Features/Roadless Characteristics; Face Drainages

Drainage	Feature	Description
		<p>Alternatives 1, 4/4a propose no activities within the roadless portion of the Face drainages.</p>
Face Drainages	Natural Integrity	<p><i>Ecological Processes</i></p> <p>?? Short term no direct effect</p> <p>Long term</p> <p>?? Tree densities continue to increase</p> <p>?? Fire intervals continue to be missed</p> <p>?? Increased insect and disease due to early seral species being replaced by late seral species</p> <p>?? Increased potential for stand-replacing wildfire instead of non-lethal underburns</p> <p>?? Reduced ecosystem resiliency</p> <p><i>Soil, water, air</i></p> <p>?? No direct effects to soil, water and air</p> <p>?? Long-term stand-replacing wildfire could increase landslides on the breaklands through complete removal of vegetation</p>

Drainage	Feature	Description
		<p><i>Public drinking water</i></p> <p>?? No effect to public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? No improvement in winter forage, elk population would continue to decrease</p> <p>?? Potential decline in prey base for wolves</p> <p>?? No improvement in habitat for</p> <p><i>Reference landscapes</i></p> <p>?? Continues to provide a reference landscape</p> <p>?? Would not reintroduce fire into the Lochsa Research Natural Area</p>
	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? No direct effects on scenic quality</p> <p>?? Long term could modify scenic quality if a stand-replacing wildfire were to occur</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? No change in remoteness</p> <p><i>Dispersed recreation</i></p> <p>?? No change in type of dispersed recreation opportunities</p>
	Solitude	<p><i>Solitude</i></p> <p>?? No change in solitude, continue limited feeling of solitude</p> <p><i>Recreation settings</i></p> <p>?? No change in recreation settings</p>
	Special Features	<p><i>Special Features</i></p> <p>?? No effect to the Wild and Scenic River Corridor</p> <p>?? Long-term large stand-replacing wildfire could potentially affect fisheries and scenic quality within the corridor</p> <p>?? No direct effect to the Lochsa Research Natural Area</p> <p>?? Would not reintroduce fire under controlled conditions which could effect portions of the Research Natural Area that need protected</p>
	Manageability	<p><i>Manageability</i></p> <p>?? No change in roadless boundary</p>
	Special Places	<p><i>Special Places</i></p> <p>?? See discussion on special features</p>

Table 3-112: Effects of Alternatives 2, 3, 3a, 5, 6 on Wilderness Features/Roadless Characteristics; Fish Creek

Drainage	Feature	Description
Fish		<p>?? Alternatives 2, 3, 5, and 6 would initiate mixed severity burns and underburns on similar acreages (Alt 6 is slightly higher than the other alternatives)</p> <p>?? Alternative 3a would only initiate underburns</p> <p>?? Mixed severity fire would be completed over time, with a few initiated the first year to see if the results meet objectives for the landscape, including retention of riparian vegetation</p> <p>?? Prescribed burning would be implemented consistent with prescribed burn plans that describe the conditions that areas can be burned, including fuel moisture, weather conditions, air flow patterns,</p> <p>?? Prescribed burning would be implemented in a controlled manner, to reintroduce the right kind of fire back into ecosystem within acceptable</p>

Drainage	Feature	Description
		limits of risk.
	Natural Integrity	<p><i>Ecological processes</i></p> <p>?? Improved ecosystem resiliency by reintroducing fire into the ecosystem</p> <p>?? Prescribe burns would create a mosaic of vegetative patterns, reduce stand densities, change species composition to early seral species this would reduce the likelihood of large stand-replacing fires because the area would have reduced fuels, and species more tolerant to fire</p> <p>?? Would not decrease the potential for fires to start, but would decrease potential fire intensities</p> <p>?? Alternative 3a would not improve resiliency to the same degree as the other alternatives, especially without initiating mixed severity burns</p> <p><i>Soil, water and air</i></p> <p>?? Reintroducing fire would decrease the long term potential for large stand replacing wildfires, which in addition to the ones early in the century would reduce soil productivity, increase the likelihood of landslides and sediment in the streams, and reduce streamside vegetation resulting in additional increases in stream temperatures</p> <p>?? Reforests area adjacent to Fish Creek which would hasten recovery by reducing stream temperatures quicker than no action</p> <p>?? Short-term effect on air quality that can be managed by timing of ignitions. Long-term could reduce the potential for large stand-replacing wildfires that have negative effects on air quality.</p> <p><i>Public drinking water</i></p> <p>?? No effect to public drinking water since there are no sources of public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? Improves forage for big game</p> <p>?? Indirectly could beneficially affect the wolf by increasing big game carrying capacity</p> <p>?? No effect to secure areas, except during burning operations</p> <p>?? Retains suitable habitat for wide ranging species</p> <p>?? Habitat would improve for flammulated owl, black-backed woodpecker and wolverine</p> <p>?? Alternative 3a would not improve forage for big game because mixed severity burns would not be implemented. Forage would continue to be a limiting factor for elk</p> <p><i>Reference landscapes</i></p> <p>?? Provides a reference landscape to understand the effects of only utilizing prescribe burning to meet resource objectives</p>
	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? Scenic quality would change with the appearance of prescribed burns, but would still appear natural. Mixed severity burns would be completed over a 5-10 year period providing a slow transition in the viewing landscape</p> <p>?? Alternative 3a would not change the appearance of the landscape to the same degree or magnitude as the other alternatives since only underburns are prescribed.</p> <p>?? The feeling of vastness would remain in all alternatives</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? Would continue to feel very remote and secluded</p> <p><i>Dispersed recreation</i></p> <p>?? Potential short term affect on dispersed recreation opportunities during prescribed burning operations, would be shorter time affected under alternative 3a since less patches are treated</p>

Drainage	Feature	Description
		?? No change in opportunities for semi-primitive non-motorized activities
	Solitude	<p><i>Solitude</i></p> <p>?? Short term, solitude would be reduced during prescribed burn operations. This would be a shorter period under alternative 3a since less than ½ the area is treated</p> <p>?? Overall, feeling of solitude would not change</p> <p><i>Recreation settings</i></p> <p>?? No change in the feeling of remoteness, primitive backcountry, except during prescribed burn operations</p>
	Special Features	<p><i>Special features</i></p> <p>?? The application of specific design features for heritage resources and application of the Memorandum of Agreement with the Idaho State Historic Preservation Office, National Park Service, Advisory Council on Historic Preservation and the Clearwater National Forest would result in no adverse effect to heritage resources including the Lolo Trail National Historic Landmark (see Heritage section).</p> <p>?? Returning fire to the landscape around the Lolo Trail National Historic Landmark would restore and maintain the historic character of the 19th century</p> <p>?? Decreases potential for stand-replacing fire that could damage or destroy cultural resources</p>
	Manage ability	<p><i>Manageability</i></p> <p>?? No change in boundaries in any alternative</p>
	Special Places	<p><i>Special Places</i></p> <p>?? See discussion under Special Features for effects to Lolo Trail National Historic Landmark</p> <p>?? Prescribed burning would not alter eligibility of Fish and Hungry Creeks as a Wild and Scenic River (see SEIS Wild and Scenic River discussion)</p>

Table 3-113: Effects of Alternatives 2, 3, 3a, 5, 6 on Wilderness Features/Roadless Characteristics; Bimerick Creek

Drainage	Feature	Description
Bimerick		<p>Alternatives 2, 3, 3a, 6</p> <p>?? Removes 2,220 acres of off-site ponderosa pine, utilizing a log forwarder, skyline or helicopter logging system.</p> <p>?? No harvest within riparian corridors</p> <p>?? Replants area with species native to the site, such as white-pine</p> <p>?? 305 acres of underburning</p> <p>?? 185 acres of commercial thinning</p> <p>Alternative 5</p> <p>?? Would only initiate the underburns</p> <p>?? Effects would be similar to Alternatives 1, 4/4a since a very limited amount of activity would take place. Underburning 305 acres would not be of the magnitude to change the wilderness features or roadless characteristics to any degree.</p>
	Natural Integrity	<p>Alternatives 2, 3,3a, 6</p> <p><i>Ecological Processes</i></p> <p>?? Natural integrity would increase by removing insect and disease infected off-site ponderosa pine and reforesting with species adapted to site</p>

Drainage	Feature	Description
		<p>conditions</p> <p>?? Vegetative composition and structure would be improved by replacing off-site trees. These trees are unlikely to ever grow into old growth because of health conditions. Reforesting with species adapted to the site would create a species composition that could eventually provide old growth conditions.</p> <p>?? Ability to provide snags of size and species desired by snag dependent species would be possible in the long-term, and sooner than taking no action. Under no action, the likely successional scenario is the area would continue to decline in health, resulting in a wildfire that would gradually reforest and grow into desired species. The other scenario is that no fire occurs. This would take an additional (several decades of time) to complete the succession process.</p> <p>?? Improves forest health</p> <p>?? Reduces the potential for a large, stand-replacing wildfire by removing dead and dying trees and creating a mosaic of vegetative conditions on the landscape</p> <p>?? Underburning and commercial thinning would reduce stand densities which also would reduce fire intensities</p> <p>?? Increases ecosystem resiliency</p> <p>?? Improved vegetative diversity, composition, structure and function</p> <p><i>Soil, water, air</i></p> <p>?? Use of a log forwarder, skyline or helicopter logging system would minimize the effect on soils. The area is located on old surfaces that are not landslide prone, and are conducive to use of these logging systems without detrimental effects. Use of a forwarder does not require establishment of roads. Forwarders can skid logs over slash filled trails to existing roads causing minimal soil disturbance when compared to tractor skid trails.</p> <p>?? The areas east of Bimerick Creek would helicopter logged to landings on roads 5545 and 483. Should any of this prove infeasible to harvest (i.e. no bids received, then the area would be prescribed burn to remove the off-site trees.</p> <p>?? Decreases potential for large stand-replacing fire by removing fuel. This would be a beneficial effect to watershed conditions.</p> <p><i>Public drinking water</i></p> <p>?? No effect to public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? Removal of the off-site trees would affect some secure habitat for wide ranging species, especially in areas located more than ¼ mile from the road</p> <p>?? Improves the potential to provide snag or old growth habitat in areas of off-site ponderosa pine</p> <p>?? Since limited habitat exists in this area for wolf, grizzly bear, or lynx there would be no effect to these species</p> <p>?? Could affect some wolverine habitat in the short term until the area reforests</p> <p><i>Reference landscapes</i></p> <p>?? Would not be conducive as a reference landscape</p>
	<p>Apparent Naturalness</p>	<p><i>Scenic quality</i></p> <p>?? Would modify scenic quality in the area, in the short term</p> <p>?? As seen as background view from important viewing areas, would continue to meet visual objectives because of the retention of vegetation in riparian areas, and retaining some trees on site (approximately 25 percent)</p> <p>?? Reduces the likelihood that scenic quality could be substantially modified if a stand replacing wildfire were to occur in Bimerick</p>
	<p>Remoteness</p>	<p><i>Remoteness</i></p>

Drainage	Feature	Description
	ess	?? Reduced feeling of remoteness for 15-20 years in areas where off-site ponderosa pine is removed. <i>Dispersed Recreation</i> ?? No change in existing dispersed recreation opportunities since no roads are constructed
	Solitude	<i>Solitude</i> ?? Reduced feeling of solitude (which is currently lacking here) due to removal of off-site ponderosa pine. This would open the area up more. Mans presence would be evident <i>Recreation setting</i> ?? No change in the recreation setting
	Special Features	<i>Special features</i> ?? No effect to special features
	Manageability	<i>Manageability</i> ?? No change in the roadless boundary. Although mans presence would be evident the roadless boundary would not change. The intent is to restore this area to native species and retain the roadless characteristics in the long-term.
	Special Places	<i>Special Places</i> ?? No effect to special places. The application of specific design features for heritage resources and application of the Memorandum of Agreement with the Idaho State Historic Preservation Office, National Park Service, Advisory Council on Historic Preservation and the Clearwater National Forest would result in no adverse effect to heritage resources.

Table 3-114: Effects of Alternatives 2, 3, 3a, 5, 6 on Wilderness Features/Roadless Characteristics; Face Drainages

Drainage	Feature	Description
Face Drainages		Alternatives 2, 3, 3a, and 6 ?? Includes regeneration (uneven-aged management). This system would retain 70 percent of the existing trees within the patch. ¼ to ½ acre opening would be created in areas of heaviest insect and disease activity (root rot pockets). ?? 2,450 acres to 3,170 acres of underburning ?? 925 acres of mixed severity burning ?? Alternative 2 proposes 160 acres of additional regeneration harvest (even-age management) ?? Alternative 2 would construct 1.1 miles of permanent road; .25 miles of temporary road Alternative 5 ?? No timber harvest ?? 2,450 acres of underburning ?? 925 acres of mixed severity burning
	Natural Integrity	<i>Ecological Processes</i> ?? Tree densities would decrease ?? Fire would be reintroduced into the ecosystem. This is primarily an ecosystem that burned every 15-25 years and has missed 2-3 fire cycles ?? Decreased insect and disease due to increase in early seral species ?? Decreased potential for stand-replacing wildfire because stand densities are reduced, early seral species are increased which are adapted to fire, insect

Drainage	Feature	Description
		<p>and disease would be reduced through removal of dead and dying trees (uneven-age management)</p> <p>?? Increased ecosystem resiliency</p> <p>?? Improved ecosystem composition, structure and function through use of prescribe burns that would retain a diverse structure and uneven-aged management that would introduce small openings in the ecosystem</p> <p>?? Road construction in Alternative 2 would modify ecological processes on those sites affected.</p> <p><i>Soil, water, air</i></p> <p>?? Short term effect on air quality during prescribed burn activities, however timing of the activities can be controlled to times when smoke would disperse</p> <p>?? No effect on soils or very limited effect through the use of helicopter logging systems</p> <p>?? Road construction in Alternative 2 is located in areas of low landslide risk, generally on ridges. There is no potential of increase in landslides due to their locations.</p> <p>?? Long-term stand-replacing wildfire could increase landslides on the breaklands through complete removal of vegetation</p> <p><i>Public drinking water</i></p> <p>?? No effect to public drinking water within the watersheds</p> <p><i>Habitat for threatened, endangered, candidate, proposed and sensitive species needing large areas</i></p> <p>?? Improves winter forage, elk population would be maintained or increased</p> <p>?? Potential increase in prey base for wolves</p> <p>?? Since limited habitat exists in this area for wolf, grizzly bear, or lynx there would be no effect to these species</p> <p>?? Improves habitat conditions for flammulated owl, black-backed woodpecker and wolverines</p> <p><i>Reference landscapes</i></p> <p>?? Continues to provide a reference landscape</p> <p>?? Reintroduces fire into the Lochsa Research Natural Area which meets the objectives for the RNA</p>
	Apparent Naturalness	<p><i>Scenic quality</i></p> <p>?? Meets visual quality objectives and protects and enhances the scenic quality by retaining substantial tree canopy, structure and texture</p> <p>?? Road construction in Alternative 2 would reduce the apparent naturalness of that area</p>
	Remoteness	<p><i>Remoteness</i></p> <p>?? Reduced feeling of remoteness while activities are occurring</p> <p><i>Dispersed recreation</i></p> <p>?? No change in type of dispersed recreation opportunities in Alternatives 3, 3a, 5 and 6</p> <p>?? Alternative 2 would result in a change to roaded natural from semi -primitive non-motorized recreation where the road is constructed</p>
	Solitude	<p><i>Solitude</i></p> <p>?? Reduced feeling of solitude while activities are occurring</p> <p>?? Alternative 2 would further reduce the feeling of solitude in the area that is roaded</p> <p><i>Recreation settings</i></p> <p>?? No change in recreation settings in Alternatives 3, 3a, 5 and 6</p> <p>?? Alternative 2 would result in a change to roaded natural from semi -primitive non-motorized recreation where the road is constructed</p>
	Special	<p><i>Special Features</i></p>

Drainage	Feature	Description
	Features	?? Protects and enhances the outstandingly remarkable values of the Lochsa Wild and Scenic River Corridor (see SEIS Wild and Scenic River Corridor discussion) ?? Implements the management plan for the Lochsa Research Natural Area. Meets objectives for this area ?? Introduces fire under controlled conditions which provide protection for portions of the Research Natural Area ?? Road construction in Alternative 2 is outside of the Lochsa Wild and Scenic River Corridor and the Lochsa Research Natural Area, therefore there would be no effect to these areas
	Manageability	<i>Manageability</i> ?? No change in roadless boundary in Alternatives 3, 3a, 5, and 6 ?? Alternative 2 would result in a change in the boundary to exclude the portion that is roaded
	Special Places	<i>Special Places</i> ?? See discussion on special features. The application of specific design features for heritage resources and application of the Memorandum of Agreement with the Idaho State Historic Preservation Office, National Park Service, Advisory Council on Historic Preservation and the Clearwater National Forest would result in no adverse effect to heritage resources

Entire Project Area Roadless Environmental Consequences

Natural Integrity and Appearance

The following table displays proposed vegetative management activities that would affect the natural integrity and appearance of the North Lochsa Slope Roadless Area:

Table 3-115: Proposed Vegetative Management Activities; All Areas

Activity	Alt 1	Alt 2	Alt 3	Alt 3A	Alt 4/4a	Alt 5	Alt 6
Mixed Severity	0	4,950	4,950	925	0	4,950	5,125
Underburn	0	6,030	6,030	5,755	0	6,030	6,165
Regeneration	0	720	560	560	0	0	560
Off-Site Conversion	0	2,220	2,220	2,220	0	0	2,220
Commercial Thin	0	185	185	185	0	0	185
Total	0	14,105	13,945	9,645	0	10,980	14,255

Alternatives 1 and 4/4a: Existing roadless characteristics and wilderness features would be retained, leaving open the option to recommend the entire 113,662-acre roadless for future inclusion in the National Wilderness Preservation System. Short-term natural integrity would be retained (except in Bimerick where off-site ponderosa pine is already affecting the natural integrity of the ecosystem). In the long-term natural integrity would

be reduced because fire is not reintroduced in the ecosystem, the risk of stand-replacing fires are increased, species composition and diversity is reduced, elk populations are not maintained or increased and habitat for sensitive species such as the flammulated owl, black-backed woodpecker and wolverine is not improved.

Alternatives 2, 3, 3a and 6: These alternatives would have the greatest direct and indirect short term effects upon the area's roadless characteristics and wilderness features due to proposed timber harvest and burning activities. Although both the timber harvest and burning are designed to mimic natural disturbances, the absence of "sawed" stumps with burning would lessen its effects on wilderness features. No timber harvest is proposed within the Fish Creek area (HR 1570). The other vegetative activities proposed (prescribed burning, control of noxious weeds, and riparian planting) would improve the natural integrity of the ecosystems.

In the long-term these alternatives would improve the natural integrity of the ecosystem by removing offsite species, reforesting with species adapted to the site, changing species composition to early seral species, reducing fuel loads, and reducing the risk of large stand-replacing wildfires, especially when viewed cumulatively with the prescribed burning.

Alternative 5: This alternative's proposed prescribed burning, control of noxious weeds, and riparian planting would improve the natural integrity of the ecosystem. No timber harvest within the roadless area is proposed with this alternative. However, this alternative maintains the off-site ponderosa pine in Bimerick Creek that is continuing to decline and is affecting ecosystem integrity.

Remoteness and Solitude

Alternatives 1 and 4: Existing levels of remoteness and solitude would remain within the roadless area.

Alternatives 2, 3, 3a, and 6: The timber sale activities would disrupt the feeling of solitude during the short time period the sales are active. The resulting openings, particularly after the proposed removal of the off-site trees in the Bimerick area, would reduce the feeling of remoteness, until replanted trees attained some size. Prescribed burning activities would also affect the feeling of solitude for the few weeks of the year that the activity occurs. Road construction under Alternative 2 would modify the feeling of remoteness and solitude in the areas where the road is constructed

Alternative 5: Existing levels of solitude would remain, but the openings left after proposed burning may increase site distances into the developed areas outside of the North Lochsa Slope Roadless Area, thus reducing its remoteness.

Special Features

All Alternatives: Most of the area's unique geological, biological, ecological, cultural, and scenic features would remain unchanged with implementation of any of the

alternatives. The Lochsa RNA would benefit from the prescribed burning proposed under Alternatives 2, 3, 3a, 5 and 6.

Manageability and Boundaries

Alternatives 1, 4/4a, and 5: There would be no change in existing boundary and manageability factors.

Alternatives 2: would result in a modification of the roadless area boundary due to the construction of a road to access three harvest units.

Alternatives 3, 3a and 6: would not result in a change to the roadless boundaries. Although there would be a short term, 15-20 year change in visual condition in Bimerick Creek the intent of the removal of the off-site species is to restore the site to native vegetation and increase resiliency, diversity, and species composition and function. Therefore, there would be no change to the boundary.

Cumulative Effects were evaluated to determine the cumulative impact on the North Lochsa Slope Roadless Area. The analysis evaluates the effects of past timber sale and road construction activities, the present proposal, and future activities including the effects from the Lewis and Clark bicentennial and possible legislative action.

Past timber harvest and road construction activities implemented with the South Bend and Cabin Patch timber sales have had direct effects on a continuous block of the roadless area south of Canyon Creek. This equates to approximately 2,240 acres that has lost its roadless characteristics. Add to this the timber sale activities proposed with this project, a continuous block west and south of Bimerick Creek (approximately 17,000 acres) would have the feeling of remoteness and solitude reduced in the short term. In the long term these attributes would return as the area is revegetated to naturally adapted species. As noted above, the area in Bimerick Creek would not be removed from the roadless inventory.

Presently, there are no timber harvest and/or road activities taking place within the North Lochsa Slope Roadless Area boundary, and there are no other reasonably foreseeable future timber sales or road activities planned, outside of the North Lochsa Face proposals.

The Fish Creek portion of this roadless area is described in HR 1570, or what is more commonly referred to as LaRocco's proposed wilderness bill. This area of the North Lochsa Slope Roadless Area also contains the only segment of the Lewis and Clark travel route across the west that is still without trail tread. The effects of the bicentennial would not cumulatively modify the roadless characteristics. The bicentennial offers an opportunity for interpretation of the historic events. The features of the roadless area would be protected and enhanced.

As the bicentennial observance of the crossing of Lewis and Clark draws closer (2005 to 2006), interest in this roadless area could increase. It is possible that legislative action regarding wilderness or other land management designations could result from the

increase in exposure. The prescribed burning proposed in the Fish and Hungery Creek drainages would not foreclose options of wilderness designation.

Forest Plan Consistency: All alternatives are consistent with the Clearwater Forest Plan.

Consistency with the Stipulation Agreement: All alternatives are consistent with the Stipulation Agreement. No timber harvest or road construction would occur within the boundaries of HR 1570.

Consistency with Roadless Policy: Please see Chapter 1, “Roadless Policy (USDA, 2001)” for a detailed discussion of current Forest Service direction regarding timber harvest and road construction in roadless areas.

Alternative 2 would require Chiefs approval to construct the 1.1 miles of permanent road and .25 miles of temporary road.

- 2) The cutting, sale, or removal of generally small diameter timber is needed for one of the following purposes and will maintain or improve one or more of the roadless area characteristics as defined in 294.11.
 - iii) To improve threatened, endangered, proposed, or sensitive species habitat...

Alternatives 3 – 6 are consistent with the policy that allows the cutting, sale or removal of generally small diameter timber under certain circumstances. The alternatives remove off site ponderosa pine that will not grow into large trees because they will succumb to mortality before they do so. These trees are generally smaller in size because they are not adapted to the site. The other harvest in the roadless areas would create openings ¼ to ½ acre in size. Within the openings some large diameter trees that are insect or disease infested would be removed. However, the largest trees would be retained for structure and future cavity habitat. Trees in the understory surrounding these openings would be harvested to remove excess trees on the site. Harvest in these areas is consistent with the policy, because small diameter timber “generally” would be removed, as well as some larger trees. The policy does not forbid harvest of large trees.

The removal of trees falls into exemption 1(b) that allow for timber harvest “to maintain or restore characteristics of ecosystem composition, and structure, such as to reduce the risk of uncharacteristic wildfire effects, within the range of variability that would be expected to occur under natural disturbance regimes of the current climatic period.”

Timber harvest would maintain and restore ecosystem composition and structure resulting in a decreased risk of uncharacteristic wildfire effects. Timber harvest would improve one or more of the roadless characteristics as described in the roadless policy including improving the diversity of plant and animal communities, improving the prey base for wolves, and retaining natural appearing landscapes (except in Bimerick Creek). Although the landscape would appear altered in the short term in Bimerick Creek, in the long-term the visual condition would improve and appear more natural than what exists today.

Heritage Resources Existing Conditions

The North Lochsa Face Analysis Area contains sites, historic landmarks, and cultural landscapes that record a rich and colorful history. The earliest written records of the area come from the journals of Lewis and Clark who traveled through the analysis area in September of 1805 on their way to the Pacific, and again on their return trip in June of 1806. Native American use of the area is documented in several archaeological sites within and near the analysis area, which suggest that human occupation and use may extend back to between 7,000 and 9,000 years ago. Further, the Nez Perce Tribe used this area for subsistence practices and traveling to and from the Great Plains, and tribes in modern Montana used the trails that cross through the area to access the Columbia River headwaters for fishing activities. The following discussion uses data developed over the past 25 years and more to assess the nature of the heritage resources within the analysis area. Using the results of surveys conducted between 1976 and 2000, known sites are identified and historic contexts are developed.

Regulatory Framework: Several laws direct federal agencies to identify and manage historic properties. The primary regulatory direction is found in the National Historic Preservation Act of 1966 (as amended). “Section 106 of the NHPA requires that Federal Agencies with direct or indirect jurisdiction over Federal, federally assisted, or federally licensed undertakings afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings that affect properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) prior to the agency’s approval of any such undertaking” [36 CFR 800.1]. A formal and detailed process for this consultation is outlined in Title 36, Chapter 800 of the Code of Federal Regulations.

Other applicable laws include the Archeological Resource Protection Act (ARPA) of 1979, The American Indian Religious Freedom Act (AIRFA) of 1978, and Executive Order 13007 of 1996. ARPA establishes criminal and civil penalties for damage, destruction or removal of archaeological resources as well as directing Federal agencies to consult with appropriate tribal governments. The American Indian Religious Freedom Act (AIRFA) requires Federal agencies to consider the effects of their policies and activities on the practice of traditional religious beliefs. Executive Order 13007 directs Federal agencies to: 1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and 2) avoid adversely affecting the physical integrity of such sacred sites.

Forest Plan Direction: The Clearwater Forest Plan (Forest Plan, II-2) has three goals relating to cultural resources. They are

- a. Manage and interpret cultural resources in accordance with Federal law and Forest Service direction.

- b. Manage the Lolo Trail System (Lewis and Clark routes, Nee-Me-Poo trail, Bird-Truax Wagon Road, and Lolo Motorway) to protect all historic values, and provide public use and interpretation of these values.
- c. Protect Indian tribal rights as retained in Treaties and other agreements. Protect religious ceremonial sites and hunting and fishing rights.

Survey Coverage: The analysis area encompasses an area of approximately 128,000 acres located between the Lochsa River, Pete King Creek, and the Lolo Motorway. Of this area, 19,084 acres, or approximately 15% of the analysis area, have been surveyed for heritage resources. Formal archaeological surveys were begun within the analysis area in 1976. Between that year and 2000, 106 surveys have been conducted. Survey methods have stratified the intensity of coverage and placed the greatest intensity on areas with high site probability such as ridgetops, terraces and flats in river and stream valleys, and historic transportation corridors. The majority of these projects were conducted during the planning stages for timber sales, recreation facility development, and other Forest-sponsored resource management activities. However, a corridor along the entire Lolo Trail, with the exception of the Hungery Creek portion, was surveyed in 1999 and 2000 to collect baseline data for resource management during the Lewis and Clark Bicentennial. This prior survey work provides the basis for the analysis presented here. Reports, site forms, and other existing sources were consulted for information on all the known heritage resources of the North Lochsa Face Analysis Area.

Known Heritage Resources:

There are two primary categories of heritage resources within the North Lochsa Face Analysis Area. The first is the Lolo Trail National Historic Landmark (NHL), and its associated Lewis and Clark and Nee Me Poo National Historic Trails. The second primary category of heritage resources consists of archaeological and historic sites.

Two primary categories of heritage resources

- 1) Lolo Trail National Historic Landmark, including
 - ?? Lewis and Clark National Historic Trail
 - ?? Nee Me Poo National Historic Trail
- 2) Archeological and historic sites

Lolo Trail National Historic Landmark: In 1962, the Lolo Trail National Historic Landmark was designated to retain the historic setting, character, landscape and sites related to the Lewis and Clark expedition and the Nez Perce war of 1877. In 1966 the Lolo Trail NHL was listed on the National Register of Historic Places, and was also designated part of the Nez Perce National Historical Park by the passage of Public Law 89-19 in 1965. Today, the Lolo Trail NHL is co-managed by the Clearwater National Forest and the Nez Perce National Historical Park. The Lolo Trail NHL comprises 10,603 acres of the analysis area. The Lolo Trail NHL is located along the northern boundary of the analysis area and along the Hungery Creek drainage in the northern ¼ of the analysis area. Within the NHL boundary, maintaining the historic setting and character are primary management objectives even in the absence of discrete historic resources such as historic and archaeological sites.

This National Historic Landmark consists of both prehistoric and historic travel routes that generally followed the east-west trending divide between the Lochsa River and the North Fork of the Clearwater River. Prior to euroamerican exploration and settlement, Indian societies used these trails to travel to buffalo hunting territories east of the Rocky Mountains. The Nez Perce name for this route was Kushahna Ishkit, or the buffalo trail. This area remains important to the Nez Perce tribe, and traditional use continues within the Lolo Trail NHL and adjacent areas. Traditional cultural properties, areas of traditional importance, and other areas of tribal interest may not be readily identifiable but are likely to be present in the North Lochsa Face Analysis area.

Two National Historic Trails are present within the National Historic Landmark boundary. In 1978, the route followed by Lewis and Clark was designated as the Lewis and Clark National Historic Trail. The Nee-Me-Poo, or Nez Perce Trail, was designated as a National Historic Trail in 1986 to commemorate the Nez Perce war of 1877.

Archaeological and Historic Sites:

The analysis area contains 128 known and potential archaeological and historic sites. Ninety-six of these are verified historic or prehistoric sites, while 31 are potential sites largely known from historic maps, references or other documentary sources. Of the 96 verified sites, 61 (63.5%) are historic, 23 (24.0%) are pre-contact

Each of these sites is evaluated in terms of its eligibility for the National Register of Historic Places (NRHP) and are assigned a priority for preservation and management:

- ?? (Class I): those determined eligible
- ?? (Class II): or potentially eligible
- ?? (Class III): determined ineligible

Native American, and 12 (12.5%) are multicomponent with both historic euroamerican and pre-contact Native American uses evident. Survey of the North Lochsa Face Analysis Area is incomplete, and many additional sites are expected to be present in the area. Each of these sites is evaluated in terms of its eligibility for the National Register of Historic Places (NRHP), and those determined eligible (Class I) or potentially eligible (Class II) are of higher priority for preservation and management than those sites determined ineligible (Class III).

Historic Contexts: Historic contexts form the core of historic preservation planning. They are a means of organizing numerous individual sites into classes of resources based on time period, historic events, and themes. Individual property types are then identified, and management recommendations can be developed for classes of sites based on context and significance. The following is a brief description of the historic context for the North Lochsa Face Analysis Area, and follows the themes and time periods outlined in Idaho's comprehensive historic preservation plan (Watts 1998). Several historic themes are identifiable or likely within the analysis area, including 1) Prehistoric Archaeology, 2) Native American History and Use, 3) Exploration, 4) Public Land Management and Conservation, 5) Transportation, 6) Agriculture, 7) Military, 8) Mining History, 9) Trapping, and 10) Other. These are briefly outlined in the following paragraphs.

- 1) **Prehistoric Archaeology (13,000 BC to AD 1805).** Sites within and adjacent to the North Lochsa Face Analysis Area indicate Native American occupation perhaps as early as 9,000 years ago. Earlier sites are possible, but rare in the region. Native societies used the area for occupation, resource procurement, and transportation throughout the prehistoric period. In this theme, the protohistoric period from approximately AD 1700 to 1805 is included since sites of this time are rare and difficult to identify at this level of analysis and planning. Known site types include occupation sites, lithic scatters, lithic quarries, culturally modified trees, and transportation corridors.
- 2) **Native American History and Use (1805 to Present).** Native Americans, particularly the Nez Perce Tribe, have continued to use portions of the project area throughout the historic period. In 1877, members of the Nez Perce Tribe fled down the Lolo Trail while escaping from the US Army during the Nez Perce War. Known or potential sites of this theme include occupation sites, trails, cairns, and culturally modified trees. It is possible the traditional cultural properties and graves are also located within the North Lochsa Face area.
- 3) **Exploration and Westward Expansion (1805-1860).** In September of 1805, members of the Lewis and Clark Corps of Discovery were the first euroamericans to document the North Lochsa Face area. The expedition was in the process of crossing the mountains on their way to the Pacific Ocean. In June of 1806, they once again passed through the project area on their return trip to St. Louis. This period ends in 1860 prior to the discovery of gold near Pierce, which ended the exploration period and led to the permanent settlement of this portion of North Central Idaho. Sites of this theme include the Lewis and Clark campsites and trails.
- 4) **Public Land Management and Conservation (1897 to Present).** The Bitterroot Forest Reserve was created in 1897, portions of which later became the Clearwater National Forest. Control of wildfires, elimination of white pine blister rust, revegetation, and development of roads and trails all were important characteristics of this theme. This theme also includes the Civilian Conservation Corps, which was in operation on National Forest lands from 1933 until 1941. The Public Land Management and Conservation theme is represented by more sites within the Lochsa Face Analysis Area than any other theme. Sites include fire lookouts, trails, roads, administrative sites, spike camps, and CCC related sites.
- 5) **Transportation (1866-1940).** In 1866 Wellington Byrd was commissioned to build a wagon road from Lewiston Idaho to Montana. He found the wagon road impossible to build, but was successful in establishing a pack trail along the route of the Lolo Trail. This Byrd-Truax trail is still a part of the Lolo Trail National Historic Landmark. In the 1930's, the CCC and others established the Lolo Motorway, a primitive dirt road that forms much of the northern boundary of the North Lochsa Face project area. Sites of this theme include trails, roads, and trail blazes.
- 6) **Agriculture (1860-).** Although sites related to this theme are rare in the North Lochsa Face area, sheep and cattle grazing are known to have occurred in the early

20th century. Sites of this type would include camps, sheep driveways, and blazes associated with sheep driveways.

- 7) **Military (1877).** In 1877, the conflict known as the Nez Perce War erupted in north central Idaho. As the Nez Perce fled to Montana, the U.S. Army under General Howard pursued them across the Lolo Trail. Although not documented in the project area, Army related campsites may be discovered during subsequent survey along the Lolo Trail at the northern end of the project area.
- 8) **Mining History (1860-1950).** In 1860, gold was discovered northwest of the project area near the town of Pierce. Miners and prospectors soon covered the region in search of gold, silver, and other precious metals. Several small 20th century mining sites are known in the North Lochsa Face analysis area, and subsequent survey could identify additional sites related to this theme. Site types include prospecting pits, adits, cabins and other structures, placer mines, tailing piles, ditches, and others.
- 9) **Trapping (1890s to 1930s).** Line shacks, martin sets, and blazes are all known in the project area, reflecting an early 20th century fur trapping presence. Additional sites are likely to be found.
- 10) **Other.** Sites of unknown association are placed in the unknown category until further analysis reveals their thematic association. Sites of this type include cabins that could be related to several different themes, historic isolates, and others.

Heritage Resources Environmental Consequences

The potential effects to heritage resources in the North Lochsa Face Analysis Area come in two forms. The first is direct effects to sites caused by planned actions within the site boundaries, while the second consists of effects to the setting and character of the National Historic Landmark which may be caused by changes to the vegetation and landscape of the area regardless of the presence or absence of archaeological sites, historic buildings, or other historic properties.

Effects come in two forms
 ?? Direct site effects
 ?? Effects to setting and character of the National Historic Landmark

Design Criteria for Heritage Resources Within the National Historic Landmark

The following table and discussion describe specific actions that would occur for known sites within the National Historic Landmark and affected by proposed activities. Table 3-116 summarizes which alternative includes the site and the proposed action to ensure no adverse effects.

Table 3-116: Design Criteria Applied to Each Site Within the National Historic Landmark

Site No.	NRHP	Alt 2	Alt 3	Alt 3a	Alt 4/4a	Alt 5	Alt 6	Design Criteria
10-IH-558	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2145	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2146	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2370	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2371	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2372	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2373	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
10-IH-2374	II	MSB	MSB	MSB	--	MSB	MSB	Avoidance
LOC 272	1	MSB/UB	MSB/UB	MSB/UB	--	MSB/UB	MSB/UB	See Discussion

MSB=Prescribed Burn, UB=Understory Burn.

10-IH-558, 10-IH-2370, 10-IH-2371, 10-IH-2372, 10-IH-2373, 10-IH-2374: These six sites form a complex of sites and features located in close proximity to one another within a proposed mixed severity fire treatment area. 10-IH-558 is related to a brief visit by the Lewis and Clark party. 10-IH-2370 is a lithic isolate that consists of one hammerstone. 10-IH-2371 and 10-IH-2372 are both historic trail markings consisting of blazed trees. 10-IH-2373 is a large precontact period campsite extending along the ridgetop for approximately 700 meters. The site consists of several stone tools, hammerstones, a possible mortar base, and debris from the manufacture and use of these tools. 10-IH-2374 consists of three stone cairns, two of which are collapsed. In addition to these sites and features, a portion of the Lewis and Clark trail passes through this site complex. Protection of this set of historic properties is essential during implementation. Exclusion of this area from a mixed severity burn unit would best serve to protect the integrity of these sites. No line will be excavated through this area, however. If hand line is used to exclude this area from the burn unit, it will be placed below the ridgetop and will be monitored by a qualified archaeologist. Controlled back burning may provide an opportunity to further buffer this site complex. If exclusion is not possible, all heavy, long-burning fuels will be removed by hand from within and around the sites to result in a low intensity fire. If this measure is used, a qualified archaeologist will monitor all fuels reduction and burning activities. After-burn survey and assessment of the sites will also be conducted to assess and document the efficacy of these mitigation measures.

10-IH-2145: A 1930's Emergency Relief Act (ERA) camp was located at this site, and at least one prehistoric stone tool suggests the presence of an older buried component. The site is located on both sides of the Lolo Motorway, and has been evaluated as potentially eligible for the National Register of Historic Places. A proposed prescribed fire has the potential to cause effects to the site. The preferred mitigation measure will exclude the site from the burn area by fuels reduction, establishment of a line below the site, and possible back burning. No line will be established within the site boundaries, although hand fuels reduction can occur and may be necessary to avoid effects. A qualified archaeologist will monitor fuels reduction, back burning, and any other activities on, or near, this site.

10-IH-2146: This site consists of a small prehistoric lithic scatter located on the north side of the Lolo Motorway. It has been evaluated as potentially eligible for listing on the National Register of Historic Places. The known site area is immediately outside of a proposed mixed-severity burn unit. Stationing a fire crew to insure that the proposed fire does not cross the motorway and burn over this site should be adequate to protect it from effect. Hand fuels reduction activities on site may provide additional insurance against effect during project implementation. A qualified archaeologist would be present to monitor any activities such as fuels reduction.

LOC 272: The Lewis and Clark trail (LOC 272) runs along the northern boundary of the project area, as well as through the Hungry Creek valley. Several prescribed fire and underburn treatment areas adjoin or cross the trail. Burning in the vicinity of historic trail tread should have little effect on the trails integrity. The greatest danger to the integrity of this historic feature is fire suppression. No hand or mechanical line would be used to control fire in the vicinity of this trail.

Design Criteria for Heritage Resources Outside the National Historic Landmark

The following table and discussion describe specific actions that would occur for known sites outside the National Historic Landmark and affected by an alternative. Table 3-117 summarizes which alternative includes the site and the proposed action to ensure no adverse effects.

Table 3-117: Design Criteria Applied to Each Site Outside the National Historic Landmark

Site No.	NRHP	Alt 2	Alt 3	Alt 3a	Alt 4/4a	Alt 5	Alt 6	Design Criteria
10-IH-967	II	UB	UB	UB	--	UB	UB	Avoidance
10-IH-974	II	SS	SS	SS	SS	SS	SS	Avoidance
10-IH-978	II	CT	CT	CT	--	CT	--	Avoidance
10-IH-993	III	CT	CT	CT	--	CT	CT	None
10-IH-997	II	UB/RH	UB/RH	UB/RH	--	UB/RH	UB/RH	Avoidance
10-IH-1406	II	MSB	MSB	MSB	--	MSB	MSB/U B	See Discussion
10-IH-1413	II	MSB	MSB	MSB	--	MSB	MSB	Fuels Treatment
10-IH-1493	III	RH	RH	RH	RH	--	RH	Field Verification
10-IH-1649	I	UB	UB	UB	--	UB	UB	Fuels Treatment

MSB – Prescribed Burn; UB – Understory Burn; SS – Salvage Harvest; CT – Commercial Thinning
RH – Regeneration Harvest

10-IH-967: This site was a Works Progress Administration (WPA) camp housing 300 to 400 men during the 1930s and early 1940s. Crews from this camp worked on construction of US Highway 12. Remnants of this camp include leveled areas where tents were erected, but no subsurface investigations have been conducted and the

National Register status of the site has not been assessed. A proposed understory burn unit may affect site integrity. The site would be avoided until its National Register status has been determined and a treatment plan developed.

10-IH-974: Two cabins, a mineshaft, and an ore car remain at this site, documenting early to mid-20th century mining in the Lochsa basin. This unevaluated site would be avoided by redesigning project boundaries to exclude the entire site from potential effects of proposed salvage harvest.

10-IH-978: A historic lookout tree and trail marker comprise this unevaluated site. The lookout tree is a large Douglas fir with spikes, while about 50 yards away a metal sign is a former trail marker that identifies the lookout tree. The site likely dates to the early 20th century. Commercial thinning activities have the potential to affect the site. A protective buffer would be established around the site boundaries thereby excluding it from the treatment area. This would protect this area.

10-IH-993: This mid- to late-20th century site represents hardrock mining within the Lochsa watershed. A cabin, outbuildings, privy, and pond are present on-site. Use of this site appears to date between the 1940's and 1970's. The site has been designated as ineligible for listing on the National Register, and no design criteria are proposed.

10-IH-997: The burned remains of a 1931 L-4 lookout are represented at this site. The site was used by the Forest Service for fire detection between 1931 and 1934, and was burned in 1960. Depressions, an access road, iron fragments, glass, and ceramic insulators are still present on-site. The national register status of the site has not been determined. It is located on the edge of a treatment area proposed for under burning. This site would be excluded from the proposed treatment area and maintained in its current condition until the national register status of the site has been resolved,

10-IH-1406: The Grouse Ridge Trail is shown on maps of the Clearwater National Forest as early as 1915, and may represent an even older native trail. It adjoins a prescribed fire unit in Sections 9 and 16, T35N, R9E. Burning in the vicinity of historic trail tread should have little effect on the trails integrity. The greatest danger to the integrity of this historic feature is fire suppression. No hand or mechanical line should be used to control fire in the vicinity of this trail.

10-IH-1413: The Fish Creek Ranger Station was in operation as early as 1905, and burned in 1916. The site has not been evaluated, nor has it been fully recorded. The site must be fully documented by a qualified archaeologist, including the development of scaled site maps. After the site is documented, it would be protected by both hand fuels reduction and back burning if it is found to be eligible or potentially eligible for the National Register of Historic Places.

10-IH-1493: This site has been recorded solely from historic references and has not been found in the field. It is thought to be an early 20th century structure located near the north side of the Lochsa River. It is possible that the site was destroyed by construction of Highway 12, yet it may still be present north of the highway. Field verification of the site

should focus in the area of a proposed regeneration harvest where it may still be located. If the site is found, it should be evaluated in terms of the criteria for the National Register of Historic Places. If eligible or potentially eligible, it would be protected by excluding it from the proposed treatment area or by placing a protective buffer around the site and excluding harvest activities from within the site area.

10-IH-1649: A series of pits along the north side of the Lochsa River may represent placer mining from the late 19th or early 20th centuries. Crews from the University of Idaho tested the site in 1986 with negative results. At that time, no further work was recommended at the site, but formal determination of its national register status has not been made. This site is located within and adjacent to a proposed under burn treatment area. Heavy, long burning fuels would be removed by hand from the site area. Without long burning fuels, a low intensity under burn would likely have no effect on the integrity of cultural deposits at 10-IH-1649. A qualified archaeologist would monitor burning and inspect and document the site area after burning.

Phased Identification, Evaluation and Protection: As stated previously, not all areas proposed for treatment have been surveyed and legally mandated consultation with the Idaho State Historic Preservation Office is incomplete. The Clearwater National Forest is using a process called “phased identification and evaluation” to identify heritage resources and develop mitigation and other management measures. This process is outlined in Title 36, Chapter 800.4(b)(2) of the Code of Federal Regulations, and uses a Memorandum of Agreement (MOA) signed by the Clearwater National Forest, Nez Perce National Historical Park, Idaho State Historic Preservation Office, and the Advisory Council on Historic Preservation. In using this approach, the Clearwater National Forest will conduct heritage resource surveys, prescribe mitigation measures or redesign to avoid effects, or cancel individual treatment areas in the case of unmitigatable effects, and complete consultation with the Idaho SHPO and other parties prior to approving implementation of individual projects within the North Lochsa Face area. The Nez Perce Tribe was invited to participate as a signatory to the agreement, and received a copy of the draft on July 12, 2000. The MOA and North Lochsa Face projects have been further discussed with the Tribe in phone conversations on July 11, 2000, and in a meeting on January 31, 2001.

This MOA requires that the Clearwater National Forest meet the following stipulations in order to be in compliance with the National Historic Preservation Act. These include the following:

- ☞☞ Ensure that archaeological surveys are conducted for the remaining treatment areas within the North Lochsa Face project area. Surveys will be consistent with the Secretary of Interior’s Standards and Guidelines and the Clearwater National Forest’s site identification strategy (USDA Forest Service, 2001). Surveys shall be completed in consultation with the Idaho SHPO and the National Park Service, and a report of the survey, meeting the standards of the Idaho SHPO and Forest Service, shall be submitted to the Idaho SHPO for review.
- ☞☞ Not conduct any activities other than the previously surveyed and approved projects within the North Lochsa Face project area until consultation with the

Idaho SHPO and other appropriate parties has been completed. Survey and consultation will meet the requirements of historic property identification, assessment of effects, and resolution of effects as defined in Section 800.4 through 800.6 of Title 36 of the Code of Federal Regulations.

- ☒ Manage fire and other activities to meet the visual quality objectives of the Lolo Trail National Historic Landmark as identified in the Clearwater National Forest Land Management Plan (USDA Forest Service, 1987) and the Final Environmental Impact Statement of the Nez Perce National Historical Park General Management Plan (USDI National Park Service, 1997).
- ☒ In consultation with the Idaho SHPO, and in participation with the Nez Perce National Historic Park, develop a heritage resource management and monitoring plan that will protect culturally modified trees and other historic properties from effect. This plan will develop monitoring and mitigation measures for individual sites and will be submitted to the Idaho SHPO for review and approval by February 1, 2002. On an annual basis, no later than March 1, reports will be prepared and submitted to Idaho SHPO and the Nez Perce National Historic Park that will document accomplishments under the plan, results of monitoring, and recommendations for amendments. The plan may be updated annually as needed, and the Nez Perce Tribe will be invited to comment and provide input to the development and updating of this plan.
- ☒ Proceed with implementation on a project-by-project basis after satisfactorily completing inventory, consultation with Idaho SHPO, additional consultation with the National Park Service for those projects affecting the Lolo Trail NHL, and development of the heritage resource management and monitoring plan.
- ☒ If unanticipated heritage resources are discovered during implementation, the Forest Service will cease work in that area and notify the Zone Archaeologist of the discovery. Depending on the nature of the find, activity may continue as determined by the Zone Archaeologist in consultation with the Idaho SHPO. If significant heritage resources are discovered, preservation in place of the resource will be the preferred alternative but data recovery may be required if the site cannot be avoided. Avoidance, mitigation, or data recovery plans will be developed by the Forest Service and submitted to the Idaho SHPO for review and approval as needed. If unanticipated discoveries occur within the Lolo Trail National Historic Landmark boundary, these plans will also be provided to the National Park Service for review.

Design Criteria: To meet the objectives of the MOA the following design criteria are provided as a guide to the type of management alternatives available for protection of heritage resources. These criteria would be utilized for **new sites** found during heritage resources. This is not a comprehensive list, and often several different approaches may be combined (i.e. Fuels reduction, fuels ignition, and wrapping) to protect sites from adverse effect. It is important to note that some effects cannot be mitigated other than by canceling the planned activity. Individual treatment strategies would be developed for each identified site, leading to a determination of either “No Effect” or “No Adverse Effect”.

- Avoidance:** Avoid historic properties (no project activities performed within a prescribed buffer zone or site boundaries) whenever possible so that the resource is preserved and protected in its current state, location, and setting. The site type dictates the type of avoidance required depending on the proposed activity, e.g. burning versus salvage sale.
- Fuels Reduction:** Where significant heritage resources occur within a proposed burn unit, and the burn unit cannot be redesigned to avoid those resources, fuels reduction may be used as a mitigation measure. The type of fuels reduction may depend on the type of site being protected. Removal of long-burning, high intensity fuels such as large woody debris and stumps may be performed by hand to produce a cooler, fast moving fire through the site. Hand removal of fuels around historic structures may be required prior to ignition. Culturally modified trees may be protected by removal of fuels and duff from the base of the tree to a significant distance away from the tree to prevent flames and embers from igniting those historic resources.
- Fuels Ignition:** Digging a hand line around the site with subsequent burning out around the resource to create a defensible space may also be performed where significant sites are located within proposed burn units.
- Wrapping:** Some resources may best be protected from fire by a combination of fuels reduction, back burning, and wrapping with a flame resistant shelter material. These would be determined on a case-by-case basis.
- Monitoring:** Where pre-burning activities have been performed (e.g. fuels reduction, back burning, or wrapping), and in specified cases in other types of treatment areas such as salvage or thinning units, monitoring of resource conditions may be required during project implementation. A qualified archeologist would monitor resource conditions and in the case of burn units; a fire crew would be pre-positioned in strategic locations to protect the resource.
- Data Recovery:** If project activities are such that none of the above forms of mitigation can be performed for a significant site, and no acceptable alternatives exist, then data recovery would be required to protect the values that make the site significant. Data recovery or documentation may take the form of archaeological excavation and removal of the resource, documentation of historic structures meeting current professional standards such as HABS/HAER, or some other form of highly intensive documentation. Data recovery is a mitigation measure of last resort and is often time-consuming and expensive and ultimately removes the historic resource from its primary context.
- Unmitigatable Effects:** There exists the potential for sites for which there are no acceptable mitigation measures. Traditional cultural properties and other areas of traditional tribal use and concern are known within the Lolo Trail National Historic Landmark in other areas, and there is a very real potential for their presence within the North Lochsa Face Analysis area. For these types of heritage resources, the only acceptable mitigation may involve cancellation of proposed activities within that treatment unit or even in the general area.

Direct and Indirect Effects

Of the 127 known and potential archaeological and historic sites within the North Lochsa Face Analysis Area, only 18 are within areas planned for treatment under the various alternatives (please see the “Summary of Specific Features” tables in Chapter 2 for each alternative). The following table summarizes the effects to known sites within and outside of the Lolo Trail National Historic Landmark, and the effect to the setting and character of Lolo Trail.

Survey of the proposed treatment areas has not been completed, and the additional inventory is likely to reveal the presence of several additional sites for which mitigation measures will need to be applied.

Table 3-118: Direct and Indirect Effects of the Alternatives

Evaluation Criteria	Alternative Effects
Effects to known sites within the Lolo Trail National Historic Landmark	Alternatives 1 and 4/4a: would have no direct effect to known sites
	Alternatives 2, 3, 3a, 5 and 6 would avoid or result in no adverse effect to known sites within the Lolo Trail National Historic Landmark (see discussion above)
Effect to Setting and Character of the Lolo Trail National Historic Landmark	<p>Alternative 1 and 4/4a would not prescribed burn within the Lolo Trail NHL. While the lack of fire would not immediately affect sites and the historic character of the landmark, this lack of treatment increases the odds of catastrophic wildfire. If catastrophic wildfire does occur, several historic properties and the historic landmark would likely be adversely affected.</p> <p>The proposed precommercial thinning of 204 acres within the landmark would create temporary effects to the historic setting and character of the NHL. These effects would be short lived, and would be relatively unnoticeable after approximately 1 year.</p>
	<p>Alternatives 2, 3, 3a, 5 and 6 Most of the proposed treatments within the Lolo Trail National Historic Landmark are prescribed fires. A total of 1,947 acres of treatment, including approximately 1,408 acres of mixed severity burns and 335 acres of low intensity underburns, are proposed within the NHL. Management of the NHL emphasizes maintenance of historic setting and conditions. Fire history of the project area indicates that fire was an integral part of the part of the ecosystem prior to the advent of effective fire suppression techniques in the 20th century. Returning fire to the landscape of the Lolo Trail NHL is a means of restoring and maintaining the historic character of the 19th century. This both returns fire to a fire-dependant landscape and enhances the historic character of the landmark, and minimizes the potential for future effects to historic properties by wildfire and suppression efforts. Although the proposed treatment would affect the setting of the NHL, the actions constitute a “no adverse effect” since the result would be beneficial.</p> <p>Precommercial thinning of 204 acres within the NHL is a feature of alternatives 2, 3, 3a, and 5. This activity would have only a temporary effect on the historic setting of the landmark since this thinning would be done by hand using chainsaws, and slash would be left on the ground to decay. The greatest effect would occur during the</p>

Evaluation Criteria	Alternative Effects
	<p>thinning, and effects would be relatively unnoticeable within a year after completion.</p> <p>Alternative 6 does not feature precommercial thinning within the landmark, therefore there would be no adverse effects.</p>
Effects to known sites outside the Lolo Trail National Historic Landmark	<p>Alternative 1 would have no effect to known heritage sites. Future wildfire that reasonably would result from this alternative would likely have an adverse effect on historic properties.</p>
	<p>Alternative 4/4a would result in no effect or no adverse effects at four sites, including 10-IH 974, 10-IH-978, 10-IH-993, and 10-IH-1493. Sites 10-IH-993 and 10-IH-1493 are not eligible for the National Register of Historic Places, and no protection measures are necessary. The other two sites would be protected using the measures described above.</p>
	<p>Alternatives 2, 3, 3a, 5 and 6 would result in no effect or no adverse effect to eight or nine sites (only eight sites are within areas affected by Alternatives 5 and 6. Sites 10-IH-993 and 10-IH-1493 are not eligible for the National Register of Historic Places, and no protection measures are necessary. The other sites would be protected using the measures described above.</p>
Effects to unknown sites	<p>Alternative 1 would have no effect to any unknown sites since no action is proposed.</p>
	<p>Alternatives 2-6 would have no effect or no adverse effects since each alternative applies the criteria in the Memorandum of Agreement with the State Historic Preservation Office and Nez Perce National Historical Park. As noted in the MOA there is potential for sites for which there are no acceptable mitigation measures. For these types of sites the only acceptable mitigation may involve cancellation of proposed activities within that treatment unit or even in the general area.</p>

Cumulative Effects

Geographic Boundary: The geographic boundary for cumulative effects is the North Lochsa Face planning area.

Past, Present, and Foreseeable Future Actions: Lewis and Clark Bicentennial, Lolo Trail Resource Protection, Ne Mee Poo Connector Trail, Wildfire, Implementation of North Lochsa Face.

Additional survey of proposed project areas within the North Lochsa Face planning area and consultation with the Idaho SHPO and other interested parties under the terms of the Memorandum of Agreement (MOA) will likely result in the identification of additional sites and heritage resource management issues. Under the terms of the MOA, any potential effects identified through phased identification and evaluation will be resolved to avoid adversely affecting historic properties. The design criteria described in Chapter xx, or other approved mitigation measures identified through consultation with the Idaho SHPO, National Park Service, Nez Perce Tribe, or other interested parties, will be applied to insure that heritage resources are not adversely effected.

Wildfire can be expected within the North Lochsa Face area if no action is taken to lessen fuel loads and risk. Prescribed fire treatments lessen the potential for catastrophic wildfires to occur. Fire will have an effect on the setting of the Lolo Trail National Historic Landmark, but since the proposed burning is designed to mimic natural fire patterns the effect will be to maintain the historic character of this fire-dependant landscape. Catastrophic wildfires, on the other hand, may result in damage or destruction of important historic sites whereas the prescribed fires are designed to avoid affecting those resources.

A proposed segment of trail, the Ne Mee Poo Connector Trail, is planned along the northern edge of the North Lochsa Face project area. This trail has been designed to avoid adverse effects to historic properties within the Lolo Trail National Historic Landmark.

The Lewis and Clark Bicentennial will occur between 2004 and 2006, and increased use of the Lolo Trail National Historic Landmark corridor and the Highway 12 corridor is anticipated during this period. This increased use has the potential to lead to effects to historic properties within the North Lochsa Face project area. Specifically, increased visitation to the Lolo Motorway along the northern edge of the project area, the Highway 12 corridor along the southern project margin, and somewhat increased use of the Hungry Creek area in the northern 1/3 of the project area can be anticipated. Planning is underway to control visitation, design facilities to avoid adverse effects to historic properties, and to develop monitoring and management plans to insure that resource damage does not occur during the Bicentennial. Portions of this planning and design effort are contained in the Forest's Lewis and Clark Bicentennial Strategy, and in the Lolo Trail Resource Protection project.

Irreversible and Irrecoverable Commitment of Resources: Wildfire and escaped prescribed fire are capable of destroying heritage resources such as culturally modified trees, historic structures, and in some cases even archaeological sites.

Adverse Effects Which Cannot Be Avoided: The design features outlined in Appendix B will be used to avoid adverse effects to historic properties during the implementation of planned activities.

Consistency with the National Historic Preservation Act: Approximately 15 percent of the North Lochsa Face analysis area has been surveyed for historic properties, and consultation with the Idaho SHPO has been completed for those areas. Consultation is ongoing for the remainder of the project areas, pursuant to the terms of a Memorandum of Agreement (MOA) between the Idaho State Historic Preservation Office, National Park Service, Advisory Council on Historic Preservation, and the Clearwater National Forest. The terms of this MOA develop specific management direction to guide management and protection of historic properties within the North Lochsa Face area. Execution of this MOA signifies that the Forest Service has complied with the National Historic Preservation Act.

Consistency with the Clearwater Forest Plan: All action alternatives are consistent with the Clearwater Forest Plan because they protect all historic values and are managed in accordance with Federal Law and Forest Service direction.