



**REPORT TO CONGRESS**  
**FOR**  
**FISCAL YEAR 2007**

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## Executive Summary

The Valles Caldera Preservation Act of 2000 (Public Law 106-248) authorized the acquisition of the Baca Ranch in the Jemez Mountains of New Mexico. The Act designated the acquired lands as the Valles Caldera National Preserve (the Preserve) and created the Valles Caldera Trust (the Trust), a wholly owned government corporation, to manage the 88,900-acre tract.

In 2007, Trust staff comprised nine full-time permanent positions, down from 10 full-time positions in 2006 and 15 full-time positions in 2005. In January, the terms of three of the nine members of the Board of Trustees expired; three new members were announced in May 2007.

The Trust received \$3.5 million in appropriations in fiscal year 2007 (FY 2007) and spent about \$3.4 million. The Trust collected \$750,000 in revenues; 73% came from recreation programs. The Preserve hosted 12,405 visitors in FY 2007. Revenues were up 10% and visitation was up 25% from FY 2006.

In the past two years, the Trust hosted 43 groups and over 1,200 people in educational activities on the Preserve. About 40% were students from local schools, colleges and universities. The Trust has also benefited local communities by hiring local residents and buying goods and services locally.

The Trust completed an assessment of 18 structures on the Preserve, 10 of which are historic or contribute to the historic character of the ranch. The Trust did not receive federal highways money in 2007, but completed upgrading the VC02 road in the History Grove. Upgrade of the main entrance to the Preserve began in summer 2007 and most of the work was completed before winter. The project will be completed in 2008.

As a result of many years of aggressive fire suppression and intensive logging, Preserve forests need extensive treatment to reduce fire hazards and restore them to more natural conditions. The Trust thinned 90 acres of forest in 2007. The slash was masticated and left on site as part of a research project to examine the effects of mastication and to determine whether this procedure should be used in future forest management operations.

Range conditions on the Preserve are good; plant cover exceeds 98% in the valles. The Trust's 2007 grazing program was awarded through a competitive process. Over 500 yearlings were brought onto the Preserve, although there was adequate capacity for additional animals due to good winter and spring precipitation. The Trust received \$5,800 in grazing fees. For the first time since federal acquisition, the Trust made a profit from livestock grazing.

The Trust held four public meetings in July and August 2007 to gather information from the public about access and use of the Preserve for recreation, education and other personal and cultural activities. People said they valued the vastness, solitude, quiet and beauty, and made suggestions on activities they want the Trust to offer; 120 people attended the meetings.

The Trust offered elk hunts and, for the first time, wild turkey hunts in 2007. The elk hunts had 268 participants and the turkey hunts 16. Elk hunts generated about \$330,000 and turkey hunts about \$20,000. Volunteers donated over 1,000 to help the Trust manage the hunts.

The Trust obtains data about Preserve resources through inventory, monitoring and research programs. Inventories included surveys for economically important insects and forest stand exams. The trust continued to monitor the condition of forage and watersheds. Research continues on hydrology, climate change and carbon cycles. In 2007, the Trust expended about \$500,000 in appropriated funds on the inventory, monitoring and research program and

received the equivalent of about \$1.8 million in extramurally funded inventory, monitoring and research projects.

Range conditions on the Preserve are good; plant cover exceeds 98% in the valleys. Range conditions improved dramatically in 2007 with record precipitation. Snow in winter 2006-2007 provided extensive moisture. Rainfall in May and June transitioned directly into the summer monsoons, resulting in a new record precipitation for the year and record forage production.

In 2007, the Trust surveyed 1,200 acres for cultural resources and found 67 new sites. The area surveyed since federal acquisition is now 7.5%; just over 430 historic and prehistoric sites have been documented. The inventory revealed a diversity of prehistoric site types that were unknown or poorly known, including pottery types from the prehistoric-historic interface.

The Trust goals for FY 2008 are: 1) complete a business plan, 2) complete an independent financial audit for fiscal years 2004 through 2007, 3) complete an environmental assessment for forage management, 4) finalize the programmatic agreement between the Trust and the New Mexico State Historic Preservation Office, 5) begin long-term planning for public access and use, 6) develop a procurement policy and 7) implement several new recreation programs.

## Distribution List

The Honorable Mike Johanns  
Secretary of Agriculture  
1400 Independence Avenue, S.W.  
Washington, D.C. 20250

The Honorable Jeff Bingaman  
Chairman  
Committee on Energy and Natural Resources  
US Senate  
304 Dirksen Senate Building  
Washington, D.C. 20510

The Honorable Pete V. Domenici  
Ranking Member  
Committee on Energy and Natural Resources  
US Senate  
304 Dirksen Senate Building  
Washington, D.C. 20510

The Honorable Nick J. Rahall, II  
Chairman  
Committee on Natural Resources  
US House of Representatives  
1324 Longworth House Office Building  
Washington, D.C. 20515

The Honorable Don Young  
Ranking Member  
Committee on Natural Resources  
US House of Representatives  
1329 Longworth House Office Building  
Washington, D.C. 20515

The Honorable Tom Udall  
US House of Representatives  
1410 Longworth House Office Building  
Washington, D.C. 20515

The Honorable Robert C. Byrd  
Chairman  
Committee on Appropriations  
US Senate  
The Capitol, S-131  
Washington, D.C. 20510

The Honorable Thad Cochran  
Ranking Member  
US Senate  
Committee on Appropriations  
The Capitol, 113 Dirksen Office Bldg.  
Washington, D.C. 20510

The Honorable David R. Obey  
Chairman  
Committee on Appropriations  
US House of Representatives  
H-218 US Capitol  
Washington, D.C. 20515

The Honorable Jerry Lewis  
Ranking Member  
Committee on Appropriations  
US House of Representatives  
H-218 US Capitol  
Washington, D.C. 20515

The Honorable Steve Pearce  
US House of Representatives  
1607 Longworth House Office Building  
Washington, D.C. 20515

The Honorable Heather Wilson  
US House of Representatives  
442 Cannon House Office Building  
Washington, D.C. 20515

## Introduction

The Valles Caldera Preservation Act of 2000 (Public Law 106-248) authorized the acquisition of the Baca Ranch in the Jemez Mountains of New Mexico. The Act designated the acquired lands as the Valles Caldera National Preserve (the Preserve) and created the Valles Caldera Trust (the Trust), a wholly owned government corporation, to manage the 88,900-acre tract.

During 2007, the Trust worked diligently to meet the following legislative mandates:

- Manage the Preserve as a working ranch;
- Protect and preserve for future generations the scientific, scenic, historic and natural values of the Baca ranch, including rivers and ecosystems and archaeological, geological and cultural resources;
- Provide opportunities for public recreation;
- Continue to make progress to become financially self-sustaining by 2015<sup>1</sup>; and
- Provide for sustained yield management of Baca ranch for domestic livestock grazing and timber production insofar as is consistent with the other stated purposes.

## Trust Operations and Accomplishments

### Administrative Operations

The administration of the Trust is a key component to creating a successful land management model. The Trust is focused on the following goals:

- Maintaining a small and competent staff;
- Integrating management and resource planning;
- Developing a financial model that supports management and planning; and
- Fostering a culture that balances public land management, recreation, science, resource utilization and resource protection with the goal of financial self-sufficiency.

### *Staffing*

In 2007, Trust staff comprised nine full-time permanent positions, down from 10 full-time positions in 2006 and 15 full-time positions in 2005. To control costs, the Trust employs five term employees and approximately 15 seasonal hires when the Preserve is open to the public and uses contractors to augment operations and implement short-term management decisions.

Significant personnel changes in 2007 included filling the vacant accountant position with a procurement officer as part of the transition of budget and finance operations from the National Business Center to the Albuquerque Service Center of the U.S. Forest Service (USFS).

### *Board of Trustees*

There was significant turnover among the Board of Trustees in 2007. In January, the terms of three of the nine board members expired. New board members were announced in May 2007; they are Edward Tinsley, Stephen Henry and James Range. The six month lag between trustees rotating off the Board and the appointment of new members affects the potential to

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<sup>1</sup> From Public Law 106-248 § 103(4): "The term "financially self-sustaining" means management and operating expenditures equal to or less than proceeds derived from fees and other receipts for resource use and development and interest on invested funds..."

have a quorum to take management actions at public meetings.<sup>2</sup> During 2007, Daniel Jiron was appointed Santa Fe National Forest Supervisor and Vito Spinale was named as the Acting Superintendent at Bandelier National Monument.

In September 2007, the Board elected the following officers: William B. Keleher, Chairman; Edward Tinsley, Vice-Chairman; and Stephen Henry, Secretary. In 2007, the Board comprised:

James Gosz

Board Position: Forest Management

Term Expires: January 2009

Stephen Henry

Board Position: Secretary, Wildlife and Fish Management

Term Expires: January 2011

Tracy Hephner

Board Position: Livestock Management

Term Expires: January 2009

Daniel Jiron

Board Position: Forest Supervisor, Santa Fe National Forest

Term Expires: *ex officio*

William B. Keleher

Board Position: Chairman, Cultural and Natural History

Term Expires: January 2009

Raymond Loretto

Board Position: State and Local Government

Term Expires: January 2009

James Range

Board Position: Nonprofit Conservation Organization

Term Expires: January 2011

Vito Spinale

Board Position: Acting Superintendent, Bandelier National Monument

Term Expires: *ex officio*

Edward Tinsley

Board Position: Vice-Chairman, Financial Management

Term Expires: January 2011

The Trustees participated in nine working meetings and four public meetings. Members volunteer a significant amount of their time to serve on the Board. Except for the chairman, no Board member is compensated.

### **Financial Management**

The finances of the Trust comprise federal appropriations, fees from recreational and resource use and private donations. From the time of federal acquisition until August 2002, the Preserve was managed by the U.S. Forest Service. Management control was transferred to the Board of Trustees on August 2, 2002. The USFS continued to administer Trust finances through fiscal

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<sup>2</sup> "A majority of trustees shall constitute a quorum of the Board for the conduct of business" [Valles Caldera Preservation Act 2000, § 107(d)]

year 2003 (FY 2003). The Trust assumed financial control at the beginning of FY 2004 and moved its accounts from the USFS to the National Business Center (NBC) in the Department of Interior.

The Trust receives appropriations through USFS Treasury symbols and therefore must reconcile account balances with the Forest Service. During FY 2007, the Trust spent several months preparing for and executing a conversion of accounting operations from NBC to the National Finance Center (NFC) of USFS. The Trust entered into an agreement with the Forest Service to receive accounting services through the Albuquerque Service Center (ASC). The ASC provides management reports to the Trust, but the Trust is responsible for preparing its own financial statements. The conversion from NBC to NFC resulted in a reduction of administrative costs of approximately \$225,000 per year and significantly increased administrative efficiencies (the Trust will reconcile its accounts in one system instead of two).

***Status of Trust Financial Resources***

The majority of Trust funds in 2007 were Congressional appropriations; additional funds were collected from public recreation programs. The following table presents the financial position of the Trust for FY 2007.

<b>FY 2006 Carryover</b>	<b>FY 2007 Appropriations</b>	<b>FY 2007 Expenditures</b>	<b>FY 2007 Ending Balance</b>
\$148,152	\$3,500,000	\$3,378,865	\$269,287

The following table presents the recent history of congressional appropriations to the Trust.

	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
President's Budget Request (submitted by the USFS)	\$984,000	\$992,000	\$992,000	\$990,000
Appropriations (National Forest System)	3,150,000	3,650,000	3,650,000	3,500,000
Special Appropriations			1,500,000	
Rescissions	38,814	50,708	75,769	0
<b>Total Appropriated Funds</b>	<b>\$3,111,186</b>	<b>\$3,599,292</b>	<b>\$5,074,231</b>	<b>\$3,500,000</b>

Revenues collected by the Trust have increased in each of the past three years as shown in the following table presents the recent history of revenues collected by the Trust.

	<b>FY 2004</b>	<b>FY 2005</b>	<b>FY 2006</b>	<b>FY 2007</b>
Elk Hunting	\$210,850	\$285,625	\$317,365	\$330,276
Fishing	62,793	71,645	60,415	67,392
All Other Events	129,562	109,449	76,656	114,108
Concession Sales	13,256	9,558	48,496	42,513
<b>Subtotal for Public Programs</b>	<b>\$416,461</b>	<b>\$476,277</b>	<b>\$502,932</b>	<b>\$554,289</b>
Commercial Rental	8,000	5,000	45,095	6,810
Grazing Revenues*	42,110	39,654	0	5,800
Miscellaneous Receipts‡	50,890	131,288	246,817	183,058
<b>Total Revenues Collected</b>	<b>\$517,461</b>	<b>\$652,219</b>	<b>\$794,844</b>	<b>\$749,957</b>

\*The Trust did not have commercial grazing program in 2006 because of the drought.

‡Miscellaneous revenues include donations, sales of livestock and grants received by the Trust for inventory, monitoring, research and restoration projects.

The public can make reservations for activities, enter lotteries for hunting and fishing, and book events through a Web site maintained by the Trust ([www.vallescaldera.gov](http://www.vallescaldera.gov)). Access fees consist of a base fee of \$10.00 that is adjusted for added value (e.g., guided interpretive hikes) and age (i.e., reduced for children and seniors). Of the total revenues collected for public programs, 84% came through the Web site in 2005, 88% in 2006 and 81% in 2007.

Public visitation to Valles Caldera National Preserve increased in each of the past three years. The number of visitors participating in Preserve programs increased steadily between 2003 and 2007. The following table presents the recent history of visitor participation in Trust programs.

	FY 2003*	FY 2004	FY 2005	FY 2006	FY 2007
Special Events	351	1,674	3,401	5,196	3,984
Fishing	1,735	2,010	1,919	1,585	1,814
Hunting‡	840	497	1,162	1,332	1,798
Sleigh/Wagon Rides	598	1,520	891	702	516
Hiking†	1,276	1,620	565	446	1,020
Skiing/Snowshoeing°	64	142	705	0	1,393
Tours	353	502	379	573	1,607
Equestrian	NA	213	198	104	273
<b>Total Visitors</b>	<b>5,217</b>	<b>8,178</b>	<b>9,220</b>	<b>9,938</b>	<b>12,405</b>

\*Data for all programs except elk hunting are for fiscal years (Oct. 1 through Sept. 30); data for elk hunting are calendar years because elk hunt access permits are sold in one fiscal year and the hunting occurs in the next fiscal year.

‡Data for 2004 through 2006 are for elk hunting; data for 2007 are for elk and turkey hunting combined.

†Includes estimates of hikers on free trails accessible from NM Highway 4 in 2003 (378) and 2004 (600); not included in subsequent years.

°There were no winter recreation programs in 2006 because of the lack of snow.

In 2007, recreation programs brought in 12,405 visitors and generated \$554,289 in revenues. Visitation in 2007 was up 25% compared to 2006 and revenues were up 10%. The increase in visitation in 2007 was due largely to 1) an increase in winter visitors, 2) the addition of new, low cost programs for the casual visitor (no reservations required) and 3) efforts by the Trust to entice the driving public on NM Highway 4 to enter the Preserve and participate in the spontaneous activities where they would learn about other programs.

Recreation revenue per visitor (\$45) was down 12% in 2007 compared to 2006 (\$51), largely due to the Trust's efforts to attract casual visitors to participate in low cost activities. In the past four years, recreation revenue per visitor ranged from \$45 in 2007 to \$52 in 2005.

### ***Liability Insurance***

The Trust does not have access to the permanent judgment appropriation provided under section 1304 of title 31, U.S.C. (The Judgment Fund), for a claim, judgment or settlement. As a result, the Trust must carry liability insurance. In FY 2007, the Trust purchased insurance to cover liability (\$25,296), vehicles (\$14,582) and volunteers (\$1,000) for a total cost of \$40,878.

As the number of visitors and public programs increase, the cost of insurance will consume a larger part of the Trust's budget. Until the Trust becomes financially self-sufficient, judgments against the Trust will be paid to some extent out of appropriated funds. To date, there have been no financial claims filed against the Trust.

### ***Contracts***

To control administrative costs, the Trust uses contractors to provide services that support operations. In FY 2007, the Trust awarded \$344,000 in contracts through a competitive bid process; 98% of the dollar value of the contracts went to contractors located in New Mexico.

### **Public Outreach and Education**

In 2006 and 2007, 43 groups and 1,226 people participated in educational activities on the Preserve. Six groups and 281 K-12 students and teachers participated. Sixteen groups and 198 university students and teachers participated. Seven community groups and 235 people and three non-governmental organizations and 41 people participated. Agencies, museums, universities, non-government organizations and private sector groups increasingly use the Preserve for workshops and seminars. Five agencies and 137 people and six professional societies and 334 people participated in workshops and seminars.

- The Parajito Environmental Education Center (PEEC) brought public school students on field trips to the Preserve to learn about the environment in collaboration with the Trust and Los Alamos National Laboratory (LANL). A summer field camp entitled "Nature Odyssey" operated by PEEC provided environmental education to public school students, teaching them about plants, invertebrates, wildlife, riparian environments and water quality. Two LANL science camps provided instruction to students from the Pueblos of Jemez, Santa Clara, San Ildefonso and Cochiti.
- Trust archaeologists hosted school trips from Santa Fe Indian School (120 students) and an Albuquerque grade school (20 students) that came to learn about cultural resources on the Preserve.
- GIS students from Central New Mexico Community College volunteered to relocate 52 archaeological sites. Locations throughout the Preserve were remapped using GPS and site markers were replaced to diminish hazards for horses on the Preserve.
- Trust staff presented invited lectures and field trips on the cultural resources of the Preserve for the School of Advanced Research, Crow Canyon Cultural Explorations, UNM-Los Alamos, Santa Fe National Forest Site Stewards, University of New Mexico and University of California-Berkeley archaeology field schools and San Juan Basin Archaeological Society.
- Trust staff in collaboration with the University of New Mexico initiated the "Jemez Mountains Obsidian Database project" to compile all known occurrences of obsidian artifacts found in archaeological assemblages across North America that have been proven through geochemical analyses to be made of obsidian collected in and around the caldera. Results were presented in a symposium at the Society for American Archaeology. When completed, the database will be available to professional archaeologists as a spatially enabled, Web-based user interface to enhance national obsidian sourcing and trade research.
- The Preserve hosted 185 geologists during the New Mexico Geological Society 58<sup>th</sup> Annual Field Conference. Trust staff co-authored an overview article of Preserve natural and cultural history for the resulting edited volume.
- The Trust provided a free flintknapping event in the Valle Grande as part of NM Heritage Preservation Month. Several local knappers demonstrated obsidian tool making and participated with public attendees in throwing of spears using atlatls.

## **Benefits To Local Communities**

- Trust employs 12-15 local residents, including members of local pueblos, on a seasonal basis in public recreation programs and maintenance programs for the working ranch.
- The Trust collaborated with 28 local and regional groups on scientific studies. Extramural funding totaled about \$1.8 million in scientific projects. Since the Trust was formed, outside grants and scientific activities have contributed millions of dollars to the economy of New Mexico.
- Jack Hagelstein of Dexter, New Mexico was awarded a contract to manage a livestock program on the Preserve during summer 2007. The Quivira Coalition was a partner in the contract contributing their expertise in ecology, monitoring and the application of planned grazing to achieve ecological benefits. About 530 head of cattle were grazed during the 4-month season.
- The Trust is working with Jemez Pueblo on forest thinning projects and with Santa Clara Pueblo on watershed restoration and reintroduction of beavers. Jemez Pueblo manages a wood yard and sawmill called the Walatowa Woodlands Initiative (WWI), which has implemented small thinning projects on the Preserve. Recently, they partnered with a small wood product industry to expand their market and product line. This growth could lead to more opportunities for the Trust to remove and use small wood products.
- The Trust granted free access to the Preserve to members of the Pueblo of Jemez for cultural practices, including a traditional run from Jemez Pueblo to Redondo Peak.
- In May, 142 students, teachers and chaperones from the Santa Fe Indian School participated in teaching activities related to cultural resources, geology, wildlife, history of the Preserve and navigation using GPS on the Preserve.
- The Trust and Los Alamos National Laboratory hosted middle and high school students from Santa Clara and San Ildefonso pueblos for a 2007 Accord Pueblo Summer Environmental Science Workshop on the Preserve. The students participated in activities focusing on riparian habitats, insects, coyote telemetry and the water cycle. This is the fourth year for this collaborative science camp.
- The Trust worked cooperatively with the National Park Service and the U.S. Forest Service on monitoring rangelands to determine forage use. The program on the Preserve was expanded to Bandelier National Monument and the Santa Fe National Forest. As a result, compatible forage use data is being collected throughout the Jemez Mountains incorporating the winter elk range and winter livestock grazing allotments.

## **Preserve Operations and Accomplishments**

### **Infrastructure**

The condition of infrastructure (roads, trails, facilities and structures) varies across the Preserve. Repair, maintenance, construction or reconstruction of infrastructure requires considerable investment to bring it up to current standards and make it useable for staff and the public. Investment in infrastructure will probably be the greatest expenditure by the Trust over the next decade.

### ***Facilities***

Documentation of the historic structures in the Ranch Headquarters and throughout the Preserve is complete. A team of historical architects, historians and architectural preservation specialists from SWCA, Inc. evaluated 18 structures on the Preserve. The four-volume study

includes an assessment of the historical significance of individual structures and provides detailed recommendations and specifications to insure that necessary repairs can occur while maintaining the historic character of the early 20<sup>th</sup> century cabins and allowing greater use of the structures for administrative, ranching and public functions.

The deferred maintenance on the 18 structures was estimated at over \$830,000 in FY 2006 (Valles Caldera Trust, Report to Congress for FY 2006). Ten of these structures are considered historic,<sup>3</sup> or contribute to the historic character of the Ranch Headquarters,<sup>4</sup> and their deferred maintenance is estimated at \$630,000 (based on FY 2006 estimates). Of the 10 structures, the Casa de Baca Lodge is the only structure that the Trust regularly uses for overnight public activities. The Trust has limited ability to generate additional income from these facilities until the capital investment is made to address deferred maintenance problems.

### ***Public Roads***

The condition and location of roads and trails on the Preserve contributes to the experience of visitor activities and affects the cost and efficiency of all management activities. The staff has inventoried 645 miles of Preserve roads that are classified as passable – 261 miles in 2004, 114 miles in 2005, 80 miles in 2006 and 190 miles in 2007. About 20-25% of the Preserve remains to be inventoried. There are about 12 linear miles of road per square mile of land on the Preserve compared to the Forest Service objective of 2.5 linear miles per square mile of land. Most of the network of roads on the Preserve was constructed to facilitate logging. Cultural resources surveys are now complete for all of the main roads on the Preserve.

The Trust will use the road inventory to develop a transportation plan that identifies roads that will be used for public access and administrative use, sections of roads that are causing resource damage (e.g., erosion that contributes sediments to streams), and roads that should be obliterated and reclaimed.

Since 2002, the Trust has used Federal Highway Administration funds to upgrade segments of Preserve roads (VC01 and VC02) that are used for public programs. The Trust has upgraded 14.5 miles of ranch roads from the main entrance at NM Highway 4 to the backcountry of the San Antonio Creek to an all-weather road that complies with the Highway Safety Act. Three miles of the VC02 road were upgraded in 2006. Less than 0.25 miles of the VC02 road were upgraded in 2007 because the Trust did not receive any monies from the Federal Lands Highway program. The portion of the VC02 that was upgraded in 2007 was within a well known, old growth stand of ponderosa pines referred to as the "History Grove."

The VC02 is one of the main roads in the Valles Caldera and it bisects several sensitive riparian areas in the History Grove. Before the Trust upgraded the road, the road alignment redirected the outflow of an important spring from its natural course approximately 120 meters to a pipe crossing the roadbed. Redirection of springs, seeps and creeks along Preserve roads has contributed to a major loss of wetlands. Concentrating water flow to a restricted area caused not only erosion and sedimentation, but also reduced the natural flow that recharged Preserve wetlands.

The alignment of the VC02 road in the History Grove was redesigned in 2007. The outflow of the spring was routed back into its natural course and the landscape was sculpted so that surface water from rain and snow melt was directed onto areas adjacent to the road where it

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<sup>3</sup>Bond Cabin, Cowboy Cabin, Otero Cabin, San Antonio Cabin, Casa de Baca Lodge (Kiva), Commissary, Salt Barn and San Antonio Cabin Barn

<sup>4</sup>Office Cabin and Foreman's Cabin

could nourish vegetation. Porous fills ("French drain") and culverts were placed in the roadbed and the road was raised to the proper elevation for best drainage. The French drain uses rock or other permeable fill material sandwiched between layers of geotextile fabric. This design promotes dispersed flow of water through the embankment thus maintaining the natural condition of downstream wetlands. The Trust has installed several French drains in the process of upgrading Preserve roads, but the 2007 project was the largest. Porous fills reestablish low velocity, sheet flow of water to broad areas resulting in the restoration of wetland vegetation in soils that have slowly become drier.

The improved roads on the Preserve are engineer-designed, single lane with turnouts. The road prism is reconstructed to a minimum 14 foot running surface. The roads are designed for the best surface drainage with installation of culverts and the best wetland mitigation by constructing permeable fills. This allows springs and seeps to establish historic flow patterns and begin the restoration of hundreds of acres of wetland each year.

Upgrading ranch roads to the present design (i.e., one-lane, all-weather road with turnouts to accommodate passenger cars) can cost up to \$100,000 per mile. This does not include the cost of cultural resources surveys and mitigation measures (some roads pass through archaeological sites). The costs to comply with Section 106 of the National Historic Preservation Act range from \$1,000 to \$3,000 per mile for cultural resource surveys for road maintenance to \$10,000 to \$20,000 per mile to mitigate adverse effects from road upgrades.

### ***Main Entrance***

New Mexico Highway 4 bisects the southern part of the Preserve along the tree line on the south side of Valle Grande and serves about 1,200 vehicles per day. It is the primary route used to access the Preserve. When it was a private ranch, less than 200 vehicles per year used the entrance; currently, about 10,000 people visit the Preserve each year. The Preserve has designated parking for about 200 vehicles and some events use all those spaces.

Road conditions at the entrance do not meet Mexico Department of Transportation (NMDOT) standards. Using Federal Highways Administration funds, the Trust awarded a \$1.26 million contract to design and construct a safe and aesthetically pleasing entrance to the Preserve. The Trust worked with the USFS, New Mexico Department of Transportation and private contractors to design the new entrance. The project footprint is just under 12-acres; eight acres are on the Preserve and four acres are in the NM Highway 4 easement under the jurisdiction of NMDOT. The primary improvements are: 1) widening NM Highway 4 to add turning and bypass lanes, 2) earthwork to improve sight distances and increase safety and 3) redesigning and relocating the main gate. Construction began in summer 2007 and most of the work was completed before winter. The remaining work, which includes asphalt mill and overlay, road striping and relocating the main gate, will be completed in 2008.

### ***Communications System***

The Trust has implemented a new digital communication system on the Preserve that includes radio and telephone antennae, receivers, transmitters and two repeaters (one on Cerro Abrigo on the Preserve and one on Cerro Pelado on the Santa Fe National Forest south of the Preserve). The wireless network provides voice communication via radio and/or cellular telephone from most areas thereby increasing the safety of staff and visitors. The new equipment complies with federal regulations for digital radios. The network was designed and the equipment was purchased in 2006; the equipment was installed in 2007. Funds for the project (\$220,000) came from the 2006 special appropriation.

## **Resource Management**

Since assuming management of the Preserve, the Trust has assessed the structure, composition and function of the forest and grassland ecosystems to support comprehensive management. In the spring of 2005, the Natural Heritage Program of the University of New Mexico completed a map that defines the plant associations on the Preserve. This map is used to establish "reference conditions" for the Preserve, where the reference condition is defined as "... the composition of landscape vegetation and disturbance attributes that, to the best of our collective expert knowledge, can sustain current native ecological systems and reduce future hazard to native diversity" (U.S. Forest Service Rocky Mountain Research Station 2005).

Using aerial photography, the vegetation map, and data from nearly 300 field samples, the Trust identified forest and grassland polygons that are structurally similar, where a polygon is defined as a stand. Each stand is associated with over 30 attributes including species composition, tree size, age, structure and density, as well as elevation, aspect and slope. By comparing existing condition to the reference condition, the degree of departure can be estimated for all forest types on the Preserve.

### ***Forest Management***

As a result of many years of aggressive fire suppression and intensive logging, Preserve forests need extensive treatment to reduce fire hazards and restore them to more natural conditions. The southwest corner of the Preserve is a high-risk area for catastrophic canopy fire because of the high density of young trees ("dog hair thickets"), the prevailing southwesterly winds and the high incidence of human caused fires along NM Highway 4. A forest fire originating in this area (either on or off the Preserve) could burn toward the center of the Preserve and destroy much of the forests around Redondo Peak.

The Trust thinned 90 acres of forest in an area of the Preserve at high risk to wildfire and as a strategic fire-break in the event of a forest fire originating southwest of the Preserve. The Trust received a \$66,870 grant for the project; the average cost per acre was \$743. The work was done in collaboration with the Nature Conservancy and the USFS Rocky Mountain Research Station Fire Laboratory. The slash was masticated and left on site. The Fire Laboratory established research plots to support a Joint Fire Science Project to investigate forest mastication (sampling methods, fire behavior, fuel models and fire effects).

Managing the large amounts of biomass produced through the reduction of hazardous fuels and forest restoration is a dilemma across the West. While use of the material is preferred, removal and use is not always practical or even possible. Mastication in place is a low cost, low risk, efficient slash treatment method. The Trust participated in this collaborative research effort so land managers could use the results to improve the use of this tool where appropriate, and to identify, avoid or mitigate adverse effects.

In 2006, a request for proposals was prepared for fieldwork using Common Stand Exam protocols employed by the USFS. The contract was awarded and 110 forest plots were sampled; 550 additional plots will be sampled in the spring of 2008. The field data will be linked to the stand data in FSVEG, a module of the USFS corporate database Natural Resource Inventory System (NRIS).

Once in NRIS, the field data can be exported into standard natural resource model applications, including *Forest Vegetation Simulator* and *Fire and Fuels Extension*, which models forest dynamics through time under a variety of treatment options, including timber growth and yield and fire behavior. Other applications include *FARSITE Fire Growth Simulator*, which predicts the spread and intensity of wildland fire over heterogeneous landscapes. By merging Preserve

data into the USFS corporate database, the data will be compatible with new forest resource and fire models as they are developed.

### ***Fire Management***

Wildland Fire is an inevitable occurrence, a natural process and an important management tool on the Preserve. The safe, beneficial and cost effective management of wildland fire requires a risk management plan based on the best available science. The Trust's Fire Management Plan is integrated with the Santa Fe Zone Fire Action Plan. The Santa Fe Zone is an interagency fire operation center with responsibility for wildland fire response on federal, state and private land within its area. The Trust is a member of the Zone Board. Crews dispatched from the Santa Fe Zone contained all lightning-caused fires on the Preserve during initial attack. There were no human caused fires on the Preserve in 2007.

The Forest Service provides fire suppression on the Preserve at no cost to the Trust. The 2000 Act says that "...the Secretary may provide fire presuppression, fire suppression, and rehabilitation services: Provided, That the Trust shall reimburse the Secretary for salaries and expenses of fire management personnel, commensurate with services provided that the Trust reimburse the FS for fire suppression and other services." The 2005 amendment to the 2000 Act changed part of this; as a result, the Trust does not pay for suppression services. Here is the language from the 2005 Act:

"Subsection (b) amends section 108(g) of the Valles Caldera Preservation Act (16 U.S.C. 698v-6(g)) to direct the Secretary, in consultation with the Trust, to develop a fire preparedness, suppression, and emergency rehabilitation services plan for the Preserve that is consistent with the management plan developed by the Trust and to provide those services on a non-reimbursable basis. The Secretary may also provide presuppression and nonemergency rehabilitation and restoration services on a reimbursable basis."

The Trust would have to bear the costs if it decided to use prescribed fire or wildland use fire to reduce fuel loadings or for resource benefits. The two largest fires on the Preserve were the Cajete Fire (May 2003), which was 40 acres and cost \$140,788 to suppress, and the Valle Fire (May 2005), which was 82 acres and cost \$111,481 to suppress.

### ***Rangeland Management***

Range readiness is assessed each year and reports were prepared and presented to the public in 2006 and 2007. A multi-disciplinary team of resource managers (Trust biologists, BLM range specialists, USDA ARS range scientists, university scientists, private consultants and the public) assess rangeland conditions each spring, prior to livestock entering the Preserve. The assessments include 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 is calculated in animal units (AUs) and animal unit months (AUMs) based on the assessment data. Range conditions on the Preserve are good; plant cover exceeds 98% in the valles.

Cattle stocking rates on the Preserve are adjusted upward or downward depending on resource conditions. For example, the 2007 range readiness report found excellent range conditions that would support the maximum allowable numbers of steers (2,000) under the 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.

Trust grazing programs from 2002 through 2006 cost more to operate than the Trust realized in revenues. In 2007, 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 proposal was a collaborative effort between a producer from southern New Mexico, The Quivira Coalition, a local non-governmental organization, and the Valles Caldera Coalition, an environmental group. The proposal included educational opportunities in range riding and management techniques proven to reduce the ecological impacts while improving the performance of the cattle.

About 530 yearlings were brought onto the Preserve although there was adequate capacity for additional livestock due to good winter and spring precipitation. The producer was offered the option to bring additional animals, but due to his lack of familiarity with the land, the complexity of the collaboration and experiments with new management techniques, the producer opted not to increase herd size. The leader of the range-riding program was thrown from a horse in mid-July and suffered serious injuries. As a consequence, the education components were not implemented.

From 2003 through 2005, annual revenues from livestock operations averaged \$37,000 while operating costs averaged \$137,000, resulting in an average annual loss of \$100,000. In 2006, the Board of Trustees entered into a contract with New Mexico State University to graze 200 head of cattle in a research project and that cost about \$51,000 with no revenue to the Trust. In 2007, the Trust received \$5,800 in grazing fees (\$2.74/AUM) while expending no money towards operations. For the first time since federal acquisition, the Trust made a profit from livestock grazing.

The 2007 program, while meeting the Trust's ecological and economical objectives, did not benefit local producers. Small producers in the communities that surround the Preserve were disappointed at not having an opportunity to graze their cattle on the Preserve. These producers were eligible to submit proposals and one proposal was received from a local rancher. The USDA Extension Service and the Trust are evaluating opportunities to create a livestock association that would provide an avenue for local producers to participate in progressive grazing programs on the Preserve.

## **Public Programs**

### ***Public Meetings on Access and Use***

The Trust held four public meetings in July and August 2007 to gather information about access and use of the Preserve for recreation, education and other personal and cultural activities. The meetings were held in Jemez Springs, Los Alamos, Pojoaque and Rio Rancho. The Trust asked the public about visitor capacity; recreation and education programs; and the types of facilities and infrastructure (e.g., roads, trails, utilities, etc.) needed to support public visitation and visitor programs. Each meeting consisted of orientation to the Preserve and Trust, an open house with Trust staff and two professionally facilitated workshops. In the workshops, people identified what they value about the Preserve, what activities they want the Trust to offer and participated in an exercise to balance activities with the goals of the Trust.

One hundred and twenty people attended the four meetings. Six state and federal agencies and one tribe were represented. Six individuals were associated with a university or educational institution. Twenty-eight people representing 18 groups and organizations

attended. Two businesses were represented by individuals seeking to do business with the Trust. Fifty-nine members of the public participated as interested individuals.

When asked what they valued about the Preserve, their comments were similar to the comments in public meetings in 2001 and 2004 – they valued the vastness, solitude, quiet and beauty most commonly. When asked what they would like to do on the Preserve, their comments offered more specific recommendations than in previous meetings. People described activities such as hiking, fishing and horseback riding, and they wanted these activities available all the time, for spontaneous access, to an unlimited number of people with little support from staff and little need for infrastructure.

The Trust asked people to identify potential conflicts among various uses; they readily identified conflicts between grazing livestock and fishing, hunting and hiking and grazing and resource protection. They generally did not think that recreation activities conflict with resource protection, perceiving human activities as benign. A number of people that identified educational activities as important valued the Preserve as a place of learning. The conflict between "...solitude, quiet and beauty..." and "...activities available all the time, for spontaneous access, to an unlimited number of people..." is obvious and typifies the challenge facing the Trust.

This was the first step in a multi-phase process to develop a comprehensive program for public access and use of the Preserve for recreational activities as well as education, research, commercial and other public purposes.

### ***Elk and Turkey Hunting***

The Valles Caldera National Preserve is widely known for its excellent elk hunting. Hunters on the Preserve had a high level of success in the fall of 2007. The New Mexico Department of Game and Fish issued 77 bull tags for the Preserve; 76 hunters harvested 54 mature bulls for a 71% success rate. All bull hunters had an opportunity to take a mature bull elk. The state also issued 190 antlerless elk tags; 174 hunters harvested 81 antlerless elk for a 47% success rate. Overall, there were 268 hunters on the Preserve during 12 hunt weekends.

In 2007, the Trust offered its first wild turkey hunt since the property became public land. The much sought after Merriam's turkey was offered to the public on a fair chase basis and under low hunting pressure using a bow or shotgun. The Trust provided two programs in 2007. The first program was designed as a fund raising effort. Eight hunting packages were sold for \$1,800 each and included three days of hunting, one day of scouting, four nights lodging and meals at the Casa de Baca Lodge. The hunters provided their own transportation. Two access authorizations were donated to the National Wild Turkey Federation; one authorization was auctioned at their national convention and the local chapter raffled the second one.

The second program allowed the public to enter a lottery draw system for eight access authorizations. The lottery cost \$20 per chance and included one day of scouting and three days of hunting on the Preserve. The hunters selected through the lottery were allowed day access only and were allowed one guest at no cost.

Both hunts had a bag limit of one turkey with a visible beard per hunter as stated in the New Mexico Big Game and Furbearer Rules and Information for Game Management Unit 6B.

All elk and turkey hunters received a welcome letter, orientation packet and access agreement. Each hunter was required to attend an orientation session to learn the hunting rules and safety requirements. Volunteers from the Rocky Mountain Elk Foundation, National Wild Turkey Federation and other volunteers donated 1,012 hours to help hunters on the youth, mobility

impaired and antlerless elk hunts and 450 hours on the turkey hunts. At \$15 per hour, volunteer hours offset about \$22,000 in Trust labor costs.

Hunters reported that the elk and turkey hunts were high quality and that they would like to return to hunt again. The Trust received letters of appreciation for the attention hunters received from staff, which added to their perception of the value of hunting on the Preserve. Elk hunts generated \$330,276 in revenues and cost approximately \$135,000 to market and conduct. Turkey hunts generated \$20,280 in revenues and cost approximately \$19,000 to market and conduct. Over one-half of the costs associated with the turkey hunts were non-recurring, startup costs.

***History of Elk Hunting***

Management of the elk population in the Jemez Mountains is one of the more complex challenges facing the New Mexico Department of Game and Fish (NMDGF), which bears the responsibility for managing game animals in the state, including on the Preserve (Game Management Unit 6B).

After federal acquisition, the Trust conducted the first public elk hunt on the Preserve in 2002. Successful elk hunts have been conducted every year since then. The Preserve offers some of the best elk hunting in New Mexico and hunter satisfaction is consistently high. Statistics for the Trust’s elk hunting program are summarized below.

Year	Trust Lottery Mature Bull/Either Sex	Trust Auctioned Tags	State Lottery Mature Bull/Either Sex	Antlerless Tags	Hunts	VCT Lottery Tickets Sold	Total Revenue
2002	85	5	0	150 (NMDGF)	11	13,464	\$404,250
2003	48	5	12	215 (NMDGF)	10	10,297	\$335,325
2004	0	0	72	170	11	8,040	\$210,850
2005	74	0	0	204	14	13,045	\$285,625
2006	73	0	0	204	14	13,837	\$317,365
2007	77	0	0	150	16	14,229	\$330,276

2002. The Trust, in cooperation with the New Mexico Game Commission, distributed 90 bull permits through a combination of a national lottery (85) conducted by the Trust and special auctions (5). Antlerless permits were distributed through the New Mexico Department of Game and Fish state lottery. Five access permits were auctioned for \$10,000-15,000 each.<sup>5</sup> Lottery coupons could be purchased for \$25 with no limit placed on the number of coupons an individual could purchase. A \$150 access fee (\$75 for the youth hunt) was charged for antlerless tags distributed by NMDGF.

2003. The Trust distributed 53 bull permits through a combination of a national lottery (48 permits) conducted by the Trust, a booking agent and a special auction. Four access permits were sold through a booking agent for \$12,500 each and one permit was auctioned permit for \$17,500.<sup>6</sup> Twelve bull/either sex permits and all of the antlerless permits were distributed through the New Mexico Department of Game and Fish state lottery. An unlimited number of

<sup>5</sup> Auctions were conducted by Safari Club International (2 permits) and the Rocky Mountain Elk Foundation (2); one permit was advertised on e-Bay. Gross revenue was \$61,000; net revenue to the Trust was \$48,650.

<sup>6</sup> Cabela’s was the booking agent for four permits; the Rocky Mountain Elk Foundation auctioned one permit. Gross revenue was \$67,500; net revenue to the Trust was \$45,500.

lottery coupons could be purchased for \$25.00 each. A \$150 access fee (\$75 for the youth hunt) was charged for antlerless tags distributed by NMDGF.

2003 Attorney General's Opinion. The New Mexico Attorney General declared that the method used by the Trust to distribute bull elk permits was inconsistent with state law and that all bull elk permits must be awarded through a lottery with 78% going to residents and 22% going to non-residents. As a result of the attorney general's opinion, bull elk permits cannot be sold through an agent or by auction.

2004. The national lottery conducted by the Trust was discontinued. The NMDFG required the Trust to sell access coupons to hunters who wanted to hunt on VCNP. The hunter submitted the 2004 Big Game Application to NMDGF, who conducted the drawing. The state applied the quota system for residents (78% of permits) and non-residents (22%). Mature bull/either sex access coupons were sold for \$25 each. Revenues in 2004 were 49% of revenues in 2002 because the application process, which changed dramatically from 2003, was confusing to the public and the new rule limited non-residents to 22% of the available permits per hunt code.

2005. The Trust, in cooperation with NMDGF, conducted the lottery and issued an access authorization to the winners. NMDGF issued a permit to the winners with access authorizations. The state quota continued was applied to the lottery. Access authorization fees were \$25 per chance for a bull and either sex hunt and \$10 per chance for antlerless hunts. The number of coupons purchased by one individual was limited to 20 per hunt code. Hunters entering the Trust lottery were eligible to be drawn for other state game management units if they were not drawn for VCNP. The number of hunts was increased from 11 to 14 and revenues increased by 37% over 2004, but were 29% below 2002.

2006. The structure of the 2006 hunt was the same as the 2005 hunt except that the number of hunt codes increased from 14 to 16. Fees for antlerless hunts were increased from \$10 per chance to \$15. Revenues increased by 53% over 2004, but were 21% below 2002.

2007. The structure of the 2007 hunt was the same as the 2006 hunt. Revenues increased by 57% over 2004, but were 19% below 2002. The NMDGF issued 40 'over the counter' antlerless tags for the first two weeks of December because the cow elk harvest objective was not met. All 40 chances were sold within one week. The Preserve charged a \$300 access fee per hunter, which has the potential to increase revenues by \$12,000.

The Trust is working cooperatively with the state to find innovative ways to enhance the revenue opportunities from elk hunting, primarily through the distribution of bull elk tags. However, a change in the law may be required to give the Trust authority to distribute a portion of the bull elk tags it receives through auctions, brokers or other venues. Over the past three years, the number of non-residents entering the lottery has declined by 10% and non-resident revenues have declined by 12%. Ultimately, the Trust has to increase the revenues from elk hunting several times in the drive to become financially self-sufficient. The Trust is not advocating that the state relinquish its authority over regulating hunting on the Preserve. The restriction on the Trust's ability to offer greater national access for elk hunting will result in a greater proportional burden for maintaining the Preserve on New Mexico residents and a lower probability that the Trust will meet its financial self-sufficiency mandate.

### **Inventory, Monitoring and Research Programs**

The success of adaptive management depends on the availability of high quality data to address management questions. The Trust obtains data about Preserve resources through inventory, monitoring and research programs. Inventories are basic assessments of natural and cultural

resources (presence and distribution). Monitoring studies measure temporal changes and impacts to these resources as a result of Trust operations (e.g., recreation, hunting, fishing, fire management, forest thinning). Research projects are conducted largely by outside scientists with external funding. In 2007, the Trust expended about \$500,000 in appropriated funds on the inventory, monitoring and research program. The total extramural funding committed to the Trust for inventory, monitoring and research was over \$1.8 million.

### ***Inventory***

- Fieldwork for a high-resolution Preserve soils map was completed in the summer of 2007; data analyses and GIS layers will be finished in 2008.
- The USDA Systematic Entomology Laboratory and the Smithsonian Institution began a survey for economically important insects (pests and pollinators) in 2007. Target groups include forest pest beetles and moths, rangeland grasshoppers, aphids and leafhoppers, and beneficial predators (parasitoid wasps) and pollinators (flies, butterflies and moths).
- The ground-truth fieldwork for the forest stand assessments began in 2007 and will be completed in 2008. The forest stand map (GIS layer) was completed in 2007. Once the stand data are collected and analyzed, the Trust will develop a forest and fire management plan.
- The Trust realized economic efficiencies by quantifying resources Preserve-wide. For example, USFS Common Stand Exam protocols recommend a minimum of 20 plots per stand for a statistically valid inventory. By stratifying Preserve forests with stand data, the Trust can produce a statistically valid inventory by sampling 10% of the forests. Rather than 20 plots per stand,<sup>7</sup> the Preserve will install 20-30 plots per stratum. The vegetation map, stand delineation and the field data support comprehensive planning and management at a cost of about \$250,000 plus staff support. The Trust's resource data are unparalleled on multiple use public lands, and were obtained at a fraction of the cost typically incurred when data are collected on a project-by-project basis.

### ***Monitoring***

- The condition of Preserve watersheds continues to improve, with lowering of stream water temperatures and increases in riparian vegetation. However, stream water quality is still impaired (based on New Mexico Environment Department standards).
- The winter of 2006-2007 was average in terms of snowpack, and produced good soil moisture in the spring that led to excellent spring forage production in the valleys. May and June, usually a dry period, were characterized by steady rainfall and transitioned directly into the summer monsoon season. The Preserve produced a record amount of summer forage in 2007 (highest since 2002, when measurements began).
- Forage utilization by livestock and elk during 2007 averaged 22%, well below the maximum target of 40% utilization. This was due to the record high amount of plant production from the extensive rains.
- Fish populations in San Antonio Creek and the East Ford of the Jemez River remain stable. The current fishing program on the Preserve, the second largest revenue generating recreation program, is sustainable.

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<sup>7</sup> The Preserve has 1,394 stands that, according to protocol, would require 27,880 plots at \$45 per plot.

- Elk population estimates for 2007 were comparable to previous years. The calf:cow ratio (a measure of reproductive success) increased during 2007 to 41:100 over relatively low levels in 2005 (18:100) and 2006 (24:100).

### ***Research***

- The University of Arizona and Los Alamos National Laboratory continued research on hydrology, climate change and carbon cycles using instrument towers in grasslands, Ponderosa pine and spruce forests. They measure water budgets (inputs from rain and snow; losses from evaporation, sublimation, plant transpiration, runoff and soil infiltration) and carbon/energy budgets. Researchers also installed stream gauges on seven Preserve watersheds to determine water production. The results suggest that thinning treatments could be developed to maximize snow-water retention and spring runoff production in the Jemez River basin.
- Studies of wildlife infectious diseases on the Preserve confirmed hypotheses that high elevation forests are “refugia” for Hantavirus and plague. Mountain habitats are refugia for pathogens and rodents that can survive under a wide range of environmental conditions (e.g., droughts). Under favorable conditions (e.g., wet El Niño periods), rodent and pathogen populations increase and expand to lower elevations, eventually spreading into areas occupied by humans, which leads to increased risk of disease transmission. This work funded by the National Science Foundation will lead to more accurate disease forecasting models.
- Studies on Chronic Wasting Disease in elk by the New Mexico Department of Game and Fish found no incidence of the disease on the Preserve.
- A team from U.S. Geological Survey, University of Arizona and Trust staff finished the first field season of a project to work out the fire history in the grasslands of the Preserve. Fire scar data from trees, including stumps from trees cut during logging operations in the 20<sup>th</sup> century, are being analyzed at the University of Arizona.
- Several new projects were funded from grants in 2007:
  - A radio-telemetry study on the ecology of wild turkeys began in response to the Trust’s decision to begin turkey hunts. The project will provide management information on turkey movements, habitat selection, survivorship, nesting, roosting and winter migrations to lower elevations.
  - Additional funding was obtained to study the impacts of coyotes on elk calves on the Preserve. The funds will allow an increase in the number of coyotes fitted with GPS tracking radio collars.
  - The Earth Data Analysis Center at the University of New Mexico is developing remote sensing capabilities to estimate forage production for livestock and elk.

## **Natural and Cultural Resources**

### ***Natural Resources***

The natural resources of the Preserve include large tracts of second growth forests, expansive valleys of grasslands and wetland meadows, and nearly 75 miles of clear mountain streams. Wildlife, particularly large mammals (elk, bears, coyotes, etc.) are abundant on the Preserve. The magnificent scenery and ecological diversity are outstanding attractions for outdoor enthusiasts. Extensive grasslands provide excellent forage for livestock and wildlife that contribute significantly to the region’s communities and economy.

Rangeland Health and Productivity. In 2007, range conditions improved dramatically with record high precipitation. The monsoons in 2006 produced the most summer rainfall recorded on the Preserve since 2004, and productivity of forage increased significantly. The snows during the winter of 2006-2007 provided extensive moisture in the spring and, coupled with a wet May, allowed continued growth of spring grasses. Rainfall continued through June and transitioned directly into the summer monsoons, resulting in a new record precipitation for the year and record forage production. This wet period has greatly enhanced the condition of the range pastures, as well as helped to improve riparian zones on the Preserve.

Overall, range conditions on the Preserve are good; plant cover exceeds 98% in the valleys. Summer forage production, while higher than most rangelands in New Mexico, is extremely variable depending on rainfall. Between 2002 and 2007, net summer forage production ranged from 814 to 2,246 pounds per acre. The nutritional value of different forage species is fair to good during the summer, but very poor in the winter.

Wildlife Health and Productivity. Along with the abundant rains of 2006-2007 and subsequent increases in forage availability, the elk herd appears to be thriving. Body condition indices showed the elk were in excellent condition in 2006; a preliminary assessment of the 2007 samples indicates a similar result. Elk reproduction appears to have increased over 2005-2006 – calf:cow ratios increased from 18:100 in 2005, to 21:100 in 2006, to 42:100 in 2007.

Fisheries on the Preserve also appear to be in good condition. Fisherman satisfaction remains high, indicating that Preserve fisheries are producing high quantities of catchable trout.

### ***Cultural Resources***

The cultural resources program identifies, evaluates and interprets prehistoric and historic archaeological sites, historic places and events, architectural values and traditional cultural properties on the Preserve. This work is accomplished in consultation with the New Mexico State Historic Preservation Office as well as Native American pueblos and tribes. A significant accomplishment was completion of the project to document the historic structures in the Ranch Headquarters and throughout the Preserve.

In 2007, the Trust completed cultural resources surveys on 1,200 acres of the Preserve. Sixty-seven new sites were recorded and 36 additional sites were revisited to monitor site condition and evaluate significance. The total area surveyed for cultural resources since federal acquisition is now 7.5%; just over 430 historic and prehistoric sites have been documented.

Survey and evaluation projects included:

- 11 miles of roads; CR survey of all open roads on the Preserve is now complete,
- Proposed public use areas at Cerro Abrigo, Cerro la Jara, near Cerro Piñon, Redondo Meadows, and in Alamo Canyon,
- Completion of post-burn site assessment for the Valle Toledo prescribed grassland burn,
- 130 acres of non-project Section 110 survey on Rabbit Mountain.

The 2007 inventory revealed a diversity of prehistoric site types that were previously unknown or poorly known on the Preserve. Several small rockshelters were documented; some included ceramic artifacts that are found in only a few sites on the Preserve. At least three sites with ceramic artifacts in buried soils were discovered. One of these sites, on the south side of the Valle Grande, includes pottery types from the prehistoric-historic interface (AD 1500-1700), with at least one ceramic sherd associated with the Spanish Colonial era. Another unusual find is a multi-component site in the Valle San Antonio containing artifacts from the full range of known human use of the Preserve – Late Paleoindian, Archaic, Puebloan and Historic periods.

The University of New Mexico Office of Contract Archeology, working in collaboration with Trust staff and Los Alamos National Laboratory geomorphologists, completed a multi-year data recovery excavation at a large prehistoric site on the north side of Cerro del Medio. The excavations were part of the effort to upgrade the VC02 road in the Valle Jaramillo. Results of this project will provide information on the characteristics of buried soil deposits and natural site transformation processes operating throughout the Preserve.

## **Trust Goals for FY 2008**

### **Develop Strategic Business Plan to Guide Trust to Financial Self-Sufficiency**

The Trust intends to hire a consultant in 2008 to create a business plan that identifies options to generate revenues from programs, activities and commercial uses that equal or exceed operational expenses. The goal is to generate approximately \$5,000,000 per year in 2007 dollars for the Trust to become financially self-sufficient by 2015. The request for proposals to develop the business plan closes on January 22, 2008 and is available on the Trust's Web site. The following enterprise activities will be analyzed in the business plan:

- Lodging and Hospitality. The range of lodging/restaurant options, including an RV campground, which could be located on the Preserve to serve the visiting public. Identify concession opportunities and strategies.
- Education and Research. Partnerships with colleges and universities for education and research facilities on the Preserve.
- Domestic Livestock Grazing. Programs and partnerships that provide for sustainable use of the forage resources and that consider the priorities of neighboring communities.
- Hunting. Programs for big game (elk, deer, etc.) and other wildlife (turkey, etc.) are sustainable.
- Fishing. Programs use existing streams and consider construction of small lakes.
- Public Programs. Standard programs (e.g., hiking, interpretive tours) and special events (e.g., mountain bike and foot races, workshops) offer the public a range of recreation and education opportunities.
- Commercial Film and Photography. Identify opportunities for commercial industry to use the Preserve for film and photo shoots.
- Timber. Harvest of merchantable timber is limited due to prior logging, but potential exists for other operations (e.g., poles, vigas, mulch, wood pellets).
- Merchandise. Sale of clothing, maps, books and other items specific to the Preserve.
- Donations. Identify fund raising strategies and opportunities for the Trust, a 501(c)(1) organization, and Los Amigos de Valles Caldera, a recently established 501(c)(3) friends group.
- Other. Identify additional innovative and/or creative revenue-generating programs and activities (e.g., corporate sponsorships, renewable natural resources, green burial, etc.).

### **Complete Financial Audit for Fiscal Years 2004 Through 2007**

The Trust sought proposals to audit the Trusts financial records for 2004 through 2007. One accounting firm was selected and a contract to audit the Trust's financial records was awarded in September 2007. The audit began in December 2007 and will be completed in February 2008. The auditor will perform an independent fiscal and compliance audit and issue an opinion

on the financial statements of the Valles Caldera Trust for the fiscal years of 2004, 2005, 2006 and 2007. The audit will be performed in accordance with auditing standards generally accepted in the United States, the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States, and Office of Management and Budget Audit Requirements for Federal Financial Statements.

### **Complete Forage Management Environmental Assessment**

The Trust is developing an environmental assessment to allocate forage to support elk and other herbivores, to preserve and protect ecosystem processes and wildlife habitats, for domestic livestock grazing and other commercial uses and for scientific (research), education, or other public uses. Other commercial uses of forage include harvesting of native and non-native seeds and plants. Allocation decisions will be based on the best available science and accepted standards for estimating the quality and quantity of forage.

The Trust will operate programs that contribute to long-term financial self sufficiency and will consider programs that benefit local producers and enhance the management objectives on surrounding National Forest System lands. To support the long-term sustainability of the Preserve as a working ranch, the Trust will manage the existing ranch infrastructure, including establishing the minimum amount of permanent fencing necessary to support operations and to repair, maintain or obliterate existing earthen tanks to prevent resource damage and to improve the distribution of elk and cattle.

The Trust held public meetings in Jemez Springs and Española during the summer of 2007. The key issues raised were forage use and behavior of cattle and elk, water quality and aquatic habitats, and local and regional socio-cultural and socio-economic issues. The new Environmental Assessment (EA) will be completed by summer 2008 and implemented for the 2009 grazing season.

The commercial grazing program in 2008 will be managed under the existing EA. The request for proposals for the summer 2008 grazing program closes on January 31, 2008 and is available on the Trust's Web site.

### **Finalize Programmatic Agreement with New Mexico State Historic Preservation Office and Advisory Council on Historic Preservation**

The Trust hopes to complete a Programmatic Agreement (PA) that establishes the guidelines and procedures for the preservation of cultural resources on the Preserve. As a federal land management agency, the Trust is responsible under the National Historic Preservation Act for protecting the historic, archaeological, architectural and ethnographic resources, and landscapes; building knowledge about this historic heritage; and consulting with Indian tribes and pueblos that attach religious and cultural significance to the resources and landscapes of the Preserve. A draft of the PA is currently under review by the State Historic Preservation Office (SHPO). When the SHPO review is complete, the Trust will send the PA to the tribes and pueblos and invite them to become signatories, and to the public for their comments.

### **Begin Long-term Planning for Public Access and Use**

The Trust currently manages an interim program for public access and use of the Preserve. The interim program was developed in response to the Valles Caldera Preservation Act (Public Law 106-248), which mandates that reasonable access to the Preserve for recreation would be provided within two years of federal acquisition. The Trust provides a variety of outdoor activities such as fishing, hiking, hunting, wildlife and scenic tours, wagon rides, horseback riding and winter recreation activities, such as cross-country skiing, snowshoeing and sleigh

rides. The Trust also offers opportunities for the public to enjoy and learn about the Preserve through special events, including night sky adventures, youth and adult outdoor education seminars, photography workshops, mountain biking and running events and more recently, overnight opportunities such as weddings and workshops, which use the existing facilities on the Preserve. Universities, K-12 schools, and various educational and research entities have also had access to the Preserve on a case-by-case basis. Infrastructure development has been limited to road maintenance and improvements necessary to provide safe access while protecting and preserving natural and cultural resources. Temporary facilities, such as portable buildings and toilets, facilitate public use and access to the Preserve.

Under the interim public recreation programs, visitation has increased from about 200-300 people per year prior to federal acquisition to over 12,000 visitors in 2007. Existing programs use temporary facilities that are inadequate for some activities (e.g., winter recreation) and limit the ability of the Trust to generate significant revenues (e.g., overnight facilities). The Trust completed the first phase, which consisted of collecting data and information in a series of four public meetings in the summer of 2007. The second phase, which consists of developing a long-term plan for public access and use of the Preserve, will begin in 2008. The long-term plan will address visitor capacity; visitor programs and activities; and the facilities and infrastructure to support increased levels of visitation that are necessary to generate revenues for the Trust to become financially self-sufficient. The long-term plan will engage and respond to the public through the NEPA process.

### **Develop Procurement Policy**

As authorized by section 108(c)(4)(B) of the Valles Caldera Preservation Act of 2000, laws and regulations governing procurement by federal agencies shall not apply to the Trust and therefore, the Trust recognizes the need to develop a procurement policy. In consultation with the Administrator of Federal Procurement Policy, Office of Management and Budget, as required by the 2000 Act, the Trust will develop and adopt procedures applicable to the Trust's procurement of goods and services, including the award of contracts on the basis of contractor qualifications, price, commercially reasonable buying practices and reasonable competition.

### **Implement New Recreation Programs**

Fishing. The Preserve has two streams with reproducing populations of brown and, to a lesser extent, rainbow trout. Since 2003, the Trust has offered fishing on 10 beats of San Antonio Creek where each angler has 1.0-1.5 miles of stream (one beat) to fish alone or with up to three guests for the day. Over 1,800 fishermen participated in the program via lottery in 2007, which generated nearly \$70,000 in revenues.

In 2008, the Trust is expanding the fishing program to offer a comparable fishing opportunity on nine miles of the East Fork of the Jemez River. The program will offer 10 anglers access to the East Fork for a day and be available through a reservation system. Four of the ten slots will be reserved for registered fishing guides. Guides would pay a higher rod fee for their clients. If this program is well received, estimated revenues from fishing could increase by 50-100%.

Overnight Camping. The Trust will develop an environmental assessment for limited overnight camping to enhance recreation and administrative activities. The Trust will collect information from these activities for future decision-making and planning efforts for public use and access. The Trust currently does not have developed or backcountry campgrounds. Camping will be limited to the footprint of existing facilities and other disturbed areas (abandoned geothermal well pads, gravel pits, road prisms, etc.). Recreational camping will be used to enhance core activities and special events, such as the equestrian and hunting programs.