

Chapter 2

Issues and Alternatives Considered

I. Introduction

Chapter 2 describes and compares the alternatives that wholly or partially meet the purpose and need of this project as identified on p.1-3. The proposed action, and a no action alternative are described and considered in detail on pp. 2-6 through 2-8. Seven other action alternatives were considered but were not brought forward for detailed analysis. These are described on pp. 2-10 through 2-13. The purpose and need for action and the comparison between the existing condition and the desired future condition for the allotment area provide the framework for alternative development along with the key issues identified during scoping.

These alternatives each reflect a different response to the issues identified through both the scoping and analysis processes and each produce different environmental effects. The Chapter 3 disclosure of effects on the “key” issues for the two alternatives analyzed in detail provides information to the decision maker for making a reasoned choice between alternatives. Chapter 2 also discusses the scoping and public involvement process, other issues, alternative development, design criteria and mitigation, monitoring requirements, and alternatives considered but not studied in detail.

II. The Public Involvement and Scoping Process

The first step in environmental analysis is to determine what needs to be analyzed. To do this, the National Environmental Policy Act (NEPA) outlines a process termed "scoping" (refer to 40 CFR 1501.7). The Council on Environmental Quality (CEQ) defines scoping as “an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a Proposed Action” (40 CFR 1501.7).

First, comments are obtained from interested and affected parties, both within and outside the agency, to develop potential issues that must be considered. Second, these "potential issues" are reviewed by the interdisciplinary team to determine: (a) the key issues to be analyzed in depth and (b) issues that are not significant or that have been covered by prior environmental review and, therefore, should be eliminated from detailed study. Documentation of the review of comments and potential issues can be found in the Project File (Chapters 3 & 4).

Before a decision can be made, the 36 CFR 215 appeal regulations require a 30-day notice and comment period for Environmental Assessments.

Public Notices and Outreach

The analysis and public comment period for this proposal was first announced in the April–June 1995 edition of the Gallatin Forest's Quarterly Proposed Project Listing. On April 20, 1995 a letter describing all current livestock grazing proposals on the Gallatin Forest and soliciting comments and concerns was sent to over 100 agencies, groups, and individuals, including those showing an interest in the Quarterly Listings. During this scoping period, seven letters were received with general forest-wide comments concerning the effects of livestock grazing.

On January 13, 1998 the Gallatin Forest mailed out information on 17 allotments, including the Crazy Allotment, to over 40 interested and/or affected organizations and individuals. Six comment letters were received in response to this mailing, none of which spoke specifically to this allotment. General comments received were either in support of or against livestock grazing on public lands, or concerned with potential effects to water quality, riparian areas, wildlife, and threatened and endangered species, wherever livestock are grazed. Comments addressing the potential economic ramifications of grazing or not grazing on public lands were also received.

The Scoping Process

The scoping process is used to invite public participation, to help identify issues that are specific to the decision to be made, and to obtain public comment at various stages of the environmental analysis process. Although scoping is to begin early, it actually serves as an iterative process that continues until the Big Timber District Ranger makes a final decision.

The Crazy Allotment analysis was again announced throughout 2002 in the Gallatin Forest Quarterly Proposed Project Listing. On December 9, 2002, a scoping letter describing the proposal and soliciting comments and concerns was sent to 18 interested and/or affected organizations, groups, and individuals. The scoping notice was also published in the Bozeman Chronicle and the Big Timber Pioneer (December 7, 2002). The formal written comment period closed on January 6, 2003.

Two comment letters were received. The letters contained comments concerning the effects of livestock on various resources within the allotment. A complete list of comments received and Forest Service responses can be found in the Project File (Chapter 4).

Some concerns raised in these letters were general in nature and described broad or programmatic concerns about grazing on public lands. These concerns included the potential for adverse environmental effects on water and riparian areas, effects on wildlife, and effects on threatened and endangered species. Comments related to the economic ramifications of grazing or not grazing on public lands were expressed. Comments also included general support for continued grazing and the value of ranching to the local economy and to maintaining open space. No specific comments

regarding on-the-ground management or ideas for improved management of resources in the Crazy Allotment were received. All comments received were considered in the development of this analysis.

Range analysis and field reviews were conducted during the summers of 1995, 1996, 1998, 1999, 2002, and 2004 to verify specific conditions, some of which were pertinent to the general concerns expressed during scoping. These findings were also utilized in the identification of issues and the development of alternatives.

III. Identification of Issues

To develop issues for the proposed project, the Interdisciplinary (ID) Team analyzed comments from the public and Forest Service resource specialists. The ID team reviewed the comments and identified issues (see the Project File, Chapter 5-9) available at the Big Timber Ranger District).

The issues were divided into three categories; key issues, other issues, and issues not analyzed in detail. Key issues are used to formulate alternatives to the proposed action. Other issues do not lead to a new alternative, but are analyzed in terms of environmental consequences. Issues not analyzed in detail are issues that are not analyzed because they are addressed through the project design, outside the scope of analysis, or mitigated as standard operating procedures and do not require tracking throughout the document.

IV. Key Issues

Key issues are those that require project-specific alternatives, mitigation measures, or design elements to address the effects that proposed activities might have on them.

The Crazy Allotment interdisciplinary (ID) team identified 3 “key” issues. Please refer to Chapter 3, Affected Environment for a complete analysis regarding these issues.

1. Livestock grazing and trampling is contributing to impacts on streambank stability

Data indicate livestock trampling and grazing is contributing to unacceptable impacts on some reaches of Devil Creek and the Middle Fork of Big Timber Creek. Data shows that some reaches of Devil Creek exceed Forest Plan standards for bank stability. In addition, grazing has caused reaches of Devil Creek and a short segment of the Middle Fork to deteriorate to “non-functioning” condition (see p. 3-8, Riparian and Fish Habitat).

2. Livestock Grazing and Trampling is Contributing to the Alteration of Vegetative Composition Around Streams, Seeps, Springs, and in Meadow and Upland Areas.

A combination of long term grazing and high forage utilization has altered vegetative composition in much of the suitable range within the allotment. A lack of suitable weed control and prevention measures has allowed timber harvest (on timbered ranges of private land), and associated road construction to increase the area occupied by weeds. Conifer species are encroaching on nearly all habitat types due to a century of fire suppression. In some upland areas, native plant species have been replaced by timothy and other non-native species. Some of this conversion would have occurred regardless of range management due to the introduction of aggressive Eurasian species. However, overgrazing and trampling have contributed to reduced competition from native plants, enabling competitive species to become established and thrive. Heavy livestock grazing near some reaches of streams and around springs has reduced vegetative cover and caused some of these areas to become void of vegetation.

3. The Occurrence of Weed Species within the Allotment is Increasing.

Intensive livestock grazing has been a factor in reducing plant competition. Invasive weed species have been introduced or increased in number and extent. Reducing numbers of grazing livestock and improving distribution would increase competition from native species. Increased competition is expected to help reduce the spread of invasive weeds on the suitable range portions of the allotment. Improving the competitive ability of native upland and riparian vegetation could also help prohibit new weed species that are nearby from becoming established on the allotment.

V. Other Analysis Issues

Following is a list of relevant issues that were reviewed by the ID Team but found not to be key factors in the decision whether to permit livestock grazing on the Crazy Allotment. The NEPA provides for identification and elimination from detailed study, those issues that are not significant or which have been covered by prior environmental review, narrowing the discussion of these issues to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere (40CFR 1501.7(3)). While these issues are important, they were either unaffected or mildly affected by the proposed action, or the effects could be adequately mitigated. A brief assessment of each of these issues is provided in Appendix A.

- A. Soils**
- B. Water Quality**
- C. Fisheries**
- D. Range Suitability**
- E. Aspen Regeneration and Vigor**
- F. Wildlife**
- G. Recreation**
- H. Heritage Resources**
- I. Social**
- J. Wildfire**

VI. Range of Alternatives

Once the scoping process was complete, the interdisciplinary team (ID team) searched for alternatives to the proposed action with specific features designed to address the issues identified. For the Crazy Allotment the no action alternative (Alternative 1) and grazing under the terms and conditions of the proposed action (Alternative 2) incorporating adaptive management have been determined to be the only alternatives needing detailed consideration. Seven other alternatives, including the current management of the allotment, that were considered but were not analyzed in detail.

The alternatives for this project were designed to express a range of possible actions. The ID team developed the range of alternatives and mitigation and monitoring measures presented in this chapter based on the purpose and need (Chapter 1) and the major issues (Chapter 2).

Other than the No Action Alternative, an adequate range of alternatives is one that fully meets the purpose and need and addresses the key issues. An alternative to the proposed action must:

- (1) Address one or more of the key issues
- (2) Meet the purpose and need.

An action alternative that does not meet both criteria may be eliminated from detailed study.

Other influences on the development of alternatives include: Forest Plan direction, consultation requirements under the Endangered Species Act, Forest Service Manual and Handbook Direction including Adaptive Management direction, and other federal and state laws and regulations. Using these guidelines, the ID Team developed alternatives that address a range of treatments, management requirements, mitigation and monitoring measures, and effects on resources.

VII. Alternatives Considered in Detail

This section describes the features of the proposed action alternative and the no-action alternative, both considered in detail to meet the needs outlined in Chapter 1. Based on internal and external scoping, the proposed action was developed to address key issues specific to the Crazy Allotment.

Alternative 1 is the no action/no-grazing alternative. Alternative 2 is the proposed action. Alternative 2 incorporates the Adaptive Management Strategy into current management.

Alternative 1 – (No Action)

The National Environmental Policy Act (NEPA) requires consideration of the no action alternative in any NEPA environmental document (40 CFR 1502.14d). This alternative provides a baseline of comparison to aid in determining the significance of issues and effects of the proposed action.

Alternative 1 is the no action alternative. Grazing of domestic livestock on the Crazy Allotment would no longer be permitted on National Forest land. If this environmental analysis results in a decision not to issue a grazing permit on the Crazy Allotment, the existing permit would terminate upon implementation of that decision.

The no action alternative would at least partially resolve the key issues related to livestock effects on streams, aspen regeneration, spring integrity, vegetative composition, and weed expansion. Grazing would be terminated and the natural recovery process would begin to occur on National Forest lands within the current boundaries of the Crazy Allotment. The permittee could continue grazing on adjacent private lands.

Alternative 2 – (Proposed Action)

Under this alternative, permitted livestock grazing would continue under management systems designed to meet Forest Plan livestock utilization and streambank stability standards and guidelines (FP III-20 & III-21). This alternative is based on the principle of applying Adaptive Management Strategies (FSH 2209.13). With adaptive management, a course of action is chosen as a starting point that is believed to best meet or move towards desired resource conditions (Chapter 1, p 1-6). Monitoring will occur over time, with the results being used by the range manager and the Line Officer to identify a need to adjustment management (refer to monitoring, p. 2-9). Monitoring and management adjustments will help ensure adequate progress toward obtaining the desired resource conditions. All adaptive management actions will have no greater effects than those disclosed in this document and accepted within the Decision Notice.

Alternative 2 (the proposed action) would permit livestock grazing to continue in the Crazy Allotment, subject to the following limitations and requirements:

Phase One

A. Authorize grazing levels in the Term Grazing Permit at the estimated carrying capacity. This is a starting point for stocking of the allotment. Proposed permitted numbers and season of use are 312 cow/calf pairs for an annual grazing season of July 1 – September 15.

Cattle would enter the allotment on July 1. This time period coincides with plant growth and seed production for forage species on the allotment. Soils are generally dry and are able to withstand grazing and trampling without damage or compaction. If monitoring indicates that the thresholds for Items B or C have been reached, cattle would come off the allotment before the permitted end of the grazing season. The permittee could continue for up to five years to take cattle off the allotment before the end of the grazing season or could move to Phase Two with mutual agreement of the Forest Service.

B. Implement a riparian utilization standard of an average of three inch stubble height remaining following grazing, which corresponds to 40% utilization as required by the Forest Plan (p. III-20). Bring Devil Creek and affected reaches of the Middle Fork of Big Timber Creek to within Gallatin Forest Plan standards for streambank stability (Forest Plan p. III-21). Monitoring will be used to verify the percent utilization.

C. Implement an upland utilization standard of 55% as required by the R1 Range Analysis Handbook (FSH 2209.21)

D. Encourage the permittee to move cattle off streambanks by increased riding, placing salt well away from riparian areas, and conducting permittee monitoring of utilization levels.

*Note: Cattle must be removed for the season when permitted levels have been met.

Phase Two

A. The permittee would be required to construct approximately 1 mile of fence along the north private land boundary of Section 13. The Forest Service in turn would construct approximately ½ mile of fence on National Forest land south of the northeast boundary of Section 14. See Map 4 for the location of the fence. This fencing would help control livestock timing and distribution in the Devil Creek drainage. Installing the fence would be a requirement for continued grazing in the public land portion of the allotment.

B. As a part of Phase Two, additional riparian protection may be needed to reduce livestock impacts on Devil Creek. The placement of large woody debris, riparian

hardwood planting, and corridor fencing would be completed along the impacted reaches of Devil Creek to restrict livestock movement and promote vegetative re-establishment.

C. Encourage and assist the permittee to control invasive weeds by utilizing integrated weed treatment strategies as allowed, in accordance with the 2005 Invasive Weed FEIS. This approach differs from the emphasis Phase One places on improving conditions of native and non-native forage species to better compete with weedy species.

D. Monitoring will occur to ensure that riparian standards and upland standards are being met as described above in Phase One. Refer to the monitoring section on p. 2-9 for further details regarding proposed monitoring.

If monitoring results show that mitigation enacted with Phase Two are still not successful in achieving streambank stability and obtaining livestock utilization standards (as described above) for riparian and upland vegetation within a three-year time period, then management will intensify by adding the fencing requirements of Phase Three. This additional fencing would effectively create a three-pasture rotation system, allowing for greater control of deferment (cattle movement and timing of grazing) within the allotment.

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Phase Three

A. Install an additional three miles of fence along the west and south boundaries of Section 13 and the East boundary of Section 24. This fence would follow the private and Forest Service boundary. The permittee (adjacent private landowner) would be responsible for construction to keep the cows from trespassing either on the National Forest or on private land. The Middle Fork pasture would consist entirely of private land and could be removed from the allotment if the permittee so desired. See Map 4 for the location of proposed fencing.

Installation of the fence would be a condition for continued grazing on the public land portion of the allotment.

VIII. Comparison of Alternatives

Table 2-1 provides a comparison of Alternative 1 (no action) and Alternative 2 (proposed action) by key issue/indicator.

Table 2-1 Comparison of Alternatives by Issue

| Issue/Indicator | Alternative 1 (No Action/No Grazing) | Alternative 2 (Adaptive Management Proposed Action) |
|---|---|--|
| Streambanks, wetlands, springs and tributaries are functioning within Forest Plan standards for stability | No grazing-or trampling damage. Standards are expected to be met within 2 to 5 years following cessation of grazing on public land. | Grazing within Forest Plan standards for riparian protection. Intermediate rate of improvement; standards are expected to be met within 3 – 10 years. |
| Riparian and upland utilization | Forage use standards met with the fastest rate of improvement | Implement upland standard of 55% utilization and riparian standard of 40% utilization (three inch stubble height). Intermediate rate of improvement. Riparian stds must be met annually. |
| Native and non-native forage vegetation trends, occurrence of Invasive Weeds | Expect reduced rate of weed spread. | Upland standard of 55% forage use. Riparian standard of 40% forage use. Competition should reduce spread of weeds over time. |

IX. Monitoring

Monitoring is a key component to the success of adaptive management. Monitoring procedures would be conducted and documented by the range manager, fisheries biologist, and/or their staff. Documentation of monitoring would be used to determine whether riparian and upland utilization and streambank stability objectives are being met. Sampling frequency of proposed monitoring would vary.

If monitoring results over a three-year time period indicate that continual improvement toward meeting livestock utilization and streambank stability standards is not occurring with the application of Phase One or if the permittee feels that livestock are being removed too quickly, then implementation of Phase Two would be necessary. If, after three years, monitoring results associated with implementation of Phase Two do not show that conditions within the allotment are meeting Forest Plan standards for livestock utilization and streambank stability then application of Phase Three would be necessary. With Phase 3,

installation of the proposed fence would be a condition for continued grazing on the national forest portion of the allotment.

Described below are the various monitoring procedures and approximate sampling frequencies associated with this proposal.

Forest Service Range Permit Compliance Monitoring

Count livestock coming on to the allotment randomly, as needed. Spot counts and checks are conducted during routine allotment inspections to verify stocking levels.

Check brands and class of animal randomly to determine that livestock are actually permitted.

Monitor allotment conditions for range readiness (plant development and soil condition). Drought conditions might necessitate grazing adjustments on an annual basis or as warranted by weather conditions.

Weeds, noxious weeds, and any new infestations will be noted during allotment inspections

Check salt locations annually to be sure they are a proper distance from water or other sensitive areas including aspen stands. Verify that wildlife is not causing damage around salt grounds.

Monitoring of Uplands

The utilization standards for upland suitable range defined in the R1 Range Analysis Handbook (FSH 2209.21) are a maximum of 55% on deferred-rotation ranges in good condition. Since riparian utilization standards are typically reached first, monitoring will focus mainly on riparian utilization.

Key upland areas are in Section 12 above Devil Creek and in Section 14 above the Middle Fork. At least one measurement will be taken in an upland native vegetation habitat type in each of these sections annually. Typically measurements will be taken along a 50 pace transect, measuring hits on grazed or ungrazed vegetation. Results will be correlated to standard R1 utilization curves for the vegetation type.

Monitoring of Riparian Utilization

Riparian utilization will be a key factor in determining the length of season of cattle grazing. The standard will be an average of three inches of stubble height to be measured immediately adjacent to the upper streambank. The technique typically will be a 100 pace transect using a measuring tool such as a ruler.

Stubble height will be measured annually in one location along Devil Creek (FS Section 12) in the vicinity of the riparian enclosure. Stubble height measurements will also be conducted along the Middle Fork (FS Section 14) and in one location along the Middle Fork on Private land in (Section 18). Other locations will be measured as needed.

The Forest Plan Standard for Riparian range in Fair Condition is 40%, which equates in these habitat types to a stubble height of three to four inches remaining following grazing. Stubble height will be used as an annual indicator of livestock grazing in riparian areas, (Univ. of Idaho, July 2004). Monitoring of riparian and upland grazing will be the responsibility of both the Forest Service and the permittee.

Monitoring of Streambank Stability

Streambank stability monitoring along Devil Creek and the small 1st order tributary to the South Fork Big Timber Creek will occur throughout the grazing season. Cattle will be removed before bank stability goals are exceeded. Bank stability for the lower reaches of the Middle Fork Big Timber Creek will be monitored less frequently because existing bank instability problems are not associated with cattle use. Forage utilization will be the primary monitoring parameter for the Middle Fork. The Forest Plan streambank stability standard consists of: "Manage riparian vegetation, including overstory tree cover, to maintain streambank stability and promote filtering of overland flows" (FP III-21). Protocol effectiveness will be determined by how quickly the desired future conditions for the stream reaches are met. The following monitoring methodologies will be utilized to determine if the aforementioned standard is being met:

- *Pfankuch channel stability evaluation* (Rosgen 1996, pg 6-30). In general, a 20-point increase in the stream channel stability score over an estimated score under pristine conditions demonstrates exceedence of the Forest Plan Standard (FP III-21). The assessment accounts for inherent stability differences by channel types.
- *Bank Alteration*: The proposed standardized protocol for measuring bank alteration on grazing allotments for region one national forests will be used to monitor bank stability and alteration (Final report, April 2005, see Project File, Chapter 11-3).

The following measurements may also be used to determine long-term trends:

- *Channel cross-sections*: Long-term channel stability trends are best determined by monitoring permanent channel cross-sections to determine channel morphology changes through time. Wolman pebble count information may also be useful to monitor substrate changes through time.
- *Macroinvertebrate analysis*: Macroinvertebrates will be monitored as needed to determine if the community assemblage shifts from one of primarily sediment tolerant species to one more consistent with Montana reference sites.
- *Proper Functioning Condition (PFC) assessments*: PFC assessments may be performed to monitor recovery trends and DFC attainment.
- *Photo Points*: Photo points may be established streamside to document obvious visual long-term trends.
- Other riparian and upland monitoring techniques may be used such as “Greenline” hoof impact measurements in or Grazing Response Index to assess effects of annual grazing pressures and defoliation on forage plants during the growing season.

An important component of the monitoring plan includes establishing reference reaches and/or exclosures on Devil Creek and the Middle Fork as indicators of inherent stability and potential. A reference reach is an undisturbed stream segment that can be compared to the disturbed reach. A comparison of the two observations is used to assess the extent of deviation from desired condition. The reference reach exclosure in FS Section 12 may also be maintained and monitored as an indicator of streambank recovery potential.

Reference Exclosure on Devil Creek On July 13, 2004 an exclosure was constructed of cattle panels to exclude cattle from a small area (16 feet by 16 feet) on Devil Creek in an area of heavy livestock impact. The exclosure encompasses an upper bank, cut slope, and the creek channel. This will serve as a reference area for bank revegetation and species recovery immediately adjacent to the creek. The exclosure was monitored September 15, 2004 and showed sedimentation along the streambanks and colonization of the sediment by aquatic plant species. (Photos are available in the

X. Alternatives Considered but Eliminated From Detailed Study

During the analysis process, a number of other alternatives were suggested and discussed. These seven alternatives were considered but were not carried forward for specific reasons as described below:

1) Continue Currently Permitted Grazing

The ID team considered continuing grazing at historic levels and under the same terms and conditions as in the past. Past grazing refers to the period from approximately 1964-2002. Annual permitted and actual use varied during this period as shown below.

| | |
|----------------|---------------------------|
| 1964 – 1966 | 400 cow/calf, 8/16-10/15 |
| 1968 – 1970 | 450 cow/calf, 8/16-10-15 |
| 1971 – 1973 | 450 cow/calf, 8/1 – 10/15 |
| 1974 – 1988 | 450 cow/calf 7/1 – 9/15 |
| 1989 – present | 403 cow/calf 7/1 – 9/15 |

The reduction that occurred in 1989 was due to the removal of a portion of private land from the allotment. The carrying capacity of that land was estimated and the permitted number of cattle was reduced to reflect the change in available forage.

The allotment has never had a pasture rotation system. The cattle numbers and season of grazing changes listed above were implemented at the request of the permittee. Cattle distribution is aided by salting locations and by turning the cattle into the north or south end of the allotment. Distribution throughout the summer is controlled primarily by the location of available water.

Distribution has not been adequate, resulting in negative impacts to riparian and some upland vegetation and to streambank stability. Forest Service records and field reviews indicate that current grazing is not meeting Forest Plan standards for protection of the vegetation and water resources on the allotment. Since unacceptable impacts have been documented over an extended period of time, an alternative was not fully developed to analyze the impacts of a proposal to graze at current levels. Grazing at current levels and the current season of use have resulted in declining conditions in both riparian and some upland areas. Continuation of current grazing practices could be expected to result in further decline in streambank conditions in impacted stream reaches and upland areas. A proposal to continue historic grazing practices would not meet the purpose and need of this Environmental Assessment (EA) (Chapter 1, p. 1-3). Chapter 3, (p. 3-2)-Vegetation includes a detailed discussion of the effects of implementing this alternative over the last 25 years or so.

Even though this alternative does not meet Forest Plan standards, it serves as a basis of comparison and helps support the need for action.

2) Increase Grazing to Include Grazing on Timber Harvest Units.

The suggestion was made that grazing should be increased because of forage available in the private land timber harvest units. After harvest, grass production increased and those acres were never added into the carrying capacity of the allotment. Analyses conducted in support to this document considered the private land timber harvest units and calculated the approximate forage attributable to the units. There are about seven private land timber harvest units within the allotment boundaries. These were probably harvested in the 1970s and 1980s. Rangeland producing forage for livestock on timber units is called “transitory range”. It is transitory because, generally, grazing capacity declines as forest cover is reestablished. Suitability for livestock grazing also declines as the forest cover closes. Transitory range is further refined to primary, secondary, and unsuitable range depending on characteristics used to define rangeland; forage production, topography, soils, vegetation and distance to water, (FSH 2209.21 R1, 261.4). In general, transitory range can be a viable use for cutover areas for 15 to 20 years before crown closure reduces the forage supply.

In 1989, 1990, 1993, and 1994 grazing season extensions of up to two weeks were granted at the request of the permittee to utilize forage available in these timber harvest units. Further field inspections and review of the actual grazing situation on the allotment revealed that while it did appear that some forage remained at the end of the grazing season, this forage was timothy. Timothy is not a preferred forage species in the late summer. Because cattle were not targeting the remaining timothy, extensions were increasing the use of native forage species.

The history of grazing on the allotment has been reviewed in support of this environmental assessment. In general, the grazing increases listed in #3 above are not supported by carrying capacity analysis. There have been several vegetation carrying capacity estimates over the years and another was conducted for this EA. The analysis indicates an overall carrying capacity of 312 cow/calf pairs for a season of 7/1 – 9/15, including National Forest land, private land and those suitable portions of the existing private land timber harvest units. Range inspections and specialist (fish biologist and hydrologist) reviews also concur that the allotment is overstocked despite some remaining transitory range on the timber units.

The timber harvest units have no additional grazing available over and above the current permitted number. The allotment was reviewed as a whole for this analysis, and carrying capacity was estimated to include all suitable forage.

For these reasons, an alternative that would increase grazing to utilize forage in areas of past timber harvest would not meet the purpose and need of this analysis and was not carried forward and fully developed in the environmental assessment.

3) “Big Gulp” Analysis

During the course of the analysis, many people suggested including various non-grazing resources in the Environmental Assessment. For example, it was suggested that we consider prescribed burning of conifer encroachment on rangeland to set back succession. This would be a way to maintain grazing levels on areas that are converting to timber. Fire suppression during the last century on the allotment has resulted in many of the same problems seen throughout the West regarding fuel loadings, canopy closure, encroachment of conifers into grassland and riparian habitats, stagnation of willow and aspen, etc. Another person felt that if burning was considered, some timber harvest should occur prior to burning to use the wood fiber that would be consumed and wasted. Discussing possible timber harvest quickly surfaced the issue of the roads in the allotment (typically going in and out of private land) and road issues (access, displacement of wildlife, sedimentation, recovery of disturbed soils, and weeds).

The 1995 Rescission Act mandated that the Forest Service conduct environmental analysis on all allotments that did not have a current NEPA document. Also mandated was the development of a schedule to assure that all the allotments would be analyzed within a reasonable length of time. Including other resource needs and thoughtfully developing ecosystem management plans for all allotments would be outside the scope of grazing analysis. Comprehensive analyses could not be completed within the allowable time frames of the Rescission Act schedule. A proposal that included various non-grazing activities would be outside the scope of this analysis. For these reasons, this potential alternative was considered but not brought forward for full analysis.

4) Riparian Fencing

Another suggestion was to fence out riparian areas or to fence out impacted riparian areas as a solution to the riparian problems. The rugged topography and dense vegetation in places would make this a very expensive alternative. In addition, there are many elk and moose on the allotment; animals not known to respect fences. Thus, fence maintenance and repair would be extremely time consuming to keep the fences effective in excluding cattle. Fencing would not address other problems, such as cattle distribution and over stocking. There are several small riparian areas that may be fenced for demonstration purposes, but large-scale fencing is not being carried forward as an alternative or part of an alternative in this document. A proposal geared primarily to meeting Forest Plan riparian standards would not address the upland situations on the allotment and would not meet the purpose and need of this analysis.

5) Excluding Cattle until Riparian Zones are fully recovered

The ID team discussed the potential alternative of excluding cattle until the riparian areas have recovered. This would involve three or more years of rest from livestock grazing on the National Forest sections of the allotment. This would be impossible to implement without extensive fencing, given the checkerboard ownership of the area. The landowner would have to exclude cattle from Federal land by fencing along stretches of private/federal boundary for approximately nine miles.

The ID team feels that progress towards recovery can be made without full rest of the allotment. The proposed action alternative would meet the purpose and need of this Environmental Assessment without having to close the National Forest portion of the allotment for an extended period of time.

6) Different Pasture System and/or Different Cattle Numbers of Season

Many variations of fence location are possible on the allotment. Fencing along the property boundary as proposed is not the most logical location from a strictly topographic and management standpoint. In other words, if the area were all Federal ownership, other locations would have been selected for pasture boundary fences. The pasture boundary fence locations were chosen to best satisfy the need for both private land autonomy and grazing management.

Cattle numbers and season of use also could be “mixed and matched” to some extent provided that the carrying capacity estimated total is not exceeded and plant maturity (range readiness of July 1st or so) goals are met.

A variation of this might be a proposal to reduce stocking to a carrying capacity of 312 Cow/Calf Pairs without timing restrictions. Movement of cattle would be required when proper use is achieved in any riparian area. This proper use would be 50% in the South Fork, 40% in the Middle Fork, and Devil’s Creek along with their tributaries. Grazing under this scenario would create numerous management and administrative problems. It would require even more frequent monitoring on the part of the permittee and the Forest Service.

In general, this alternative is implicit in the Proposed Action Alternative, in that standards for riparian and upland conditions and grazing use have priority over cattle numbers and season of use in meeting the purpose and need of the proposal.