

APPENDIX D1: FENCING ESTIMATES OF MODIFIED GRAZING

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We evaluated the estimated amount and costs of fencing needed to reduce impacts from a “modified” grazing program to the objects of biological interest, should BLM choose this option over permanently retiring grazing leases. To estimate fencing needs, we mapped the amount of fencing necessary to restrict livestock in habitat types where impacts were documented in the field or where livestock were likely to congregate in response to fencing restrictions (see Figure 10). For terrestrial areas, we used the following rule set in the GIS fencing analysis: (1) only mixed conifers and oak woodlands within the Monument on public lands were mapped; (2) only slopes <40% within these habitat types were mapped because livestock are known to avoid steeper slopes; however, the mixture of slope gradients in some polygons resulted in a portion (<50%) of fenced polygons containing some steeper slopes (see Figure 10); (3) all livestock utilizations (low, moderate, high) within these habitat types were mapped because fencing only high utilization areas might shift livestock to areas where utilization is currently low; and (4) polygons with <50% of these habitat types were omitted because they contained too many vegetation inclusions not included in our study.

For aquatic areas, we used the following rule set: (1) only springs and streams within the Monument boundary on public lands were mapped to protect water quality conditions and this object of interest; (2) only springs and streams located outside mixed conifer and oak woodlands already recommended for fencing (see above) were included; and (3) livestock utilization areas were mapped for three utilization classes: (a) slight (6-20%) or higher on severe/very severe erosion hazard lands, (b) light (21-40%) or higher on moderate or severe/very severe erosion hazard lands, and (c) slight (6-40%) or higher on slight or moderate erosion hazard lands with road densities of 0.5 miles/square mile or higher. Fencing along riparian areas was recommended to minimize fine sediment impacts to stream substrates and invigorate riparian vegetation to provide shading, runoff filtering, and protective cover for fishes and other aquatic organisms. Based on this rule

set, a total of 148 miles of fencing was recommended to protect sensitive objects of interest from cattle grazing (see Table 4).

APPENDIX D2: ESTIMATED COSTS OF MODIFIED LIVESTOCK GRAZING
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This analysis of grazing costs and revenues relies primarily on data from the U.S. Government Accountability Office (GAO). A recent GAO report¹ analyzed the costs and revenues from grazing programs administered by ten different departments and agencies on federal public lands, including the Bureau of Land Management (BLM). Because it covers such a broad spectrum of programs and data, most of the statistics in the GAO study are national averages, including grazing costs, revenues, and related information. It is likely that actual costs to administer livestock grazing on the BLM Medford District—and the Cascade-Siskiyou National Monument in particular—are higher than the national average due to significant public conflicts with livestock and the relatively high level of public use in the Monument compared to most other BLM lands. It is also likely that GAO's estimate of grazing costs is low in that it only considered direct line items that are totally attributable to livestock grazing in the agency budgets. GAO did not apportion any of other line items reasonably attributable to the BLM's livestock grazing program. For example, much of the work of biologists, archeologists, hydrologists, planners, line officers and others are to mitigate the impacts of livestock grazing on other public lands resources.

The common unit of grazing cost analysis is the animal unit month (AUM; the amount of forage necessary to sustain one cow and calf for one month). Agency grazing costs and revenues were converted to dollars per AUM on the Average Revenues & Costs worksheet (Table 5). The dollars per AUM cost figures were then multiplied by authorized livestock use in the Monument to calculate total costs of livestock management. No portion of the grazing fees collected by BLM from grazing lessees on the Monument is deposited in the federal Treasury.

¹ Government Accountability Office. 2005. Livestock grazing: federal expenditures and receipts vary, depending on the agency and the purpose of the fee charged. GAO-05-869. Government Accountability Office. Washington DC.

Modified Grazing vs. Retiring Grazing Leases

- *“Should grazing be found incompatible with protecting the objects of biological interest, the Secretary shall retire the grazing allotments pursuant to the processes of applicable law.” (Monument Proclamation).*
- *“If livestock grazing on specific allotments should be found “incompatible with protecting the objects of biological interest,” and grazing systems cannot be modified to achieve compatibility, or if the BLM determines that the lands are best allocated to other purposes, those allotments would be retired as specified in the proclamation and applicable laws, regulations and procedures.” (Cascade-Siskiyou National Monument Proposed Resource Management Plan/Final Environmental Impact Statement, p. 82. February 2005).*

To conservationists, the Proclamation is clear and unambiguous: if livestock grazing harms objects of biological interest, the livestock grazing will end. However, BLM, in writing its management plan, has set additional conditions. If a conflict exists and BLM does not simply end the grazing to end the conflict, the conservationist may challenge the agency in federal court.

The studies presented in this report (see Chapters 1, 2, 3, and 5) provide a strong case that livestock grazing within riparian, springs, oak woodland, and mixed-conifer old growth areas of the Monument is incompatible with protection of biological objects. If BLM makes a similar finding, the agency will likely propose to “modify” livestock grazing through the use of fencing of affected areas to exclude livestock, and perhaps reduce livestock numbers and the amount of time they may graze. The agency will likely choose to modify current grazing in the Monument because (a) it lacks the political will to merely end grazing on public lands (even in a national monument); and (b) as managers they view their job as “managing” conflicts through mitigation and by other methods, not by favoring one public land use to the exclusion of another (even in a national monument). As a way to resolve these ongoing grazing conflicts, legislation was introduced in the U.S. Senate in September 2006 to compensate federal livestock grazing

lessees in and near the Monument who voluntarily relinquish their livestock grazing privileges to the BLM.²

The financial analysis presented here assumes that BLM will not have the political will to simply end livestock grazing in the Monument (without compensating affected grazing lessees to retire their grazing leases – see below), but instead may need to launch an extensive fencing project to protect riparian, springs, oak woodland and mixed-conifer old growth areas from grazing as recommended in Chapter 5 of this report. The financial analysis spreadsheet (Table 6) analyzes the costs to the federal treasury of a federal grazing lease buyout and the savings that would occur by avoiding government expenditures on extensive fencing and continued administration of grazing in the Monument.

Additional Operational Costs to Livestock Grazing Lessees of Continued Grazing in the Monument

If BLM finds that grazing does not harm the objects of biological interest in the Monument, then the operational costs to grazing lessees will not change from current levels. If BLM finds that livestock grazing is inconsistent with protecting the objects of biological interest and decides to just end livestock grazing in the Monument, then the cost to the ranchers will be significant and include the time and resources needed to find replacement forage for their livestock on private lands. However, if BLM chooses to modify grazing it will likely require a very aggressive fencing program. Grazing lessees will still face a large number of additional costs, including, but not limited to:

- A significant reduction in AUMs because livestock can no longer graze in riparian, springs, oak woodland and mixed-conifer old growth areas. The reduction in the amount of land grazed to protect these areas is ~39% of the total Monument area (19,791 acres of 51,403 acres in the 52,947-acre National Monument that is available for livestock grazing, excluding Box O Ecological Restoration Area, see Table 4). The reduction of AUMs will be much higher

² *Proposed Cascade-Siskiyou National Monument Voluntary and Equitable Grazing Conflict Elimination Act (S. 3858, 109th Congress).*

because riparian areas contain a disproportionately high amount of the livestock forage in a grazing allotment (see Chapter 5).

- Reduced use of remaining grazing areas (the remaining 61% of the land area in the allotments) where new fencing has blocked access to traditionally accessible areas.
- Hauling water to their livestock, since riparian areas and small springs will be fenced (although this may pose compatibility problems with the Proclamation's emphasis on ensuring that "*a quantity of water sufficient to fulfill the purposes for which this monument is established*" – see Chapter 5).

Benefits of Voluntary Federal Grazing Lease Buyout to Monument Grazing Lessees

The rate of compensation for the proposed lease buyout program is \$300 per AUM. If a rancher were to invest the \$300 in a 10-year (the same duration as a federal grazing lease) tax-free, no-risk government bond (4.625%³), he/she would receive an annual yield of \$13.88. This amount is comparable to the average price of renting non-irrigated forage on private lands in the 16 western states which is \$13.34 per AUM.⁴ Thus, even lessees who relinquish their grazing permits for compensation could continue ranching provided they find replacement forage on private lands.

Key Findings and Conclusions

Based on the cost estimates provided in the GAO report and the amount of fencing required to protect objects (see Appendix D1 above) by modifying grazing practices, we conclude that a modified grazing program would produce costs that far exceed the one-time costs of simply buying out the affected ranchers to graze the disputed grazing allotments on public lands within the Monument. This was based on the following cost/benefit analysis:

³ Bloomberg.com. "Rates and Bonds" (web page), www.bloomberg.com/markets/rates/; viewed 03/20/2007

⁴ Dyer, T. H. The 2006 Grazing Fee, Surcharge Rates, and Penalty for Unauthorized Grazing Use. BLM Instruction Memorandum no. 2006-101. (Mar. 6, 2006) (memo from Deputy Assistant Director, Renewable Resources and Planning to all field offices; available at www.nv.blm.gov/range/IM_06_grazingfees.pdf).

BLM Grazing Program Revenues/Costs in the Monument

- Gross revenues from grazing fees for livestock grazing in the Monument may total \$3,664 in FY 2007 (\$1.35 per AUM to be charged in 2007 x 2,714 authorized AUMs; see Table 5). None of these funds will be deposited to the federal treasury; fifty percent will go to Jackson County and fifty percent will be spent on range developments on public lands.
- Grazing administration in the Monument in FY 2004 cost taxpayers ~\$20,448.

Costs of Modifying Livestock Grazing To Protect the Objects of Biological Interest

- The initial cost of constructing fencing along riparian areas, small springs, oak woodland and mixed-conifer old growth to exclude livestock in the Monument would be ~\$3.7 million (\$25,000 per mile x 148 miles recommended – Table 4).
- The additional average annual cost of maintaining Monument fences would total ~\$40,000 annually (2006 dollars).

Benefits of Federal Grazing Lease Buyout in the Monument

- The federal cost of grazing lease buyout in the Monument would be \$814,200 (\$300 x 2,714 AUMs).
- The present net value of buying out Monument grazing leases and avoiding the costs of further grazing management in the Monument is approximately \$4 million. In other words, spending ~\$0.8 million now to buyout grazing leases would save taxpayers ~\$3.2 million in the long-term by avoiding management costs (Table 6).
- The interminable conflict over livestock grazing in the Monument could be equitably resolved to the benefit of all interests if the federal government bought out and retired grazing leases.
- If they prefer, public lands grazing lessees who receive buyout compensation could reconfigure their operations on private lands. A government buyout of \$300 per AUM, capitalized at current interest rates, will yield annual income comparable to the average cost of renting private non-irrigated forage in Oregon.