



2009

VCNP Livestock Grazing Report



Photo: TK Thompson

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Valles Caldera National Preserve

Executive Summary

The Valles Caldera Trust manages for the multiple use and sustained yield of renewable resources including timber and forage. In FY 2009, the Trust hosted a multi-faceted grazing program conducted by New Mexico State University Cooperative Extension Service, New Mexico Beef Cattle Performance Association, and Jemez Pueblo Livestock Association. The university operated three small, multiple objective educational programs on the Preserve designed to address animal health and ecological issues important in the regional area.

During the 2009 grazing season, the 552 head of cattle were contained in large pastures away from riparian areas and away from recreation programs to the extent possible. Cattle had a negligible impact on the recreation programs this year due to a concerted effort to keep cattle out of recreation areas. The program involved many local cattle growers, included an extension and research component, a conservation program which allowed the resting of tribal land, and culminated in a successful on-site bull sale.

This was the first year that the grazing program operated under the recently completed Environmental Assessment. In December of 2008, the Trust made an Environmental Assessment available for a 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 on the Valles Caldera National Preserve. The Trust issued a Finding of No Significant Impact on the grazing program.

Introduction

The lands of the Valles Caldera National Preserve (VCNP) have been grazed for as long as man has tended domestic livestock. The name “Valles Caldera” comes from a geologic term for the unique collapsed volcanic dome. The ranch was long known as Baca Location 1.

The 89,000+ acre Valles Caldera National Preserve was created by the federal government in 2000. A wholly-owned federal corporation, guided by a Board of Trustees, the Preserve represents a new approach for managing public lands. The Valles Caldera Preservation Act of 2000 directs the Trust to operate as a working ranch, while protecting and preserving the health of the land and its resources. Multiple use and sustained yield of the renewable resources and public use of and access to the Preserve for recreation are also among the mandates in the Act.

This was the first year that the grazing program operated under the recently completed Environmental Assessment. On December 19, 2008, the Trust made an Environmental Assessment 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 on the Valles Caldera National 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.

Based on a review of the EA and subsequent comments, the Executive Director of the VCNP determined 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."*

Before each VCNP livestock grazing season, a range readiness report is prepared to assess the number of cattle that will be allowed to graze at the Preserve. The range readiness report was prepared and presented to the public for the 2009 grazing season. A copy of the report can be found at:

http://www.vallescaldera.gov/newsmedia/news/news_2009RangeReadinessReport.pdf

A multi-disciplinary team of resource managers (Trust biologists, BLM range specialists, USDA ARS range scientists, university scientists, private consultants and the public) assessed rangeland conditions in the spring, prior to livestock entering the Preserve. The assessments included current and forecasted climate conditions (especially precipitation and temperature), soil moisture, hydrologic data from stream gauges on the Jemez River, standing crop biomass (available forage) and stubble height of various grass species (an indication of recent/current grazing pressure from elk). Livestock

carrying capacity was calculated in animal units (AUs) and animal unit months (AUMs) based on the assessment data.

In previous years, cattle stocking rates on the Preserve have been adjusted upward or downward depending on resource conditions. For example, the -2008 range readiness reports found excellent range conditions that would support the maximum allowable numbers of steers (2,000) under the previously existing environmental assessment. In contrast, the drought of 2005-2006 resulted in a very poor range conditions in the spring of 2006, which resulted in the decision to suspend livestock grazing for the summer of 2006. The process of formal, multi-disciplinary range readiness assessments each spring provide a science-based adaptive management tool for the livestock operations program.

The Trust's 2009 grazing program was awarded through a competitive process. For the 2009 grazing season, 552 head were brought onto the Preserve on a four month grazing schedule. The Trust received \$28,704 in grazing fees.

Determining Range Conditions and Grazing Capacities

The initial number of head allowed on the Preserve is determined using data intensive field assessments. The purpose of this type of range assessment is to determine the potential ecological outcome of the proposed livestock grazing program on the VCNP. The 2009 report was based on analyses of field data collected in May 2009 by VCT science staff, USDA ARS Jornada Experimental Range scientists, volunteer citizens from the Sierra Club, and University of New Mexico climatology scientist Douglas Moore, and provides an evaluation of the condition of the pastures, including amounts of available forage, potential for continued forage growth in terms of soil moisture, and water availability in streams and stock tanks. In addition, a report on projected climate conditions for the summer of 2009 was provided for the purpose of anticipating possible

temperature levels and precipitation amounts in regard to sustained production of forage for livestock and wildlife.

The results of the May, 2009, sampling indicated that spring standing crop biomass was high, and was even higher than the record amount observed in 2007. The results of the May, 2009 samplings were as follows:

<u>Pasture habitat type</u>	<u>Standing Crop Biomass (pounds/acre)</u>			
	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Grazeable Woodland	547	1,088	698	1,042
Mountain Meadow	894	1,892	1,364	2,329
Mountain Valley	1,010	1,332	833	1,768
Riparian	988	1,840	1,300	2,274

Livestock Stocking Levels

Based on forage data collected from 2002 – 2008, forage utilization and elk/livestock abundance was estimated for five levels of precipitation and forage production, ranging from historic high levels to low levels. Average capacity for the VCNP is 541 Animal Units for 4 months of grazing, in addition to an elk herd estimated by the NM Department of Game and Fish of 3,000 animals. The forage allocation calculations were based on total utilization by elk and livestock of 40% of available forage production, with 60% of the forage remaining behind for ecosystem services (soil erosion prevention, carbon sequestration, and health of forage plants).

The analyses of forage availability, precipitation, soil moisture, stream flow, and stock tank water content for spring, 2009, indicated that spring forage amounts and soil moisture levels were above average, while cumulative precipitation and stream flow are average and below average, respectively. Grazing by resident elk during the spring of 2009 was higher than in previous years, but still within the ~40% utilization level targeted by the VCT managers. Stock tank water capacities were good, but not at capacity. The climate forecast for summer in northern New Mexico called for above-average temperatures, with average monsoonal precipitation.

Therefore, based on these measurements, the potential stocking rate for livestock on the VCNP was recommended to be near average or slightly above average levels. This indicated that the VCNP could support at least the 541 Animal Units sustainable in an average year.

Grazing Proposals

In 2009, the Trust awarded grazing through a competitive process. A request for proposals was issued and ranchers and organizations submitted proposals for an “ecological and economically sustainable” program. The winning 2009 proposal was awarded to a group consisting of New Mexico State University Cooperative Extension Service (acting as the primary point of contact for the group), New Mexico Beef Cattle Performance Association, and Jemez Pueblo Livestock Association. Gary Bratcher, in collaboration with board members, reviewed the five proposals submitted taking into consideration the economic, environmental and social benefits of each proposal and their respective herd management plans.

The request for proposals stated that the 2009 grazing season will run for 120 days beginning on or about May 30, 2009 with removal occurring on or about September 30, 2009 with the following notes:

- Minimum guaranteed capacity is set at 500 AU's (Animal Units) for 120 days based on average capacity. Current long-term forecasts are predicting the probability of warmer and drier conditions occurring this year.
- Final capacity will be determined based on actual conditions and will be adjusted in May, 2009, based on range readiness conditions to be reported by the Preserve Scientist.

The request for proposal also stated that "long-term average precipitation and associated soil moisture at the Preserve has been shown to provide forage amounts that can support 541 AUs for 120 days. Prevailing climate and range readiness may require delays in entry (no later than June 15, 2009). Stock numbers may be adjusted if precipitation changes over the next 30 - 45 days or conditions during the range readiness assessment warrant. The Trust will not consider proposals which include fewer than 500 AUs of livestock. The Trust reserves the right to make the decision whether or not to adjust the capacity throughout the grazing season."

The request for proposal went on to explain that "capacity for livestock considers the total amount of forage produced on areas of the Preserve suitable for grazing. Suitability is based on topography, distance to water and forage availability. The average capacity for livestock has been determined from measured field forage quantities across the Preserve on suitable land during 2002-2008, a period that included both exceptionally dry and wet years (low and high forage production). Of the total forage available on suitable land, 60 percent is allocated back to the ecosystem and approximately 20 percent is allocated to provide for wildlife including the Preserve's resident elk herd (estimated at 3,000 head by the NM Department of Game and Fish). The remaining forage is available for extractive uses including grazing by domestic livestock. Actual field measurements during 2002-2008 indicate an average annual livestock capacity of 541 Animal Units for 120 days; years with above-average

precipitation have produced forage for an estimated 1,412 Animal Units; and the record high production year was capable of supporting an estimated 2,282 Animal Units.”

2009 Grazing Season

As mentioned, the grazing program was conducted by New Mexico State University Cooperative Extension Service, New Mexico Beef Cattle Performance Association, and Jemez Pueblo Livestock Association. The group operated three small, multiple objective educational programs on the Preserve this summer designed to address animal health and ecological issues important in the regional area.

The total number of animals was limited to 541 animal units (cow/calf pairs and mature bulls equal 1.0 A.U.s; yearling heifers and yearling bulls equal .7 A.U.s.). The actual number grazed was 516 AUs (552 head). The proposal submitted by Dr. Manny Encinias of NMSU, in partnership with the Jemez Pueblo and NMBCPA established the framework for providing high altitude bulls, replacement heifers, and cow-calf pairs in the 2009 program. The proposal included the following program components:

High Altitude Bull Evaluation Program – approximately 115 yearling bulls grazed on the Preserve this summer and underwent a variety of tests before being used for breeding. Most important of these tests is the Pulmonary Arterial Pressure (PAP). The PAP test provides an indicator of the animal's resistance to Brisket Disease. Brisket Disease, also known as High Mountain Disease or Pulmonary Hypertension, is one of the Rocky Mountain region's most costly diseases. The disease is the result of elevated pulmonary arterial pressures or pulmonary hypertension and generally affects animals less than one year of age residing at an elevation above 5000 feet.

Brisket Disease is caused primarily by an oxygen shortage; oxygen availability reduces considerably at higher elevations causing increased resistance to blood flow in small arteries in the lungs. The heart compensates for higher resistance by stretching and building up a higher pressure. The pressure can continue to build up until fluids leak

out of the blood stream and collect in the chest cavity, the brisket, and other places. Eventually, the heart wears out and stops beating.

Susceptibility or resistance to brisket disease is an inheritable trait. The goal of this program was to identify bulls with the greatest resistance to brisket and promote that genetic trait, adding value to the animal and reducing the incidence of the disease.

NMSU also measured the weight gain of these bulls. Gaining weight is the heart of the cattle industry. Identifying bulls that are good at gaining weight as well as resistant to brisket adds additional value to these animals. The bull program concluded the season with a "Top of the Valle" bull sale, where the top ranking bulls from the program were sold at an auction held at the Valle Grande horse barn.

Replacement Heifer Program – For this program, cattle producers from New Mexico brought in artificially inseminated heifers (female calf that has not been previously bred) for grazing and breeding, approximately 120 heifers. They were bred with bulls who are likely (through genetics) to produce a calf who will be small at birth but should gain weight nicely in the first year. When a young cow can give birth to a small calf her first delivery it reduces the likelihood of complications occurring during birthing. This not only protects her during this first birth but can lead to an overall improvement in her reproductive health through her life.

Cow-Calf Pairs Program – For this program, local cattle producers, primarily from Jemez Pueblo but also from the villages of San Ysidro and Ponderosa, brought in approximately 320 cows and their calves for grazing on the Preserve. Both the mother cows and their calves benefited from the abundant forage and will gain significant weight while on the Preserve.

Conservation Stewardship Program – Under this program NMSU supported Jemez Pueblo Livestock Association in resting and restoring tribal lands through summer grazing of their small cow-calf herd.

Workshops/Seminars – NMSU hosted several informal workshops with the local producers instructing them on animal health, livestock and range management.

The three cattle programs (bulls, heifers, and cow/calf) grazed in different pastures from each other to keep them physically separated. The bulls were kept in the Lake and Field pastures in the Valle Grande (but not adjacent to the East Fork of the Jemez River), the heifers were in the Rincon, east of the Valle Grande, and the cow-calf pairs were in the Seco/San Luis/Santa Rosa pasture south of the Valle San Antonio and San Antonio Creek. It was hoped that distributing these three small herds in these separate areas would greatly reduce the conflicts realized in 2008 when nearly 2000 yearlings were rotated throughout the Preserve. There were several, short-term occasions, lasting less than two weeks, during the beginning and end of the season that some of the cattle had to be moved through the San Antonio or Valle Grande, but these were short-term endeavors while the cattle were being moved to a different area.

The average daily weight gain (ADG) for the coming two year old bulls in the high elevation program was 2.92 lbs. For the livestock in the cow/calf operation, the ADG of mature cows was 2.09 lbs, and for calves 2.21 lbs.

Grazing Plan

This year's program was conducted using a grazing plan prepared by Dr. Manny Encinias and approved by Trust staff. The plan stated:

Bull Development Program

General:

All bulls will graze either the Field Trap, Lake Trap, or horse paddocks for the duration of the grazing season. Based on the forage allocation data set forth by the Preserve Scientist, the Lake Trap can sustain 62 (dry year) to 121 (wet year), the Field Trap can

sustain 9 (dry year) to 37 (wet year), and each horse paddock can sustain 5 (dry year) to 15 (wet year) animal units for the 120-day season in 2009.

Specific Details:

- 100 yearling Angus bulls will be rotated between the Lake Trap and Field Trap for the 120-day grazing season to meet forage allocation guidelines set forth by the Trust.
- 8 yearling Angus bulls will graze in one of 5 horse paddocks for the duration of the grazing season. In the case adequate forage does not permit grazing of the assigned paddock, bulls will be rotated to an unoccupied paddock.
- 5 yearling Hereford bulls will graze in one of 5 horse paddocks for the duration of the grazing season. In the case adequate forage does not permit grazing of the assigned paddock, bulls will be rotated to an unoccupied paddock.

Heifer Development Program

General:

All yearling replacement heifers will graze the Rincon pasture for the duration of the grazing season. Based on the forage allocation data set forth by the Preserve Scientist, the Rincon pasture can sustain 119 (dry year) to 209 (wet year) animal units for the 120-day season in 2009.

Specific Details:

- 120 yearling Angus heifers and 2 yearling Angus bulls will graze the Rincon pasture for the 120-day grazing season to meet forage allocation guidelines set forth by the Trust.

Cow-Calf Program

General:

All cow-calf pairs, yearling heifers, and weaned steers will graze the Valle Seco, Santa Rosa, and San Luis pastures for the duration of the grazing season. Based on the forage allocation data set forth by the Preserve Scientist, the Valle Seco, Santa Rosa, and San Luis can sustain 353 (dry year) to 560 (wet year) animal units for the 120-day season in 2009.

Specific Details:

- 320 cow-calf pairs, replacement heifers, bulls and weaned steers will graze the Valle Seco, Santa Rosa, and San Luis pastures for the 120-day grazing season to meet forage allocation guidelines set forth by the Trust.

Range Management and Monitoring Efforts

Several methods of monitoring were employed by Trust staff to gather information about the grazing conditions before, during, and after the grazing season.

One of the methods of monitoring rangeland health during the grazing season used techniques recommended by the USDA's Natural Resources Conservation Services (NRCS). In an attempt to standardize the monitoring of the cattle program on the ground during the grazing season, records of the cattle program and range conditions were kept and assessed using the USDA NRCS, *Grazing Recordbook: A field Guide for Range, Forage and Livestock Programs*. Part of this process involved conducting basic pasture utilization surveys. Surveys were conducted in the (1) Seco/Santa Rosa/San Luis pastures, where 320 cow/calf pairs were kept during the grazing season, (2) the Rincon Pasture, where 122 heifers grazed and, (3) the Lake/Field traps, where about 113 bulls were grazed.

The methods of the NRCS Rangeland Utilization Survey consist of selecting key areas in the pastures that are grazed. Step transects are done by walking in one direction and at every second step, stopping and estimating which Use Class is apparent for the key species nearest your foot. The Use Class is the amount of annual growth removed by grazing animals. At least 100 points are taken per survey. The Use Classes are described by NRCS and include 0-15% (none), 16-35% (light), 66-80% (heavy), 80-100% (severe). For example "None" is described as having very little use of key forage plants with only choice areas or choice plants being foraged. "Light" is described as having key forage plants that are lightly to moderately used, with practically no use of low-value plants, with most of the accessible range shows grazing. Table 1 includes the results from these field assessments.

Table 1. Grazing Season Utilization for VCNP Pastures Using USDA NRCS Use Class.

Pasture	Beginning of Season (May)	Mid Season (July)	End of Season (October)
Seco/Santa Rosa/San Luis	8.0 % {0-15% (none)}	12.80% {0-15% (none)}	24.83% {16-35% (light)}
Seco/Santa Rosa/San Luis (Control)	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}
Rincon	8.0 % {0-15% (none)}	11.23% {0-15% (none)}	24.04% 16-35% (light)
Rincon (Control)	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}
Lake/Field Trap	8.0 % {0-15% (none)}	11.57% {0-15% (none)}	22.36% 16-35% (light)
Lake/Field Trap (Control)	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}	8.0 % {0-15% (none)}

Seco/Santa Rosa/San Luis Pastures

Results indicated that the control site for the Seco/Santa Rosa/San Luis pastures remained in the 0-15% (none) range for the entire season, while the Seco/Santa Rosa/San Luis pastures where the 320 head of cattle grazed went from a 12.8% mid-season utilization in July to a 24.83% utilization total for the end of the season . This moved it up to the NRCS 16-35% (light) utilization level.

Rincon Pasture

Results indicated that the control site for the Rincon pasture remained in the 0-15% (none) range for the entire grazing season, while Rincon pasture itself, where the 122 head of cattle grazed went from a 11.23% mid-season utilization in July to a 24.04% utilization total for the end of the season . This also moved it up to the NRCS 16-35% (light) utilization level.

Lake/Field Trap Pastures

Results indicated that the control site for the Lake/Field Trap pastures remained in the 0-15% (none) range during the entire grazing season. The Seco/Santa Rosa/San Luis pastures where the 110 head of cattle grazed went from a 11.57% mid-season utilization in July to a 22.36% utilization total for the end of the season. This kicked it up to the NRCS 16-35% (light) utilization level.

The more extensive and rigorous data collection and studies of range health were conducted as part of the Science and Education Program's range condition monitoring.

Rainfall during the 2009 season were on average in terms of quantity, the steady timing of the storms through June, July and August kept the available forage growing well

throughout the season. Based on data collected after the cattle had been removed from the Preserve, the forage utilization data for the cow-calf pairs in the Valle Seco pasture was 8.8%, and in the Valle San Luis was 3.9%. In the Rincon pasture, where the replacement heifer program was based, the site recorded 0% utilization (i.e., it grew back just as fast as it was being used). For the bull program, there were not specific study sites within those traps.

For the entire Preserve, production was less than the three previous years and the mountain valley grasslands actually lost overall forage (both inside and outside the exclosures) compared with what was present in the spring (probably as a result of decomposition of litter from the previous year). Overall, production kept up with utilization, so that by the end of the summer, the exclosures recorded no difference on average inside and out; so the net utilization was 0 for grazeable woodland, mountain valley, and mountain meadow habitats. Riparian habitat utilization was only 1.5% on average across all sites.

Field data collected at the end of the 2009 grazing season indicate that the 40% allocation goal was met. Table 2 shows the VCNP forage utilization data, all of 2009 data indicate utilization well below the goal of 40%. Table 3 lists the average forage left standing after the livestock were removed for 2002-2009.

Table 2. VCNP forage utilization (based on ratios of biomass outside vs. inside exclosures from autumn sampling, after livestock have left the VCNP).

<u>Average Forage Utilization (%)</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Grazeable Woodland (GW)	54.2	37.9	34.5	29.1	24.0	29.3	13.4	0.0
Mountain Valley (MV)	27.1	22.7	18.4	17.6	15.6	14.8	15.7	0.0
Mountain Meadow (MM)	19.1	30.2	41.0	19.8	14.3	20.8	26.9	0.0
Riparian (RR)	29.3	41.7	45.3	33.2	23.6	22.8	29.6	1.5
Overall Average Utilization:	32.4	33.1	34.8	24.9	19.4	21.9	21.4	0.4

Table 3. Average amount of forage (dead and live) left standing in autumn after livestock have left the VCNP. Units are lb/acre.

<u>Summer Production (lb/acre)</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Grazeable Woodland (GW)	489	732	70	515	935	1131	1040	223
Mountain Valley (MV)	248	405	168	728	848	895	1372	-33
Mountain Meadow (MM)	207	1068	436	412	1670	1101	1086	576
Riparian (RR)	372	1128	829	1215	1929	1563	835	667
Overall Average Production:	329	833	376	717	1345	1173	1083	358

Financial

In 2009, NMSU paid the Trust \$13 per head a month (\$52 total per head for the 4 month grazing season). NMSU grazed 552 head of animals, which equated to a total return of \$28,704 for the four month grazing season.

In summary:

- \$13.00 per head a month (\$52.00 per head for 4 month season)
- A total 552 head grazed
- \$52.00 X 552 = \$28,704
- **TOTAL: \$28,704**

Conclusion and Recommendations

While the total financial return was less than in 2008 because of fewer head of cattle grazing on the Preserve, the 2009 cattle program was considered a success. The multi-faceted program benefited multiple cattle growers (including many local producers), limited the impacts to sensitive habitats, limited impacts and interaction with recreation programs, and provided a research component related to issues unique to high altitude cattle.

The Valles Caldera Trust seeks a cattle program that supports the long-term goals for the Preserve. The Valles Caldera Preservation Act foresaw continued management of the VCNP as a working ranch in both the purposes of acquisition and the goals set for management. Recently the Trust completed an environmental assessment (EA) regarding the "Multiple Use and Sustained Yield" of consistent with the act. The EA provided a framework of adaptive management to guide the Trust in the continued operation of annual programs for domestic livestock grazing.

In the future, there are several factors that need to be considered in developing a successful grazing program at the Preserve:

- The grazing program should provide the Trust with the greatest flexibility to respond to varying environmental and market conditions, to meet multiple goals and to incorporate an experimental management style that mixes elements of public and private administration.
- The program should be aimed at reducing our administrative costs and efforts.
- Operating smaller numbers of livestock, while at the same time seeking to develop programs that increase the revenue through other activities, might be a better long-term strategy for economic return. These activities could include a smaller numbers of higher value animals (such as the high elevation bull/heifer programs), fees and grants received for educational programs, conservation stewardship programs, or even recreational fees associated with herding or other cowboy activities.

- The program should provide for the ability to respond to changing conditions, future development or changes on the Preserve, balance all the goals from the Act, and address the competing demands from the public.

Under a 2010 Program the VC Trust can provide the following:

- The Trust will provide access to the Preserve through any entry gate via key, lock combination or both as provided by the Trust.
- Quarters (optional) – three-bedroom house, equipped with basic furnishings (sleeping for six) for a rental fee
- Two sets of shipping pens maintained with working chutes and certified scales.
- Reasonably secure tack storage.
- Up to seven (7) pastures and corrals for horses at no fee.
- A range specialist (ranch foreman) will be provided by the Trust for program oversight.
- A grazing plan that includes quality control will be developed by the Trust in cooperation with the operator to be followed by the operator.
- The Trust will maintain existing interior and perimeter (boundary) fencing and gates. Fences and gates will inspected and repaired, if necessary prior to the arrival of the livestock.
- Monitoring will be the responsibility of the Trust and may result in alterations to the grazing plan or removal of animals from certain areas of the Preserve.

Under a 2010 Program the grazing contractor should provide the following:

- Livestock as well as all supplies, equipment, and labor for successful operations. This will include transportation of cattle to and from the Preserve and management and care of the cattle while on the Preserve.
- Fees which are competitive and comparable to market values for other grazing programs.

- Management of the livestock should provide for the stewardship of the land and the animals and with respect to fishing and other recreation activities occurring on the Preserve. This includes the protection of sensitive habitats such as riparian areas.
- Value added options, including research or monitoring projects; educational seminars associated with ranching or range management, or workshops or demonstrations of ranching activities such as herding with dogs, grading cattle, etc.
- The research component could include investigating such issues as stocking rates, forage consumption, high altitude health problems, sensitive habitat protection, and beef marketing.
- A program which involves as many local cattle producers as possible. The program should include extension type services to these producers as well as a conservation stewardship component (i.e. resting off-site grazing pastures).
- Range management and monitoring assistance to the Ranch Foreman during the grazing season.
- Assistance in wildlife monitoring, predator studies, and forage related data collection to enhance the understanding of the overall forage consumption on the Preserve.
- Reporting that includes information on program results related to economics, weight gain, mortality, brisket disease, and other cattle related information relevant to the VCNP grazing program.
- Suggestions for future revenue generating activities on the Preserve such as livestock sales, mineral block development or high altitude feed supplement development and sales.

Unfortunately, as has been the case in years past, trespass cattle continued to be a problem on the Preserve, mostly on the northern part of the Preserve. The fence is often cut throughout the grazing season and dozens of trespass cattle graze on the Preserve. Substantial effort was made to remove cattle off of the Preserve, or have the owners come retrieve their cattle, but continual cutting of the fence makes keeping trespass cattle off the Preserve a difficult task.

The 2009 grazing season was a success. The grazing program was able to meet all of the obligations spelled out in the original contract and the group of participants was very cognizant of our unique circumstances in being both a working ranch and a public use and recreation Preserve. The cattle were contained in large pastures away from riparian areas and away from recreation programs. The cattle had a negligible impact on the recreation programs this year due to a concerted effort to keep cattle out of recreation areas. The program involved many local cattle growers, included an extension and research component, a conservation program which allowed the resting of tribal land, and culminated in a successful on-site bull sale.