Priest Lake Grazing Allotments
Livestock Management Resource Report

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Introduction

Throughout this report there are references to on/off term permit, permitted use, authorized use, actual use, allowable use and head months.

- Term Grazing Permit is a permit issued for periods up to 10 years. It grants the permittee priority for renewal.
- “On/Off” Term Grazing Permit is issued when the allotment is contiguous with other non-NFS land being grazed as one pasture unit. The “on” stocking rate is that portion of the total number of livestock (“off”) that the allotment would support were the non-NFS land not available.
- Temporary Grazing Permit is issued for a period not to exceed 1 year to graze specified number, kind, and class of livestock for a specific season and area of use.
- Permitted Use is the number of livestock and the grazing season dates that are shown on the face of a term grazing permit.
- Authorized Use is the number of livestock and the grazing season dates authorized in the Annual Operating Instructions (AOI) and may vary from year to year as circumstances dictate.
- Actual Use is the number of livestock and the number of days that were actually grazed during a particular grazing season. Typically, this would be the same as authorized use.
- Allowable Use is an estimate of grazing levels that would fully meet all applicable terms, conditions and Forest Plan requirements.
- Head Month (HM) is one cow-calf pair (animal unit) grazing on National Forest lands for a period of one month. Calculated as: Head Month = number of animal units x length of season (days) / 30 days.

Regulatory Framework

Forest-wide rangeland management standards and guidelines that apply to his project are contained in the following documents:
- The Idaho Panhandle National Forests Forest Plan (USDA 1987)
- Forest Service Manual Guidelines (FSM 2210.2240)
- Forest Service Handbook Guidelines (FSH 2209)

Specific goals in the Idaho Panhandle Forest Plan that address livestock management are:
- Manage range forage production for domestic livestock at current levels with additional emphasis to protect stream banks, riparian zones, threatened and endangered species, and wildlife values.

Many Forest Plan standards are applicable to the general design of the proposed action. Specific Forest Plan standards (pp. II-31) that guided the development of the purpose and need are:
- Opportunities for grazing and other uses of public range resources will be managed to serve the welfare of local residents and communities.
- The needs of threatened and endangered and sensitive plant and animal species have priority in managing existing range allotments. No new allotments will be established in areas where conflicts can be expected with threatened, endangered, or sensitive species.
- Positive livestock control will be required before permitting livestock use on new ranges.
• Riparian zone and stream bank standards, with periodic monitoring, will be specified in each allotment plan.
• Existing allotments will be honored; however, a long-term objective should be to minimize or exclude domestic grazing within old-growth stands. New allotments in old-growth stands will not be issued.

**Forest Service Manual Direction 2240**
Manual direction 2240 allows rangeland improvements where the activity “is designed to improve production of forage; change vegetation composition; control patterns of use; provide water …including but not limited to structures, treatment projects and use of mechanical means to accomplish desired results (Public Rangelands Improvement Act of 1978, 43 USC.1902)”.

**Desired Condition for Range Condition**
For the upland areas of the allotments, desired conditions would be to provide conditions conducive to maintaining healthy, vigorous vegetative cover that would provide forage and cover for wildlife habitat, soil stability, as well as livestock forage. For riparian areas, desired conditions would strive to manage riparian vegetation, including shrub and overstory tree cover along all perennial streams with defined channels, provide shade, and to maintain streambank stability.

**Background**

**Vegetation**
Forest vegetation within the allotments is representative of low and mid elevation moist habitat types. Forest overstory tree species commonly include western white pine, Douglas-fir, western larch, ponderosa pine, western hemlock, Engleman spruce, lodgepole pine, western red cedar, and grand fir. In riparian areas there has been a decline in old growth cedar. Grand fir and hemlock forest types have increased dramatically. These types together with Douglas-fir, now dominate 73% of the land in the Priest River sub-basin. Meanwhile, ponderosa pine, white pine, and larch have all experienced major declines. In the areas of the allotment where meadows predominate along the major stream courses, riparian vegetation consists primarily of shrubs, such as alders.

Forage in the allotments consists primarily of introduced grasses, such as Kentucky bluegrass, timothy and redtop. Reed canary grass has proliferated in some areas, and although it is grazed, is not as palatable as the other grasses and poses some minor health risks to livestock. Sedges are grazed to some extent, and riparian shrubs are browsed toward the end of the grazing season if there isn’t sufficient palatable forage available.

Flat, open meadows occur in the lower portion of most drainages within the project area. These meadows are characterized by grass/forb communities. Primary forage utilized by livestock consists of grasses, many of which were introduced, and forbs, including bluegrass, timothy, clover, brome, fescue, red top and carex.

Upland habitats, primarily open hillsides, old timber harvest units and road corridors, provide limited palatable livestock forage consisting of grasses, often introduced, forbs and browse shrubs.
Climate/Weather
The climate of the Priest Lake Basin is transitional between a northern Pacific coastal type and a continental type. The Pacific influence is noted particularly in late fall and winter by cloudiness, precipitation and relatively moderate average winter temperatures, compared with areas east of the Rocky Mountains. Summers are characteristically sunny and dry.

Precipitation within the IPNF ranges from 80 inches at the higher elevations to 30 inches in the lower elevations. Over 75 percent of this is in the form of snow, the depths of which range from 220 inches at high elevations to 40 at low elevations. Annual precipitation at the Priest River Experimental Forest weather station averages 32 inches, and approximates the annual precipitation in the project area. Approximately 60 percent of the annual total occurs during the period November through March. (Finklin 1983)

Human Values
Human development in the project area is primarily rural, with the small community of Priest Lake closest to the allotments. Historically, agriculture, i.e. timber and farming, was the dominant industry. In recent years tourism has flourished and is the economic mainstay at this time.

In a 2002 Social Assessment Report for the IPNF, Priest Lake is identified as a “transition community”, which characterizes a community in the process of change from commodity production and its associated socioeconomic influences to amenity and aesthetic relationships with forest resources. The area is experiencing rapid increases in up-scale second-home ownership and decreases in timber production. A tourist destination and seasonal residence area for many years, Priest Lake’s changes appear to be in the relative wealth of second-home owners and the rapid increase in building. (Parker, Wulfhorst and Kamm 2002)

Economic data shows that in 2002 farm land represented 8.2% of Bonner County’s total land base. During the period from 1987–1997 the total number of farm land acres decreased by 38.7% with the average acres per farm decreasing by 34.5%. From 1980 to 2000 farm and farm-related employment figures decreased from 5.8% to 3.2% and 5.3% to 2.8%, respectively. And, total farm earnings decreased from 2.0% to 0.3% (USDA 2006).

Affected Environment
Grazing Allotment History and Description
Grazing by domestic animals began when the first mounted explorer reached the Lower West Branch Priest River and intensified when horses used for transportation, logging and farming began to occupy the area. Cattle and other ungulates used for milk and meat also grazed the natural meadows and wherever areas were opened up sufficiently to support palatable forage.

Following settlement in the late 1800’s, disturbance from mining, timber harvest, road-building, grazing and other land management activities were added to the disturbances from natural events. Roads were constructed up the major stream corridors and eventually into the interior of the basin. Log drives were common on the larger streams such as Priest River and Lower West Branch and continued through the mid-1950s.

Timber harvest activities are common in all of the allotment areas, both on federal and private lands. The most recent USFS projects include the 57 Bear Paw Fuel Reduction Project (2004) in
the Four Corners and Moores Creek area; the Lakeface-Lamb Fuels Reduction Project (2001) and Kedish Ridge Hazardous Fuels Reduction Project (2004), both in the vicinity of Lamb Creek.

A considerable portion of the land producing livestock forage on these allotments is considered to be transitory range, land where the potential natural vegetation is forest, but because of timber harvest, wildfire, or other disturbance, the tree overstory has been substantially reduced or removed and is temporarily producing greater amounts of grasses, forbs, and shrubs than undisturbed conditions. Unsuppressed wildfires, common in the area during the early 1900s, created a proliferation of grass which was valued by the early ranchers.

Vegetation within the allotments has significantly changed over time. In the early 1940s many of the allotments were dominated by large openings created by clearcutting. These openings contained sufficient forage to support a large number of livestock. Over time, timber management practices have changed with clearcutting being replaced by partial cutting and thinning. This change in timber management practices has had a dramatic affect on the available forage. Within the allotments, trees now dominate where grasses and forbs once flourished. With more trees dominating the landscape, the available forage for livestock has decreased and changed the use patterns within these allotments.

Fire suppression has also played a part in available forage within the allotments. Areas that burned at regular intervals created openings dominated by grasses and forbs that were used by livestock. After years of fire suppression these openings have become encroached by trees and no longer provide the grazing opportunity they once did. In summary, fire suppression and the change in timber harvest practices, as described above, have resulted in increased forest density and a reduction in transitory grazing acres.

Four Corners Allotment

This allotment lies west of Highway 57 and 14 air miles south of the community of Priest Lake in Bonner County, Idaho (see Map Packet). The allotment, consisting of three separate units, contains approximately 2,192 acres of which 2,006 acres is NFS lands and 186 acres is private in- holdings. Based on available records, the allotment boundary was in place prior to 1949, and the allotment management plan (AMP) completed in 1981. Reaches of Big H Creek, Moores Creek, Ole Creek, Slough Creek, Tunnel Creek, West Branch Priest River and several unnamed tributaries lie within the boundaries. The East unit’s terrain is flat with sections of heavy timber and open meadows interspersed with residential and agricultural parcels. The Southwest unit is moderate to steep, timbered hillsides with narrow creek bottoms. The Northwest unit is flat to gentle slope covered with heavy timber. One permittee holds a 10-year on/off term grazing permit for 83 cow/calf pairs-on (86 pairs-total) from June 1 to September 1 (257 head month [HM]). The current permit was issued on July 24, 2001 and expires on December 31, 2010.

Historically, the Four Corners allotment area was predominately agricultural, resulting in large portions of the adjacent private property being dominated by pasture-type forage preferred by livestock. During the period 1961 through 1979 the annual authorized use averaged 550 head months by as many as 13 permittees in a single grazing season. The use record is incomplete from 1980 to 1985. But it is apparent that there was a reduction in both permittees and use during that period. In 1987 a single permit was issued permitting 294 head months. From 1986 to 1990 the annual authorized use averaged 294 head months. In 1991 and 2001 the permit was reissued permitting 257 head months. Since 1991 the annual authorized use has averaged 252 head months (see Table 1).
This allotment has a long history of conflicts with other uses. Issues with intermingled ownership, decreases in forage and access to open range, were cited in both the 1959 and 1981 environment analysis. After the 1981 Environmental Assessment there was a reduction in the number of permits issued over the following five years. While the record is not explicit one gets the impression that the root of the earlier conflicts was multiple permittees and others competing for available resources. Whereas, the genesis of the current controversy revolves around open range grazing in an area that has become predominantly residential.

Over the past few years livestock have had access to highway 57 due to a timber sale removing the fence. This highway access problem is in the process of being resolved by replacing the removed fence line.

The more recent timber harvests within the allotment have generally retained a fairly dense timber canopy which will eventually shade out grasses. It is likely available livestock forage would continue to diminish under the current timber management regime. The thick timber stands in this allotment serve as a barrier, limiting livestock movement.

Forage on this allotment has been continually declining. Over time, the change in timber management practices and fire suppression, as described on page 5, has resulted in less open meadows and more timbered stands. This change in available forage has changed livestock use patterns. Due to the decline in forage opportunities on the allotment, lack of riders, and exterior fencing, the livestock are not using the allotment. Each year cattle drift off the allotment and onto other National Forest and private lands to meet forage needs."

Lamb Creek Allotment

This allotment lies west of Highway 57 adjacent to the community of Priest Lake in Bonner County, Idaho (see Map Packet). The allotment contains approximately 6,720 acres of which 6,181 acres is NFS lands and 539 acres is private in-holdings. Based on available records, the allotment boundary was in place prior to 1963, and the AMP completed in 1965. Reaches of Lamb Creek, North Fork Loop Creek, Skip Creek and several unnamed tributaries lie within the boundary. The terrain is moderate to steep with flat open meadows along the streams, primarily Lamb Creek, interspersed with agricultural parcels. One permittee holds a 10-year on/off term grazing permit for 25 cow/calf pairs-on (100 pairs-total) from June 1 to October 31 (128 HM). The current permit was issued on May 14, 2001 and expires on December 31, 2010.

The allotment is intermingled with private land, consisting of several hundred acres of high-quality pasture which is available for grazing. Primary livestock use is centered on the meadows and riparian areas in the vicinity of the private pastures with some use occurring in adjacent timber harvest units. In 2006 one mile of fence with a cattleguard was constructed along the National Forest/permittee property boundary (section line between 20 &21), eliminating livestock access to the northwest portion of the allotment and the upper reaches of Lamb Creek.

There are two areas within the allotment receiving heavy late-season use along the lower reach of Lamb Creek. One is located in Section 22, is approximately 12 acres along a 1,200 foot section of the creek. The other is located in Section 26 and consists of approximately 10 acres along a 3,500 foot section of the creek.

The annual authorized use averaged 357 head months from 1986 through 1994. At that time, the on/off permit allowed 100 cow/calf pairs to graze from June 1 through October 31 with 70% on National Forest System lands and 30% on private land.
Forage on this allotment has been continually declining. Over time, the change in timber management practices and fire suppression, as described on page 5, has resulted in less open meadows and more timbered stands. The western portion of this allotment is now dominated by trees with little available forage. This departure in available forage has changed livestock distribution patterns. In 1995 a new permit was issued changing the on/off ratio to 25% on National Forest System lands and 75% on private land. This modification was made to reflect the decrease in available forage on National Forest System lands. Since 1995 the annual authorized use averaged 128 head months (see Table 1).

Moores Creek Allotment
This allotment lies east and west of Highway 57 and 11 air miles south of the community of Priest Lake in Bonner County, Idaho (see Map Packet). The allotment contains approximately 3,164 acres of which 2,984 acres is NFS lands and 180 acres is private in-holdings. The allotment boundary was in place prior to 1949, and the AMP completed in 1959. Reaches of East Fork Creek, Moores Creek, West Fork Moores Creek and several unnamed tributaries lie within the boundary. The terrain is moderate to steep with flat open meadows interspersed with residential and agricultural parcels. One permittee holds a 10-year on/off term grazing permit for 31 cow/calf pairs-on (32 pairs-total) from May 15 to September 15 (128 HM). The current permit was issued on June 05, 2001 and expires on December 31, 2010.

The on/off permit issued for this allotment authorizes 32 cow/calf pairs to graze the combined lands with ninety nine percent use (128 HM) considered to occur on the allotment (see Table 1). The current permit expires in 2010. In recent years the area east of Highway 57 has not been grazed due to a lack of forage and difficulties with livestock management. The northwest portion of the allotment presents management challenges but does have some forage value and is used during seasons when forage is limited. Primary livestock use in this allotment is centered on the meadows, riparian areas and adjacent timber harvest units in the vicinity of the private pastures.

Table 1. Existing Condition Allotment information

<table>
<thead>
<tr>
<th>Allotment</th>
<th>Permit Status</th>
<th>NFS Acres</th>
<th>Number &amp; Class</th>
<th>Season</th>
<th>HeadMonth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four Corners</td>
<td>10-year term</td>
<td>2,006</td>
<td>83 cow/calf</td>
<td>06/01–09/01</td>
<td>257</td>
</tr>
<tr>
<td>Lamb Creek</td>
<td>10-year term</td>
<td>6,181</td>
<td>25 cow/calf</td>
<td>06/01–10/31</td>
<td>128</td>
</tr>
<tr>
<td>Moores Creek</td>
<td>10-year term</td>
<td>2,984</td>
<td>31 cow/calf</td>
<td>05/15–09/15</td>
<td>128</td>
</tr>
</tbody>
</table>

Environmental Effects

Methodology
A suitability analysis, based on the Region 1 Rangeland Capability and Suitability Determination Guidelines, was undertaken to determine the amount of available forage present on each allotment and predict allowable grazing use levels that would be sufficient to meet resource management objectives on a sustained basis. The guidelines and suitability maps are contained in the project file.

The Region 1 model reflects acres with a potential to produce livestock forage species based on specific criteria. It does not indicate the actual forage present. It is important to note that a portion of the modeled suitable acres are actually dominated by vegetation that has little or no forage value, i.e. shrubs and less-palatable plants. In order to account for this discrepancy, a percentage estimate of current forage-producing acres was developed using on-site observations,
aerial photographs and GIS data. This percentage was then used to develop estimated suitability acres which more accurately reflect what is actually on the ground.

Estimated allowable use levels were calculated using data from two previous forage-production studies conducted on the Idaho Panhandle NF. Surveys conducted in the southern portion of the Forest with a more temperate climate found that results at a 50% utilization level varied from 1.3 head months per acre for open meadow types to 0.9 head months per acre for open canopy timber types (USDA 2004.) While a study conducted in a northern area with a climate similar to the allotments found results that ranged from 1.0 head months per acre for open meadow types to 0.5 head months for open canopy timber types (USDA 2000).

The average head month per acre was 1.1 and 0.8, respectively. Considering climate differences and the disproportional ratio of timber to meadow acres within the allotments, 0.8 head months per acre was determined to be more representative of the three allotments being analyzed. Therefore, this figure was used as a multiplier in the suitability analysis to determine allowable use.

The table included in this report on page 9 contains the estimated suitability and stocking rates for this project. A table displaying both the modeled and estimated acreage can be found in the project file.

Direct and Indirect Effects

**Effects Common to Alternatives 1 and 2**

*Four Corners*

Under Alternatives 1 and 2 the suitability analysis (see Table 2) shows a disproportionate amount of suitable acres located within the riparian area. This indicates that most of the suitable grazing within this allotment is centered around moist to wet riparian areas. If livestock was restricted to the uplands, it is doubtful that there would be sufficient forage on National Forest land to sustain the current permitted numbers for an entire grazing season. Concentrating livestock grazing within riparian areas would continue to have negative effects to soils; water, wildlife and fisheries resources (see Hydrology, Soils, Wildlife and Fisheries Reports).

Replacing the cattleguard on Johnson road 474 and the fence along Highway 57 should eliminate livestock straying onto the highway, a serious public safety concern. But livestock would continue to have access to adjacent NFS and non-NFS lands, unless the entire allotment is fenced.

*Lamb Creek*

The on/off permit issued for this allotment authorizes 100 cow/calf pairs to graze the combined lands, with twenty five percent of use (128 HM; 25 cow/calf pairs) permitted on the allotment. Table 2 indicates that the current stocking rate is well below the estimated allowable use for this allotment. Even though the stocking rate appears low the potential use is much higher at 507 head month (HM). An increase in livestock stocking is not recommended since it could result in a higher use in already heavily utilized riparian areas of Lamb Creek, especially during drier seasons.

The cattleguard/drift fence on Forest road 639 proposed under both alternatives would restrict access to the southwest portion of the allotment.
Moores Creek

Under Alternatives 1 and 2 the stocking rate for this allotment is very low compared to the estimated suitability analysis allowable use (see Table 2).

Alternative 1 – No Action

Direct and Indirect Effects

Under this alternative no change would occur in allotment boundaries, stubble height, or grazing season. The permitted use for the following allotments would be as follows: Four Corners would remain at 257 (HM) which is equivalent to 83 cow/calf pairs from June 1 through September; Lamb Creek would remain at 128 (HM) which is equivalent to 25 cow/calf pairs from June 1 through October 31; and Moores Creek would remain at 128 (HM) which is equivalent to 31 cow/calf pairs from May 15 through September 15 (see Table 2).

Alternative 2– Proposed Action

Direct and Indirect Effects

Under this alternative, the allotment boundaries for all three allotments would be reduced by a total of 4,051 acres on National Forest System lands resulting in a 35 to 36 percent decrease in total allotment acreage. This decrease in acreage would result in fewer acres of livestock grazing on National Forest land.

The permitted use for Lamb and Moores would remain at 128. This alternative would permit a much lower number of cattle than the allowable use (see Table 2) thereby allowing for greater distribution of cattle over the allotment. Better livestock circulation would increase use of under-utilized secondary range and reduce over-utilization on primary range and grazing pressure within these allotments.

Increasing the greenline stubble height under this alternative could have an effect on livestock distribution. Maintaining a higher stubble height in the riparian areas could modify livestock grazing in these areas thereby lessening impacts to other resources. Maintaining a higher stubble height in the riparian area could really become a factor when more palatable vegetation is limited, i.e. drought.

Four Corners

The two western units would be eliminated from this allotment, reducing the allotment size by 722 acres. The season and permit status would remain the same. The herd size would be reduced to 154. The reduced herd size proposed could reduce grazing effects in those areas where livestock tend to congregate. However, the majority of suitable acres remain in riparian areas which are where the most damage to soil, water, and fisheries resources could occur (see Soil, Hydrology, and Fisheries Reports).

The Four Corners allotment, as compared to the two other allotments, has almost the same number of acres of suitable in riparian as in not in riparian. This disparity indicates that cows would continue to congregate in the wet/moist areas of the allotment and continue to trample and erode stream banks and compact soils in the wetter areas (see Hydrology and Soils Reports).
Due to the inability to practically fence the allotment boundary and the reduced forage available for cattle on the allotment; the cattle will continue to drift off the allotment and onto National Forest and private lands not authorized for livestock.

**Lamb Creek**

The boundary realignment under this alternative removes riparian reaches of the North Fork Lamb Creek located on NFS lands.

**Table 2. Estimated Suitability and Stocking Rate Analysis by alternative**

<table>
<thead>
<tr>
<th>Allotment</th>
<th>Total acres</th>
<th>NFS acres</th>
<th>Upland Suitable Acres</th>
<th>Riparian Suitable Acres</th>
<th>Total Suitable Acres</th>
<th>Allowable Use</th>
<th>Permitted Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alternative 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Corners</td>
<td>2,192</td>
<td>2,006</td>
<td>98</td>
<td>147</td>
<td>245</td>
<td>196</td>
<td>257</td>
</tr>
<tr>
<td>Lamb Creek</td>
<td>6,720</td>
<td>6,181</td>
<td>997</td>
<td>258</td>
<td>1,255</td>
<td>1,004</td>
<td>128</td>
</tr>
<tr>
<td>Moores</td>
<td>3,164</td>
<td>2,984</td>
<td>328</td>
<td>201</td>
<td>530</td>
<td>424</td>
<td>128</td>
</tr>
<tr>
<td><strong>Alternative 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Four Corners</td>
<td>1,284</td>
<td>1,284</td>
<td>101</td>
<td>92</td>
<td>193</td>
<td>154</td>
<td>154</td>
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<tr>
<td>Lamb Creek</td>
<td>3,911</td>
<td>3,911</td>
<td>887</td>
<td>132</td>
<td>1,019</td>
<td>815</td>
<td>128</td>
</tr>
<tr>
<td>Moores</td>
<td>1,925</td>
<td>1,925</td>
<td>264</td>
<td>112</td>
<td>375</td>
<td>300</td>
<td>128</td>
</tr>
</tbody>
</table>

**Alternative 3– No Grazing**

**Direct and Indirect Effects**

This alternative eliminates all domestic livestock grazing in all allotments over a four year period and would eventually remove all livestock management improvements.

Under this alternative, the impacts of grazing would be expected to decrease over the long-term to levels associated with no grazing. Observations on vacant allotments in the area suggest that vegetation improvements are evident within five years.

The elimination of cattle grazing in the meadow communities would facilitate vegetation succession. Shrubs and trees located in perimeter areas would eventually spread into the meadows. The meadows would eventually transition into shrub, and then forest communities providing interferences such as fire do not intervene.

The non-native pasture grasses that now dominate many of the meadows would not be replaced by native grasses and forbs. The well established pasture grass communities that now dominate the meadows would prevent such a transition. The existing grasses would initially thrive in the absence of cattle grazing. However, they would eventually yield to the shrubs and trees as their numbers and sizes increase and resultant shading overcomes the grasses.

**Four Corners**

Elimination of cattle grazing would contribute incrementally to the long-term natural recovery processes in meadow and riparian areas that are currently impacted.

The removal of livestock from the allotment would resolve the open range issues brought up by the public.
**Cumulative Effects**

The loss of grazing opportunity on the three allotments would likely result in a reduction in the number of cows that each permittee would be able carry on their land.

**Cumulative Effects Common to all Alternatives**

Timber harvest, road building, and fire suppression have all changed the livestock grazing landscape and had a cumulative impact to the amount and type of forage available to livestock.

Timber harvest in the early 1940s, as discussed in a previous section, is very different from current timber management practices. The overall effect is that less forage is being created in these transitory range allotments than in the past and more tree encroachment is evident, which has changed livestock distribution and use patterns over time.

Fire suppression has had a similar effect as the change in timber harvest practices. Less forage is available and more tree growth is evident in all allotments. This trend is expected to continue with the absence of fire.

Road building has changed livestock movement and provided palatable forge opportunities along roadways.

**Compliance with the Forest Plan and Other Regulatory Direction**

All alternatives would comply with Forest Plan standards and guidelines for livestock management.

**Mitigation**

Mitigation measures incorporated into the project design limiting access to previously accessible riparian areas and preventing straying from allotments have been effective ways to limit cattle movement in the past and would be expected to be effective in this project.

**Livestock Management**

Four Corners

- A cattleguard/drift fence would be installed on Johnson Road (Co. Rd. W17) south of the junction with Hwy 57. The original cattleguard was removed by the County and never replaced.

  **Effectiveness:** Literature, and past monitoring on allotments has shown that cattleguards are effective mechanisms to keep cattle out of an area (Wyman 2006).

Lamb Creek

- A cattleguard/drift fence would be installed in Section 28 or 29 on FS 639 in order to restrict access to the southwest portion of the allotment.

  **Effectiveness:** Literature, and past monitoring on allotments has shown that cattleguards are effective mechanisms to keep cattle out of an area (Wyman 2006).
References


USDA Forest Service. 1987. Idaho Panhandle National Forests Forest Plan, Northern Region. Coeur d’Alene, ID.

