

# MUSY – Forage Environmental Assessment

## FINDING OF NO SIGNIFICANT IMPACT

### I. BACKGROUND

On December 19, 2008, the Valles Caldera Trust (the Trust) made an Environmental Assessment (EA) available for a 45-day public review and comment period ending February 2, 2009. The comment period was extended through February 12, 2009 in response to requests by the public. The EA considered actions and environmental consequences of the proposed Multiple Use and Sustained Yield of Forage Resources (MUSY – Forage) on the Valles Caldera National Preserve (the Preserve).

Federal agencies prepare an EA in order to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). An EA also supports planning and decision making and an agency's compliance with the National Environmental Policy Act (NEPA) when an EIS is not required.

Based on the public comments the Trust prepared a preliminary FONSI and a summary of comments and responses. The documents were released on March 2, 2009 for a 30 day public comment and review period through April 1, 2009. This permitted a feedback loop for public comment prior to making a final determination regarding significance and a subsequent implementing decision.

### II. FONSI

#### 1. Introduction

As stated, one of the purposes of the EA prepared for MUSY - Forage was to aid the Trust in determining if the stewardship action being considered would have a significant impact on the human environment. In the *Regulations for Implementing the Procedural Provisions of NEPA* (40 CFR Parts 1500 -1508), the President's Council for Environmental Quality (CEQ) defines the human environment as including "the natural and physical environment and the relationship of people with that environment".

The procedures also provide guidance for determining significance and preparing a FONSI. Significance is determined by considering both the *context* (extent of the effect in time and space) and the *intensity* of the effect. To aid in the determination of significance the EA framed the environmental consequences to assess the effects by context and intensity as follows:

The temporal extent of the effect was defined by three categories of duration (Federal Register 2003):

- **Short-term:** 0 to 3 years
- **Mid-term:** 3 to 10 years
- **Long-term:** 10+ years

The spatial context of effects was described in a narrative.

The intensity of the effect is defined by the following four levels of magnitude (intensity is influenced by context):

- **Negligible:** No change would occur, or the magnitude of change would not be measurable
- **Minor:** Changes would be measurable but would not alter the structure, composition, or function of the resource and would be limited in context.
- **Moderate:** Changes would be measurable and may influence the structure, composition, or function of the resource but would be limited in context.
- **Major:** Changes would be measurable; would alter the structure, composition, or function of the resource; and may be extensive in context.

Effects could be

- **Direct:** A direct effect of an action
- **Indirect:** Resulting from the action, but separated by time or location
- **Cumulative:** Resulting from the incremental impact of the action when combined with other past, present, or reasonably foreseeable future actions.

## 2. Basis for the Finding

### 2.1. Compliance with NEPA

The Trust's procedures for implementing NEPA indicate that long-term programs for the management of livestock would normally require the preparation of an Environmental Impact Statement (EIS) (§101.51) (Federal Register, 2003). These procedures also identify activities where an implementing decision could normally be made after the preparation of an Environmental Assessment EA) (§101.52). Such activities include, "*Livestock management actions utilizing land, resources, and facilities of the Preserve, defined in location and time, the effects of which are anticipated to be short-term and minor in scope*" (§101.52).

The proposed MUSY-Forage does not fall clearly into either an action requiring an EIS or an action that could normally be implemented following the preparation of an EA. While the Trust is proposing to make a decision regarding the use of forage, primarily by livestock, which extends forward in time, the proposed Stewardship Action would be defined in location and time on an annual basis. Performance requirements that guide the implementation of the proposed or alternative actions limit commitments to short to mid-term the management of associated infrastructure was expected to have effects that would be short term and minor in scope.

The preparation of an EA and FONSI for actions that cannot be excluded from environmental documentation but “*will not have a significant effect on the human environment*” is consistent with direction in NEPA for reducing paperwork (§1500.4, (q)).

## 2.2. Effects on the Human Environment

### 2.2.1. Effects to Watershed /Fire Ecology

#### *Summary*

Effects were predicted to be minor to moderate in intensity. Effects that were moderate were anticipated to be localized in time and space. The effects analysis and conclusions were prepared by qualified resource specialists and were based on a review of relevant scientific literature, as supported by site-specific, field sampled data, collected from 2002 – 2007. The data was systematically collected and evaluated to measure the outcomes from the livestock programs which have been similar in scale to the proposed and alternative actions.

#### *Supporting Narrative*

In 2002, the Trust initiated an “Interim Livestock Grazing Strategy” (Valles Caldera Trust, 2002). The purpose and need/proposed action in the EA prepared for the interim grazing strategy included, “*to provide a scientific basis for development of a comprehensive “Model” Grazing Strategy.*” Towards this end, the Trust established a systematic approach to monitoring and adaptive management including 41 permanent ecological monitoring sites, a series of riparian exclosures, continuous water quality and climate sampling instrumentation, annual measurements of stream morphology, and repeated measurements of the functioning condition of the perennial streams relative to a “proper functioning condition”.

The data yielded from these monitoring sites were combined with Preserve-wide data collected to delineate and map soils and vegetation, and assess infrastructure (fences, corrals, gates, and earthen tanks), to prepare an existing rangeland condition report. This report documented the ecological condition of the Preserve and the suitability and capacity for allocation of forage for domestic livestock grazing or other uses, in context with current use by the Preserve’s elk herd and variability in climate and productivity. The proposed stewardship action and alternatives were based on this report and the goals and purposes from the Act.

The existing condition report supported continuing allocation and use of forage similar in scale and location to the Interim Grazing Strategy. Lessons learned and information gathered during the interim grazing period contributed to proposed infrastructure improvements designed to improve the control of livestock, reduce conflicts with recreation and protect sensitive resources.

In addition, the variety of programs implemented during the interim period permitted the Trust to quantitatively evaluate varying intensities of grazing in support of analyzing effects from each of the alternatives. The EA provided a detailed description of the existing condition of the affected environment to measure the *intensity* or degree of impact. The EA considered the natural environment at a variety of scales to assess the *context*, or extent in time and space of any effects.

Effects to the natural environment were predicted to be minor to moderate based on the combination of context and intensity. Resource specialists supported their conclusions with site specific data collected during the interim grazing period reflecting various grazing intensities and climate conditions, as well as published literature relevant to the montane ecosystems found on the Preserve. The context of the effects were assessed at various scales (Preserve-wide, 5<sup>th</sup> code USGS delineated watershed, and sub-basin or landscape scale). Cumulative effects were estimated based on a review of the 2007 State of the Preserve<sup>1</sup>.

## 2.2.2. Threatened and Endangered Species (Terrestrial and Aquatic)

### Summary

The EA considered the direct, indirect, and cumulative effects to threatened, endangered, and sensitive species (including candidate species and species proposed for listing). The EA also considered effects to migratory birds and to elk.

Table 1 – Summary of Effect Determinations

Species	Status	A	B	C or D	C <sub>2</sub> or D <sub>2</sub>
Mexican Spotted Owl	Threatened	NI	MANLAA	MANLAA	MANLAA
Bald Eagle	Sensitive	NI	NI	NI	NI
New Mexico Meadow Jumping Mouse	Sensitive	NI	MIIH	MIIH	MIIH
Northern Goshawk	Sensitive	NI	NI	MIIH	MIIH
Peregrine Falcon	Sensitive	NI	NI	NI	NI
Jemez Mountain Salamander	Sensitive	NI	MIIH	MIIH	MIIH
Northern Leopard Frog	Sensitive	NI	MIIH	MIIH	MIIH
Dwarf Shrew	Sensitive	NI	NI	NI	NI
Water Shrew	Sensitive	NI	NI	MIIH	MIIH
Goat Peak Pika	Sensitive	NI	NI	NI	NI
Gunnison's Prairie Dog	Sensitive	NI	NI	NI	NI
Southern Red-Backed Vole	Sensitive	NI	MIIH	MIIH	MIIH
Long-Tailed Vole	Sensitive	NI	MIIH	MIIH	MIIH
American Marten	Sensitive	NI	NI	NI	NI
Ermine	Sensitive	NI	MIIH	MIIH	MIIH
Rio Grande Sucker	Sensitive	NI	NI	MIIH	MIIH
Rio Grande Chub	Sensitive	NI	NI	MIIH	MIIH
Rio Grande Cutthroat Trout	Sensitive	NI	NI	NI	NI

*Table 1 Key: NI = no impact; MANLAA = may affect, not likely to adversely affect; MIIH = may impact individuals or habitat, but will not likely contribute to a trend toward federal listing or cause a loss of viability to the population.*

Determination of effects to Rio Grande cutthroat trout was based on the species extirpation from the Preserve. The effects analysis also considered effects to habitat and as the effects could relate to future proposals for reintroduction and included under Alternative C and D, that, “...continued improvements in Rio Grande cutthroat trout habitat could contribute to the success of any proposal to reintroduce the Rio Grande cutthroat trout in the future.”

<sup>11</sup> The State of the Preserve is a cumulative effects report prepared every five years.

### 2.2.3. Cultural Resources

#### *Summary*

Proposed management to infrastructure and facilities would include ground disturbing activities. Based on the type and location of the proposed activities it is not expected that cultural properties would be affected. In addition, these activities would only occur following the completion of the Valles Caldera Trust Cultural Resources Clearance Process and Interdisciplinary Clearance process. If, through these reviews, cultural properties are located and it is determined that implementation of an activity could not occur without adversely affecting cultural properties then the activity cannot be implemented under the EA, findings or decision associated with MUSY Forage.

### 2.2.4. Socioeconomic Effects

#### *Summary*

The socioeconomic impacts were considered in a temporal context of 4 years, and at various spatial contexts: Regional, local, communities, individuals, and at the scale of the Preserve. The EA considered economic impact based on favorable conditions to assess a maximum potential for impact. The EA also considered all livestock grazing opportunities occurring locally or none occurring locally to estimate the maximum potential impact in a comparable form.

At the regional level there would be a negligible effect to jobs or income. At a local effect (livestock production in the socioeconomic impact area) the effects would also be negligible; if grazing involved either all or no local producers, the local livestock industry would not change significantly. Programs that redistributed grazing from surrounding lands could have minor beneficial effects. Relative to the financial self sufficiency goals of the Trust, Alternative D focuses on programs that optimize income. Under favorable conditions, permitting the greatest numbers of livestock, expected revenues would be expected to make a minor contribution towards financial self sufficiency. Optimal revenues could support deferred maintenance ranch infrastructure (fences or earthen tanks) but would not be sufficient to address deferred maintenance of buildings.

#### *Supporting Narrative*

The socioeconomic analysis defined the two-county area surrounding the Preserve (Rio Arriba and Sandoval County<sup>2</sup>) as the “socioeconomic impact area”. These counties were considered the extent at which socioeconomic impacts of forage use on the Preserve could be detected. Even at this limited scale, socioeconomic impacts were negligible within the defined socio economic impact area. The Trust also considered effects to individual producers who could potentially graze on the Preserve. Information collected during the interim grazing period which included a

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<sup>2</sup> Los Alamos and Santa Fe counties are also in close proximity to the Preserve, however the economies of these counties are too great and diverse to register the potential effects from the Preserve in the minor industries of agriculture and livestock production.

variety of producers (small and large) and a variety of programs (replacement heifer, cow/calf pairs, conservation stewardship, yearling/steer, as well as scientific research).

All producers appeared to benefit from the opportunities to graze on the Preserve, however these benefits were minor to moderate and short term<sup>3</sup>. For example, Jemez Pueblo Livestock Association participated in a two year Conservation Stewardship Program. Under this program, the association implemented range improvements and a period of rest on their Tribal grazing lands while grazing cattle on the Preserve. The opportunity to graze on the Preserve enhanced their range improvement project, but did not affect a lasting change in their socioeconomic condition with regard to livestock production. The replacement heifer program allowed producers to protect the health of replacement heifers and improve the quality of their herd. Replacement heifers are a very small portion of a producer's herd and improvements are minor to moderate in intensity and occur incrementally over time with regard to context. Small and large producers brought heifers from around the state of New Mexico and from Texas, further diluting the intensity of any socioeconomic impacts.

The greatest effect to any individual would likely occur under Alternative D, which would weight economic return as the most important factor (where consistent with ecological goals and objectives) in program development. This conclusion was based on programs in 2007 and 2008 where large single producers consistently offered greater returns than multiple or individual small producers. Performance requirements as well as federal contracting regulations<sup>4</sup> would limit the context of benefits over time to any one producer. In addition, the potential for economic benefit to an individual does not meet the standard of significance in NEPA.

The EA evaluated the potential for benefits to individuals to cumulatively affect any one community. Even if multiple producers from a single community grazed on the Preserve the effects to the socioeconomic state of the community would be negligible to minor in context and intensity.

In addition to considering effects at multiple scales outside the Preserve the EA considered the effects within the Preserve with regard to financial self sufficiency, sense of place and recreational use of the Preserve. Conclusions in the EA were based on information gained during the interim grazing period and figures used in the ongoing preparation of a business plan and analysis.

The EA did not find that domestic livestock grazing, at the levels considered in the alternatives (or no action), would be a significant factor in the Trust's attainment of financial self sufficiency. Alternative D would be expected to generate the greatest revenue. This amount would still be minor relative to the Trusts annual operating costs. As programs and facilities continue to develop, income from grazing is likely to become even less significant.

As a tool for comparative analysis each alternative was measured against deferred maintenance needs of fences, earthen tanks, and other ranch infrastructure. These costs represent a portion of

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<sup>3</sup> Performance requirements limit long term commitments in forage allocation.

<sup>4</sup> Federal contracts, competitively awarded, are awarded as single year contracts with options to renew. Changes in time or money generally require reopening the bid to competition. The cattle market with inherent fluctuations, limits commitments of money over multiple years when the competitive process is based on a single year.

the debt inherited upon federal acquisition<sup>5</sup>. Alternative D could be expected to generate revenues sufficient for addressing the deferred maintenance needs within a four year period. Alternative C would be expected to bring in profit sufficient to address a portion of deferred maintenance but other sources of funding would need to be accessed to resolve the inherited debt. Alternative B, while generating little profit to address deferred maintenance would reduce future maintenance needs.

All the Alternatives retain the Preserve's working ranch history which is present in the form of the historic structures and infrastructure. The action alternatives include the presence of cattle and cowboys engaged in traditional ranch work at a level similar to the interim grazing period; no significant change is anticipated.

### **2.2.5. Sensory Resources and Recreation Values**

#### ***Summary***

Effects to the sensory resources (sights, sounds, and sense of place) and to recreation activities were anticipated to be minor overall or moderate but short-term or localized.

#### ***Narrative***

All the action alternatives sustained the plain meaning of the "working ranch" image by including some level of livestock grazing managed using traditional methods (horses and range riders). Even without the presence of livestock the working ranch elements of the Preserve are retained in the historic ranch buildings and infrastructure.

The purpose and need for action and the proposed action addressed the conflicts between some recreation activities, primarily fishing and livestock grazing. These effects are anticipated to be minor under the action alternatives based on the proposed improvements to infrastructure. The actual improvements to infrastructure including the repair of tanks and fences may cause short term localized affects to recreation activities. In addition the EA notes that effects to the experiences of individuals is often dependent on the individual, i.e., some individuals do not believe that any level of livestock use or any encounter with livestock operations is acceptable.

The EA considered intensity qualitatively based on the purposes and goals of the Valles Caldera Preservation Act which include continued operation as a working ranch and "to provide for sustained yield management of Baca ranch for timber production and domestic livestock grazing insofar as it is consistent with the other purposes". While the act does not mandate grazing, it would indicate that such use would not be a significant action to consider or expect.

Comments from visitors and through public workshops as referenced in the EA were also considered in the conclusions.

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<sup>5</sup> Other inherited debts are realized through deteriorating buildings and facilities including historic cabins, representing \$1.89 million in deferred maintenance as well as the management needs present in the Preserve's forests and ecosystems, currently being assessed.

### 2.2.6. Public Comments

A summary of the public comments and the Trust's response was made available with the preliminary findings. A detailed description of the comments and responses has been included in the EA as an appendix. Comments were substantive with many advocating for the preparation of an EIS. The reasons cited for preparation of an EIS included the NEPA procedures of the Trust (addressed under 3.1) length of the document, and public controversy (see MUSY – Forage Comment Summary and Response). While these elements were considered in the preparation of the FONSI, they were not sufficient to trigger the preparation of an EIS without a likelihood of a significant effect to the human environment.

Public comments regarding a potential controversy over the effects of the action initiated a review of the references cited in the EA, references suggested in the comments, and additional references not previously cited. This review indicated that effects suggested in the comments were either not relative to the Preserve's montane ecosystems or to the proposed action. Comments indicated the presence of controversies, including opposition to grazing and an opposition to managing grazing for other than optimal revenue. However, opposition to an action does not trigger the preparation of an EIS. The review of the EA, suggested references, and additional literature did not indicate that a significant controversy exists regarding the predicted effects and outcomes.

Some comments called for the preparation of a programmatic EIS regarding comprehensive management of the Preserve as a whole. The NEPA procedures of the Trust define comprehensive management of the lands, resources, and facilities of the Preserve (101.10) as a dynamic process including, "*all stewardship registers<sup>6</sup>, the State of the Preserve, and the strategic guidance adopted by the Board of Trustees.*" The proposed MUSY-Forage includes goals, objectives, and monitored outcomes that provide the required elements of a stewardship action as provided in the Trusts NEPA procedures. MUSY – Forage is being proposed as a subordinate activity, consistent with current programs and activities and to be adjusted to be consistent with future decisions or new information.

### 2.2.7. Significance

In the regulations for implementing NEPA, CEQ provided 10 items that should be considered in the determining of significance with regard to intensity. These are:

- (1) Impacts that may be both beneficial and adverse – Both beneficial and adverse effects were considered and disclosed in the EA. Beneficial effects were not used to outweigh adverse effects in the overall determination of significance.
- (2) Public health and safety – No effects to public health or safety were anticipated as a result of implementing the proposed or alternative actions.

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<sup>6</sup> "Stewardship register" means a concise document, including applicable environmental documents, available to the public and readily amended over time depicting the location, development, implementation, and monitoring of a stewardship action.

- (3) Unique characteristics of the geographic area – The unique characteristic of the landscape, cultural or historic resources and proximity to specially designated areas were considered. The proposed action is consistent with the enabling legislation of the Preserve and surrounding specially designated areas (East Fork of the Wild and Scenic River and Jemez National Recreation Area). The action alternatives would not significantly change the natural or physical environment or the relationship of people with that environment, based on the current and designated uses.
- (4) The degree to which the possible effects on the human environment are likely to be controversial – The proposed action, effects analysis are based on a review of scientific literature and supported by six years of systematically collected and evaluated data. While controversy over grazing exists, there is not a scientific controversy over the effects of the proposed action or alternatives.
- (5) Uncertainty, unique or unknown risks – Domestic livestock grazing occurs on landscapes surrounding the Preserve and on other public lands in the west and the region. The proposed implementation with goals, objectives and outcomes selected for systematic evaluation, reduces further any potential risks of uncertainty with regard to outcomes.
- (6) Setting precedent – The proposed action has been specifically framed to be consistent with current programs and activities and to be adjusted based on future decisions, rather than setting precedent for future decisions.
- (7) Cumulative impact – The proposed and alternative actions consider past, present and reasonably foreseeable future actions. Actions such as routine maintenance and repair of ranch infrastructure that could be categorically excluded from documentation in an EA or EIS are considered to ensure that effects of multiple actions are considered cumulatively. The State of the Preserve, prepared every five years provides the Trust with a systematic approach to re-evaluating cumulative effects including incorporating the consideration of new reasonably foreseeable future actions.
- (8) The degree of potential adverse effects or destruction of scientifically, culturally, or historically significant resources - The effects are based on a baseline of existing condition which followed a century and a half of intensive livestock grazing and six years of monitored grazing at a level similar in scale to the proposed action. The proposed action provides for the effective identification and protection of such resources that could be vulnerable to effects of the proposed action. Furthermore, the repair and maintenance of the ranch infrastructure are being proposed for resource protection.
- (9) Adverse Effects to threatened or endangered species – See 2.2.2
- (10) Compliance – The proposed action is consistent with federal, state and local laws and requirements.

### 3. Findings

Based on my review of the EA and subsequent comments, I find that the implementation of MUSY Forage as described in the proposed and alternative actions or taking no action at all will not lead to direct, indirect, or cumulative effects that would be significant to the human environment.

Key to my findings is the limited scope of the action, the context and intensity of the effects, and the systematic approach for adaptive management. Adaptive management is defined in the NEPA procedures of the Trust (101.2) as meaning “adjusting stewardship actions or strategic guidance based on knowledge gained from new information, experience, experimentation, and monitoring results, and is the preferred method for managing complex natural systems.” The Trust is implementing Adaptive Management in MUSY – Forage through measurable objectives and monitored outcomes, with clear triggers for adjustment as described in the EA.

Furthermore, our experience during the interim grazing period, including real time field sampled data, corroborates the context and intensity of effects as described in the EA.

/s/Gary D Bratcher  
Gary D. Bratcher, Executive Director

April 8, 2009  
Date