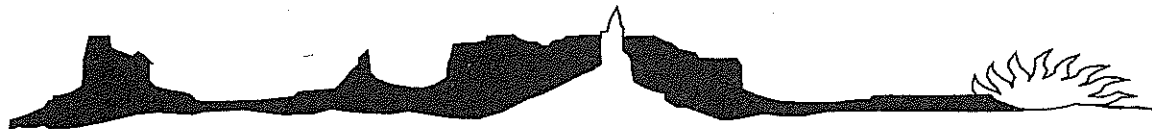


# Rio Grande Sierran



NEWS OF THE RIO GRANDE CHAPTER OF THE SIERRA CLUB

JULY/AUGUST 2002

## Gubernatorial Candidate Bill Richardson Outlines Renewable Energy Platform

*The Rio Grande Chapter of the Sierra Club has endorsed former U.S. Senator and Energy Secretary Bill Richardson for New Mexico governor. Richardson delivered this talk at the AIRDS Renewable Energy Conference at the Albuquerque Convention Center on May 29, 2002.*

**T**hank you for inviting me here today. Just last week, 160 New Mexico business leaders endorsed my campaign for governor, because I said I would bring people together to create a high-wage economy for our State. I said I would devote 25% of my time to this endeavor. One crucial area to develop high-wage jobs—and quality, homegrown New Mexico businesses—is renewable energy.

Let's use the resources of New Mexico—its sun, its wind, and, of course, its creative people—to produce a renewable-energy industry that will lead the nation. I believe in solar, wind, geothermal, and biomass—and my record shows it.

As secretary of energy:

- I championed the One Million Roofs Initiative, to put solar power on one million roofs by 2010;
- I founded Wind Powering America, which funded projects throughout the country and set ambitious goals for wind-energy production; and
- I installed photovoltaic power systems on federal buildings, including, the Department of Energy in Washington, DC.

When I was in Congress, I supported increased funding for renewable-energy research and development of fuel-efficient vehicles.

I'm always looking for areas where New Mexico is at the top of the list—our strengths. Well, here's one—New Mexico is #12 in the country when it comes to the amount of naturally occurring wind. Other states have taken their wind, and they're producing energy:

- California produces 1700 megawatts to power 500,000 homes;
- Texas produces 1000 megawatts to power 300,000 homes;
- Wyoming produces 96 megawatts to power 30,000 homes; and
- Colorado produces 60 megawatts to power 18,000 homes.

Here in New Mexico, we generate a meager 1.32 megawatts—through two small wind farms in southeastern New Mexico. That's enough energy to power a neighborhood of 200 homes—and we should be talking about powering entire cities.

New Mexico is sitting on a great opportunity to capitalize on production of renewable energies, not only for customers here, but for export to other states. Yet today, we generate from renewable energy less than 1% of the energy we consume.

We're so far behind—in a field where we should be leading the way. And when we become a leader in these fields, we will attract new manufacturers—of wind turbines, photovoltaic panels, and other components of these energy sources. Shell Oil, for example, plans to invest \$500 million over five years in wind, solar, and biomass. This company recognizes that hydrocarbons are finite—and Shell wants to be in business for many more years. I will say to Shell Oil, "Come to New Mexico. We've got the wind, sun, and the research underway."

Just last week, a group of petroleum experts predicted that global supplies of crude oil will peak in 2010. And we will then be facing a new era of soaring energy prices and economic upheaval.

Now is the time for New Mexico to build a new industry, with new jobs, working on new technologies. And that's exactly what I'll work on when I'm elected governor of New Mexico.

**T**oday, I want to outline my five-point plan, which I call "Renew New Mexico."

- First, I will set a goal—that New Mexico generate 10% of its energy by 2010 through renewable sources.
- Second, by the end of my first term, I want New Mexico to be recognized as one of the top three states when it comes to wind-energy production.
- Third, I will encourage New Mexico businesses to generate their own power to sell back to the utilities by increasing the ability to net-meter.
- Fourth, I want New Mexico state government to lead the way with its use of renewable energies by solar-powering schools throughout New Mexico, state-government buildings, and the Governor's residence in Santa Fe. And
- Fifth, I want to encourage use of alternative fuels in our vehicles to keep our New Mexico skies clean.

(continued on page 4)

## Feds Reassess Floodplain Insurance

**I**n a move that could reduce death and destruction as a result of flooding, by discouraging building in dangerous floodplains along New Mexico's major rivers, the Federal Emergency Management Agency (FEMA) recently agreed to determine the effect of its National Flood Insurance Program (NFIP) on numerous endangered species. The agreement comes in response to a lawsuit filed in January 2001 by Forest Guardians, the Sierra Club, and the Southwest Environmental Center that claimed that new development along river banks and in the adjacent floodplain was damaging the habitat of species listed under the Endangered Species Act.

The settlement agreement, which was signed in late February 2002, required FEMA to consult with the U.S. Fish and Wildlife Service (FWS) on the effects of the NFIP by submitting a Biological Assessment to the agency by May 1, 2002. The recently completed assessment addresses the effects of implementing the NFIP, which facilitates development within floodprone portions of communities, on all the major New Mexico rivers including the Rio Grande, San Juan, and Pecos.

The environmental groups claim that uncontrolled development of floodplains along the Rio Grande (see photos page 7) and San Juan

(continued on page 18)



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## SIERRA CLUB STRUCTURE

The Club has three structural levels. The National Board of Directors determines the overall direction of the Club. The National Organization is subdivided into Chapters, and each Chapter is further divided into Groups. One representative from each Chapter reports to the National Board through the Council of Club Leaders.

The largest part of the Chapter's budget goes to the salary and expenses for the Conservation Organizer and a part-time lobbyist, followed by the printing and mailing of this Newsletter.



[www.riogrande.sierraclub.org](http://www.riogrande.sierraclub.org)

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Contributions are welcome from members. E-mail contributions preferred. Contributors' names and e-mail address will be included in the article, as a source of more information, unless the contributor specifies otherwise. Send to jbuchser@earthlink.net • John Buchser • 223 N. Guadalupe #419 • Santa Fe, NM 87501. All submissions **MUST** be received by the 10th of the month prior to publication. (The Rio Grande Sierran published in early January, March, May, July, September and November.) Photos, artwork and poems are all welcome. Letters and articles are subject to abridgement.

Editorial practices as developed by the Grand Canyon Chapter and adopted by the Rio Grande Chapter will be used in production of the Rio Grande Sierran. Letters to the editor over 500 words will be edited for length or returned to the author for editing. Submissions of Rio Grande Chapter members will take precedence over other submissions.

Contents of Group pages are the responsibility of the editor for that group and any policies that are in place from the applicable Group.

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## Key Environmental Issues Facing New Mexico

by Jim Hannan

**W**e have gone eight years with an administration that has been lukewarm, if not antagonistic, toward environmental issues. As a result, neither the administration nor the legislature has brought forth much in the way of environmental legislation. The following are some key items that should be addressed by a new administration. The Sierra Club is currently involved with all of these issues. If you have comments or suggestions, please contact Jim Hannan in Santa Fe (988-5760; jhannan505@aol.com).

### Water Quantity

New Mexico is over-allocated, and under adjudicated. We are trying to deal haphazardly with delivering water to Texas, now by buying out irrigation rights along the Pecos. We need a 100-year plan for the state water system that makes certain assumptions:

- We protect and improve the Rio Grande. Currently, the river is listed among the most endangered rivers in North America. A new administration should pledge to remove the river from this listing in the next five years.
- We protect the system of Native *acequias* and community water systems.
- ~~The Middle Rio Grande Conservancy District and other users stop their over-diversion.~~
- We revisit the domestic well exemption, particularly in urbanized areas.

### Water Quality

We protect and improve the water quality in New Mexico. We make sure that mining operations are fully cleaned up. We aggressively regulate dairies, industry and other point sources. New dairies are pouring into southeastern New Mexico. They are having a significant impact on both water supply and water quality.

### Air Quality

The State must continue to improve air quality monitoring and enforcement. The executive branch must insure that the regulatory agencies have sufficient resources to deal with both point and non-point source air quality issues. It should be noted that the Sierra Club is currently beginning litigation against the San Juan Generating Station over air quality issues. We believe that the power plant has made substantial increases in generating capacity without the accompanying improvements in air quality facilities.

### Energy

New Mexico is highly dependent on revenues from oil and gas leases. Much of our public school system is dependent on this source for its operating funds. We must begin to move immediately away from reliance on this unsustainable, limited resource. New Mexico must look at energy supplies and demand for a minimum 100-year period. Once our oil and gas reserves are gone, how will we survive as an industrialized society? Our entire manufacturing sector is highly dependent on petroleum. Instead, we should look to increasing our RPS (renewable portfolio standard), mainly wind, solar and

biomass. The NM Public Regulatory Commission (PRC) has begun this process.

We should take the following steps:

- Immediately begin construction of wind plants in eastern New Mexico. There is no longer any reason for delay. Both the State Legislature and U.S. Congress have approved energy tax credits for wind. A new administration could consider using its bully pulpit to encourage wind generator manufacturers to locate in New Mexico, to provide good jobs for New Mexican workers.
- There are currently about 20 applications for new power plants in the State. Most of these are "merchant" power plants, that will tie into our natural gas pipelines and export the electrical power out of state. There is absolutely no lack of generation capacity in New Mexico at the current time or foreseeable future. We will simply deplete faster our limited gas reserves to sell power to Texas, Arizona, and California. These new power plants will also use up large amounts of water, and they provide little or no local jobs or tax benefits.
- New Mexico was once the solar capital of the U.S. We need to regain our stature in this field. New Mexico is well suited for solar, both for passive heating and for active PV generation. A new administration could work with agencies like the Energy, Mineral and Natural Resources Department (EMNRD) and our national labs—Sandia and Los Alamos—to again become the solar leader.
- Conservation measures cannot be overstated. It is much more cost effective to build in or retrofit energy efficiency than to produce more power. In many cases, payback of investment is less than 10 years. State government, including Construction Industries Division (CID), should push forward adoption of the 2000 Model Energy Code, and mandate Home Energy Rating Systems (HERS) ratings of 87-90 for new residential units.

### Planning/Growth

According to the American Planning Association, New Mexico's comprehensive planning statutes remain similar to the 1920s model legislation upon which they were based. A good place to start in this area is by studying the seminal work "Growth in New Mexico: Impacts and Options." This report provided a comprehensive analysis of issues and options for statewide growth management and offered 35 policy options.

### Wildlife

The past eight years have been disastrous for wildlife. We now have a Game and Fish Commission that is totally subservient to a small segment of the State. Both bear and cougar hunts have been increased beyond sustainable limits. The current administration has actively opposed the wolf-introduction plan (see page 10), thus encouraging lawless behavior in western New Mexico.

We envision a new administration that will restore the role of both the Commission and the Department as advocates for wildlife.

### Toxics/Pesticides

The current pesticide-management program in New Mexico is dominated by a small group of vendors and NMSU. There are no consumer or health members of the Commission. We believe that this is an area that deserves considerable attention by a new administration. New Mexico should look at recent advances in this field, particularly in the area of notification of pesticide use. The State of New York has been a leader in this field.

### Mining

The State of New Mexico passed a good hard-rock mining act in the early 1990s. Two items have now surfaced as deserving the attention of a new administration. The sand and gravel industry was left out of the original act. There is now emerging a pattern of unacceptable sand and gravel operations throughout the State. The Sierra Club has been working closely with the office of the State Land Commissioner in drafting a bill to deal with this issue. We would welcome support from the executive branch.

The second item pertains to the issue of allowing new mines to open under the permit of an existing mine. The Club is currently litigating this issue. If we lose in court, we would welcome support to amend the original act to better address this issue.

### Wilderness/Open Space

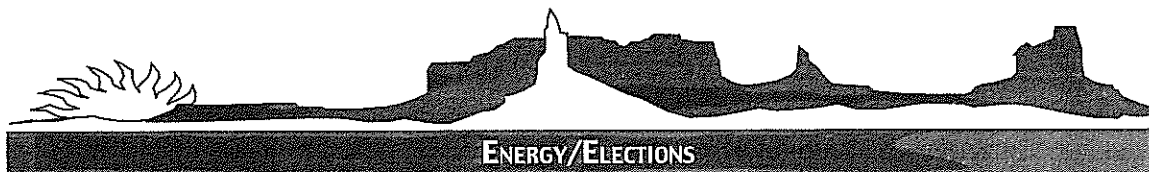
Wilderness may be more of a federal than state issue. A new administration, however, can help set the tone of the debate by supporting a substantial increase in wilderness lands in our State. It is imperative that we leave wilderness and open space to succeeding generations. Once gone, it is gone forever.

### Transportation

Another area that needs overhaul is the State Highway Department. The past eight years have seen the use of highway funds as political pay-off. The Johnson administration has committed our State to many years of future highway bonding capacity for questionable projects. In particular, a new administration should closely scrutinize the proposed Hondo Valley/Highway 70 plan.

The state executive branch should continue to support and move forward more equitable, environmental methods of transportation. A recent demonstration project between Santa Fe and Los Alamos lab was very well supported, but was subsequently dropped because of lack of will. A bullet train in the Rio Grande corridor should be given real consideration.

Finally, the State should investigate whether it can raise auto fuel efficiency standards (see *Rio Grande Sierran* March/April 2002) at the state level. Current federal fleet standards date back to 1974. If New Mexico were to raise the standards at the state level, we would instantly become a national model.



Richardson on Renewable Energy (continued from page 1)

**R**enewable energy has come a long way in the past five years, to the point where many sources are actually competitive with conventional energy. I believe that the role of government should be to help close the pricing gap. That means encouraging development of technology, and providing financial incentives to producers and consumers.

Back in the mid-1980s, state and federal governments offered an array of tax incentives to encourage renewable energy—and business boomed. Between 1980 and 1987, more than 40,000 active and passive solar systems were installed in New Mexico.

But in 1985, the tax credits disappeared—and the impact was devastating. At the beginning of 1985, we had 250 solar-energy businesses in the State, employing more than 2,000 people. By the end of the year, 80% of them had closed.

Developing our renewable energy is such an important issue, especially in this day and age. It's the right thing for our environment—to protect our public lands, and to keep our air clean. But it is now an issue of national security—we have to decrease our dependence on foreign oil and our dependence upon the Middle East. We must become self-sufficient.

#### Set a Goal—10%

The first part of my plan is setting what I consider to be a realistic goal. Ten percent of our energy should come from renewable sources by 2010.

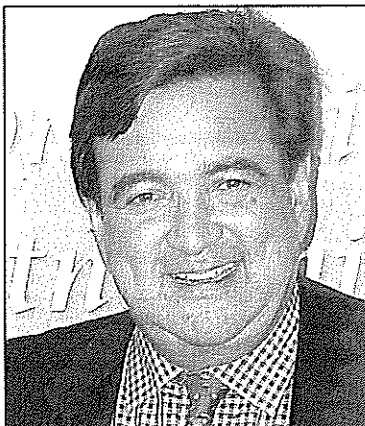
I will ask the State Legislature to pass a resolution that affirms this goal, and that encourages our residents, businesses, and elected officials to embrace the production and use of renewable energy. This means we need to pursue a combination of new energy sources—wind, solar, geothermal, and biomass.

New Mexico today has an electrical load of 2,000 megawatts—and this goal means that we need to generate 200 megawatts from renewable sources. I talked earlier about what other states are doing with wind. Wyoming is already generating 100 megawatts—that's half of our goal.

As governor, I will make sure the State provides strong encouragement, through leadership, technology development, and incentives. We need to increase research, at our national labs and at our universities—facilities such as the Southwest Technology Development Institute at New Mexico State University in Las Cruces.

I support the tax credits we have in place at the state and federal level, but I would add an incentive to encourage homeowners to invest in solar and wind. I will push for a state income-tax credit equal to 15% of the cost of a certified solar hot-water or photovoltaic system, or wind turbine. In addition, the owner of this system should be entitled to an ongoing tax credit for the energy produced. These incentives will increase demand, which will help create renewable-energy companies.

I will also encourage the issuance of Industrial Revenue Bonds to finance renewable-energy power plants. In addition, I will support an effort to join with other western governors to build 1,000 megawatts of Concentrating Solar Power in the West. A project of this size will generate the economies of scale we need to make solar power cost-effective.



New Mexico gubernatorial candidate Bill Richardson

When we deregulate electricity in New Mexico, I'll make the utilities offer "green pricing"—customers can choose to pay a premium, and purchase renewable energy. And we will continue to develop geothermal and biomass.

Right now, New Mexico is the #1 state in the country, when it comes to geothermally heated greenhouses. These greenhouses, for example, grow trees, roses, and fish for export outside of New Mexico. They employ 250 New Mexicans with a combined payroll of \$53.7 million. Geothermal energy lowers the cost, and gives these companies a competitive advantage.

We've got the natural resources, the financial incentives, the research technology, and, of course, the people. Put all that together with strong leadership, and we will meet the 10% goal by 2010.

#### Top Three in Wind Energy

The energy source with most potential is obviously wind—and I expect to see some major developments in New Mexico in the next 12 months. My second goal is to put us in the top three states when it comes to production of wind energy. That means we have to move ahead of Colorado and Wyoming. This is an industry in its early stages—and we have nowhere to go but up.

Congress this year passed a generous wind-production energy credit that should encourage wind farms to be built here in New Mexico. Our own legislature gave an additional boost when it passed the Renewable Energy Production Tax Credit this year. New Mexico has the ability to produce 435 billion kilowatt hours—25 times the energy that the State consumes.

My goal is to use our wind power to create a new export business. Wind farms will provide much-needed jobs, energy, and also additional revenue for farmers and ranchers. This new kind of power generation will be especially helpful in rural New Mexico—places like Tucumcari, which is often cited as one of the best wind-energy production sites in the State.

Advances in wind turbine technology mean we've minimized the threat to birds. Right here at Sandia Labs, they're researching how to make turbines even more efficient—more durable, with improved airfoils, and better aerodynamics.

I will work directly with our own energy companies, like PNM and Southwestern Public Service, and the many electric co-ops around the State, and encourage them to take advantage of the credits now in place. It's good business, and it's good for New Mexico.

#### Net Metering Will Encourage Competition

The third part of my plan has to do with net-metering. With net-metering, a home or business that produces excess electricity through wind or solar can sell it back to the utility. The electric meter actually turns backward—and the consumer gets credit for the excess power. At the end of the month, the customer is billed only for the net energy consumed. I want to expand net-metering in New Mexico.

Right now, state law limits the size of the wind or solar system to 10 kilowatts. I will expand this to 100 kilowatts, so that businesses and small groups of homeowners have an incentive to provide their own power. This move will create more competition, and it will encourage small power users to consider alternative sources. It's another way to help create a market for renewable energy—which means more companies and jobs. Expansion of net-metering is essential in our effort to diversify our energy sources here in New Mexico.

#### Convert State Facilities

If we talk the talk, then we better walk the walk. This is the fourth part of my plan. By 2010, I want 10% of our state government's energy consumption to be from renewable energy sources. This is yet another way that I'll help to create the demand, the market, for a new industry in New Mexico.

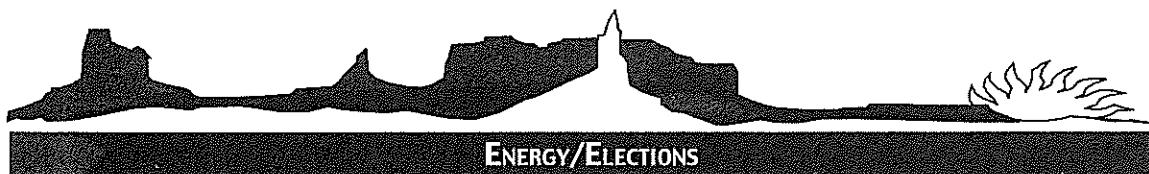
One of the first things I'll do as governor is to order the governor's residence be converted to solar power. I will work with the neighborhood, and within historic guidelines, to ensure compliance with city standards. I am committed to making the change.

I will initiate a program—Solar Schools—to power our schools with the sun. In the process, we'll teach our children about renewable energy. I propose to power 10 schools each year, all over the State. We'll look at new schools under construction, to see how to work solar power into the energy mix, and we'll retrofit existing schools. We will fund Solar Schools with the savings we generate from new energy-efficiency programs in our schools. We can make this happen.

In addition, I will commission a study of all state facilities to determine where it makes the most sense to convert to solar energy. Already, we have installed photovoltaics in many of our state parks—at visitor centers and pay stations. We have a solar hot-water system in the Central New Mexico Correctional Facility in Los Lunas.

As secretary of energy, I committed the federal offices along Colorado's Front Range to purchase 10 megawatts of wind power. I also directed the Department of Energy to purchase 3% of its total electricity from non-hydro renewable energy sources by 2005, and 7.5%

(continued on next page)



Richardson (continued from page 4)

by 2010. We installed photovoltaic power systems at the Pentagon and the Department of Energy. I am making the same kind of commitment to New Mexico.

#### Putting Clean Vehicles on the Street

While we focus on energy to heat and light our homes and businesses, my fifth point is that we need to pay attention to the cars we drive. The largest source of air pollution is cars—and I will encourage New Mexicans to drive clean, fuel-efficient vehicles.

As secretary of energy, I supported the Partnership for a New Generation of Vehicles Program and the research on fuel cells at Sandia and Los Alamos. In just a few years, we should be looking at cars in the showroom that get 80 miles to the gallon.

I support the Clean Corridor program—and I will leverage state and federal funds to build more natural gas service stations on Interstates 25 and 10, from Colorado to Texas. We also need to make it possible for private citizens to access government fueling stations.

I also want to provide incentives for New Mexicans to purchase hybrid vehicles that operate on gasoline and electricity. These cars can realize efficiency of 70 miles per gallon, or higher. And they can reduce emissions significantly. I am proposing, that people who purchase these hybrid vehicles be exempt from paying gross receipts tax. In addition, we will waive all registration fees for the life of the vehicle.

We will investigate other states to find the best model for a financial incentive to encourage the purchase of other alternative fuel vehicles, especially those powered by natural gas. I believe these incentives work, but I want to make sure we don't get into the same kind of financial trouble as our friends in Arizona.

Finally, I will ensure that state government is living by its own mandate—that all new state vehicles must be capable of running on alternative fuels.

**O**n all these issues, I believe New Mexico should be a leader. And with these specific objectives, we will be:

- First, a goal of 10% renewable energy by 2010.
- Second, make New Mexico one of the top three states for wind energy.
- Third, expand net-metering.
- Fourth, convert state facilities—including the governor's mansion—to solar energy. And,
- Fifth, put more alternative-fuel vehicles on New Mexico roads.

This is my plan to Renew New Mexico—and I welcome your support to make it happen. Thank you.

For more information, and to volunteer or otherwise contribute, contact Jennifer Kozlowski at the campaign's Bernalillo County headquarters (944-7400; 2929 Coors Road NW, Suite 201, Albuquerque). At Richardson's Santa Fe County headquarters (955-8486; 1322 Paseo de Peralta, Santa Fe), contact Sally Rodgers (sallyrodgers@qwest.net), Patsy Trujillo-Knauber, and Pat Larragoite (patlarragoite@qwest.net).

## Chapter Endorses Candidates

**T**he Rio Grande Chapter of the Sierra Club has endorsed Bill Richardson for Governor, Gloria Tristani for United States Senate, and Richard Romero for United States Congress from District 2. Each of these candidates has been interviewed by some or all members of the Chapter Executive Committee. Any of their opponents who were willing were also interviewed.

Richardson's positions on renewable energy are featured in this issue. More information about the environmental records and positions of these candidates, and what each of us can do to help get them elected, will be included in the next two issues of the *Rio Grande Sierran*.

None of these candidates is a "shoo in", each one "has a chance", and all of them need your help. Please give your time, and send your contributions.

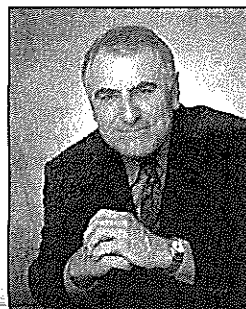
**Richardson for Governor Campaign**  
2929 Coors Boulevard, NW  
Suite 102  
Albuquerque, NM 87102  
944-7400

**Tristani for U.S. Senate**  
P.O. Box 35772  
Albuquerque, NM 87176  
265-5638

**Richard Romero for Congress**  
P.O. Box 25006  
Albuquerque, NM 87125-5006  
244-9392



Gloria Tristani for U.S. Senate



Richard Romero for Congress (District 2)

#### Endorsements for the State House of Representatives

- District 11—Rick Miera (incumbent), endorsed in the Democratic Primary
- District 14—Miguel Garcia (incumbent), endorsed in the Democratic Primary
- District 15—Steve Archibeque, endorsed in the Democratic Primary
- District 19—Sheryl Williams Stapleton (incumbent), endorsed in the Democratic Primary
- District 21—Mimi Stewart (incumbent)
- District 33—J. Paul Taylor (incumbent)
- District 40—Nick L. Salazar (incumbent), endorsed in the Democratic Primary
- District 47—Max Coll (incumbent)
- District 69—W. Ken Martinez (incumbent), endorsed in the Democratic Primary

#### Next Chapter Quarterly Meetings

**T**he Chapter's Conservation and Executive Committees will meet on Saturday, August 24th, 9:00-5:00. The meetings will be held in Albuquerque at the office of "Homes by Marilyn", 2017 Yale Blvd, SE. From I-25, take the Gibson exit east to Yale, then north on Yale a short distance.

The Conservation Committee will meet in the morning, discussing the Chapter's conservation campaigns and issues. In the afternoon, the Executive Committee will handle Chapter business, including political items, personnel, and budget.

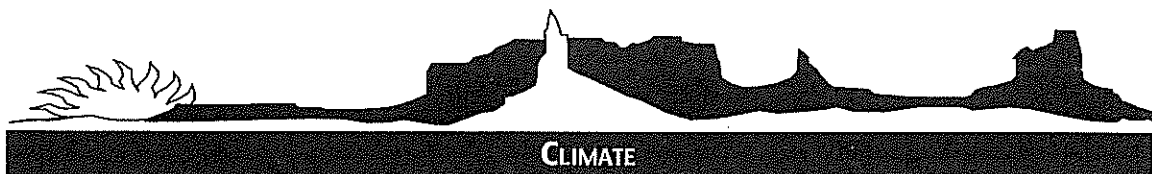
All Club members are invited to attend. For more information, contact Jim Hannan (jhannan505@aol.com; 988-5760).

#### Stay Informed

#### Get the Latest News and Alerts by E-mail

**S**ierra Club National is implementing a new way for members to subscribe to member-only listservers that provide up-to-date information and alerts. A new on-line form (see [www.sierraclub.org/memberlists](http://www.sierraclub.org/memberlists)), which is more automatic and has a faster response time, replaces the old way of signing up.

To receive and post messages on current happenings of environmental interest in the Rio Grande Chapter, send a message to [listserv@lists.sierraclub.org](mailto:listserv@lists.sierraclub.org) with the contents: sub rio-issues [yourfirstname] [yourlastname]. Because this list is open to anyone interested, it can have a larger volume of e-mail.



## Historical Perspective on NM's Current "Drought"

The Northern Group of the Rio Grande Chapter of the Sierra Club ran a paid political advertisement in the June 14, 2002 edition of the *Santa Fe New Mexican*, about the drought conditions that New Mexico is experiencing and the Group's proposed community-wide response to the situation—which is actually more "normal" for our region than the wetter conditions we've grown used to during the past 20 years.

During the course of our research, Dr. Thomas Swetnam, Director of the University of Arizona Laboratory of Tree-Ring Research, provided more insightful information than we were able to incorporate into the advertisement. We include some of his comments here.

Several features of these records (see figures) are worth pointing out:

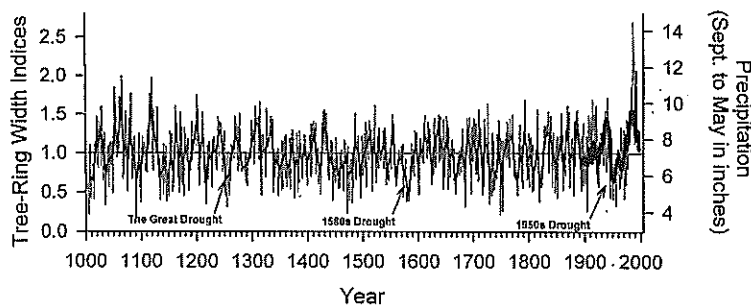
"The tree rings are a good but not perfect indicator of statewide rainfall during the previous fall to current spring. Summer rainfall is not included in the rain gauge record because tree-ring growth in these sites is less affected by it than by cool-season precipitation.

"Note the very wet conditions that occurred in New Mexico from the mid-1970s to the early 1990s. This was the wettest two-decade period in the 20th Century, and the tree-ring record (lower graph) suggests that it was the wettest two decades during the past 1,000 years. (Of course, this was also a period of maximum growth in Southwest human populations.) Other recent tree-ring and climate research indicates that this was not only an extraordinary wet period in the Southwest, but it was also quite warm, especially during the winters.

"The 1950s drought was the most extreme and long-lasting drought during the 20th Century, and it also stands out as one of the worst droughts in the past 1,000 years. Major droughts of this magnitude and greater have been a recurrent theme in New Mexico for many centuries. These droughts have been disruptive of human societies and ecosystems. The so-called "Great Drought" of the mid to late 1200s, for example, is thought to have been one factor leading to the abandonment of the Colorado Plateau by the Anasazi people, and their migration to the Rio Grande and establishment of some of the modern Pueblos. The 1580s drought has recently become known as a "megadrought" of continental extent, ranging from the Carolinas on the eastern seaboard to the Californias. This drought may have contributed to the mysterious disappearance of the first English colony in America on Roanoke Island, and it has been attributed to extensive disease epidemics and dieoffs of human populations in Mexico.

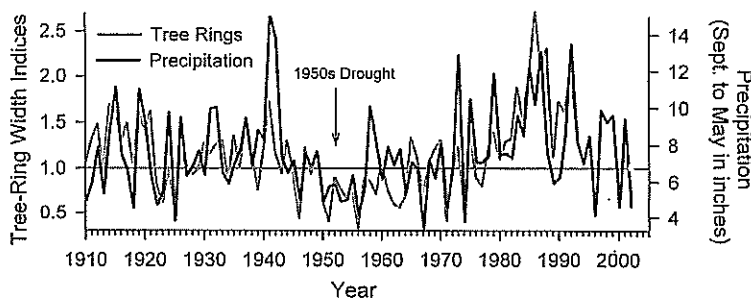
The current "drought" period has so far been characterized by extreme single-year events, interspersed with relatively wet years. This is a prime formula for extensive wildfires, because the wet years produce more grass and tree leaves, so fires readily ignite and spread during the dry years.

It is unknown whether or not the current drought will continue. There is some speculation, however, based on long-term trends in sea-surface temperatures of both the Pacific and the North Atlantic Oceans. These trends suggest



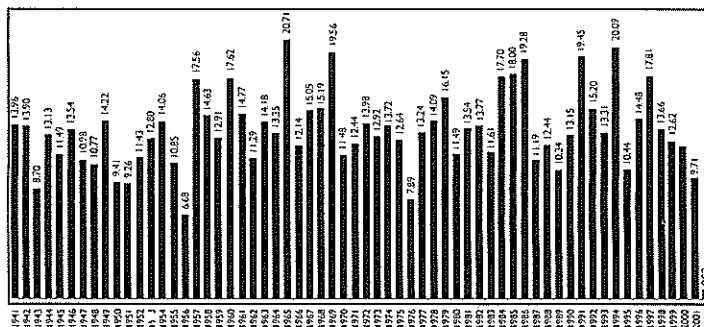
The 1,000-Year Record

The graph above shows the variation in the growth of trees—a good indicator of the variation in cool-season precipitation—in New Mexico during the past 1,000 years. The gray line shows annual tree-ring growth, the thin black line is the ten-year running average of the tree-ring record, and the thick black line is the ten-year average rain-gauge record for all of New Mexico. The tree-ring record for AD 1000-1993 is compiled from forest stands in the Sangre De Cristo Mountains north of Taos, the Sandia Crest above Albuquerque, El Malpais National Monument near Grants, and the Pinaleno Mountains in southern Arizona. Figure courtesy of Tom Swetnam.



The 20th-Century Record

Even at the scale of 100 years, widely variable precipitation is characteristic of our region—from more than 14 inches to less than 4 inches of precipitation in any given cool season. In New Mexico, the mid-1970s to the early-1990s was the wettest two-decade period in the 20th Century—and in the past 1,000 years. This was also a period of maximum growth in southwest human populations. Actual rain-gauge records for 1895-2002 are averages for the entire State of New Mexico (the National Oceanic and Atmospheric Administration National Geophysical Data Center). Figure courtesy of Tom Swetnam.



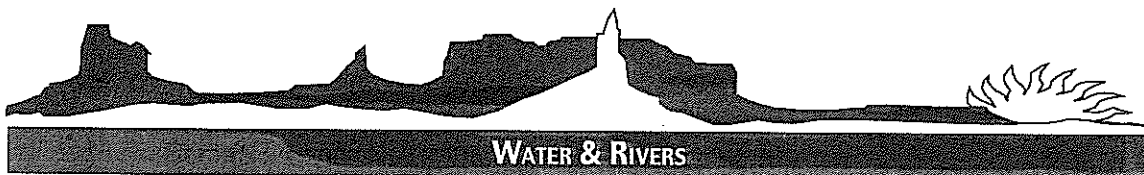
The 60-Year Record—Santa Fe

Note the severe drought in the 1950s—and that we are now experiencing another dry spell. Data from Western Regional Climate Center—[www.wrcc.dri.edu](http://www.wrcc.dri.edu); figure by Mary Peale. For more information, see Rio Grande Chapter of the Sierra Club web site—<http://riogrande.sierraclub.org/santafe/home.html>

that we may have shifted into a condition more typical of the pattern that prevailed during the 1950s—a cold tropical Pacific and warm North Atlantic—when New Mexico experienced both winter and summer drought and very hot summers. If this is the case, we may be headed for persistent, extreme drought in coming months and years. (Note: This is a big "IF", and no predictions are being made!)"

For more information, contact Tom Swetnam, Director and Professor of Dendrochronology, Laboratory of Tree-Ring Research, University of Arizona, Tucson, AZ 85721 (520/621-2112; fax 520/621-8229; [tswetnam@lrr.arizona.edu](mailto:tswetnam@lrr.arizona.edu); [www.lrr.arizona.edu](http://www.lrr.arizona.edu); <http://tree.lrr.arizona.edu/~tswetnam/>). For further reading, see page 18.





## Albuquerque's Water Woes: Oasis or Living in Denial?

**A**s Albuquerque residents, we are reminded daily that we reside in the high desert. Dry winds kick up dust clouds over the city, and tumbleweeds the size of an economy car speed across our paths on the freeway. Dust devils have been spinning this arid land for centuries. [In the heart of this,] the cottonwood forests nurtured by the Rio Grande are our oases in the desert—and they are the largest cottonwood forests in North America.

In recent dry seasons, however, and anticipating drought years, farmers and environmentalists continue negotiating water use; the Middle Rio Grande Conservancy District recognizes the urgency to change to a stringent water schedule; and the City of Albuquerque nervously seeks solutions for our depleting aquifer.

Albuquerque's only underground water source, the aquifer, is being depleted. Most experts predict lower aquifer levels over the next 40 years that may cause irreversible impacts with a number of chain-reaction effects.

This thirsty wake-up call prompted city planners to look for alternative water sources. San Juan Chama water, purchased from Colorado by the City of Albuquerque more than 30 years ago, is cited as the 'Silver Bullet' that will solve Albuquerque's water woes. New Mexico surface water is over-allocated and becoming a statewide water crisis. Recently, the City of Albuquerque moved forward with its proposal to formally request a permit from the New Mexico State Engineer to divert surface water from the Rio Grande for municipal, industrial, and related purposes (see [cabq.gov/waterpolicy](http://cabq.gov/waterpolicy)). This permit request includes 47,000 acre feet of city-owned San Juan Chama water plus an additional 47,000 acre feet of "borrowed native river water." The City proposes to:

- build an inflatable dam across the river near Alameda Bridge to divert San Juan Chama and native water into the city water system,
- to treat the water to drinking quality or tertiary standards for city use,
- to chemically treat and return as wastewater, 15 miles from the original diversion point, the 47,000 acre feet of borrowed native river water.

The diversion of native water will deprive the river, its aquatic life, and the Bosque for the 15-mile stretch between diversion and return.

Research and analysis has brought river-protection organizations together with land-based allies in formal protest. Amigos Bravos/Friends of the Wild Rivers, Rio Grande Restoration, the Sierra Club, New Mexico Public Interest Group, Socorro Soil and Conservation District, John Carangelo, and the Assessment Payers Association of the Middle Rio Grande Conservancy District joined in protest against the Albuquerque Water Project filed in the New Mexico State Engineers office November 28, 2001. [Ed: The Sierra Club challenged only the native-water diversion.] The collaborative shares the following concerns about the Albuquerque drinking-water plan.

- **Water Quantity**—The 47,000 acre feet of natural water diversion will deplete the Rio Grande and Bosque for approximately

15 miles. Reduced river flows will concentrate contaminants at low flows, while the treatment system adds compounds to the river, threatening human health and the crops of downstream farmers, and imperiling the river's ecosystem.

- **Water Quality**—Water should be improved to high quality drinking-water for all city users and should return minimal flows of 250 cubic feet per second (cfs) to the river. A healthy river produces healthy crops, grown and sold locally. Do not violate Isleta water-quality standards.
- **No New Diversions**—Diversion points for the San Juan Chama water are already in place; others may be negotiated. The proposed inflatable dam has more potential for harm, and works against restoration and protection of the river ecology.
- **Conservation, Restoration, Recharge**—If residents can lower use from 209 to 150 gallons/day (as is achieved in El Paso and Tucson), we could leave 30,000 acre feet of water in the aquifer. Bosque restoration—replacing saltcedar and Russian olive with cottonwood—would actually

increase river flow and help recharge the aquifer. Such restoration also decreases the incidence of fires during dry seasons.

- **Sacred Waters, Wise Use, Responsible Vision**—Many New Mexicans live are committed to maintaining the integrity of our high-desert landscape. We affirm the cultural values of land-based communities. We grew up in the enchantment of New Mexico, or we have been drawn to its natural beauty, multi-cultural expressions, rich and varied history, and tranquility. Change, while inevitable, does not have to come at the cost of the Rio Grande, the Bosque, or the aquifer. Change can mean being smarter and wiser about our choices—while we still have time. We can learn from others' mistakes. Our children and grandchildren are depending on us to make wise decisions about their quality of life.

For more information, see the Alliance's Plan ([savetherio.org](http://savetherio.org)), and contact Cynthia Gomez at Amigos Bravos/Friends of the River in Albuquerque (924-2223; [cgomez@amigosbravos.org](mailto:cgomez@amigosbravos.org)) or Deb Hibbard at Rio Grande Restoration (266-3609).

### PUBLIC HEARING

### Comment on Albuquerque's Rio Grande Diversion EIS

**T**he long awaited Draft Environmental Impact Statement for the City of Albuquerque's surface-water diversion project was issued in mid-June 2002. To view or download a copy, see the Upper Colorado U.S. Bureau of Reclamation (BR) web site ([www.uc.usbr.gov/ea\\_eis/abq/abq\\_adwp.html](http://www.uc.usbr.gov/ea_eis/abq/abq_adwp.html)), or contact Lori Robertson at the BR in Albuquerque (248-5326).

Three public hearings on the draft Environmental Impact Statement are scheduled in July 2002. The hearings are from 6:00-9:00 PM. *Please* plan to attend.

- July 2 in Albuquerque—Abq. Convention Center, Brazos Room, 401 Second NW;
- July 9 in Socorro—Macey Hall, New Mexico Tech campus, 801 Leroy Place; and
- July 10 in Española—City Council Chambers, 405 Paseo del Oñate.

The groups that are protesting the City Project suggest that the City has yet to address five concerns. The City's plan:

- the City's plan will reduce native Rio Grande flows in the Albuquerque reach;
- the City's plan will diminish the water supply to downstream senior users;
- the City's plan calls for constructing a new dam, further segmenting river habitat;
- the City's plan will not maintain an adequate minimum flow in the River to protect water quality; and
- Albuquerque must set aggressive water conservation goals and devote some of the conserved water to the River—to the ecosystem, the downstream users, the Pueblos, and Rio Grande Compact compliance.

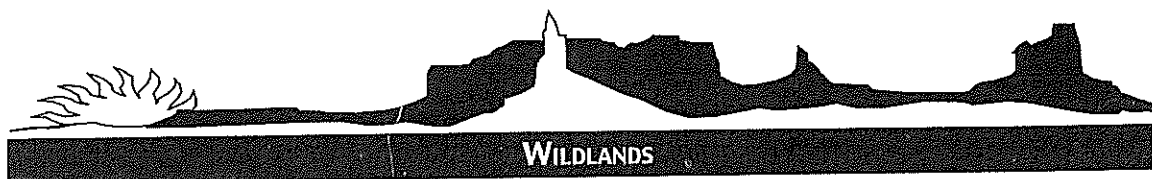
For more information, contact Steve Harris (Rio Grande Restoration, Pilar Rt. Box 3-C, Embudo, NM 87531; ph/fax 751-1269; cell 770-2502; [unclegr@laplaza.org/www.fartlung.com](mailto:unclegr@laplaza.org/www.fartlung.com); [www.riogrande-restoration.org](http://www.riogrande-restoration.org)).

*"The fact that water is essential to life  
lends an ethical dimension to every decision we make  
about how it is used, managed, and distributed.*

*We need new technologies, to be sure,  
but we also need a new ethic:*

*All living things must get enough water  
before some get more than enough."*

*—Sandra Postol, from "Troubled Waters"*



## Alliance Protecting Old Growth in the Southwest

by Dave Sherman with Todd Schulke

**I**ntensive logging over the past 120 years has destroyed more than 95% of the Southwest's original old-growth forests. Because of this, in 1995 the National Biological Survey declared the old-growth ponderosa pine forests of the Southwest one of the most endangered ecosystems in the nation.

In 1992, the U.S. Forest Service developed management guidelines that were supposed to protect the Northern goshawk and the old-growth habitat that it depends upon for survival. These guidelines were implemented throughout the Southwest region's 11 national forests in 1996. The Management Recommendations for the Northern goshawk (MRNG) were based on only three telemetry studies from the 1980s discussing the foraging behavior of Northern goshawks. Two of the three studies involved observations of goshawks in Sweden; one of the studies was from central Utah.

The MRNG asserts that the goshawk is a habitat generalist that does not require dense forest canopy cover and contiguous, mature forests in order to forage successfully. As a result, the MRNG did not recognize any detriment to the goshawk by fragmenting the forest into small habitat patches with less canopy coverage throughout the goshawk's foraging areas. This ignores the fact that key prey species, such as the unique Kaibab squirrel, need dense canopies with interwoven crowns to survive.

According to the Forest Service's own reports, more than 70% of the goshawk's prey depend upon mature forests for their survival. This includes not only the Kaibab squirrel, but also such species as sapsuckers, the Hairy woodpecker and Blue grouse.

The goshawk's short powerful wings and long rudder-like tail are designed for hunting in an old-growth forest. Their wait-and-swoop hunting style depends upon a dense forest canopy to hide the goshawk as it approaches its prey. Furthermore, goshawks nest high in the canopy of old-growth ponderosa pines where they are shaded from the sun and protected from larger predators. Goshawk populations are in decline throughout the Southwest due to the loss of old-growth habitat.

At least five relevant scientific studies on goshawk foraging behavior appeared after the MRNG was finalized and before the final decision to implement them—the Record of Decision (ROD)—was issued by the Forest Service. The consensus of every scientific study released since October 1991 contradicts the MRNG's conclusion that the goshawk is a habitat generalist that does not prefer contiguous mature forests with high canopy cover. Studies not discussed or analyzed by the Forest Service show that Northern goshawks, when foraging, consistently select forested areas with greater canopy coverage and relatively large, dense stands of large trees. The post-MRNG studies show that Northern goshawks choose to hunt in those areas where such conditions are present rather than in forests or open areas where those conditions are absent. Not surprisingly, the goshawk is most successful when hunting in such forests.

The Forest Service was well aware of the existence of the Northern goshawk studies when



**Instead of providing protection,  
the Goshawk Guidelines are being used to justify  
the continued decimation of these imperiled ecosystems.**

it was conducting the required NEPA review. In addition to conservation groups, state and federal wildlife agencies, including the Arizona Game and Fish Department, the New Mexico Fish and Game Department, the U.S. Fish & Wildlife Service, the U.S. Department of the Interior, and at least one U.S. Forest Service biologist all submitted detailed comments questioning the scientific validity of the MRNG based on the more recent studies. Despite those clearly articulated references and concerns, the Forest Service analysis continued to rely exclusively on the 1991 MRNG.

Because of this, two members of the Southwest Forest Alliance—the Center for Biological Diversity and the Arizona Sierra Club—appealed the MRNG before a federal judge in May 2002. Although the appeal was denied, further action is anticipated.

### Misusing the Goshawk Guidelines

Currently, the Forest Service is not implementing the guidelines as they are written. Throughout the Southwest, minimum canopy densities specified within the MRNG have instead been applied as maximums. Logging large openings around and within each stand has destroyed the integrity of old-growth stands. A highly fragmented landscape of stunted trees, dwindling grasses, and eroding soils is the result.

Throughout New Mexico, the guidelines are being used to justify logging operations. On the Lincoln National Forest, the Rio Peñasco project would log 17-60+ million board feet on 32,000-50,000 acres in the remote Sacramento Mountains in southcentral New Mexico. Although logged extensively in the early 1900s, the remaining old-growth and mature forests of the Sacramentos harbor the densest breeding population of Mexican spotted owls in New

Mexico, as well as rare and endemic species such as the Sacramento Mountains salamander. Although there is a legitimate need for some forest thinning in the region (e.g., community fire protection), millions of board feet would be commercially logged in the name of the Goshawk Guidelines.

The Sheep Basin Project, on the Gila National Forest, would decimate approximately 4,000 acres. Although presented as another necessary logging operation for goshawks, the Forest Service recently admitted that it is a timber-improvement project. Furthermore, the project limits opportunities for the local communities that have attempted to create jobs by removing small-diameter trees in forest restoration. By including old-growth and large tree logging, the Sheep Basin project disqualifies local citizen groups from receiving grant money from Senator Bingaman's Community Forest Restoration Program that requires preservation of large and old trees.

In Arizona, perched on the North Rim of the Grand Canyon, the Kaibab Plateau has long been recognized as an area of outstanding biological diversity. For instance, it harbors the largest population of imperiled goshawks in the Southwest. President Theodore Roosevelt honored this rich heritage when he created the Grand Canyon National Game Preserve in 1906. It is the only such game preserve managed by the U.S. Forest Service. Due to its remoteness, the area still harbors extensive tracts of old-growth ponderosa pine and mixed conifer habitat. Unfortunately, these areas are threatened now more than ever. Under the auspices of the Goshawk Guidelines, the Forest Service is now cutting more large, old trees in the Southwest than they were before 1996.

*(continued on next page)*



## Old Growth (continued from page 8)

Since adopting the guidelines, more than 55,000 old-growth trees have been logged on the Kaibab Plateau in just six timber sales. Nearly half of the trees were 24 inches in diameter or greater and included very large trees up to 50 inches in diameter. The Dry Park timber-sale contract, recently signed by the North Kaibab Ranger District, authorizes the logging of 6,000 more old-growth trees two miles from Grand Canyon National Park. In February 2002, the Alliance successfully appealed the East Rim timber sale, which would have logged 2,300 acres of old-growth trees just three miles from Grand Canyon National Park. Both the East Rim and Dry Park sales are "goshawk sales." Instead of providing protection, the Goshawk

Guidelines are being used to justify the continued decimation of these imperiled ecosystems.

### An Old-Growth Preserve Campaign

The Southwest Forest Alliance is hoping to achieve permanent protection for approximately 400,000 acres of old growth on the Kaibab Plateau through the creation of an old-growth preserve. Such a designation would bring about changes in forest management that will preserve all remaining old-growth trees and perpetuate old-growth conditions, on the landscape level, across the Kaibab Plateau. Such a designation would not prohibit the logging of small-diameter trees, when and where such logging was determined to be necessary to help the plateau regain its old-growth characteristics.

Such a designation requires a great deal of public input.

of old growth is seen in person, it is difficult to not be inspired to help protect those areas that are still intact.

Our web site contains up-to-date information about this important campaign, a calendar of upcoming slide shows, and our field trip schedule. You can also use our electronic postcard ([www.swfa.org/take\\_action.html](http://www.swfa.org/take_action.html)) to contact the Forest Service and Bush, encouraging them to protect the remaining old growth on the North Rim and throughout the Southwest.

Please visit our web site, and contact us if you are interested in hosting a presentation and/or have any questions regarding our program (P.O. Box 1948, Flagstaff, AZ 86002; 928/774-6514; [www.swfa.org](http://www.swfa.org)).

## Members of the Southwest Forest Alliance

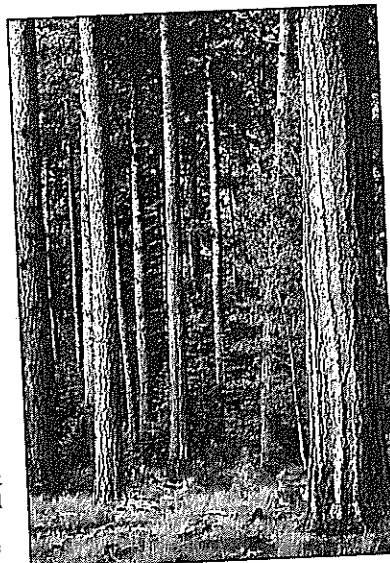
Amigos Bravos/Friends of the Wild Rivers  
Arcosanti  
Audubon Society, Central NM  
Audubon Society, El Paso/Trans-Pecos  
Audubon Society, Huachuca  
Audubon Society, Maricopa  
Audubon Society, Mesilla Valley  
Audubon Society, Northern Arizona  
Audubon Society, Prescott  
Audubon Society, Sangre de Cristo  
Audubon Society, SW New Mexico  
Audubon Society, Tucson  
Audubon-New Mexico  
Arizona League of Conservation Voters  
Black Mesa Permaculture Project  
Carson Forest Watch  
Center For Biological Diversity  
Coalition for Peace and Justice  
Committee of Wilderness Supporters  
Desert Fly Casters  
ECCO  
Flagstaff Activist Network (FAN)  
Forest Trust  
Friends of the Owls  
HA:SAN  
Life Net  
National Parks and Conservation Assoc.  
New Mexico Wilderness Alliance  
NM Audubon Council  
Prescott National Forests Friends  
Rio Grande Restoration  
Rio Grande Restoration  
Rocky Mountain Youth Corps  
Santa Fe Forest Watch  
Sierra Club, Grand Canyon Chapter  
Sierra Club, Rio Grande Chapter  
Sierra Club, Southwest Regional Office  
Sky Island Alliance  
Sky Island Watch  
Southwest Environmental Center  
Southwest Headwaters  
Southwest Trout  
Student Environmental Action Coalition  
T & E, Inc.  
Trout Unlimited, Zane Grey Chapter  
Upper Gila Watershed Alliance  
Weaving for Freedom (SDNWC)  
Western Gamebird Alliance  
White Mountains Conservation League  
The Wilderness Society  
The Wildlands Project  
Wildlife Damage Review

### The Southwest Forest Alliance

Only 5% of our centuries-old, old-growth forests remain in the Southwest. It is time to preserve and protect these unique and imperiled ecosystems.

The Southwest Forest Alliance is at the forefront of such efforts. Based in Flagstaff, AZ, the Alliance is composed of more than 60 national, regional, and local groups throughout New Mexico and Arizona, has launched an exciting campaign to protect and restore old-growth forests in the Southwest. "Old Growth Forever!" seeks to increase the level of public awareness and outrage over the continued logging of rare old-growth trees throughout the region.

We invite you to join in this historic opportunity. Please contact both the Forest Service (see box) and your elected representatives to support this historic initiative. In Summer 2002, we will be conducting field trips to the North Rim to introduce folks to this awe-inspiring area. Once the devastation caused by the continued logging



## Please Write!

Please fill out this form and mail to:

Southwest Forest Alliance  
P.O. Box 874  
Flagstaff, AZ 86002

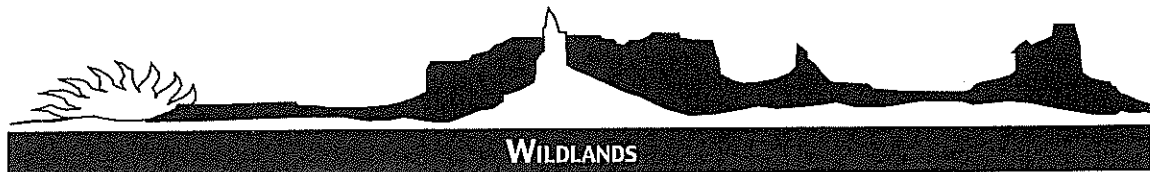
Dear Regional Forester:

I am very concerned about the destruction of the last remaining old-growth forests in the Southwest. I respectfully request that you:

- Implement a strict policy banning the cutting of all old trees (established before 1900) and all trees 16" diameter and larger on the Southwest's National Forests.
- Replace the 1992 "Goshawk Guidelines" with a new plan that truly protects the goshawk and its old-growth habitat. Work openly with the wildlife agencies and include full public and scientific participation.
- Designate the North Kaibab Ranger District on the Kaibab National Forest, an unparalleled expanse of old growth adjacent to the Grand Canyon, as an Old-Growth Preserve.

Sincerely,

Signature: \_\_\_\_\_ Name (Printed): \_\_\_\_\_  
Address: \_\_\_\_\_ E-mail: \_\_\_\_\_



## NM Ranks 5th in Diversity—But Losing Plants & Animals

New Mexico ranks in the top five states for the diversity of plants and animals within its borders. But it also ranks No. 13 for how fast it's losing that ecological variety. A recent Nature Conservancy study, "States of the Union: Ranking America's Biodiversity", placed New Mexico fifth in the nation for its different plant and animal species (4,583). More than 10% of the State's species, however, are in danger of becoming extinct.

New Mexico ranks well in overall diversity partly because of geography. It overlaps several major ecological regions, including:

- the Chihuahuan and Sonoran deserts,
- the Great Plains,
- the southern Rocky Mountains, and
- the Colorado Plateau.

The State is third in the diversity of reptiles (98) and mammal species (154), and fourth in plant varieties (3,305). New Mexico ranks eleventh in number of species found only within its boundaries (90). While New Mexico ranks only 38th in the nation for varieties of fish, we are in danger of losing nearly half those species.

"It is rather striking how diverse New Mexico is," said Gary Bell, director of science for The

Nature Conservancy's New Mexico chapter. "The thing that surprises most people, not just about New Mexico but about the Southwest, is how many fish species we have, how many amphibians we have, how many things we have living in the water, and how endangered they are." And, he said, they're endangered "because our aquatic systems are so strained with all the demands on them."

Rachel Maurer, a Conservancy spokeswoman, said the organization does "ecological planning"—looking at areas most in danger of losing species. "A lot of people believe The Nature Conservancy just buys land," she said. "That is a portion of what we do, but we take a scientific look at the land and say, 'What can be conserved?' ...If a piece of land has no viable conservation needs, then that is not an area where we need to put our efforts."

According to Bell, the organization generally takes a larger approach than simply responding to emergencies regarding individual species. "While that can be useful in protecting that species, it's inefficient to protect diversity," he said. The private, nonprofit organization does have projects directed toward individual species, such as efforts over the past eight years to try to protect the Chihuahua chub, a fish that is found only in the Mimbres River of southwestern New Mexico and in three or four streams in the state of Chihuahua, Mexico.

"We have the only U.S. population here, so it's extremely imperiled," he said. In fact, the chub was thought to be extinct until the small Mimbres River population was discovered a few years ago. The Conservancy bought land along the Mimbres, has worked with state and federal wildlife agencies on efforts to protect the fish, and is working to improve conditions in the upper watershed, Bell said. "We have put more effort into the upper watershed and managing the upper riparian forest, understanding how the river works, what the flow and flood regime of the river are, how that system works as a whole, so that the chub benefits from a healthy watershed—but it's more of the whole shebang," he said.

The report, based on an analysis of more than 21,000 species, was prepared by NatureServe, a nonprofit group that The Nature Conservancy identifies as the leading source of scientific information about rare and endangered species and threatened ecosystems.

California, with 6,717 different species, tops the list of states with variety, followed by Texas with 6,273 and Arizona with 4,759.

The Conservancy has preserved 1.2 million acres in New Mexico since 1973, starting with the 220,000-acre Sevilleta Ranch near Socorro. Other projects include:

- southwestern New Mexico's Gray Ranch, which has more than 700 plant species, 75 mammal species, and 170 kinds of breeding birds;
- areas along the Gila and Mimbres rivers, the Rio Grande bosque near Corrales;
- the Edward Sargent Wildlife Area near Chama; and
- Dripping Springs Natural Area near Las Cruces.

For more information, contact Tobin Oruch in Los Alamos (665-8475; oruch@lanl.gov).

## Wolves Could Roam Southern Rockies

by Jill Dahlke

Reintroduction of the gray wolf to the Southern Rockies would not only help a federally endangered species recover, it would also help restore the delicate balance of the Southern Rockies ecosystem.

Since the last Colorado wolf was killed in 1945 as a result of a government-led campaign of extirpation, the Southern Rockies landscape has been missing a key ecosystem regulator—the wolf. The gray wolf is now a federally endangered species. In the Rocky Mountains of northern New Mexico, Colorado, and southern Wyoming, the effects of population growth, extractive industries, and livestock grazing threaten native habitat and wildlands, as well as the diversity of flora and fauna that regulate ecosystem health.

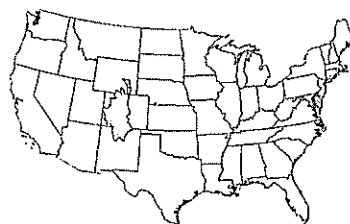
The U.S. Fish and Wildlife Service (FWS) has written a draft plan that:

- attempts to reduce protection for the gray wolf in the Lower 48 states, even though wolves are still missing from key areas, and
- lessens the chance that wolves will be restored to the Southern Rockies.

The FWS has received tens of thousands of comments from concerned citizens around the country (inspired largely by the Sierra Club's educational efforts) demanding full and continued protection for the wolf under the Endangered Species Act. Still, it is not clear that the plan will be improved to better protect wolves and promote reintroduction in the Southern Rockies.



The last Colorado wolf was killed in 1945 as a result of a government-led campaign of extirpation. The gray wolf is now a federally endangered species—but it was once a key ecosystem regulator in the Southern Rockies landscape.



### Wolves in the Southern Rockies

While the FWS has studied and established a plan to recover the wolf in the Northern Rockies, it continues to ignore the important role the Southern Rockies can play in wolf recovery. In 1993, Congress appropriated funding for the FWS to conduct a Biological Feasibility Study on the practicality of reintroducing wolves in Colorado. In eleven national forests and neighboring areas, scientists concluded that 1,128 wolves could survive given the existing prey base, a clear indication that the Southern Rockies are critical habitat for wolf recovery.

A poll released in May 2001 showed that more than two-thirds of Coloradans from all parts of the state favor wolf reintroduction. These numbers document the strong and lasting public support for wolf recovery efforts.

### The Southern Rockies Wolf Restoration Campaign

The goal of the Sierra Club's Southern Rockies Wolf Restoration Campaign is to educate the public and key state and federal decision-makers about the importance of establishing a wolf recovery area in the Southern Rockies, and to ultimately reintroduce wolves there.

The Southern Rockies' large tracts of public lands could serve as reintroduction sites, providing plenty of room for wolves to roam with little conflict.

Proactive policy development and public education will be required to ensure that the federal and state governments do the right thing by returning the wolf and restoring natural balance to the Southern Rockies.

For more information, contact Tina Arapkiles at the Sierra Club Southwest Regional Field Office in Boulder, CO (303/449-5595; tina.arapkiles@sierraclub.org).



## EL PASO GROUP NEWS

### August General Meeting Summer Slides and Videos

After our Summer hiatus, let's get caught up by sharing memories of vacation adventures! Bring some slides, either film or digital, or even a video to narrate for your fellow Sierrans.

**Wednesday, August 28th, 7:30 PM**  
University and Wiggins on the UTEP campus  
**Centennial Museum**

### Carpe diem

by Laurence Gibson

These are exciting times to be an El Pasoan! We have many opportunities before us right now. Consider:

■ a chance to land the first new full-service medical school to be established in Texas in 33 years.

■ a chance to become a model desert city, with a vibrant downtown, professionally-planned development, state-of-the-art landscaping, open space, bike paths, and a sustainable water supply.

Other cities have long ago taken the bull by the horns. Think of San Antonio's struggles...and its immense rewards, or the desert harmonies of Tucson. Most recently Ft. Worth remade its long-neglected downtown to destination-resort standards.

These accomplishments required struggle. Now we are struggling! City Council, remember Peanuts' "We have seen the enemy, and it is us"! Let's not blow our once-in-a-lifetime chance with petty jealousies, personal ambitions, or just plain bickering. If the Mayor neglected to stroke you properly, just remember nobody's perfect. Sierrans, we need to support the following initiatives with calls and letters in the next few weeks:

■ a TIF District to help us land the medical school.

■ impact fees for new developments to insure that growth pays for growth.

### Important URL's:

<http://www.epwu.org/>

<http://www.ej-el-paso.tx.us/agendacc.htm>

<http://texas.sierraclub.org/elpaso>

The Lorax is now available in PDF. You may request to receive an e-mail link or to not receive a hard copy at [lgibson@utep.edu](mailto:lgibson@utep.edu). Please be sure to include your zipcode.

### Website News

Lose your Lorax? Need a membership application? Log on to our outstanding website for these and more details on El Paso Regional Group activities. The El Paso Regional Group earns credits for new members entering through <http://texas.sierraclub.org/elpaso>

### Selected Outings

#### July 6: Summer Birds of Rio Bosque Wetlands Park

Place: El Paso's Lower Valley

Class: Easy

Length: 2.5 miles

Elevation gain: 3 feet

Leader: John Sproul 747-8663 (W) [jsproul@utep.edu](mailto:jsproul@utep.edu)

For most folks, birds at Rio Bosque Wetlands Park mean wintering waterfowl. But summer is also a fascinating time, with nesting Stilts and Avocets, Yellow-breasted Chats, Cassin's Sparrows, Painted Buntings, and many other surprises. Rio Bosque doesn't always have water in summer, but this year it does. It is a green and lively place, one we'll explore on this early morning walk.

#### July 13: Int'l Bridge Relocation Issue Tour

Place: Fabens, Texas

Leader: Bill Addington 915 284-9333 (H) [sblidf@igc.org](mailto:sblidf@igc.org)

El Paso County proposes a new highway and expanded Tornillo Bridge on 300 acres of land to relieve pollution and congestion at the Bridge of the Americas. Promoters will profit from selling their land while poor farmers will suffer from pollution and higher taxes which will eventually force them off the land. Come out to see for yourself why our progressive alternative is intermodal rail transport.

#### July 20-21: Deloche Canyon-Whitewater Creek Backpack

Place: Gila Wilderness

Class: Moderate

Length: 8 miles

Elevation gain: +800, -1500 feet

Leader: Ann Falknor 833-9162 (H) [afalknor@prodigy.net](mailto:afalknor@prodigy.net)

Although we will drive up to the Gila on Friday, camping at the Gold Dust trailhead, the outing will officially begin Saturday morning with the car shuttle up to Deloche Canyon trailhead. There we will shoulder our packs for the 800' climb to the ridge and the descent into Whitewater Creek. We will wend our way downstream, crossing four times, then walking high above the water, eventually reaching our spacious campsite at the old powerhouse. Sunday's short hike up the Gold Dust Trail to the autos should give plenty of time for a leisurely return home.

#### July 27-28: Little Bear Middle Fork Loop Backpack

Place: Gila Wilderness

Class: Moderate

Length: 11 miles

Elevation gain: 800 feet

Leader: Rollin Wickenden, 915 855-6697 (H) [rwickgila@aol.com](mailto:rwickgila@aol.com)

We will depart El Paso Friday night and drive to our campsite at the Grapevine Campground. After leaving a vehicle at the Middle Fork trailhead, we will begin our hike at TJ Corral, hiking trail #729 across a hot mesa top and through "the Narrows" of Little Bear Canyon to the Middle Fork of the Gila, camping on a bench above the river. On Sunday, we will follow the Middle Fork Gila Trail downstream for 6 miles, past the hot spring to the Middle Fork trailhead. This day will involve several river crossings. Bring a bathing suit and boots that you do not mind getting wet. We will not have time to be changing shoes at each crossing. One author recommends neoprene socks. Be prepared for rain. We may encounter mosquitoes, so bring bug repellent.

### Next ExCom: July 10, Wednesday, at 6 PM

Jaxon's Restaurant and Brewing Company, 1135 Airway, El Paso

### Members Step Up

Several of you have recently contributed excellent letters to the editor of the El Paso Times. We need a constant stream of these!

### Sierra Club - El Paso Regional Group Directory (Area Code 915)

<http://texas.sierraclub.org/elpaso>

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#### Webmaster

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## Albuquerque Sells Out the Rio Comments Needed

By Richard Barish

On June 14th, Albuquerque released the long awaited Draft Environmental Impact Statement (DEIS) for its river water diversion project. Albuquerque wants to reduce its pumping of groundwater and use water imported from the San Juan River basin (San Juan-Chama Project water) as its primary source of municipal water. The Sierra Club agrees with the City that it needs to plan for its future water supply. However, the preferred alternative identified in the DEIS for use of the San Juan-Chama water only considers the needs of the City. It ignores the costs the plan will impose on the river and on farmers downstream.

The City's plan calls for the construction of a new dam in the river near the Alameda Bridge to divert water from the river. The City would divert not only its 47,000 acre-feet of San Juan-Chama water, but an equal amount of native Rio Grande water as well. The native water would be returned to the river at the Southside Wastewater Treatment Plant, about fifteen miles downstream.

The new dam proposed by the City would create yet another barrier to fish passage in the Rio Grande. Endangered Rio Grande silvery minnows reproduce by releasing their eggs into the current, where they float downstream for several days. If they float over a dam, the fish are trapped below the dam. About 90% of the surviving silvery minnows are now found south of the southernmost diversion dam in the middle reach, at San Acacia north of Socorro. This is the very part of the river that is most prone to drying in the summer. We need to be removing diversion dams and reconnecting the river, not creating more barriers to fish migration. While the proposed dam has been designed with a small side channel for fish passage, the channel is inadequate to provide significant fish passage.

The City's plan would also result in dangerously low flows in the summer. Under the plan, the City will continue to divert native water from the river until native flows are reduced to 70 cubic feet per second (c.f.s.) Seventy c.f.s. is a mere trickle. Such low flows would threaten aquatic life and the bosque. The City presently maintains a minimum flow of 250 c.f.s.

As it is presently formulated, the City's plan meets Albuquerque's needs - although only not indefinitely, and imposes severe costs on the river and on downstream farmers. Downstream farmers with whom the Club has allied in protesting the City's plan also are concerned about the quantity and quality of the water delivered to them.

The City needs to come up with a more balanced plan that meets the needs of the entire community. One obvious piece of the puzzle is conservation. The City's plan gives short shrift to conservation. We live in a desert, and our water planning needs to reflect what a precious commodity water is in this part of the world. The Bureau of Reclamation and Mayor Chavez need to be told that it is not acceptable to meet Albuquerque's needs by selling out the river and farmers.

You can comment in writing by August 13, 2002, and you can comment at any of the public hearings on the DEIS. Written comments should be sent to:

Bureau of Reclamation, Attn: Lori Robertson  
505 Marquette NW, Suite 1313, Albuquerque, NM 87102 and to  
Honorable Martin Chavez, Mayor, City of Albuquerque  
P.O. Box 1293, Albuquerque, N.M. 87103

The Albuquerque public hearing will be over by the time you receive this issue of the Sierran. Other public hearings you can attend (6 to 9 PM each day) are:

- July 9, Macey Hall, New Mexico Tech campus, 801 Leroy Place, Socorro.

- July 10, City Council chambers, 405 Pasco del Oñate, Española.

The DEIS can be viewed or downloaded at: [http://www.ucsbr.gov/ca\\_eis/abq/abq\\_adwp.html](http://www.ucsbr.gov/ca_eis/abq/abq_adwp.html), or you can request a CD-ROM or a hard copy by calling Rick Billings at Parsons Engineering (505-889-4525).

For more information, please contact Richard Barish, 505-232-3013, [rdbarish@aol.com](mailto:rdbarish@aol.com).

## Update on the Planned Growth Strategy

By Blair Brown

As we reported in the May/June Sierran, the City of Albuquerque has released the Planned Growth Study (PGS) which promises to make significant improvements in the quality of life in Albuquerque. It establishes a more proactive and logical process to determine how our City will grow, thereby giving us the choice to maintain the unique qualities that we value in Albuquerque.

On June 19th, the City held a morning Informational Meeting on the PGS followed by an all-afternoon question and answer session. One very interesting point made during the session was that cities that have planned growth strategies similar to those in the PGS have more vital economies and better job opportunities than those that don't.

That evening the PGS was presented to the City Council and initial public comment was heard. In the upcoming months, the City will be holding additional public meetings to educate our citizens and to enlist their input on the PGS, so watch the newspaper for dates and locations. Further public comment is scheduled to be heard at the City Council meeting on Monday, August 19th.

We urge everyone to learn more about the PGS and tell the City what you think. To learn more, go to the City's website at [www.cabq.gov/council/pgs](http://www.cabq.gov/council/pgs) where you can view the Summary, the Ordinance and the whole PGS report. It's fairly large document, but you can also view it at our public libraries or ask for it on a CD-ROM to read on your computer (call 768-3100). If you have questions, feel free to contact me at [bblairb2@aol.com](mailto:bblairb2@aol.com)

## General Public Meetings

July - Vacation - No meeting scheduled

Monday, August 19th at 7:30PM

Ben Luce, from the New Mexico Solar Energy Association, will talk about renewable energy sources. His talk will focus on how New Mexico can take advantage of its natural renewable resources and will be contrasting New Mexico's alternative energy opportunities (wind, solar) with the dependence on oil, coal, and gas.

Where: 1st Unitarian Church, 3701 Carlisle NE at Comanche, Social Hall.

Monday, September 16th at 7:30PM

Richard Fagerland, the famed "Bugman" and syndicated columnist, will discuss environmentally-conscious ways to control bugs and rodents. He writes a weekly column, which appears locally in the Albuquerque Tribune. He will mostly answer questions from the audience, so bring your questions about critters.

Where: 1st Unitarian Church, 3701 Carlisle NE at Comanche, Social Hall.

## Central New Mexico Group

PO Box 25342  
Albuquerque, New Mexico, 87125-5342

### Executive Committee (area code 505)

Blair Brown	259-7190	<a href="mailto:bblairb2@aol.com">bblairb2@aol.com</a>
Steve Capra	843-8696 x103	<a href="mailto:scapra@nmwild.org">scapra@nmwild.org</a>
Marilynn Cooper	842-0185	
Mark Doppke	768-1160	<a href="mailto:marckdoppke@yahoo.com">marckdoppke@yahoo.com</a>
John Dunn	842-8137	<a href="mailto:mrjohndunn@yahoo.com">mrjohndunn@yahoo.com</a>
Richard Johnson	277-4144	<a href="mailto:rsheehan@unm.edu">rsheehan@unm.edu</a>
Edward Sullivan	259-5966	<a href="mailto:sully@nmwild.org">sully@nmwild.org</a>
Michal Mudd	884-3315	<a href="mailto:micmud@aol.com">micmud@aol.com</a>
Sherry Wolf	254-2190	<a href="mailto:wolf@law.unm.edu">wolf@law.unm.edu</a>

The Executive Committee normally meets on the 2nd Monday of each month at 7:30PM. We meet at various locations, so please contact one of us for the meeting location, or if you have issues you would like to discuss. The meetings are free and open to all members.

### Project Leaders (area code 505)

Chapter Representative		
Marilynn Cooper	842-0185	
Conservation Chair		
Steve Capra	843-8696 x103	<a href="mailto:scapra@nmwild.org">scapra@nmwild.org</a>
Membership/Publicity		
Michal Mudd	884-3315	<a href="mailto:micmud@aol.com">micmud@aol.com</a>
Newsletter		
Blair Brown	259-7190	<a href="mailto:bblairb2@aol.com">bblairb2@aol.com</a>
Outings		
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Political		
Richard Barish	232-3013	<a href="mailto:rdbarish@aol.com">rdbarish@aol.com</a>
Programs		
Richard Johnson	277-4144	<a href="mailto:rsheehan@unm.edu">rsheehan@unm.edu</a>
Sherry Wolf	254-2190	<a href="mailto:wolf@law.unm.edu">wolf@law.unm.edu</a>
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Richard Barish	232-3013	<a href="mailto:rdbarish@aol.com">rdbarish@aol.com</a>
Water Issues		
Mark Doppke	768-1160	<a href="mailto:marckdoppke@yahoo.com">marckdoppke@yahoo.com</a>
Wildlife		
Sherry Wolf	254-2190	<a href="mailto:wolf@law.unm.edu">wolf@law.unm.edu</a>

*The Central New Mexico Group of the Sierra Club depends on the efforts of volunteers. If you can help, give any of us a call.*



## CENTRAL GROUP NEWS

### Club Supports Legislation for Protection of 9,890 Acres of the Cibola National Forest as Wilderness

The Sierra Club has joined the Sandia Preservation Alliance to help end a land dispute over 9,890 acres on the west face of the Sandia Mountains (the area). The agreement would ensure the area's continued protection as Wilderness forever. The area extends from the first ridge to the crest of the Sandias and includes the La Luz trail. If successful the area will retain its irreversible designation as a Wilderness area with additional special protections. It would continue to be administered by the Forest Service and would continue to be available to the public. Senator Jeff Bingaman D-NM has introduced legislation that if ratified will end a land dispute with a history over 300 years.

Bingaman's legislation is based on an agreement made two years ago by the Pueblo of Sandia, the Forest Service, and the Sandia Peak Tram Company. The agreement will expire on November 15<sup>th</sup>, 2002 if the legislation isn't ratified in congress. If the agreement expires the litigation will continue prolonging the current uncertainty regarding ownership of the area that does not serve the interest of the public or any of the parties in the lawsuit. The Pueblo of Sandia has won one court battle that stated that the eastern boundary is the crest. If the Pueblo of Sandia continues to prevail in court they could ultimately withdraw the land from the National Forest system, deny public access, and end management of the area as wilderness.

As of April 2<sup>nd</sup>, 2002 the Sandia Preservation Alliance includes the Pueblo of Sandia, the Sierra Club, Association of Community Organizations for Reform Now (ACORN), New Mexico Conferences of Churches, South West Organizing Project (SWOP), Independent Movement Political Action Committee (IMPAC), New Mexico Wilderness Alliance, SAGE Council, Americans for Indian Opportunity, Jewish Community Center (JCC), Forest Guardians, Albuquerque Hispanic Bar Association, and the Anti-defamation League. The Sandia Heights Homeowner's Association Board of Directors now also urges a timely conclusion to the matter. The Sierra Club is very cautious about taking positions on land claims, but supports this settlement due to its distinctive nature, unique qualities, and previous legal wins for the Pueblo of Sandia in this matter to date.

The area has always been sacred to the tribe. The area's legal history began in 1748 when the Spanish granted the Pueblo of Sandia a land grant. The original language defining the eastern border was "...y por el Oriente la Zierra Madre llamanda de Sandia..." The Spanish Land Grant was resurveyed and acknowledged as legal by the US congress in 1858 which reaffirmed that the Pueblo's eastern border was "the main ridge called Sandia"; The survey of the boundary had inexplicable indicated that the eastern border of the Pueblo was the first ridge (Sierra). The surveyor Clements has a history of conducting erroneous surveys on other New Mexico reservations. The two adjacent land grants to the south (Elena Gallegos and Isleta) contain virtually the same language and both were construed as extending to the crest of the mountain. Since the early 1900's the area has been part of the Cibola National Forest administered by the National Forest Service. In the 1980's the Pueblo of Sandia began legal proceeding to fix the 1858 survey. To date the Pueblo has prevailed in court. If congress does not

pass legislation enacting some agreeable settlement then the pueblo will probably push to have a new survey consistent with the DC District Court opinion recognizing the crest as the eastern boundary. This would probably result in an administrative appeal and another court date in the US District Court.

The Sandia Preservation Alliance agreement calls for the creation of the T'uf Shur Bien (green reed mountain) Preservation Trust Area. The Pueblo of Sandia will give up all claims to the land in question. The settlement will preserve all presently existing property rights in the area, including private property, permanent utility access, Sandia Peak Tram operations, and right away for roads. The agreement guarantees public access consistent with current access including recreation, hiking, hunting and trapping. The area would continue with its irreversible designation as Wilderness Area Plus administered by US Forest Service. Additional protections against development, logging and mining are included. The Pueblo of Sandia will receive access to the land for religious and cultural purposes. Finally, the Pueblo of Sandia would be consulted in all new uses and changes in current uses of the land. A third neutral party would arbitrate any future disputes in this process if both sides agree.

The settlement agreement expires November 15, 2002. If congress does not pass legislation enacting the settlement agreement by then none of the parties are required to continue negotiating and the Pueblo is free to pursue its claim in the courts. Call or write your US Senator and Representatives today to express your support the T'uf Shur Bien Settlement Agreement. Senator Bingaman is sponsoring a bill, but we are still unsure about the specifics that will be in it. Senator Domenici and Heather Wilson need urging to support the settlement agreement so that the New Mexico delegates provide a united front for when a bill is introduced. Please indicate that you are in their district.

Call and tell them to support the T'uf Shur Bien Settlement Agreement because it will add an extra layer of protection to this wilderness area:

Sen. Jeff Bingaman  
625 Silver SW Room 130, Albuquerque NM 87102  
505-346-6601, 505-346-6780 (FAX)  
senator\_bingaman@bingaman.senate.gov

Sen. Pete Domenici,  
625 Silver SW Room 330, Albuquerque, NM 87102  
505-346-6791, 505-346-6720 (FAX)  
senator\_domenici@domenici.senate.gov

Rep. Heather Wilson  
625 Silver SW Room 340, Albuquerque, NM 87102  
505-346-6781, 505-346-6723 (FAX)  
ask.heather@mail.house.gov

### Fish vs. Farmers? Don't Buy It!

By Richard Johnson, Central Group Chair

Politicians have a bad habit of framing environmental issues in terms of Humans vs. Nature. Unfortunately, the mainstream media usually adopts this rendering of environmental issues with little analysis.

The silvery minnow issue is a classic example. Politicians want the people of Albuquerque to see this issue as fish vs. farmers. In other words, if we want to save these endangered minnows, we need to take the water from the farmers on the Rio Grande.

The elephant in the room no one is talking about is Albuquerque itself. The people of Albuquerque, not farmers or minnows, are the ones who are overusing water. Every day, the moron a few doors down creates a river of water in our street. The local bank branch insists on watering its sidewalk on windy evenings. Our nearby high school is watering a practice football field in the middle of a hot, sunny afternoon. Certainly, all this wasted water could keep farmers and minnows alive.

According to a news release from the Mayor's office, by May this year Albuquerque had used almost a half a billion gallons of water—a 300 million gallon increase over this time last year. In the release, Chavez complains that "We are pouring too much water over our lawn-based landscapes in the desert." How true. (By the way, this is the same Mayor Chavez who wants to use the silvery minnow issue as a "test case" against the Endangered Species Act).

So, when we hear politicians implying that saving the minnow means hurting farmers, don't buy it. They are simply pitting two victims against each other. The real problem is that guy up the street, and that lush football practice field. If Albuquerque would control its own water use, there would be plenty of water for fish and farmers.

Unfortunately, some Rio Grande farmers are buying into these anti-environmental arguments. Many of them don't realize that Albuquerque will continue to suck up more and more water, minnow or no minnow. Driving the minnow into extinction will mean more water for Albuquerque, not farmers. In the end, politicians are simply looking out for the short-sighted interests of Albuquerque, not the interests of farmers.

If anything, farmers and conservationists should band together. Our interests are the same. Until the people of Albuquerque reform their wasteful ways, there will be less and less water for farmers and minnows. Both of these important species will soon go extinct.

### Outings

**FIRE RESTRICTIONS** may cause changes or cancellations of these outings. Be sure to contact the Leader to verify the time and place.

**Sunday, July 21: Sandia Mountains, 10K Trail.**

The 10K trail is an easy hike across the east side of the Sandia mountains. Mostly gentle ups and downs. Kids are welcome. We'll have our kids in backpacks. Bring plenty of water. Dogs welcome on leashes.

Call Richard Johnson 277-4144 for details and driving instructions.

**Wednesday, July 24 - Evening Hike**

Meet at 5:45 PM at Franklin Plaza (Juan Tabo & Central). Fire closures might make this difficult, but I'm an optimist. Optional stop at RIBS afterward for dinner. Leader: Rick Hurley (299-8401, RickHurley@aol.com).

**Saturday, July 27 - Out-of-town Hike**

Call for meeting time and place, and hike details. The location of this hike will depend on fire closure status, but we'll find someplace to go. Expect to be out all day with a stop for dinner. Bring hiking gear, lunch, water.

Leader: Rick Hurley (299-8401, RickHurley@aol.com).

**Saturday, August 10: Strenuous Loop Hike to Lake Peak.**

Part off trail and exploratory. Early start. Call or e-mail for update and details.

Leader: Steve Markowitz, at 797-5833; stepdov@hotmail.com

**Wednesday, August 14 - Evening Hike in the Sandia's**

Tentatively planning a 3-4 mile hike in the Sandias in the evening. Call for meeting time, place and info.

Leader: Rick Hurley (299-8401, RickHurley@aol.com).

**Sunday, August 25: Sandia Mountains, South Crest Trail.**

This is a scenic hike that is not difficult. There are a few rocky places, but the views of the Rio Grande valley are fantastic. We'll hike a few miles and have lunch. Then we will hike back. Kids are welcome. We'll have our kids in backpacks. Bring plenty of water. Dogs welcome on leashes.

Call Richard Johnson 277-4144 for details and driving instructions.

**Sunday, September 22nd - Strenuous, exploratory, off-trail hike**

West side of the Sandias. Call or email for update and details:

Leader: Steve Markowitz, at 797-5833 or stepdov@hotmail.com





### Group Directory

Southern N.M. Group

Executive Committee

P.O. Box 3705 UPB

Las Cruces, New Mexico 88003

Don Dearholt

Chair

522-3035

dearholt@cs.nmsu.edu

Margo Wilson

Vice Chair, Chapter Rep.

744-5860

margotwilson40@hotmail.com

Cheryll Blevins

Treasurer/Secretary

524-4861

spotblev@earthlink.net

David Farrell

Legislative Issues

895-3352

dafarrelli@hotmail.com

## News from the Chair

### Don Dearholt

It's the consensus of most around here that summer has come to southern New Mexico—it's hit 100 a few times now, with no rain in sight as this is being written. The Southern NM Group is taking some respite from the schedule we maintained during the academic year, although we are trying to accomplish a few things during the summer. Probably most important is that it is an election year, and we have both the opportunity and the obligation to do what we can for conservation now, before the election is held. Some of us are expecting to meet with John Arthur Smith soon, to discuss aspects of our environmental concerns with him. I'll let you know our views on his responses in the next newsletter. There are other important elections, too, of course, and please learn all you can about the views of the candidates on our principal issues. The candidates who have been endorsed by the Chapter are discussed elsewhere in this issue, and we urge you to support them.

The city of Las Cruces has now hired Joe Lewandowski, a recycling expert, and he was introduced to the environmentalists at a meeting of CURB (Citizens United for Recycling Benefits). Ben Zerbey represented the Group at that meeting, and we believe that the city council members and Mr. Lewandowski are impressed with the interest shown in achieving a significantly higher rate of recycling by those present at the CURB meeting.

## General Meetings

Executive Committee Meetings are typically the first Wednesday of the month—all members are welcome to attend. Call Cheryll at 524-4861 for time and place.

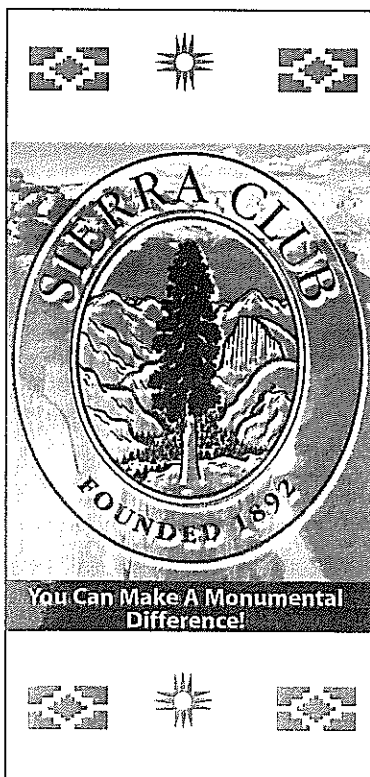
## Coming Events

If this newsletter reaches you in time, please try to attend the slide show presentation, "The Last Great Wilderness Project", with slides and discussion of the Arctic National Wildlife Refuge (and a few slides and comments about Otero Mesa as well), by Lenny Kohm and Jeff Barrie. This will be held on Thursday, June 27, at 7:00 p.m., at the new building of the Southwest Environmental Center, on the downtown (Las Cruces) mall, at the SW corner of the mall and Las Cruces Ave.

## Outings

July 20, Saturday: **Hike the Rim Trail in the Sacramento Mtns.** This will be a moderate hike of about six miles. Bring lunch and water.

Call Ben @ 526-7811 for further info and to reserve space.



# From Ice-Age to Greenhouse? The Scoop on Millions of Years of Changing Climate

by Dr. Synte Peacock

In April 2002, Dr. Synte Peacock gave a talk on climate, as a program for Earth Day offered by the Pajarito Group of the Sierra Club in cooperation with the Pajarito Environmental Education Center. This is the text version of the talk.

The abundance of water in its liquid form makes Earth unique among planets in the solar system, and perhaps beyond. The small fraction of Earth's atmosphere comprised of greenhouse gases (water vapor, carbon dioxide, methane) ensures that this planet is a comfortable place to live. If all greenhouse gases could be eliminated from the atmosphere, Earth would be a chilly abode indeed, with an average temperature around -18°C. If, on the other hand, greenhouse gases were the major atmospheric constituent, the planet would be sizzling. As it is, things are "just right" for life as we know it.

The climate in which we live today may seem wildly erratic, but when viewed through the lens of geological time, the last 10,000 years stand out for being a period of remarkable stability. Over Earth's history there is evidence for periods of time when the earth was completely covered by ice (the so-called "snowball earth"); there have also been times during which even polar regions were ice-free ("greenhouse earth"). Over much of the past 100,000 years or so, it appears that abrupt fluctuations in global temperatures and ice volume have been the rule rather than the exception.

Evidence for a "snowball earth" comes from the period before hard-bodied life had emerged, and it is thought that Earth may have become coated in ice as many as four times between 750 and 580 million years ago. There have been but a handful of ice-ages throughout out planet's history, the next-to-last of which ended some 250 million years ago.

The dinosaurs became extinct in a "greenhouse earth", around 65 million years ago. Since these great beasts disappeared, the earth has been undergoing a cooling, most of which occurred in three major events, some 36, 15, and 3 million years ago. The climax of this cooling trend has been the entering of a new "ice-age", characterized by a series of "glacial-interglacial" cycles.

(continued on page 18)

## Meetings

All meetings are held in the upstairs rooms in Mesa Public Library at 7:00 PM and are open to the public. General meetings are on the first Wednesday, conservation meetings the second Wednesday, and Executive Committee meetings the third Wednesday. There will be no general meetings in July and August.

### OPEN MEETING

#### "ENVIRONMENTAL ETHICS, A MORAL IMPERATIVE?"

WEDNESDAY, SEPTEMBER 4, 2002  
MESA PUBLIC LIBRARY, UPSTAIRS MEETING ROOMS

Environmental responsibility embraces the ideals of social equity, economic prosperity, and ecological integrity when addressing such issues as global warming, land degradation, species extinction, deforestation, toxic-waste generation and disposal, energy and resource use, rapid urbanization, and corporate and social responsibility.

Many people believe that organized religion deals solely with humans and their spiritual—and in extension, personal and social—well-being. Most issues important in the environmental-responsibility movement, however, are similar to those that are important to religion. Are there points at which these two ideals merge? A panel consisting of three to four ministerial representatives from various religious communities in Northern New Mexico will offer insights into how various religions view environmental responsibility. Each panel member will give a short presentation followed by questions and discussion.

## OUTINGS

**August 17 • Bandelier National Monument Dayhike**—Moderate, approximately 8 miles along the Apache Springs Trail to Upper Frijoles Canyon to Ponderosa Campground. The trail drops 1,600 feet into Frijoles Canyon and gains 500 feet at the end. Meet at Ponderosa Campground at 8:00 AM and carpool to the trailhead. Bring water and lunch/snacks, protective gear. We should be back around noon. (Dependent on whether the backcountry, currently closed due to fire danger, is open.) Ilse and Rainer Bleck (662-2368).

**Wednesday, August 21 • Sierra Club Picnic**—Bring your favorite dish and join fellow Sierrans for an evening of fun and socializing. Drinks will be provided. The site will be Camp May just beyond the Pajarito Ski Area if the forests reopen. If fire danger persists, the alternative site will be a county park. 6:00 PM. Please call or check the local paper for more information. Ilse Bleck (662-2368).

**Saturday, August 24 • Obsidian Ridge from Dome Road Dayhike**—Easy/moderate, 6 miles, 500' elevation gain, dogs OK. Call for time and meeting place. Robert McKee (672-3426).

**September 21 • Cerro Grande Dayhike**—Moderate/strenuous, 8-9 miles, 2,000' elevation gain, off-trail and exploratory, easy pace. Call for time and meeting place. Robert McKee (672-3426).

## Pajarito Group of the Sierra Club Directory

Ilse Bleck, Chair & Chapter Representative	662-2368 ibleck@yahoo.com
Kim Manley, Vice Chair	662-6163 knumgeol@ix.netcom.com
Carole Jacobson, Secretary/Treasurer	672-9579 abe.jacobson@worldnet.att.net
Chuck Pergler, Conservation	661-6169 pergler@att.net
Jody Benson	667-8465 benson@janl.gov
Matt Heavner	829-3645 heavner@jemez.com
Abe Jacobson	672-9579 abe.jacobson@worldnet.att.net

## The Pajarito Group's Link to the Sierra Club Web Site

Pajarito can be accessed at:

<http://riograndesierraclub.org/pajarito/>

Matt Heavner is the webmeister.



## NORTHERN GROUP NEWS

### IN MEMORIAM

The Santa Fe Group, as well as the Chapter, has recently lost two long-time conservation activists.

#### BOB LANGSENKAMP

1946 - 2002

#### JOHN PIERPONT

1917 - 2002

Little more can be said that was not said at their memorial services, and they will be deeply missed by family and environmental friends. The Club has donated \$1,000 to the New Mexico Environmental Law Center in their honor. Let's all reflect for a moment on death, as was read during John's service, from the words of Sierra Club founder John Muir.

#### HOME GOING

So the snow-flowers go home when they melt and flow to the sea, and the rock-ferns, after unrolling their fronds to the light and beautifying the rocks, roll them up close again in the autumn and blend with the soil. Myriads of rejoicing living creatures, daily, hourly, perhaps every moment sink into death's arms, dust to dust, spirit to spirit - waited on, watched over, noticed only by their Maker, each arriving at its own Heaven-dealt destiny. All the merry dwellers of the trees and streams, and the myriad swarms of the air, called into life by the sunbeam of a summer morning, go home through death, wings folded perhaps in the last red rays of sunset of the day they were first tried. Trees towering into the sky, braving storms of centuries, flowers turning faces to the light for a single day or hour, having enjoyed their share of life's feast - all alike pass on and away under the law of death and love. Yet all are our brothers and they enjoy life as we do, share Heaven's blessings with us, die and are buried in hallowed ground, come with us out of eternity and return into eternity.

*"Our lives are rounded with a sleep."*

*- From the Chair*

#### CONSERVATION CHAIR

Paul Paryski

The Santa Fe/Northern New Mexico Group continues to pursue its policy of demanding reasonable and sustainable management of New Mexico's decreasing water resources on which we all depend and are necessary for the health of our state's unique ecosystems. Unfortunately, all prognostics point to continuing drought.

Our efforts have been concentrated on a public campaign to support a new construction moratorium in Santa Fe, including Santa Fe County, until a regional plan for water management can be developed and implemented. We placed a full-page ad in the *Santa Fe New Mexican* calling for a building moratorium and other water conservation measures. We also offered a \$1000 prize for the best water conservation idea submitted to a jury composed of members of the public and city and county elected officials. The Group is considering using a special petition and referendum to pass a building moratorium city ordinance. John Buchser, our water chair, deserves special credit for all the work he put into the ad and contest. Contact John at [jbuchser@earthlink.net](mailto:jbuchser@earthlink.net) for further information.

We have written to the City Council and publicly expressed our opinion that a first step to sustainable water management should be the passage of city and county water budgets. Although water budgets will not solve the many problems of water management, they will create a more rational procedure for the allocation of this precious resource and link any new development to the availability of water. We have also supported severely limiting the use of water for watering golf courses. It seems unjust that 10% of Santa Fe's water should be used to keep less than 1% of the population happily playing golf while the rest of us struggle to conserve water.

In general it seems there has been reluctance on the part of city, county and even state officials to face the dire realities of the increasing scarcity of water resources, especially now that all evidence shows global warming is affecting the whole planet. We urge Sierra Clubbers to contact the City Council to support the water budget, which might not pass since some of the councilors are in favor of continuing unlimited growth and development.

#### Still More on Water

Another water related issue is the disastrous spread of wildfires throughout New Mexico and the Southwest. Some politicians are wrongly blaming the fires on environmentalists. We wrote to the *Santa Fe New Mexican* to reiterate that we support rational management of forests that includes thinning and other measures. Unfortunately, forest management by government authorities has been shown to be very ineffective in maintaining healthy forest ecosystems. The risks of a wildfire in the Santa Fe Watershed remain high.

The Group also continues to support the efforts of the Alliance for the Rio Grande Heritage to save the Rio Grande and maintain its in stream water flow. The Rio Grande is the main ecological artery of our state. This historic river should not die.

#### How to communicate with your elected City officials:

Mayor Larry A. Delgado, 955-6590, [mayor@ci.santa-fe.nm.us](mailto:mayor@ci.santa-fe.nm.us)  
Santa Fe City Councilors:

District 1 Patti Bushee\*, 955-6509, [pjbushee@ci.santa-fe.nm.us](mailto:pjbushee@ci.santa-fe.nm.us)  
District 1 David Pfeffer\*, 955-6811, [pfef@ci.santa-fe.nm.us](mailto:pfef@ci.santa-fe.nm.us)  
District 2 Karen Heldmeyer\*, 955-6818, [kheld@ci.santa-fe.nm.us](mailto:kheld@ci.santa-fe.nm.us)  
District 2 Rebecca Wurzbarger, 955-6815, [rwurzbarger@ci.santa-fe.nm.us](mailto:rwurzbarger@ci.santa-fe.nm.us)  
District 3 David Coss\*, 955-6814, [otowi@msn.com](mailto:otowi@msn.com)  
District 3 Miguel Chavez\*, 955-6816, [miguelmchavez@ci.santa-fe.nm.us](mailto:miguelmchavez@ci.santa-fe.nm.us)  
District 4 Carol Robertson Lopez, 955-6812, [crobertsonlopez@qwest.net](mailto:crobertsonlopez@qwest.net)  
District 4 Matthew Ortiz, 955-6817, [mortizlaw@msn.com](mailto:mortizlaw@msn.com)

\* sponsors of the water budget ordinance introduced by Patti Bushee; if you call or write, please thank the sponsors for their efforts.

#### FUNDRAISING YARD SALE

Saturday, October 5

Mark your calendars for our annual yard sale and start setting aside useable items that are no longer needed. Details in next bulletin.

Santa Fe Group of the Sierra Club

621 Old Santa Fe Trail, Suite 10, Plaza Desira, Santa Fe, NM 87505

505 • 983-2703



## NORTHERN GROUP NEWS

### SANTA FE GROUP OUTINGS FOR 2002

**PLEASE NOTE:** Most of the activities listed in this schedule take place in the Santa Fe or Carson National Forest.

As of June 27, these forests were closed because of fire danger.

Call leaders to confirm the scheduled outings are happening.

**ALWAYS, ALWAYS CALL LEADER ANYWAY**

#### Sat Sun July

Thursday, July 4

**Very Strenuous Hike** to Santa Fe Baldy, possibly via Lake Kathryn with scree scramble from there, 1.4 miles, 3600-3900' gain. Dan Rusthøi (690-8967)

6 **Strenuous Hike** to Horsethief Meadow from Panchuella CG in the Pecos, 11 miles/2500', dogs okay. Tobin Oruch (820-2844)

7 **Moderate/Strenuous Hike** Nambe Lake, 6-7 miles, 2100' gain. David Bryant (505-757-3477 / dabryant@cybermesa.com)

Friday and Saturday, July 12 and 13

**Riparian Restoration WORK** with the Quivira Coalition at Comanche Creek in Valle Vidal. See article on back page. John Buchser (820-0201)

13 **Moderate/Strenuous Hike** Aspen Vista trail to rocky overlook or towers, 10-12 miles/2000' gain. Heather Liston (982-9715)

14 **Moderate Hike** in high country, leave 8 AM. Art Judd (982-3212 or AJudd@aol.com)

20 **Easy/Moderate Hike** dogs okay. Lionel Soracco (983-6715)

21 **Moderate/Strenuous Hike** East Fork Box in Jemez, walking in river near end, 8 miles/800' gain. Norbert Sperlich (474-4354)

27 **Very Strenuous Hike** to Wheeler Peak, 14 miles, 4300' gain, Marcia Skillman (474-7414)

27 **Easy Birdwatch Walk** bring binoculars. Ron Duffy (982-2890)

28 **Strenuous Hike** Round Mountain/Beatty's cabin loop in Pecos Wilderness from Jack's Creek trailhead, 12 miles/1600' gain. Leave 8 AM. Dogs okay. John Jasper (505-263-5466 lve mess.)

*For additional outings in Northern New Mexico, please check the Pajarito Group page(s) in this newsletter.*

#### Sat Sun September

1 **Strenuous Hike** to Wheeler Peak. 14 miles RT, 4300' gain. Marcia Skillman (474-7414)

7 **Easy Hike** Gall Bryant (505.757.6654)

8 **Strenuous Hike** to Santa Fe Baldy. 14 miles RT, 2760' gain. Dan Rusthøi (690-8967)

14 **Moderate Hike** in High Country. Dogs allowed. Lionel Soracco (983-6715)

14 **Strenuous Hike** to Gold Hill (near Taos). 10 miles RT, 3411' gain. Rich Capua (473-1948)

15 **Strenuous Hike** to Deception Peak, site of proposed ski lift. 7 miles RT, 2200' gain. Michael Goldey (820-7302)

21 **Easy Birdwatch Walk** bring binoculars. Ron Duffy (982-2890)

21 **Moderate/Strenuous Hike** to Cerro Grande (in the Jemez). Exploratory, off-trail, easy pace. 9 miles RT, 2000' gain. Bob McKee (672-3426)

22 **Strenuous Hike** in Sandias. Stephen Markowitz (505.797.5833 or stepdov@hotmail.com)

28 Check the next issue of the *Rio Grande Sierran* for a hike with Marcia Skillman (474-7414)

28 **Tour the new Ortiz Mountains Educational Preserve** with guest leader Mark Wood from the Santa Fe Botanical Garden. Leave from Sierra Club office at 1 PM or meet leader at lower gate of Gold Mine Road just south of town of Cerrillos on Highway 14 at 2 PM. Easy 5 mile walk. For reservation, call Norma McCallan (471-0005)

29 **Moderate Hike** in High Country. Art Judd (982-3212)

#### RIO GRANDE SIERRAN

<http://www.riogrande.sierraclub.org/santafe/home.html>

#### Sat Sun August

Saturday and Sunday, August 3 and 4

**Riparian Restoration WORKSHOP** at Comanche Creek in Valle Vidal. See article on back page. **Reservation Required.**

John Buchser (820-0201)

3 **Easy Hike** Gall Bryant (505.757.6654)

4 **Strenuous Hike** Holy Ghost to Spirit Lake in Pecos. 14 miles RT, 2800' gain. Heather Liston (982-9715)

10 **Strenuous Loop Hike** to Lake Peak. Part off-trail, exploratory. Stephen Markowitz (505.797.5833 or stepdov@hotmail.com)

11 **Moderate Hike** to Aspen Peak. Short distance, some off-trail, great views. Rich Capua (473-1948)

Friday and Saturday, August 16 and 17

**Riparian Restoration WORK** with Quivira Coalition at Comanche Creek in Valle Vidal. See article on back page. John Buchser (820-0201)

17 **Moderate Hike** in High Country. John Jasper (1.505.263.5466 - h; 986.4613 - w)

17 **Easy Birdwatch Walk** bring binoculars. Ron Duffy (782-2890)

18 **Moderate Hike** to Hamilton Mesa. Michael Goldey (820-7302)

Saturday and Sunday, August 24 and 25

**Car Camp and Strenuous Hike** in Latir Peak area. Drive to trailhead Saturday afternoon, return Sunday evening. Michael DiRosa (663-0648)

24 **Moderate Hike** from Dome Road to Obsidian Ridge. 7 miles RT, 500' gain. Dogs allowed. Bob McKee (672-3426)

25 **Moderate/Strenuous Hike to Nambe Lake** 7 miles RT, 2100' gain. Les Drapela (438-3306)

31 **Moderate Hike** in High Country. Dogs allowed. Norma McCallan (471-0005)

#### GROUP COMMITTEE MEETING DATES

Group Executive Committee: Group Conservation Committee:

Tuesday, August 6, 6:30 PM Tuesday, July 30, 7 PM

Tuesday, September 3, 6:30 PM Tuesday, August 27, 7 PM

Water Pot-Luck (John Buchser's house [820-0201]):

Second Mondays at 6:30 PM

July 8, August 13, September 10

#### INFORMATION ON FOREST CLOSURES AND FOREST FIRES

New Mexico Public Lands Information Center, 1474 Rodeo Road, 438-7542 ([www.publiclands.org](http://www.publiclands.org)) tracks the latest information on forest closures and what public lands are still open. On the web site, click on New Mexico on the map of the United States. On the New Mexico main page, hit News for closures. The New Mexico pages also have information on numerous other topics about conserving our public lands, including the Valles Caldera.

#### CERRILLOS HILLS WALK

12 Noon, Sunday, July 14

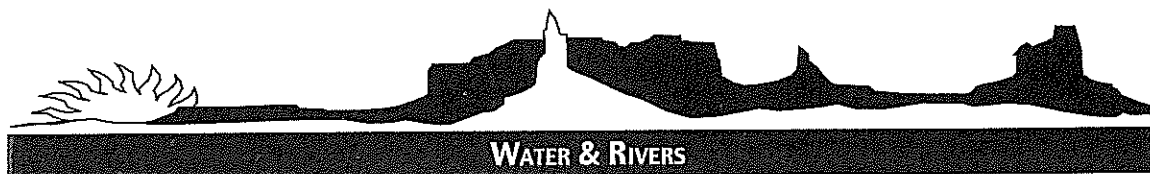
The 2½ hour escorted tour with the Cerrillos Hills Coalition will concentrate on nature and some of the historical mines. Meet in the Cerrillos Park parking lot, north on First Street ½ of a mile from the town of Cerrillos. Call Bill Baxter (505-424-3574)

*The above activity is neither sponsored nor administered by the Sierra Club. The Sierra Club has no information about the planning of these activities and makes no representations or warranties about the quality, safety, supervision or management of such activities. It is published only as a reader service because it may be of interest to the readers of this publication.*

#### ♦ ♦ SANTA FE GROUP OFFICERS AND COMMITTEE CHAIRS ♦ ♦

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Vice-Chair — Barbara Johnson \* lunah3@aol.com 466-4935  
Secretary/Treas — Lionel Soracco 983-6715  
Political Committee — Susan Martin \* smartin@lanl.gov 988-5206  
Membership/Activist Outings — Norma McCallan \* nmccallan@mindspring.com 471-0005  
Newsletter/Publicity — Kay Carlson kcarlsonvp@earthlink.net 982-3926  
Web Master — Gina Aranda garanda@cnsf.com 424-1615  
Phone Tree — Berta Hanna 424-1435  
Chapter Rep — Doug Fraser \* 474-7615  
\* Member of the SF Group Executive Committee

Outings — Norbert Sperlich 474-4354  
— Tobin Oruch oruch@lanl.gov 820-2844  
Conservation — Paul Paryski \* pparyski@aol.com 992-1984  
Mining — Cliff Larsen \* clarsen1@ix.netcom.com 466-2128  
Water — John Buchser \* jbuchser@earthlink.net 820-0201  
National Parks — Courtney White \* wldwt@r166.com 982-5502  
Rangelands — Roger Peterson rogpete@aol.com 983-7559  
Carson Nat'l Forest — George Grossman 982-1024  
Activist Outings — Norma McCallan \* nmccallan@mindspring.com 471-0005  
Growth — Eleanor Eisenmenger 820-6401  
— Jan Kindel \* jankindel@aol.com 474-7207



## WATER & RIVERS

### Floodplains (continued from page 1)

River is harming endangered fish and wildlife including the Bald eagle, Southwestern willow flycatcher, and the Rio Grande silvery minnow. The NFIP allows businesses and homeowners within participating cities, counties, and other local governments to build in hazardous, flood-prone areas and receive federal insurance as long as the communities adopt certain minimal land-use controls.

"We hope this assessment and its final outcome demonstrate that protecting flood-prone areas from permanent human encroachment is vital not only for endangered fish and wildlife, but also because it can help keep people out of harm's way," said John Horning, Forest Guardians Executive Director. "The bottom line is that protecting flood-prone areas protects people and fish and wildlife."

#### Further Reading on Climate (see page 6)

Cook E.R., D.M. Meko, D.W. Stahle and M.K. Cleaveland. 1999. Drought reconstructions for the continental United States. *Journal of Climate*. 12 (4):1145-1162

Stahle, D.W., M.K. Cleaveland, D.B. Blanton, M.D. Therrell, D.A. Gay. 1998. The Lost Colony and Jamestown droughts. *Science* 280:564-567.

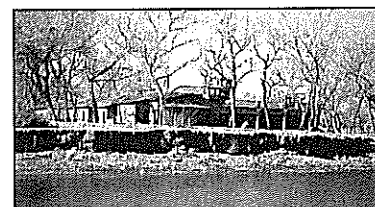
Swetnam, T.W. and J.L. Betancourt. 1998. Mesoscale disturbance and ecological response to decadal climatic variability in the American Southwest. *Journal of Climate* 11:3128-3147.

Woodhouse C.A. and J.T. Overpeck. 1998. 2000 years of drought variability in the central United States. *Bulletin of the American Meteorological Society* 79 (12):2693-2714.

The settlement agreement represents the first time in the western United States that FEMA has agreed to assess the effects of the NFIP on endangered fish and wildlife. In addition, the agreement obligates FEMA to conduct ten assessments of community compliance with the requirements of the program. In the past two years, only three assessments have been completed. The groups claim that the environmental impact of the flood-insurance program has grown dramatically over the past decade in New Mexico, as an increasing number of agricultural lands are subdivided for commercial and residential development.

"This is an historic agreement," said Richard Barish of the Sierra Club. "Development in the floodplain of the Rio Grande will make it much more difficult to restore the river and recover our endangered species. For instance, floodplain development could prevent controlled flooding between the levees that would create habitat needed by willow flycatchers and silvery minnows. FEMA needs to take into account the effects of floodplain development on endangered species and on the environment in general when it is considering whether it should insure such development."

During the past 25 years, the federal government has spent more than \$140 billion in preparing for and recovering from floods, according to a 1998 report by the National Wildlife Federation. Kevin Bixby, director of the Southwest Environmental Center, believes that



The National Flood Insurance Program allows businesses and homeowners within participating cities, counties, and other local governments to build in hazardous, flood-prone areas and receive federal insurance as long as the communities adopt certain minimal land-use controls.

"protecting floodplains makes economic and ecological sense.... Instead of bailing people out for unwisely building in these flood-prone areas," Bixby added, "we should be spending taxpayer money to acquire and permanently protect our river's floodplains."

The recently completed Biological Assessment fails to take as comprehensive a review of the program as is necessary. As a result, the groups will soon be pressuring the FWS to reject the biological assessment and require FEMA to initiate formal consultation.

A copy of the settlement is available at [www.fguardians.org/pdf/fema-settlement.pdf](http://www.fguardians.org/pdf/fema-settlement.pdf).



### Ice Age to Greenhouse (continued from page 15)

Around 20,000 years ago, the last glacial period was at a peak. Ice sheets covered much of North America and Europe, causing the sea level to sit about 120 meters lower than today. Polar temperatures were about 8°C colder, and greenhouse gases concentrations were considerably lower. The glacial world was also a much windier and dustier place.

But how do we know all this? Among the most important tools we have for probing recent changes in Earth's climate are deep-sea sediment cores and ice cores. Throughout the ocean live microscopic creatures called *foraminifera*. Their shells, made of calcium carbonate, reflect the chemical signature of the seawater in which they grow. When they die, they fall to the sea floor and are buried in the sediments. By drilling into the seafloor, and measuring the changing chemical composition of these organisms, it is possible to obtain a record of past changes in ocean composition going back millions of years. A drawback of deep-sea sediment cores is that the resolution is poor, both because of a low sedimentation rate (typically only a centimeter or two in a thousand years), and because of bioturbation on the sea floor. A much higher-resolution record of changes in climate can be

obtained from ice-core records, where it is sometimes possible to detect even a seasonal variation in certain isotopes.

A widely measured chemical signature that can be obtained both from *foraminifera* in deep-sea sediment cores, and from ice cores, is the ratio of heavy oxygen-18 atoms to lighter oxygen-16 atoms ( $\delta^{18}\text{O}$ ). Because water containing the lighter  $^{16}\text{O}$  evaporates more easily, and water containing the heavier  $^{18}\text{O}$  is rained out of clouds more readily, the water in clouds become enriched in the lighter  $^{16}\text{O}$  relative to  $^{18}\text{O}$  by the time it reaches polar regions. As global temperatures drop and polar glaciers grow, the snow falling in high latitudes become progressively enriched in the lighter oxygen isotope and the seawater becomes enriched in the heavier isotope. Harold Urey, a Nobel-winning chemist at the University of Chicago, was the first to suggest that the ratio of oxygen-18 to oxygen-16 could be used as a paleothermometer.

It was a startling idea that met with amazing success: it was soon demonstrated that within the tiny creatures buried in the mud of the sea floor was preserved a record of changing climate. Among these fluctuations were those paced by variations in the amount of sunlight

reaching the Earth. The main elements of variation in Earth's orbit (the "eccentricity" of orbit, the "obliquity" of the Earth's axis, and the "precession" of the equinoxes, occurring with periods of roughly 100,000, 41,000, and 23,000 years, respectively) had been computed in the 1920s by a Serbian astronomer Milutin Milankovitch.

As the timing of the cycles evident in deep-sea cores was refined through improved dating techniques (such as uranium-thorium), acceptance of the orbital theory became widespread.

Ice cores hold not only a record of oxygen isotope variations, but also, in trapped air bubbles, a record of past atmospheric composition. One remarkable feature to emerge from the ice cores was the close correspondence between cold low- $\text{CO}_2$  periods and warmer higher- $\text{CO}_2$  periods. Another fascinating detail to come out of these records was the rapidity and frequency of climatic fluctuations.

Global mean temperatures appear to have jumped abruptly time and time again during the last glacial (so-called "Dansgaard-Oeschger" events). Why the past 10,000 years have been so anomalously stable remains an open question.

(continued on next page)





## Arctic Refuge—Conference Committee Follows April Win

adapted from an article by John Barry

In a big victory for America's environment, the U.S. Senate rejected (54-46) yet another proposal to open the coastal plain of the Arctic National Wildlife Refuge to oil drilling. The decisive vote in April 2002 was a stinging rebuke for one of the Bush Administration's top domestic priorities. Moreover, the victory is a testament to tremendous outpouring of grassroots activism in support of protecting the Arctic Refuge.

The coastal plain of the Arctic National Wildlife Refuge is a national treasure—home to polar bears, wolves, and countless migratory birds. The coastal plain is also the birthing grounds for the 129,000-member Porcupine River caribou herd, and it is sacred land to the Gwich'in Indians, a Native people whose traditional lifestyle depends on the caribou.

Arctic drilling will do nothing to reduce our dependence on foreign oil or increase our national security. Government estimates indicate that there is less than a six-month supply of oil in the Arctic National Wildlife Refuge, and even the oil industry admits that it would take ten years to get that to U.S. markets.

While the Senate staved off attempts to include Arctic Refuge drilling in its version of an energy bill, the House version (which is dramatically worse) does include a drilling provision. This discrepancy will have to be reconciled in a conference committee. So, though we have one victory under our belt, it is possible that the conference may yet produce a bill with an Arctic drilling provision.

Even though the Senate rejected Arctic Refuge drilling, the Sierra Club cannot support the Senate's energy bill in its current form. While the bill began as a promising plan, polluters plundered it. Now, the Senate bill utterly fails to meet America's energy needs, and instead sends America backward. The Senate bill:

- saves virtually no oil;
- hardly increases renewable energy;
- eliminates safeguards that protect consumers from Enron-like manipulations; and
- gives billions of dollars in subsidies to dirty coal and oil, and dangerous nuclear power.

New Mexicans can applaud Senator Bingaman who co-sponsored the Senate energy bill and voted to protect the Arctic Refuge from drilling. Both Bingaman (D-NM) and Senator Domenici (R-NM) are members of the conference committee. Urge them to continue to fend off future attacks on the Arctic and reject the inadequate House and Senate energy bills should they emerge from the conference without dramatic changes—and encourage friends and family in other states to join you by contacting senators and representatives who will also participate in this debate.

To see how your senator voted, see the Sierra Club web site ([www.sierraclub.org/votewatch/2002/arctic.asp](http://www.sierraclub.org/votewatch/2002/arctic.asp)).

For more information, see the Sierra Club web site ([www.sierraclub.org/wildlands](http://www.sierraclub.org/wildlands)) and the Northern Alaska Environmental Center web site ([www.northern.org](http://www.northern.org)).

### Hands-On Riparian Restoration & Elk Enclosures

July 12-13 & August 16-17 (Friday-Saturday) • Comanche Creek in the Valle Vidal

Come help New Mexico Trout, Trout Unlimited, and the Quivira Coalition build mini-elk enclosures on Lower Comanche Creek. This workshop is part of a larger project to restore Rio Grande Cutthroat Trout habitat by encouraging the re-growth of willows and cottonwoods along the creek.

Comanche Creek is located in the Valle Vidal unit of the Carson National Forest, north of Questa and east of Costilla off State Road 552, close to the Colorado border. Camping at Shuree Lodge parking lot. Running water and toilet facilities available. The work is hard and fun! Pending re-opening of the Carson National Forest.

Contact Andrew Kelton of Trout Unlimited (995-0095-SFe; [ajkelton@aol.com](mailto:ajkelton@aol.com)) or Dave Patton of New Mexico Trout (294-1807-Abq; [dpa5966206@aol.com](mailto:dpa5966206@aol.com)).

### Ice Age to Greenhouse (cont. from page 18)

Since the beginning of the industrial revolution, the CO<sub>2</sub> concentration in the atmosphere has increased by roughly 30%. On the longer term, we are sitting near the beginning of an inter-glacial period, and if we were not to perturb the system, would probably find ourselves at the next glacial maximum some 80,000 years down the road. There is ample evidence from ice-core records for rapid and large swings in global climate. As we continue to inject greenhouse gases into our atmosphere, what will the future bring? Continued stability, gradual change, or abrupt transitions? And in what kind of a world will our great-grandchildren live? Icehouse or greenhouse?

Part of the answer is natural causes, but part is in our own hands.

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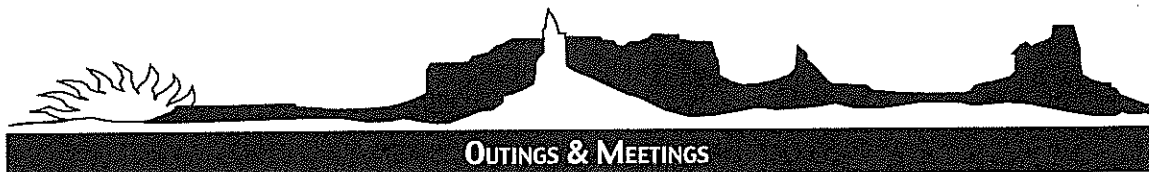
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## OUTINGS & MEETINGS

# Be Creative, Seek Opportunities to Get Out Into Wilds

by Norma McCallan

The sun is warm on my back, a light breeze cools my face, the sky is a brilliant blue, and although I have walked this stretch of the Rail Trail numerous times, it always feels good to be out, good to be walking briskly and breathing clean air, reassuring to watch the blue silhouettes of the Jemez, the Ortiz, the Sandias and the Sangres come into view. No smoke plumes today, although the acrid fumes of the Ponil Fire, or maybe the monster Hayman fire in Colorado, blew into my bedroom last night. With the continuation of our drought, tinder dry forests, and closure of many if not most of our

favorite summer hike locales, it is not an auspicious time for outings. I sympathize with members, residents and tourists who aren't able to go on trips planned perhaps months ago. I would urge all of us, however, to be creative, find enjoyment in urban trails, state parks, or BLM lands that are still open, and look for volunteer opportunities with the land agencies, which have even less staff than before to deal with trail maintenance, re-vegetation, brush clearing, etc. Check out the national Club's innovative service trips on their web site ([www.sierraclub.org](http://www.sierraclub.org)).

Meanwhile, our outing chairs have prepared a good schedule for the upcoming months, when, we hope, the summer rains will have arrived and eased our disastrous conditions. Also, I understand that New Mexico Volunteers for the Outdoors, to date, has been able to maintain its extensive schedule, even in the forests. Try them! (844-1991—Abq.; [www.nmfvo.org](http://www.nmfvo.org)).

Be doubly sure to call leaders to confirm trip plans, and check Group pages for additional information and outings. All phone numbers are 505 except as noted.

## Sierra Club Outings in July–September 2002

**Friday, July 12–Saturday, July 13 • Riparian Restoration Workshop**—Join riparian restoration specialist Bill Zeedyk to learn about stream ecology, geomorphology and how to induce meandering (see below). Location TBA, near Santa Fe and Albuquerque. John Buchser (820-0201–SFe).

**Friday, July 12–Saturday, July 13 • Riparian Restoration Work Party on Lower Comanche Creek**—Help build elk exclosures (see page 19). Dave Patton (294-1807–Albuquerque; [dpa5966206@aol.com](mailto:dpa5966206@aol.com)) or Andrew Kelton (995-0095–SFe; [ajkelton@aol.com](mailto:ajkelton@aol.com)).

**Saturday, July 20 • Crest Trail, Sacramento Mountains Dayhike**—7-mile hike (with car shuttle) at 8,500–9,000' in a little used southern range. Ben Zerby (526-7811–Las Cruces).

**Saturday, July 20–Sunday, July 21 • Delouch Canyon/Whitewater Creek Backpack**—Moderate, 8-mile backpack in the Gila Wilderness. Ann Falknor (915/833-9162–El Paso).

**Sunday, July 21 • East Fork Box, Jemez River Dayhike**—Moderate/strenuous hike includes walking in the river near end. 8 miles/800' elevation gain. Norbert Sperlich (474-4354–SFe).

**Saturday, July 27 • Wheeler Peak Dayhike**—Very strenuous hike to our highest peak. 14 miles/4,300' elevation gain. Marcia Skillman (474-7414–SFe).

**Saturday, July 27–Sunday, July 28 • Little Bear/Middle Fork Loop Backpack**—Moderate, 11-mile trip in the Gila Wilderness with several river crossings. Rollin Wickenden (915/855-6697–El Paso).

**Sunday, July 28 • Round Mountain/Bentley's Cabin Loop Dayhike**—Strenuous hike in the Pecos Wilderness. 12 miles/600' elevation gain. John Jasper (263-5466–Lamy).

**Saturday, August 3 • Bat Cave, Armanderis Ranch Outing**—Watch the spectacular twilight flight of bats from their cave on the vast Armanderis Ranch east of Truth or Consequences. Margot Wilson (744-5860–El Paso).

**Saturday, August 3 & Sunday, August 4 • Riparian Restoration Workshop, Comanche Creek in the Valle Vidal**—Join riparian restoration specialist Bill Zeedyk to learn about stream ecology, geomorphology and how to induce meandering (see below). John Buchser (820-0201–SFe).

**Sunday, August 4 • Holy Ghost Canyon to Spirit Lake Dayhike**—Strenuous 14-mile hike in the Pecos Wilderness. Heather Liston (872-9715–SFe).

**Friday, August 9–Saturday, August 10 • Riparian Restoration Workshop**—Join riparian restoration specialist Bill Zeedyk to learn about stream ecology, geomorphology and how to induce meandering (see below). Location TBA, near Santa Fe and Albuquerque. John Buchser (820-0201–SFe).

**Friday, August 16–Saturday, August 17 • Riparian Restoration Work Party on Lower Comanche Creek**—Help build elk exclosures (see page 19). Dave Patton (294-1807–Albuquerque; [dpa5966206@aol.com](mailto:dpa5966206@aol.com)) or Andrew Kelton (995-0095–SFe; [ajkelton@aol.com](mailto:ajkelton@aol.com)).

**Saturday, August 17 • Apache Springs Trail/Upper Frijoles Canyon/Ponderosa Campground Dayhike**—Moderate 8-mile hike in Bandelier National Monument. Ilse/Rainer Bleck (662-2368–Los Alamos).

**Saturday, August 17–Sunday, August 18 • Log Canyon/Mineral Creek Backpack**—Moderate, 8–9-mile outing in the Gila National Forest. Includes ruins of an old mine, the old townsite of Cooney, and a spectacular slot canyon. Rollin Wickenden (915/855-6697–El Paso).

**Sunday, August 18 • Hamilton Mesa Dayhike**—Moderate hike to this lush mesa in the Pecos Wilderness. Michael Goldey (820-7302–SFe).

**Saturday, August 24–Sunday, August 25 • Latir Peaks Dayhike?**—Strenuous hike close to Colorado border. Car camp. Mike di Rosa (663-0648–Los Alamos).

**Sunday, August 25 • Nambé Lake Dayhike**—Moderate/strenuous 7-mile hike to this 11,400' lake in the Pecos Wilderness. Les Drapela (438-3306–SFe).

**Sunday, September 8 • Santa Fe Baldy Dayhike**—Strenuous hike to this 12,622' peak; 3,600' elevation gain. Dan Rusthoj (690-8967–SFe).

**Sunday, September 15 • Sandia Mountains Dayhike**—Strenuous hike. Steven Markowitz (797-5833–Albuquerque).

**September 21 • Cerro Grande Dayhike**—Moderate/strenuous, 8–9 miles, 2,000' elevation gain, off-trail and exploratory, easy pace. Call for time and meeting place. Robert McKee (672-3426–Los Alamos).

**Saturday, September 29 • Ortiz Mountains Educational Reserve Tour**—Tour of the newly opened Santa Fe Botanical Garden acquisition—an ecological gem. Norma McCallan (471-0005–SFe).

## Riparian Restoration: Induced Meandering Hands-on Workshops with Bill Zeedyk

July 12–13 & August 9–10 (Friday–Saturday) • Locations TBA, in the vicinity of Albuquerque–Santa Fe  
August 3–4 (Saturday–Sunday) • Comanche Creek in the Valle Vidal

Under the tutelage of riparian specialist Bill Zeedyk, we will work with three different channel types and their corresponding vegetation. Bill is well known for his innovative low-cost, low-tech riparian restoration strategies. If you have ever been interested in the effects of dormant season grazing, effective low-cost riparian restoration techniques, or simply wanted to give nature a helping hand, this workshop is for you! Classes limited to 30 people/day. RSVP is a must! Contact the Quivira Coalition (820-2544–SFe; [projects@quiviracoalition.org](mailto:projects@quiviracoalition.org)).