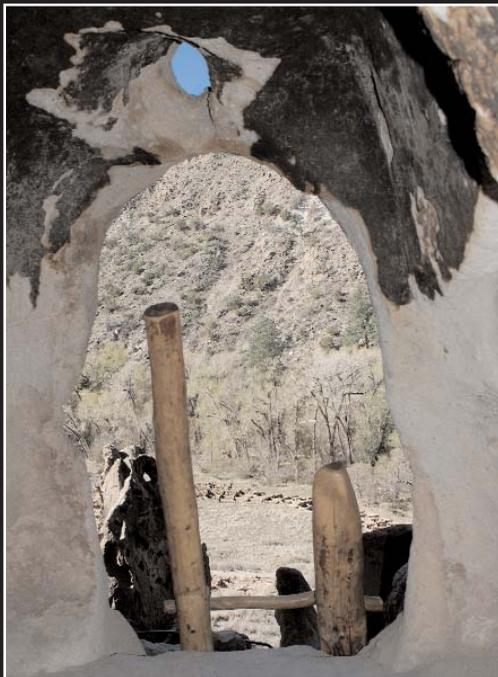




# The Tuff Times

(Tuff-consolidated volcanic ash that forms Bandelier's cliffs and canyons)

## Summer/Fall 2008



### Table of Contents

Area Highlights.....	2
Programs For Free and For A Fee .....	3
2008 Craft Demonstration Schedule.....	3
Bandelier Becomes A Climate Friendly Park..	4
Do Your Part.....	5
Living Off Grid.....	6
An Outside View.....	6
Where Can I Take My Dog?.....	7
Celebrating 75 Years.....	7
Friends of Bandelier, WNPA,Volunteers...	8

# Bandelier In Today's World

Bandelier National Monument contains over 33,000 acres of mesas, mountains, canyons, streams and rivers; home to black bear, elk, rattlesnakes, and red-tailed hawks. Even though the park is not large, it contains a wide diversity of ecosystems from montane grasslands and Piñon-Juniper woodlands to long narrow riparian zones following canyon bottoms. For over 400 years the Ancestral Pueblo people made their homes here depending on the richness of the area's resources for sustenance. In 1916, President Woodrow Wilson set these lands aside and created Bandelier National Monument to protect the unique cultural and natural features of this area. Today, a long history of human influence on the local landscape (especially since 1900) and growing global environmental change may be threatening these important resources.



*The survival of many species of wildlife, from Jemez Mountain Salamanders at Bandelier to Polar Bears in the Arctic to some types of butterflies world-wide, may be put in jeopardy by global climate change.*

### TREE DIE-OFFS

The American Southwest has always been subject to cyclic drought. Due to increasing climactic change many scientists believe drought cycles will be more frequent and more severe as we move through the 21st century. In the early 2000's, a prolonged drought cycle at Bandelier led to a massive die-off of Piñon and Ponderosa pine trees. Thousands of trees died as native bark beetle populations skyrocketed. During their larval stage, bark beetles burrow into the pine trees. Under normal conditions, the tree responds by producing excess sap. With limited available water, the tree is unable to deter the burrowing beetles whose digging cuts off food supply lines between the tree's roots and its green canopy and the tree dies. Similar mass casualties among pine trees are still occurring throughout the western United States.

### CATASTROPHIC WILDFIRES

Drier, warmer climates may also lead to more wide-spread catastrophic wildfires. Fire histories for this area show that the number and severity of fires, both natural and man-caused, is linked to the previous year's weather.

### INCREASED SOIL EROSION

Perhaps, the greatest current threat to the protection and preservation of Bandelier's cultural resources is severe soil erosion in the Piñon-Juniper woodlands. Archeological surveys indicate that Bandelier has one of the greatest densities of pre-European cultural sites in North America. Large numbers of these archeological sites are already damaged and many will be completely lost to erosion unless efforts are taken to improve this situation.

Looking at the present landscape one might assume that sparse grass cover, high tree

densities and large expanses of exposed, rapidly eroding soils are the natural state of these semi-arid woodlands. Historical data indicates there was formerly a good grass cover and the trees were more widely spaced prior to fire suppression and heavy livestock grazing beginning in the late 1800's and into the 1930's. Heavy grazing ultimately favored tree growth. Without the grassy fuels, fire could no longer carry through the savannas and meadow openings to thin out encroaching trees.

Without protective grass cover, intense summer thunderstorms generate runoff and erode exposed soils. Environmental conditions on these bare soil surfaces are extremely harsh, so it is difficult for shallow rooted grasses to successfully germinate. Those that do establish must compete with drought tolerant trees for increasingly limited soil moisture. These harsh conditions are part of the reason grass cover has not re-established on bare soils since livestock grazing ended in the 1930's. Researchers at Bandelier have measured soil erosion rates of nearly 2 inches a century. In 100 years, some areas could lose nearly all of their remaining soil. As the soil moves, cultural materials are scattered and lose their integrity. These areas are also an integral part of the history and culture of the Pueblo people who still have strong ties to this area.

### WORKING ON SOLUTIONS

A possible remedy for this resource threat may have been discovered. Beginning in 1994, researchers at Bandelier found that simply reducing the density of trees and using the cut trees to provide a slash "erosion blanket" on exposed soils resulted in a three-fold increase in understory cover (grasses, forbs (non-woody

# Area Highlights

## **Bandelier Trading Company Gift Shop and Snack Bar**

The gift shop features a colorful array of authentic crafts from throughout the Southwest, as well as souvenir items such as hats, shirts, and postcards. They also carry utility items such as film, disposable cameras, plastic rain ponchos, and batteries. The Snack Bar offers a varied menu including local dishes as well as standards, snacks, soft drinks, and bottled water.



*Bandelier Trading Company Gift Shop, NPS Collection*

## **Main Loop Trail (Tyuonyi, Long House, Alcove House)**

Beginning from the back porch of the Visitor Center, the Main Loop Trail leads to a fascinating group of Ancestral Pueblo dwellings directly up Frijoles Canyon. These are the only excavated sites in the park. The trail is paved and the first quarter mile is wheelchair accessible. Be sure to get the trail guide book; it is available in English, Spanish, Japanese, French, German, Russian, Braille, and large print. About one mile, one hour. If you choose to, you can continue another 1/2 mile (each way) to Alcove House—a group of dwellings built in an alcove 140 feet above the canyon floor. You can reach the cave by climbing long ladders, or view it from the canyon floor.

## **Tsankawi**

Tsankawi, a large unexcavated Ancestral Pueblo village, is located in a detached portion of the park about two miles north of White Rock along State Road 4. The one and one-half mile loop trail, which involves three ladders, takes you to the mesatop village then returns by way of numerous petroglyphs and cliffside homes. In addition, visitors enjoy expansive views of surrounding mountains and



*Carved trail at Tsankawi*

valleys. Open from 7 AM to 7PM. There is a guide book available on site. A \$12 Park entrance permit is required and available for purchase on-site or at the main entrance to the park.

## **White Rock Overlook**

Standing on the observation platform, you can gaze down at the Rio Grande flowing by in the bottom of White Rock Canyon, over 1,000 feet deep, or look out over the vast panorama of the Jemez and Sangre de Cristo Mountains, the Española Valley, and the Caja del Rio.

In White Rock, turn onto Rover Boulevard (at the Conoco Station on SR 4), left onto Meadow Lane, and left onto Overlook Road. Free admission.



*A View of the Rio Grande from White Rock Overlook*

## **Los**

### **Alamos Historical Museum and Fuller Lodge Art Center**

The Historical Museum features exhibits on the history of the area, from the Jemez Volcano through the Ancestral Pueblo people, homesteaders, and the Los Alamos Boys School, to the Manhattan Project and the Los Alamos National Laboratory. The neighboring Art Center showcases work of local artists; exhibits change throughout the year, showcasing various styles and media. Both facilities are located next to Fuller Lodge, a historic and distinctive log structure originally built for the Boys School, on Central Avenue near Ashley Pond. Mon- Sat 10 - 4, Sun 1 - 4, free.

### **Bradbury Science Museum**

Named for Norris Bradbury, the second director of the Los Alamos National Laboratory; its exhibits highlight scientific activities here from the earliest days of the Manhattan Project to the present high-tech, cutting edge work. Located at the corner of Central Avenue and 15th Street in Los Alamos. Tues - Sat 10 - 5, Sun - Mon 1 - 5, free admission.

### **Pajarito Environmental Education Center (PEEC)**

PEEC, the nature center in Los Alamos, offers natural history exhibits and information about the

environment of the Pajarito Plateau, from the sun-drenched Rio Grande Valley to the deep green coolness of the Jemez Mountains. PEEC has live animals and interactive exhibits on birds, flowers, water: trail maps; a demonstration garden, herbarium, library; and much more. Visit the PEEC website, [www.PajaritoEEC.org](http://www.PajaritoEEC.org), to discover talks, summer kids' programs, and workshops. Find PEEC at 3540 Orange Street, Los Alamos. Hours are Tues - Fri 12 - 4, Sat 10 - 1. Free admission.



*American Lady butterfly*

### **Valles Caldera National Preserve**

Over a million years ago the huge Jemez Volcano erupted covering more than a hundred square miles

with deep flows of volcanic ash. The distinctive canyon and mesa landscapes around Bandelier and Los Alamos resulted from this volcanism. The mountain collapsed, creating a caldera more than 16 miles in diameter. This caldera is now contained within the



*Valles Caldera Elk*

National Preserve. State Road 4 goes through a beautiful and impressive portion of the caldera, the Valle Grande. For information on how to access the Preserve, visit their website at [www.vallescaldera.gov](http://www.vallescaldera.gov).

### **Pueblos**

In the 1500s, people moved from the Bandelier area to villages along the Rio Grande. Today there are 19 pueblos in New Mexico. Taos, Picuris, San Juan, Santa Clara, San Ildefonso, Pojoaque, Nambe, Tesuque, Santo Domingo, San Felipe Cochiti, Jemez, Santa Ana, and Zia are all within about 80 miles of the park. Remember to be respectful when you are visiting. Follow the rules and regulations of the different Pueblos.

## Free Programs

### Main Loop Walk

Ranger-guided walks along the Main Loop Trail to Tyuonyi Pueblo are offered most days throughout the year, once in the morning and once in the afternoon (staffing permitting). The walk follows a paved path (partly wheelchair accessible) through Frijoles Canyon discussing the lifestyles of Ancestral Pueblo people. Walks last 45 minutes to one hour.



Ranger Guided Tour. NPS Collection

### Self-Guided

### Walking Tour of

### the Bandelier CCC Historic District

Available at the WNPA bookstore, this \$1.00 self-guided booklet takes you through the CCC Historic District of Bandelier National Monument highlighting the structures, intricate tin light fixtures, and fine wood carvings.

### Evening Programs

Each Friday and Saturday evening (Sundays too on holiday weekends) during the summer. A variety of topics are covered in this free program given at the amphitheater near Juniper Campground.

**Check at the visitor center for today's menu of events.**

## Programs for a Fee

Since 1997 Bandelier National Monument has been a part of the Recreational Fee Demonstration Program. As part of this program, Bandelier charges an additional fee to provide services that otherwise could not be made available.

### Nightwalks

This guided evening walk in Frijoles Canyon is such a popular activity that reservations are required. There is a charge of \$6/adult and \$3/child or holder of a senior pass. All attendees must be able to remain silent for an hour. Walks are every Wednesday night during the summer.

### Special Group Programs

Special guided walks for organized groups can be arranged. Costs vary depending on the details of the specific program. Arrangements can be made by calling (505) 672-3861 x 517.

### Programs for School Groups

Park Rangers offer grade-specific programs for school groups visiting Bandelier, and in the classroom.

If you would prefer to bring your class on a self-guided visit to Bandelier, you may also request materials from the Visitor Center. All groups travelling by bus must make group reservations by calling (505) 672-3861 ext. 534. Only one bus may be accommodated in the parking area at a given time.

*Continued from front page*

plants), and shrubs) on treated sites. Soil erosion was reduced by two orders of magnitude. After fifteen years of research and monitoring efforts, the park decided that these increases in understory vegetation and decreases in erosion are lasting and beneficial for a healthy natural ecosystem as well as for the cultural resources. In the winter of 2007 and spring of 2008, similar treatments were used on much of the Piñon-Juniper woodland within the park.

As global conditions continue to change, there will be new challenges in our efforts to protect the park's cultural and natural resources. Some threats may be local while others may arise from occurrences far outside of park boundaries. It is only working together as a world community that we can hope to continue the ideals for which all parks, including Bandelier, were initially created, "to preserve unimpaired the natural and cultural resources and values of the National park system for the enjoyment, education, and inspiration of this and future generations".



As part of the Pinon-Juniper woodland restoration many trees have been cut and used as a slash mulch.

## Summer 2008 Craft Demonstration Schedule

**June 1** Merrill Avatchoya, Hopi /Tewa, woodcarving

**June 7-8** Josephine Toya, Jemez Pueblo, pottery

**June 12-13** Caroline Lovato, Santo Domingo Pueblo, Turkey-feather blankets

**June 14-15** Evelyn Naranjo, San Ildefonso Pueblo, pottery

**June 21-22** Ernesto Burciaga, Hispanic Tinwork

**June 28-29** Sharon Garcia, Santa Clara Pueblo, pottery

**July 3-4** Evelyn Naranjo, San Ildefonso Pueblo, pottery

**4th of July Weekend-July 5, 6, and 7, 2008**

**July 5-6** Carlos Herrera, Cochiti, Drummaking

**July 7** Dance Group TBA

**July 7** Harvey Abeyta, Santo Domingo Pueblo, Flintknapping/Jewelry

**July 12-13** Micheal Bancroft, Ohkay Owingeh, pottery



Zuni Dance Group at Bandelier

**July 19-20** Caroline Lovato, Santo Domingo Pueblo, Turkey-feather blankets

**July 26-27** Dolores Toya, Jemez Pueblo, pottery

**August 2-3** Bill Lockwood, Ohkay Owingeh, gourds, pottery

**August 9-10** Arlene Archuleta, Ohkay Owingeh, magnets

**August 16-17** Steven Lockwood, Ohkay Owingeh, pottery

**August 23-24** Florence Naranjo, San Ildefonso Pueblo, pottery

**Labor Day Weekend-August 30, 31 and September 1, 2008**

**August 30-31** Darris Lovato, Santo Domingo, Turkey-feather blankets

**August 31** Dance Group TBA

**September 1** Merrill Avatchoya, Hopi /Tewa, woodcarving

# Bandelier Becomes A Climate Friendly Park



The National Parks, because of their location and unique, protected resources, are places where the effects of climate change are particularly noticeable. With the establishment of the National Park Service in 1916, responsibility was given to the Service to preserve and protect the significant resources within the parks for the enjoyment of future generations. As knowledge about climate change and its effects has accumulated, it has highlighted the need to maintain park resources through practicing not only good stewardship of the flora and fauna within parks' boundaries but also active protection of the natural environment on regional and global scales.

On May 13 – 14, 2008 Bandelier held a workshop to discuss how climate change is affecting Bandelier's important natural and cultural resources, to initiate a plan on how to reduce Bandelier's carbon footprint, and to learn ways to share this important information with the entire staff and the public. Workshop participants included park employees, park stakeholders, and energy consultants. Prior to the workshop information was collected on all aspects of the park's energy consumption and waste management. This information was then applied to a computer program called CLIP (Climate Leadership In Parks) that estimates annual greenhouse emissions. Bandelier's current total annual greenhouse emissions were 343 MTCE (Metric Tons Carbon Equivalent) per year or about the same as 190 private homes. A similar amount of greenhouse emission could be eliminated simply by replacing all the incandescent light bulbs in 2000 homes with high efficiency bulbs. Seventy-nine percent of park greenhouse emissions were from park operations while only 21% was from visitor transportation within the park.



Park Superintendent Brad Traver (right) and Chief of Resource Management John Mack discuss the importance of addressing the implications of global climate change on park resources.

Once the park calculated its carbon footprint a five year plan, called a Climate Action Plan, was discussed. A Climate Action Plan is a description of the actions—policies, programs, and measures—the park will take to reduce its GHG emissions. An action plan is based on a specific reduction target that the park aims to achieve by a designated year. The target is usually expressed as a percentage reduction below the quantity of emissions produced in the baseline year, e.g. 15% below 2005 levels by 2012.

After the park develops a list of mitigation strategies, the CLIP program will be used to quantify the emission and economic benefits of each action and produce a synthesized action plan. Once the park finalizes an Action Plan and the park superintendent signs it, Bandelier will be considered a Climate Friendly Parks Member Park. At that point, a page highlighting the park's previous climate friendly accomplishments as well as the park's inventory and action plan will be developed and posted to the Climate Friendly Parks Website, [www.nps.gov/climatefriendlyparks](http://www.nps.gov/climatefriendlyparks).

Although Bandelier has taken actions to limit energy use and greenhouse emissions in the past, this is the first step to a more organized and accountable effort. Through these efforts we hope to continue to protect Bandelier's valuable resources.

## National Park Service Centennial Challenge

In 2016 the National Park Service will celebrate its 100th anniversary. In recognition of this milestone, the National Park Service offered \$24.6 million to parks across the country to fund special projects targeting education, professional excellence, stewardship, environmental leadership, and improved recreational experiences. Parks were required to have matching funds from private partners. Bandelier received funding for two projects: one targeting sustainability and the other how to reach under served members of the public. The Friends of Bandelier pledged matching funds. This climate friendly workshop was paid for through this program. For information on other centennial projects, log on to [www.nps.gov/2016](http://www.nps.gov/2016).



## A Message From the Superintendent

### On Becoming a Climate Friendly Park

You may think of national parks as places that are already climate friendly. And in many ways, we are. But over the years, we have been less than conscientious about the effect of our own management operations on the environment. We have been a part of the greenhouse gas problem by not paying attention to our carbon footprint. Since we like to think of ourselves as environmental leaders, we have turned a spotlight on ourselves and, in the coming months and years, will seek to earn that title. We invite you to keep track of our progress and join us by being more climate friendly at your house, too.

Brad Traver  
Superintendent



Bandelier park staff and neighbors attend a workshop to determine how best to address climate change issues at the monument.



During role playing, the park staff was asked to describe their vision for the park's green future.

Perhaps the greatest potential for national parks to help address climate change is to provide millions of annual visitors like you with the tools to understand and address your individual contributions to climate change. Using EPA's household emissions calculator, you can determine your carbon emissions and select actions you would like to take to address those emissions such as driving less, recycling more and using energy efficient appliances. Do Your Part! then uses a database capture system that tracks your emissions and reports the results in real time, allowing you to see how individual efforts can make a difference.

**You can sign-up in three easy steps:**

**Step 1 — Pick a Park**

Choose among the national parks that participate in the Do Your Part! program, each of which has set a goal to reduce the carbon footprints of individuals who visit or work in the park.

**Step 2 — Sign Up**

Create a personal profile that will be linked to your carbon footprint and the park of your choice.

**Step 3 — Calculate & Pledge**

Calculate your carbon footprint by entering basic information about your household's energy needs. Next, calculate your household's environmental and economic savings based on future climate-friendly actions. Once you hit "submit," you have pledged to help your national park achieve its emissions reduction goals! After 6 months, you will be asked to return to the website to update the progress you have made toward reducing your carbon footprint. By implementing simple measures at home and on the road, national park visitors can:

- reduce emissions that contribute to climate change;
- improve air quality;
- decrease traffic congestion;
- reduce their utility and transportation expenses;
- support their favorite national park.



*Drive a hybrid car. It will save you money while protecting the environment.*

# What You Can Do!

**Remember the Following:**

**On The Road**

- Buy smart. Check out the EPA's Green Vehicle Guide before buying a new vehicle or renting one.
- Drive smart. Go easy on the gas and brake. Remove unnecessary items from your car. Remove your roof rack when you don't need it.
- Tune your ride. A well-maintained car is more fuel-efficient and produces lower greenhouse emissions.
- Check your tires. Under inflated tires can reduce fuel economy by up to 3%.
- Give your car a break. Walk, bike, or use public transportation whenever possible.
- Use renewable fuels.

**At Home**

- Be a localvore. Buy items made or grown in your local community. Check out your neighborhood farmer's market.
- Change current lighting to Energy Star lighting. It could also save you as much as \$60/year in energy costs.
- Buy Energy Star products. There are more than 50 product categories with Energy Star ratings including appliances, home electronics, and heating and cooling equipment.
- Heat and cool smartly. Clean your air filters regularly, install adequate insulation, and have your heating and cooling equipment tuned annually by a licensed contractor.
- Use green power. Green power is electricity that is generated from renewable energy sources such as wind and sun.
- Reduce, Reuse, and Recycle. Reduce the amount of waste you generate and water you consume whenever possible. Turn off water, recycle your waste when possible and then purchase recycled products.
- Be green in your yard. Plant native plants that are adapted to your environment.

**At Work**

- Manage office equipment energy use better. Use the power management features on office equipment.
- Look for Energy Star qualified office products just like at home.
- Ask if your office building has earned the Energy Star. This label is for buildings

that use up to 35% less energy than average buildings.  
-Reduce, reuse, and recycle just like you would at home.



*Recycle whenever you can. Buy recycled products.*

**Did You Know?**

- ❖ A fresh tomato from your grocery store's produce isle may have travelled 1000's of miles while a canned vegetable may have been grown just down the road.
- ❖ GM North America uses 8500 tons of nylon fibers from recycled carpet and 5400 tons of polypropylene from recycled soda bottle caps in its vehicles.
- ❖ Lighting directly consumes 20 percent of the electricity in the United States. By using the best technologies, 70-90 percent of the energy used for lighting can be saved without any loss of function. Improving lighting design can also lower maintenance costs and increase worker productivity.
- ❖ If 5% of National Park visitors substituted 10% of their current electricity use with green power, they would save 11 billion pounds of CO2 per year.
- ❖ The United States currently diverts about 27 percent of all discarded materials for recycling, up from 17 percent in 1990.
- ❖ Every \$1 spent on energy conservation is likely to save \$3-\$5 in energy costs.

# Living Off Grid

Rebecca Ortel and her husband John don't get a utility bill in the mail each month. Their 2000 square foot house does have all the comforts of most homes including a microwave oven, a television set, and a home computer. Rebecca and John aren't stealing from the utility company. They are simply living "off grid" and are responsible for supplying all their own power needs.

Since 2005, Rebecca has worked at Bandelier National Monument as a biologist with the United States Geological Society (USGS). For over 11 years she and John have lived in the Jemez Mountains near Bandelier's west boundary. Living in this area going off grid was not a choice but a necessity. Rebecca doesn't seem to mind. Rebecca said she would want to live independent of power companies no matter where she chose to call home.

How easy is it to live off grid? According to Rebecca it's not that hard. The biggest hurdle is the

expense. Rebecca says their initial 1 Kilowatt system cost about \$10,000. They expect to put in another \$6000 - \$7000 to upgrade their system so it can run the 3.5 HP pump that brings water up from their 1000 foot well. For heat, they rely on a fuel stove with a catalytic converter. The refrigerator and freezer run on propane because of their cyclic demand for power. Everything is easier if you have more resources to spend on additional solar panels and batteries. With their current system, Rebecca says one of the most difficult things is to plan ahead. "I can't come home at night after work and do a load of laundry. You have to pay attention to cloud cover and remember you can only spend as much (power) as you make."

Why does Rebecca like living off grid? "I love not using grid power because there are 0 carbon emissions and it makes me think about being green in everything I do." Could living off grid work for you?

# An Outside View

When trying to assess how best to make changes either in our personal lives or our work lives it is often wise to consult with outside sources who have different perspectives. One of the people consulted by Bandelier is Mark Chalom an Architect at Solar Design and Analysis in Santa Fe. A company specializing in Passive Solar Design and other Sustainable Technologies. Mark's work and research has been on the cutting edge for over 30 years. Not only a full time architect, Mark also teaches Sustainable Design for the Southwest Solar Adobe School in Belen and the Yestermorrow School in Vermont. Mark has written and presented technical research papers at many national and international conferences.

Mark made the following suggestions for Bandelier:  
-Reduce use of paper flyers. Visitors should have a place in the visitor center where they can take a flyer only if they want it and the opportunity to put it back.

-As a Solar Architect/Inventor, Mark has many different apparatus that operate on the sun. One of his favorites is a portable solar oven. Bandelier should provide demonstrations on using resources such as solar ovens that save resources and show the power of the sun.

-Solar energy was utilized by the early inhabitants of Bandelier. Their use of masonry in south-facing exposures maximized solar exposure in winter while minimizing the hot summer exposure. A similar pattern is seen in many cliff dwellings in the southwest. The park should use these construction techniques to show visitors how native materials

and location planning can be used to build structures that use resources productively.

-The heating systems in the historic structures need to be inspected to see if they have a good efficiency rating and if they are tuned up. If not, they could be replaced with more efficient models. Tight double glazed Low E windows might be worth adding. Some of the homes might be insulated from the interior, keeping the historic character. The addition of solar collectors for domestic hot water heating should be incorporated into park residences as solar collectors can be utilized 365 days of the year. They could be installed separate from the buildings, preserving the historic character. This would not only show a good example for visitors but would be a good economic investment for the park.

-The water resources in the park can be another good example of sustainability. Low flow fixtures should be utilized throughout the historic district. Major urinals should be changed out to waterless units. Rain water can be collected from all roofs and utilized to flush the toilets, wash the floors and other non-potable water uses.

-Water draining from the parking lot should be collected, stored, filtered and reused as a non-potable water source.

-Aerobic digesters can be incorporated for all black and grey water in many places. They could be added to standard septic systems and produce healthy effluent for plant growth. For another energy saving, a landscape plan for the area around the visitor center should be developed using local, drought resistant, edible plants. Once again it could serve as an example of turning a waste into a benefit.

# Butterflies: Indicators for Climate Change

As the climate warms, the ranges of many butterflies are shifting north and to higher elevations. Some species are even going extinct. Why? The plants that the butterflies lay their eggs on are drying up before the caterpillars hatch, and the larvae stage dies.



**"You may not care about butterflies, but the changes they are undergoing tell us a lot about climate change. This creature is telling us that global warming is affecting life right here, right now, in our own backyards."**

*Dr. Camille Parmesan, University of Texas*



# Bandelier National Monument Protects...



Evidence of Human History



Diverse Wildlife



Native Plants

## Where Can I Take My Dog?

*To protect park wildlife from disease, parasites, and disturbance, pets are not permitted in most areas of Bandelier National Monument. Pets are allowed only in the campground, picnic area, and main parking lot and must remain leashed (leash under 6 feet) at all times. Pets are allowed on Department of Energy (DOE) lands that are posted as open for public use (see map). The entire area, including the parking areas, is closed after dark.*

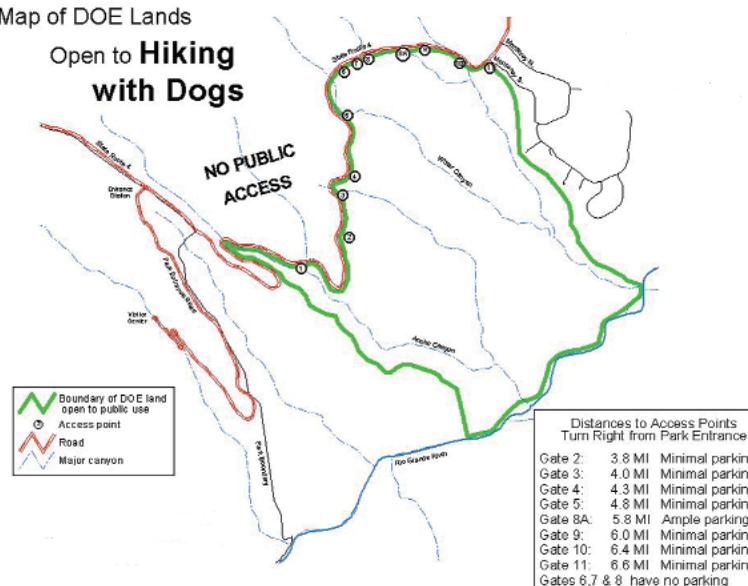
-Pets may not be left unattended (except in a vehicle) and may not be tied to an object (except when staying in the campground).

-Pets left in vehicles must be given enough ventilation to ensure their safety.

-It is the responsibility of the person accompanying the pet to clean up after it. All pet excrement must be picked up and disposed of properly.

Map of DOE Lands

Open to **Hiking with Dogs**



## Celebrating 75 Years



Like the rest of the country, New Mexico was affected by the Great Depression in the 1930s. President Franklin D. Roosevelt created the Civilian Conservation Corp or CCC to stimulate economies and provide jobs that offered many unemployed young men training and skills that could provide them better work opportunities in the future while earning money to support their families at home. Although the program's main goal

was to provide the economy a timely jump start and help end the Great Depression, many areas received much longer term benefits from the work done by the CCC enrollees. Here at Bandelier, their efforts stand the test of time and can easily be seen in the hand-carved vigas in the park visitor center ceiling, the stacked-rock walls and the rock-lined gutters along the road into Frijoles Canyon, and the carved amphitheater near Juniper Campground where evening programs are offered in the summer (see program schedule on page 3). The sunken rock amphitheater was created as the volcanic tuff rock was quarried to build a total of 31 Pueblo-revival structures in the park. March 31, 2008 marked the 75<sup>th</sup> anniversary of the Civilian Conservation Corp. For more information on the CCC visit their website at [www.ccclegacy.org](http://www.ccclegacy.org).

New Mexico State Parks are celebrating their 75<sup>th</sup> anniversary in 2008. Over 75 years, State Parks has evolved from a federal New Deal initiative to a vibrant system of 34 parks serving over 4 million people annually. State Parks will celebrate its Diamond anniversary throughout 2008 with a year-long program that will include visitor discounts and giveaways (including a diamond bracelet), numerous events, special programs, and new park projects.



New Mexico State Parks include:

- |                           |                               |                          |
|---------------------------|-------------------------------|--------------------------|
| Bluewater Lake            | Bottomless Lakes              | Brantley Lake            |
| Caballo Lake              | Cimarron Canyon               | City of Rocks            |
| Clayton Lake              | Conchas Lake                  | Coyote Creek             |
| Eagle Nest Lake           | Elephant Butte Lake           | El Vado Lake             |
| Fenton Lake               | Heron Lake                    | Hyde Memorial            |
| Leasburg Dam              | Living Desert Zoo and Gardens |                          |
| Manzano Mountains         | Mesilla Valley Bosque         | Morphy Lake              |
| Navajo Lake               | Oasis                         | Oliver Lee Memorial      |
| Pancho Villa              | Percha Dam                    | Rio Grande Nature Center |
| Rockhound                 | Santa Rosa Lake               | Storrie Lake             |
| Sugarite Canyon           | Sumner Lake                   | Ute Lake                 |
| Vietnam Veterans Memorial |                               | Villanueva               |

For more information on New Mexico State Parks visit their website at [www.emnrd.state.nm.us/prd/index.html](http://www.emnrd.state.nm.us/prd/index.html).

# Friends of Bandelier

## Who are we?

The Friends of Bandelier are private citizens who love the monument. A Board of Trustees governs the activities under a formal Memorandum of Agreement with the National Park Service. Park rangers request help on special projects and they try to meet the needs. The membership stays informed of Friends' activities, and of key issues affecting the Monument, through letters, field trips, and announcements in the local newspapers. The mission of the Friends of Bandelier is to provide assistance to Bandelier National Monument. You are invited to join the Friends. Dues start at \$15 per year. (and gratefully accept more). Send to P.O. Box 1282, Los Alamos NM 87544.

## What do we do?

The Friends of Bandelier provide support for:

- \*Handicapped Access
- \*Traditional Crafts
- \*Education
- \*Special Projects such as trail maintenance
- \*Archeology
- \*Visitor Amenities like the visitor center water fountain
- \*Scientific Research
- \*Publications, including this newspaper



Dorothy Hoard, president of the Friends of Bandelier, with Chief of Interpretation Lynne Dominy meet Secretary of the Interior Kempthorne in Washington, DC to receive Centennial Challenges funding.

Further details concerning the Friends of Bandelier can be found at [www.friendsofbandelier.org](http://www.friendsofbandelier.org).

Join the Friends of Bandelier by sending this information with your membership fee or donation to:

**Friends of Bandelier**  
P.O. Box 1282  
Los Alamos, New Mexico 87544

annual \$15 \_\_\_\_\_  
contributing \$30 \_\_\_\_\_  
sponsor \$100 \_\_\_\_\_  
senior/student \$5 \_\_\_\_\_  
special gift \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

## Volunteers

The National Park Service Volunteers-In-Parks Program (VIP) was authorized by Public Law 91-357 enacted in 1970. The primary purpose of the VIP program is to provide a vehicle through which the National Park Service can accept voluntary help and services from the public. The major objective of the program is to coordinate this voluntary help so as to be mutually beneficial to the National Park Service and the volunteer. For more information, visit <http://www.nps.gov/volunteer> on the Web.

## Tyuonyi Pueblo



## Western National Parks Association

Western National Parks Association (WNPA) was founded in 1938 to aid and promote the educational and scientific activities of the National Park Service. As a non-profit organization authorized by Congress, it makes interpretive material available to park visitors by sale or free distribution. All net proceeds support the interpretive and research programs of the NPS. For more information about WNPA or memberships log onto [www.wnps.org](http://www.wnps.org). Join WNPA and support the preservation of your national heritage.

## Junior & Deputy Rangers

### START YOUR COLLECTION TODAY!!

Bandelier National Monument has a Junior (preschool through sixth grade) and a Deputy (seventh grade and up) Ranger program. Junior Rangers can help a squirrel find his food, recreate rock art with a pencil and paper, describe the life of an animal using words and pictures, and help keep the park clean by picking up trash. Deputy Rangers assist Bandelier by thinking of creative new ways to prevent



Junior Ranger Patch, NPS Photo

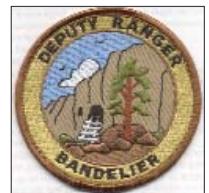
graffiti and learn to identify plants unfamiliar to them. Both receive an embroidered Bandelier patch and a colorful certificate. The program is free. Children need parental approval to participate. If you are interested, inquire at the Visitor Center desk.

Many National Park Service sites across the country



It's fun to be a Junior Ranger. Photo by Sally King.

offer Junior Ranger programs. Some are free and some charge a minimal fee. All allow you to learn more about the park you're visiting, so feel free to participate in as many Junior Ranger programs as you can. Also check out [www.nps.gov/webrangers](http://www.nps.gov/webrangers) where you can become a junior ranger on-line.



Deputy Ranger Patch, NPS Photo

Coming soon, Bandelier will be launching entirely new Junior and Deputy Ranger programs with brand new patches. Check at the visitor center for details when you visit.