Located along Interstate 15, fifteen miles south of the Nevada state line, a giant mine and processing complex is about to regain significance on the international commercial stage. Once the world's main source for rare earth elements and closed since 2002, the Mountain Pass Mine is now scheduled to resume operations.

So-called rare earths are essential for the manufacture of hundreds of electronic-age products, including wind turbines and compact fluorescent bulbs, smart phones and hybrid vehicles, national defense-related uses and a myriad other indispensable applications. The Toyota Prius hybrid automobile, for example, is said to be the biggest green gobbler of rare earth materials of any object in the world. Lanthium-nickel-hydride (La-Ni-H) batteries are gradually replacing rechargeable batteries containing lead and cadmium and offer fewer disposal/recycling problems, among other advantages. Desirable characteristics of rare earths include high conductivity, heat resistance, strength, and relatively low toxicity.

Rare earth elements include the 17 lanthanides (La through Lu on the periodic table), plus scandium and yttrium. They are actually not all that rare and often occur together. However, they tend not to be concentrated in easily exploitable ore deposits, and they are difficult to separate out from their ore bodies. The Mountain Pass reserve is considered the richest site worldwide discovered to date. Since its closing, China has produced over 95% of the world’s rare earth elements.

Mined nearly continuously since 1952, Mountain Pass ceased operations in 2002 except for minor processing of stockpiled ore after a series of environmental problems and increasing competition from China. Now, after a lengthy process to permit a 30 year expansion plan, the latest owner, Molycorp, Inc., broke ground in January 2011 for an extensively reworked extraction and processing site. Molycorp states they will be mining fresh ore at the site some time in 2011 and will be operating at full capacity by the end of 2012.

Mining rare earth elements is inherently risky. Radioactive ores often occur along with the rare earth elements. In the case of Mountain Pass, sludge from evaporation ponds containing uranium and thorium was of sufficient concentration that the corpora-

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FROM THE (RETIRING) EDITOR

Looking Back And Looking Forward

Five years have passed very slowly and also quickly. When articles for the Desert Report arrive at the last minute, when writers have emergencies that prevent them from writing, or when pictures to accompany stories are unavailable, my hair turns noticeably more gray. My wife complains that I talk in my sleep during the week immediately before an issue is printed. On the other hand, editing the Desert Report has given me the privilege of meeting an astonishing number of truly fine persons, the authors of the many articles that have appeared. To be sure, I met many of these people only electronically, but that seems to be the norm for our age. To these people I wish to say thank you. You have been wise and knowledgeable. You have been patient when I harped about deadlines and details. And you were gracious when my editing was heavy-handed and not always well informed. The fine stories that I was privileged to read and print have been my reward.

It is time now for me to attend to new projects, and it is time for new leadership with this publication. For myself, volunteer work in the Carrizo Plain National Monument will continue to be a priority. I expect to remain active with the Desert Committee, and my efforts with the Desert Report will go more directly toward finding the monies that are needed for printing and mailing. Perhaps, just perhaps, there may even be time left over to explore some of the desert places that have been the subject of this publication.

Kate Allen who is Outings Chair for the Desert Committee will be taking on the additional task of maintaining the data base for the Desert Report. Tom Budlong will become the person to whom circulation changes and donations are sent. Jason Hashmi who has been responsible for the layout and graphic design of this publication will continue to perform this service. On many occasions I have been complimented on the professional appearance of this newsletter, but it is to Jason that these credits should truly be addressed.

My final task is to introduce the new editor, Stacy Goss. I suspect that she does not entirely appreciate the magnitude of the commitment she has made. I am completely confident that she will master the details and do a truly fine job. I leave it to Stacy now to introduce herself.

THANK YOU

While the printing expenses for the Desert Report have been largely provided by the California/Nevada Regional Conservation Committee, there are several other organizations that have made additional and very significant contributions. It is appropriate here to recognize and thank:

Desert Protective Council
San Gorgonio Chapter of Sierra Club
San Diego Chapter of Sierra Club

Many individuals have also contributed to the Desert Report during the past six months and their support is both essential and appreciated. These Sponsors of the Desert Report with contributions of $100 or more are:

Jeff Aardahl, Guajara, CA
Sid Silliman, Upland, CA
Tony de Bellis, Danville, CA
Richard Garrison, Kent, WA
West Los Angeles Group, Sierra Club, Angeles Chapter

After a 30-second glance into the Grand Canyon when I was 18, I knew that I had to return to see more of our deserts. In college, I spent a week in Death Valley through a program at San Jose State University where students were joined with professors to explore the geology, biology, and cultural heritage of the park. However, what really got me out to explore the deserts was joining Desert Survivors 20 years ago.

I worked for the County of Santa Clara for over 20 years in several criminal justice departments, including the Department of Correction and Pretrial Services. Last year, I realized that it was time to move on and pursue and rediscover the activities that held more interest to me.

When I heard that the Desert Report needed an editor, I realized that this would be an opportunity to get to know our deserts as I never could have otherwise, not just the lands, but the people who care about these places and work to preserve them. I’m looking forward to this new endeavor and all that it offers.

Stacy Goss, Editor Desert Report
IN DEFENSE OF OUR NATIONAL PARK SYSTEM

New Group Serves The Preserve

When compared to Yellowstone and Sequoia National parks, formed in 1872 and 1890 respectively, the Mojave National Preserve, created in 1994 through the California Desert Protection Act (CDPA), may be the proverbial new kid on the block. But age isn’t everything. This 1.6 million acre wonderland is the third largest national park unit in the lower 48 states, smaller only than Death Valley and Yellowstone. Superlatives abound: the world’s largest Joshua Tree forest, 600-foot tall singing sand dunes, rugged “sky island” mountain ranges covered with pinyon-juniper forest, nearly 700,000 acres of designated wilderness, and rocky, sandy soils covered with purple, blue, red, and pink carpets of flowers in spring. The Preserve is also renowned for its exceptional wildlife viewing, being a sanctuary for iconic species such as the desert tortoise, desert bighorn sheep, golden eagle, kit fox, and mountain lion.

Although the Preserve is not widely known, it has developed a dedicated following. In 2009, several grassroots efforts to protect and promote the Preserve came together to create a friends group. This effort was led by a diverse group of civic leaders, conservationists, businessmen and women, writers, artists, and land owners within the Preserve. Their shared care, effort, and voice materialized into the formation of the Mojave National Preserve Conservancy (MNPC). This groups’ stated mission is:

- Preserve, protect, and promote the unique natural beauty, ecological integrity, and rich cultural history of Mojave National Preserve
- Build a community dedicated to the enduring stewardship of Mojave National Preserve

The Conservancy is a non-profit organization built on individual memberships. Our members are invited to participate in guided hikes in the Preserve, to assist in restoration work, and to attend other events benefiting the Mojave National Preserve.

Fundraising efforts have focused on leveraging donated funds to connect local youth to their first National Park experiences. A notable success came this May, as the Conservancy fully funded a group of 52 Barstow youth to take an overnight field trip to the Zzyxx Desert Studies Center through the Preserve’s Mojave Outdoor Education Program. This effort was led by the Preserve’s Chief Interpretative Ranger, Linda Slater, who organized this two-day, one-night trip. Students enjoyed a program on desert animals, preparation of native food plants to eat, a night hike to look for scorpions, and a day hike through the Joshua tree forest on Cima Dome. Seth Sheir, California Desert Field Representative for the National Parks Conservation Association recounts, “The Conservancy came to bat for Barstow Youth. These students explored Joshua Tree forests, learned about desert animal adaptations, and looked..."
Opportunities for Improvement

Renewable Energy Deployment

The Mojave and Sonoran Deserts may be influenced more by climate change than any other place in North America south of the Arctic Circle. Projections indicate that regional precipitation patterns will change and heat stress will increase, forcing ecological communities to adapt or migrate, and threatening the region’s unique biodiversity. Ironically, efforts to slow climate change through renewable energy deployment threaten to compound rather than reduce impacts on desert ecosystems. In a twist of logic and fate, one of the most vulnerable ecosystems to climate change has some of the best resources for renewable energy development. But many of these wind, solar, and geothermal resources overlap with habitat for rare, threatened, or endangered species, creating intractable conflicts over ecologically intact ecosystems.

From a sustainability perspective, some tradeoffs will be inevitable in renewable energy development. There is a substantial upside to increasing the portfolio of renewable power in the electricity grid because of the contribution of carbon emissions to climate change, as well as many other immediate issues related to fossil fuel extraction, processing, and transportation. However, renewable energy sources are less “energy dense” than fossil fuels and will require more land per unit of energy. It will require better planning to deal with what some have called “energy sprawl” to avoid conflicts between habitat, cultural resources, and renewable energy. The benefits and costs of renewable power plants and siting options should be carefully considered, including the potential for siting on the many available degraded lands.

So far the approach to renewable energy deployment has been far from anything resembling sustainable planning and design. The planning process has been compromised by “fast-tracking” renewable energy sites to ensure that American Recovery and Reinvestment Act (ARRA) grants and tax rebates are utilized before they expire. Fast tracking lessens the time required to permit a project so that projects could have approval before these opportunities expire. To many wildlife scientists and conservation organizations, the fast-track process does not take the time necessary to adequately characterize impacts. Over thirty fast-track renewable energy and transmission projects are planned in the region, many on sites with important ecological or cultural resources, including Quechuan artifacts and threatened species such as the desert tortoise (*Gopherus agassizii*). There are nearly twenty renewable energy projects planned where the desert tortoise will be relocated to mitigation lands, a process that has not been successful in a recent military base expansion in the area, and a practice not condoned by ecologist and wildlife biologists.

These controversies are evident in the flurry of lawsuits that emerged in the wake of nine fast-track approvals in late 2010. The Quechan tribe won an injunction to halt the development of the Imperial Valley solar project. A group called La Cuna de Aztlan filed suit against six fast-tracked projects saying they failed to adequately review cultural resources. The Sierra Club is suing the California Energy Commission for approving the Calico project, saying it did not adequately mitigate wildlife impacts. The Western Watershed Project has filed litigation against the Bureau of Land Management.

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Transmission Lines near Barstow, CA

Central Plant Generation: Solar Thermal Plant at Kramer Junction
In his puissant yet ethereal Desert Solitaire, Ed Abbey writes, “A desert place, clean, pure, totally useless, quite unprofitable.” Agreed, and let’s keep it that way. But that’s the ideologue in me speaking. Of course, all desert places in the southwest corner of North America have long been used for amusement and also abused for profit since Europeans first blundered upon these arid- and semi-arid regions of the continent. Any conservationist is painfully aware of the impacts that mining, agriculture, and certain types of recreation have had on desert habitats and their cultural and economic resources. But now there’s a new and rapidly growing concern that threatens this fragile landscape of cryptobiotic crusts and desert patinas—the generation and transmission of renewable energy.

As most of us know, electricity generation facilities come in two flavors: distributed and central-plant generation. Distributed generation favors smaller facilities placed near the loads they service, while centralized generation favors large facilities, often remotely located and requiring lengthy and expensive transmission lines.

John Farrell, a researcher at the New Rules Project in Minnesota (new rules, because the old rules no longer work) analyzes the costs of central-plant green energy projects. In particular he considers the costs incurred by the transmission lines necessary to deliver electricity to urban centers.

(1) The oil man and energy independence visionary, T. Boone Pickens, is now the poster boy for Farrell’s research. In 2009, Pickens scrapped his plan to build a 200,000 acre wind farm in the panhandle region because he was unable to secure the capital necessary to build the transmission lines. Forbes weighed in with following observation at the time: “Transmission is a critical and often overlooked component to making green energy work, particularly because wind and solar resources are often located in rural areas far from major transmission backbones.” Wrong. Farrell offers us this correction, “The ubiquitous nature of renewable energy argues for a decentralist energy approach.” (2) Exactly John.

Ergo, the renewable energy (RE) central-plant paradox begs the following questions: Why does the nation of Germany—temperate Germany, with a solar insolation the equivalent of the state of Alaska and a wind resource not much better than that of Nevada—why do they represent approximately 50 percent of the world’s installed solar capacity, and up until recently, more installed wind generation capacity than the entire United States? Why do individuals own half of Germany’s 43,000 megawatts of RE generation capacity? How did Germany install enough solar photovoltaic capacity in the first eight months of 2010 to equal nearly one percent of their internal energy generation capacity? How was it that by 2008 one in three solar panels were made in Germany as were one in two wind turbines? Even Newt Gingrich marvels at Germany’s resilience in adding manufacturing during The Great Recession by stating on a recent Meet the Press episode, “We’re now in a world market, a genuine world market where you’ve got to think about economics in terms of competing with China, India, Germany. And you ought to study Germany, which is a high cost country with a huge export manufacturing base.”

Thank you very much Newt, I have studied Germany. There they pay anyone a fair

**Feed In Tariffs**

**How They Work, Will They Work?**

**By Bob Tregilus**

In his puissant yet ethereal Desert Solitaire, Ed Abbey writes, “A desert place, clean, pure, totally useless, quite unprofitable.” Agreed, and let’s keep it that way. But that’s the ideologue in me speaking. Of course, all desert places in the southwest corner of North America have long been used for amusement and also abused for profit since Europeans first blundered upon these arid- and semi-arid regions of the continent. Any conservationist is painfully aware of the impacts that mining, agriculture, and certain types of recreation have had on desert habitats and their cultural and economic resources. But now there’s a new and rapidly growing concern that threatens this fragile landscape of cryptobiotic crusts and desert patinas—the generation and transmission of renewable energy.

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**Continued on page 9**
We drove on the back roads of the Chemehuevi Indian Reservation located on the banks of the Colorado River in southeastern California. Our destination was West Well (Hawaiyo), a sacred spring for the Chemehuevi people and an ancient gathering place. Tracks from jeeps, trucks, dirt bikes, and ATVs split off from the main road in every direction creating a spider’s web of illegal routes eroding the land. Despite efforts by the tribal government to stop off-road vehicle (ORV) damage, including the placement of signs and information kiosks describing the importance of the area to native culture, the destruction continues. The Metropolitan Water District and Southern California Edison rights of way through the reservation have become a major thoroughfare for ORV incursions. In an arid landscape, these tracks will last for decades and their damage to soil architecture denudes the land of vegetation, damages wildlife habitat, releases dust that compromises public health, and undermines the restoration and conservation of both tribal and federal lands. For years, four-wheeled visitors to the reservation have treated the area as a free-for-all leaving garbage, vandalism, and destruction in their wake.

We arrived at the spring and stood in shock as we witnessed recent damage by ORVs. Riders had spray-painted over the interpretive signs and repeatedly had ridden into the spring until the once clear flow of water surrounded by a desert oasis had been transformed into a muddy hole traversed by tracks. We looked at each other in disbelief and then in anger. How could people be so ignorant and careless as to purposefully destroy an historical site and fragile ecosystem? We then channeled our anger into action and spent the day restoring the site. After a few hours the water was running clear again, the tracks raked out and the trash removed, but the habitat will take years to recover.

ORVs are destroying invaluable cultural and historical sites throughout the American West, and federal and local law enforcement agencies have failed to effectively deal with the problem. The lower Colorado River Indian Tribes straddling the states of California, Nevada, and Arizona include the Fort Mojave Reservation near Needles, the Chemehuevi Reservation at Lake Havasu, the Colorado River Indian Tribes (Chemehuevi, Mojave, Navajo and Hopi) near Parker, and the Quechan and Cocopah Tribes. Geoglyphs, also known as intaglios, are large cultural features of geometric and other designs created on the ground with earth works and features of the landscape. The Blythe Intaglio, Mystic Maze, Kokopilli Intaglio, Mojave Twins, and other areas with significant cultural importance for the Colorado River Indian peoples have been permanently damaged by off-road recreationists.

Chemehuevi cultural expert Matthew Leivas, Sr. has been battling off-road vehicles on his lands for over 40 years. Before becoming tribal chairman and council member, Leivas was the tribe’s game warden, and one of his first duties was to establish the boundaries of the reservation and develop codes and ordinances to protect cultural and natural resources. The reservation established designated riding areas, regulations for off-road vehicle travel, and a permit system. The West Well area has always been a top priority because of vandalism of the sacred site and the theft of rock panels of petroglyphs. The tribal council closed the entire northern section of the reservation consisting of 15,000 acres to off-road activity, hunting, and trespass. The southern section of the reservation was designated for hunting, sightseeing, and off-road activity with designated trails. Despite these attempts to accommodate the public and control activities on their lands, off-road vehicle abuse continues in all areas of the reservation. The entire perimeter of the reservation was posted with boundary markers and physical barriers, but the markers, interpretive and warning signs are vandalized and destroyed.
soon after they are installed. In addition, ORV activity originating from adjacent communities, especially on holiday weekends, creates a public health hazard from fugitive dust creating what Leivas describes as “a dense fog that can be seen throughout the Chemehuevi Valley.” Leivas expresses his frustration at the lack of respect for reservation lands and American Indian cultural sites:

“The tribe’s efforts to manage their cultural and natural resources have been in vain. Our reservation has become a popular location for illegal ORV activity due to the lack of enforcement by both the tribal government and the Bureau of Land Management. Not only are reservation lands important to our people – all these areas should be respected and protected. Sacred sites that contain petroglyphs, intaglios, and geoglyphs are our connection to our history and the history of this country. Destruction of these lands by ORVs is a tragic loss for everyone.”

In the Morongo Basin, ORV riders regularly trespass on a protected area of sand dunes and 100 year-old adobe ruins of the Poste Homestead, a remnant of California’s rich pioneer culture. The dunes are habitat for burrowing owls, the threatened Mojave Fringe-Toed Lizard, kit foxes, and a myriad of other creatures. The community has adopted the site and installed interpretive signs and physical barriers and has attempted to close illegal routes. The Bureau of Land Management (BLM) erected an informational kiosk and organized a large volunteer clean up to foster stewardship of the site. But ORV riders continue to trespass onto the sand dunes, remove and vandalize signs, and dump trash. The community has asked the BLM to close the area to all ORVs until the ecosystem recovers and the site can be adequately protected from criminal trespass.

The 10,000 year-old Blythe Giant Intaglio is a 167 foot long and 30 foot wide rock pictograph surrounded by other ancient figures and designs. The area is sacred to the Mojave and Quechan peoples. For years, tribal leaders and scholars have pleaded with the Bureau of Land Management to protect the area. Off-road vehicles have desecrated the site with a network of illegal routes and a racetrack. Finally, local residents and tribal members constructed a fence to keep out trespassers, but damage to the area continues. The Kokopilli Intaglio is a giant rock design 200 feet long and 50 feet wide sacred to lower Colorado Desert Indian tribes and to the Mexican people. The La Cuna de Azlan Sacred Sites Protection Circle was formed to protect the geoglyph from off-road vehicle damage, and now it is threatened by the proposed Blythe mega-solar project. In 2008, La Cuna de Azlan entered into a Memorandum of Understanding with the Yuma District BLM to protect sacred sites from Spirit Mountain, Nevada, to the Mexican border along the Colorado River. Progress has been slow, and the groups are still waiting for some kind of action that will finally protect these sites.

Area Indian tribes have filed a lawsuit to stop the solar projects from further destruction of their sacred sites. Local residents patrol the area and conduct risky citizen’s arrests of trespassers while they advocate for assistance from federal law enforcement officers. La Cuna de Azlan spokesperson and long-time environmental justice activist Alfredo Figueroa explains:

“Our ancestors created these sites and we need to protect them so that future generations can learn about our spiritual beliefs. These intaglios, sacred sites, gathering sites, and geoglyphs are all along the Colorado River and show the journey of our creator on the surface of the earth. These areas have been attacked by off-roaders and are threatened by large solar projects.”

The protection of cultural resources in the Mojave and Colorado desert regions has been woefully inadequate. Last year, at congressional hearings in Washington, D.C., federal land use managers testified that off-road vehicles are the number one threat to our public lands. Federal agencies have failed to prioritize the protection of cultural resources and continue to bow to pressure from the influential ORV industry and their lobbyists in Sacramento and in the nation’s capital. The destruction of these invaluable places of on-going cultural practice, historical significance, and opportunities for study and scholarship has a devastating effect on cultural preservation and revitalization. Part of the problem is the lack of understanding about the importance of these special places for both the public and inside Bureau of Land Management. Federal land use agencies should work closely with American Indian tribes, historical societies, archeologists, universities and local communities to enforce existing laws, increase penalties and fines, and engage in a comprehensive public education campaign so that people can understand the importance of these sites of cultural heritage to everyone.

Philip M. Klasky teaches in the American Indian Studies Department at San Francisco State University. Klasky is the director of The Storrscape Project of The Cultural Conservancy, www.nativeland.org, and is a member of Community ORV Watch in Wonder Valley, www.orvwatch.com.

Matthew Leivas, Sr. is the former chairman and game warden, and current council member and director of the Tribal Employment Rights Office for the Chemehuevi Indian Tribe. Leivas is on the board of directors of the Native American Land Conservancy, www.nal4all.org, and the co-founder and co-director of The Salt Song Trail Project, www.nativeland.org/saltsong.
When Europeans finally settled North America from coast to coast, the 30 million pronghorn which once flourished had been so severely reduced by the early 1900s that they existed in pockets of remaining habitat or as small herds. An estimated 10,000-15,000 survived. The forage they required was being consumed by newly introduced herbivores like cows, sheep, and horses. In the Midwest farms replaced the prairies. Pronghorn were subject to year round hunting.

The pronghorn may be least well-known and popular of the big game. Unlike elk or bighorn sheep, a trophy male may not exceed 120 pounds and lacks the trophy horns desired by many hunters. Therefore, research on pronghorn numbers, distribution, and needs lagged. For those responsible for wildlife management there were unanswered questions of how to rebuild and sustain pronghorn populations. What were the landscape requirements to provide year round food supply and adequate protected sites to have fawns? The answers to these questions have been a lifelong passion for one of the pronghorn’s eminent defenders Jim D. Yoakum.

When Yoakum completed his wildlife management degree in 1957 and started work for BLM as its first professional wildlife biologist, he focused on establishing BLM as an agency important and even critical to maintaining the nation’s wildlife. For instance in the early 1960s, with Yoakum’s urging, BLM published the first color wildlife brochure, with a few of Yoakum’s now more than 50,000 photographs to highlight the importance of preserving wildlife on BLM lands. With Yoakum, BLM became more proactive in wildlife management where many pronghorn reside.

His true love during those years and since his retirement from BLM in 1986 is conducting research on pronghorn, encouraging research by others, compiling educational information, and advocating for pronghorn. Yes, and hunting them occasionally as well. He has written close to 50 articles on pronghorn antelope. His opus work, in conjunction with Bart O’Gara, was published in 2004. Seven pounds, and more than 900 pages, the “Pronghorn Ecology and Management,” textbook covers the ecology and management of pronghorn utilizing many known publications at the time. The Wildlife Management Institute (WMI), an organization founded partly to provide guidance on ecology to wildlife managers and an interested public, agreed to publish a comprehensive book on pronghorn utilizing many known publications at the time. Yoakum, for instance contributed the results of his years of research to the sections on habitat characteristics and management.

Today, more than a million pronghorn exist, the result of proactive management. Fifty three percent of them exist in prairie grasslands from south-central Canadian prairies to the grassy plateaus of northern Mexico. Another 47 percent live on the shrub-grasslands including the Great Basin rangelands in northern California, Idaho, Nevada, Oregon, and Utah. Hart Mountain and Sheldon National Wildlife Refuges in Oregon and Nevada were established primarily for their benefit. Less than one percent of the pronghorn exist on the hot deserts of Mexico and southwestern United States.

Pronghorn consume forbs and shrubs. Their availability varies from prairie to shrub lands or from one location to another and seasonally, forcing movements of pronghorn populations. Heavy snowfall winters and droughts take their toll. Large expanses of quality land are needed to maintain sufficient healthy, abundant populations.

Understanding and providing for pronghorn annual nutritional needs is essential to building and maintaining healthy populations. Adult female pronghorn need an abundance of preferred, succulent, nutritious forbs (flowering plants which are not grasses or shrubs) during the third trimester of pregnancy to obtain adequate nutrients to sustain the health of the doe and her fawns. Shrubs and grasses are less nutritious and are a second preference.

Pronghorn face threats on BLM lands and U.S. Fish and Wild-
life Refuges. Livestock grazing in some areas, feral/wild horses in others, energy development, roads, urban expansion, climate change, man caused wild fires, fences, and exotic noxious forbs impact pronghorn populations.

In the concluding chapter of their Opus, O’Gara and Yoakum consider the future of pronghorn. The picture is not rosy. The human population will continue to increase with its attendant forays into pronghorn habitat for recreation, roads, and energy. Sentiment against hunting and public demand that all wildlife species be considered will increase. Hunters, one the primary source of funding for wildlife management, will continue to decline in number and as a percentage of the population. Fences, roads, and other fragmentation of rangelands will erode habitat. Increasingly the future of pronghorn and many other species depends upon a public beset with many needs and interests. With a decline in hunter support, who will provide the resources for the research and be an advocate? Increasingly, according to O’Gara and Yoakum, wildlife managers must address people impacts not wildlife needs.

As Yoakum and O’Gara point out, pronghorn are not dangerous animals or even competitive for forage with livestock and free-roaming horses. Sometimes referred to as “Desert Ghosts” pronghorn live lightly on the land. They do not appear to overgraze, make trails, or dominate water sources as livestock and free-roaming horses do. Their numbers decline when overstocking of livestock and free roaming horses occur. Yoakum reminds the public that overgrazed land does not immediately recover when cattle or free roaming horses are removed but may require many years to restore the desired forage.

Has Yoakum retired from his work on pronghorn? Absolutely not. Now in his ‘80s Yoakum continues to publish articles on pronghorn as one of the few longtime biologists knowledgeable about pronghorn and continues to be consulted about his pronghorn passion. The future of pronghorn depends on more Yoakums and the rest of us as concerned citizens.

Tina Nappe, a longtime friend of Jim Yoakum, focuses on wildlife and water issues in Nevada through the Sierra Club and land trusts. Nappe served on the State Board of Wildlife Commissioners from 1979-1994.

Feed In Tariffs

CONTINUED FROM PAGE 5

rate to generate renewable energy and feed it into the electric grid. They accomplish this through the policy tool known as a feed-in tariff—where the term “tariff” is a “rate” paid, not a tax. It’s simple: generate green energy, feed it into the grid, get paid a fair rate for your trouble, that’s a feed-in tariff (FIT). A FIT also includes a simple five page contract guaranteeing that you are paid that fair rate for 20 years.

What FITs do so very well is make it possible for everyone to participate equally—and meaningfully—in energy production. This creates a market for the mass production of RE equipment that would far exceed what a few utility-scale energy facilities could inspire. Furthermore, because FITs create opportunities for distributed generation by allowing small operators and co-ops to generate energy close to load centers this avoids the very expensive transmission lines as well as the additional costs associated with highly complex power purchase agreements and financial negotiations.

It’s senseless to handicap the deployment of renewable energies with the complexity of the central-plant archetype; it has little to do with greening the electric grid and everything to do with emerging multi-national energy development corporations. Think of them as solar strip miners, who, through their faux grassroots lobbying arms aspire to monopolize—at ratepayer expense—finite annual allocations of RE capacity to assure the central-plant rubric for their sole benefit: They produce, we consume.

Consider the cell phone or personal computer for a moment. There was a time not long ago when experts believed personal computers were not for the masses because they were very complex and expensive. Likewise, many of us can remember when the first cell phones cost thousands of dollars. Had the personal computer and cell phone never reached mass production as they have today, they would still cost far too much for the average person to own. A FIT will create a mass market for solar panels because people may now profit by generating electric power. This newly created market for solar panels will, in turn, motivate manufactures of panels to cut their costs and prices in order to stay competitive. In Germany, for example, a photovoltaic system which produces a kilowatt of power costs half as much as if it were installed in California, Nevada, or Arizona. By the same mechanism, FITs will reduce the cost of other renewable energy technologies.

What’s really cool is that the rates paid for new FIT contracts are reduced over time. That is, rates paid for generated energy are highest in the first year, and for new contracts in each subsequent year the rates drop. This encourages the manufacturers of renewable energy equipment to further improve costs and reduce their prices to remain competitive with other technologies. Manufacturers of renewable energy equipment don’t like that, which is reflected in popular media articles every time FIT rates are cut. But this is the success of a FIT, not its the failure. Initially, the costs of RE will exceed that from fossil fuel sources and indeed these will be passed on to the ratepayers. As fossil fuel prices rise and renewable energy costs fall, grid parity conditions are met, and eventually renewable energies become cheaper than conventional energies at which time the FIT is no longer needed.

Finally, FITs cost the government nothing. FITs are not an incentives program like net-metering, upfront rebates, or green certificate programs, but rather they are simply payment for gen-

A small herd of pronghorn feed on herbaceous plants in the Great Basin. In the foreground is an adult male with prominent large horns. The females also have horns but much smaller.
Community Power: Decentralized Renewable Energy in California By Al Weinrub

This is a lengthy (60 page) document which argues that decentralized generation has many benefits as a source of renewable electrical power relative to large central-station solar or wind power plants in remote areas. The case for decentralized generation is based on the following factors, each of which is discussed at great length:

- Decentralized generation is increasingly cost-effective:
- Decentralized generation can meet California's new renewable energy targets.
- Decentralized generation provides local, equitable economic benefits.
- Decentralized generation minimizes the environmental impact of renewable energy.
- Decentralized generation can be brought on line quickly.

The presentation is accessible, the graphs and photos are instructive, and the argument is clear. For those wishing to verify the statements which appear in the paper, it concludes with 158 cited references.

The paper may be downloaded as a pdf file from: http://www.localcleanenergy.org/node/426

Federal Judge Orders BLM to Control ORV Abuse

A long awaited judgment concerning the management of off-road vehicles (ORVs) on federal lands was issued on January 29 by Judge Susan Illston in U.S. District Court in San Francisco. The judgement ruled that the process by which the Bureau of Land Management (BLM) designated 5,098 miles of ORV routes as part of the Western Mojave (WEMO) Plan violated federal laws and the BLM's own route designation guidelines. A new designation of these routes will be required by 2014. Other parts of the ruling require the BLM to increase law enforcement to prevent illegal activity; provide signage on designated routes; install informational kiosks; take measures to inform the public on ORV restrictions; and, immediately implement a plan for monitoring ORV abuse on public lands. A federal magistrate will monitor the BLM's compliance with the court order.

Local residents and conservation groups have been advocating for these policies for years, but it took action by the federal courts to mandate these changes. (“West Mojave Route Designation Revisited” Desert Report, June 2010) Although most environmental groups hailed the judgement as a victory, several measures which the plaintiffs had requested, including closing some specific areas, were rejected.

Special Flight Rules for Grand Canyon National Park Draft Environmental Impact Statement Available

After many years the National Park Service has published the Draft EIS for flight rules in the vicinity of Grand Canyon National Park. The stated purpose of management plan is to complete and implement a recommendation through this EIS to substantially restore natural quiet and experience at Grand Canyon National Park. The value of quiet and the intrusion of aircraft noise will be self-evident to those who have visited the park in recent years. The document runs over 800 pages, but the executive summary in Volume One provides an outline of the four alternatives considered.

- Alternate A: The no action alternative, essentially maintains present policy.
- Alternative E: Places a number of restrictions on flights relative to the present practice.
- Alternative F: A variation on the no action alternative.
- The NPS Preferred Alternative: Restricts flights, but not so extensively as Alternative E.


The preferred mechanism for the public to comment on the plan is explained at the start of Volume One. The deadline to submit comments is June 20. Your voice is needed.

After a Record of Decision (ROD) has been signed, the NPS will provide a recommendation to the FAA for implementation through rulemaking. Additionally, in coordination with stakeholders, the NPS will develop a detailed plan for monitoring and adaptive management.

DESERT COMMITTEE MEETING

The spring meeting of the Desert Committee will be held May 14-15 at the Mission Creek Preserve near Palm Springs. Jeff Morgan will be chair. The summer meeting will be held at the Nelson Group Camp in the White Mountains on August 6-7, 2011. John Moody will chair this meeting. As always we encourage local citizens in the area to attend as many of the items on the agenda include local issues. E-Mail Tom Budlong at tombudlong@roadrunner.com or call (310-476-1731) to be put on the invitation list.
for failing to adequately review environmental impacts of the Ivan-pah project.

BLM lands are not the only controversial project sites. In California’s Central Coast region there are controversial sites in the Panonoche Valley and the Carrizo Plain that may impact the San Joaquin kit fox (Vulpes macrotis), blunt-nosed leopard lizard (Gambelia sila), and the giant kangaroo rat (Dipodomys ingens).

On the one hand, political uncertainties mean that any lost ARRA funds could be lost opportunities. Anti-science global warming deniers in Congress could squelch future efforts to transition to a low carbon economy. On the other hand, the landscape changes and ecosystem footprints are permanent and irreversible.

There are several planning processes underway that could help mediate the conflict between renewable energy development and ecosystem impacts. The Solar Programmatic Environmental Impact Statement (solar PEIS) (1) and the Desert Renewable Energy Conservation Plan (DRECP) (2) are two examples of science-based approaches to finding the most appropriate sites for renewable energy. A recent report from the scientific advisory panel to the DRECP (3) process advocates “using ‘no regrets’ strategies in the near term—such as siting developments only in already disturbed areas—as more refined analyses become available to guide more difficult decisions.” While these planning processes may be too narrowly focused on siting power generation—in contrast to a more comprehensive approach to energy policy and planning—the basic criteria of environmentally responsible energy development is not being applied to fast-tracked projects.

In addition to this more holistic approach to sustainability, the siting process could further benefit from the tools of life cycle analysis (LCA). This framework looks to capture the cradle to grave impacts of production from raw material extraction through a product’s disposal. (4) Currently, the Department of Energy (DOE) Loan Guarantee program—a critical source of finance for many of these renewable energy projects—uses LCA to evaluate greenhouse gas (GHG) emissions over the life of the project. One area omitted by the DOE life cycle analysis arises from changes in land use which can themselves be a critical source of GHG emissions. For example, biofuel assessments have shown that significant GHG emissions—so called carbon debts—can arise from clearing new land for biofuel production. Similar carbon debts might be incurred in arid ecosystems which contain inorganic carbonates along with the organic carbon found in living organisms. Recently several researchers found that arid ecosystems actually sequester carbon, and may be the missing link in the carbon cycle. (5) Furthermore, there are opportunities to site projects on degraded sites that currently consume energy, such as irrigated land. A life cycle approach that includes land use change would facilitate projects on the sites with the greatest potential for carbon emission reductions. Since California already uses more water than it is allotted from the Colorado River, there is, and will continue to be retired agriculture lands to develop.

It is paramount to act with caution in light of the resounding evidence about climate change. We need renewable energy and some will come from renewable energy farms in the desert. Yet, many of the proposed projects will have immediate, serious, and irreversible impacts on the very species we are trying to protect from climate change. To work our way through these tradeoffs we need to reflect on our better judgments, avoid false choices, and insist on a comprehensive energy planning process.

Dustin Mulvaney is a Postdoctoral Scholar in the Department of Environmental Science, Policy, and Management at the University of California, Berkeley, where his research is focused on sustainability and social justice in renewable energy development. He also is a scientific advisor for the Silicon Valley Toxics Coalition’s Just and Sustainable PV Industry campaign.

(1) http://solareis.anl.gov
(2) http://www.drecp.org
(3) http://www.energy.ca.gov/2010publications/DRECP-1000-2010-008/ DRECP-1000-2010-008-F.PDF
(4) http://www.epa.gov/oms/renewablefuels/420f09024.htm
(5) www.allianceforresponsibleenergypolicy.com/CarbonCyclereport.pdf

Feed In Tariffs

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eration, just like the utility might pay an independent central-plant operator or a peak energy service provider for electric power. Now the utilities pay you for renewable energy! The users of electric power, not the taxpayers, should pay the cost of their consumption while the generators are simultaneously paid a fair price.

So there you have it: economics, development, industry, and even capitalism should be included in every environmentalist’s toolbox. Appropriately channeled, the distributed generation opportunities created by a FIT will help preserve our remaining wild spaces by shifting energy development to urban load centers. And remember, the deserts are, as Cactus Ed says, “Totally useless, quite unprofitable.” Be sure to tell others that, so we can keep them that way.

Bob Tregilus is a policy analyst and organizer for “Feed-in Tariffs for Nevada” in support of a FIT bill (BDR229) to be considered in the 2011 Nevada legislative session. (3) Bob also co-chairs the Electric Auto Association of Northern Nevada, sits on the Sierra Club’s Toiyabe Chapter energy task force, and is on the steering committee of the Alliance for Renewable Energy.

Readers of the Desert Report are familiar with the angst-inducing, seemingly open-ended controversy over Big Solar developments in our American deserts with much of the action now focused on California and Nevada. As of this writing, Interior Secretary Ken Salazar has approved nine utility-scale solar developments on public land, six in the deserts of California and three in Nevada. The total acreage proposed to be leased for these projects is just under 33,000 acres.

These nine projects are among 14 fast-track projects moved to the front of the line for expedited review. Adding to the momentum are government subsidies available to solar developers, including cash grants of up to 30 percent of a project's total cost, originally set to expire on December 31 but extended by Congress through 2011. Recovery Act money has also been allocated for loan guarantees—that is, loans by US taxpayers through the Treasury Department, guaranteed by taxpayers through the Department of Energy. Two have been issued so far—$1.37 billion to BrightSource for three plants in the Mojave, and $1.45 billion to Abengoa for a plant on private land in Arizona. Solar Millennium is seeking a $1.9 billion loan/guarantee for its projects in Blythe.

In addition to cash and skid-greasing, Big Solar is being promoted through rhetoric, such as environmentalists' urging immediate action against the climate crisis and Interior Secretary Salazar's pledge to put a “bulls-eye” on public land for solar development. It's been called a gold rush, a land rush, and a free-for-all, and the specter of our magnificent deserts turning into industrial zones—for these projects represent complete and irreversible transformation of their sites—is overwhelming.

The Non-existent Mandate

All of this has been predicated on what is consistently referred to as a “mandate” in the 2005 Energy Policy Act. Politicians, agencies, the press, and environmentalists all cite it. Yet if you pull up the Act and read the short provision regarding renewable energy on public lands, this is what you will find:

It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on the public lands with a generation capacity of at least 10,000 megawatts of electricity. (1)

This is not the language of a mandate, which would include “intent” “shall” and “approve.” A Sense of Congress resolution has no force of law.

That doesn't mean the provision is irrelevant, but it does mean Interior is not required to create massive solar developments in the desert. To do so has simply been a policy choice—one that is reinforced every time the “mandate” is erroneously invoked. An Interior Secretarial order issued in February 2010 prioritizing renewable energy development on public lands cited the 2005 Energy Policy Act as authority.

Matters are made worse by the fact that many national environmental organizations have taken an approach to Big Solar that is at best equivocal and at worst enabling. Increasingly cautious in their politics anyway, the big groups are, by and large, going along to get along.

Many individuals in these organizations understand the desert, see the destruction that looms, and understand that there are sound alternatives to remote, utility-scale solar. But the organizations themselves have generally acquiesced to what Interior is pursuing and seem to have internalized the Governor's exasperated remark, “If we cannot put solar power plants in the Mojave Desert, I don't know where the hell we can put them.”

Some, such as the California Desert & Renewable Energy Working Group and the Renewable Energy Transmission Initiative, have chosen to cooperate in efforts with industry. Foundation funding may also be a factor, such as the $510,000 given to the Wilderness Society by the Energy Foundation—an entity supportive of utility-scale solar—to work “collaboratively” with various parties, including solar developers and decision-makers, to “design policies for renewable power deployment.” (2)

Overall, the national environmental groups most conspicuous (and best-funded) around this issue have declined the role of the loyal opposition in favor of becoming facilitators—if not of individual projects, then certainly of the policy.

The PEIS is Fundamentally Flawed

As the end of 2010 approached, fast-track projects were gaining approval and permit applications were being considered on more than a million acres of public land in four states. Grassroots activists, Native Americans, and efforts such as Solar Done Right and Camp Ivanpah assured that controversy was in constant evidence. In the shock waves of the fast-track approvals, Salazar seemed to be promising a more deliberate and better-informed approach. This would come out of the solar Programmatic Environmental Impact Statement (PEIS), he said, a proposal under the National Environmental Policy Act (NEPA) that would focus on specific areas in California, Nevada, Utah, New Mexico, Arizona, and Colorado, and purportedly identify only the most appropriate, least conflict-ridden areas for potential solar development. Emphasis was

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A Unique Heritage With An Uncertain Future

On the first trip my wife and I took to the Eastern Sierra – looking for a retirement home in the mountains – we visited the popular Bodie State Historic Park, California’s official ghost town. We lived in Indiana at that time and our knowledge of California and the Eastern Sierra was quite limited. It was fascinating to see and experience one of the best preserved 19th century mining towns in the west. The ghost town of Bodie remains a favorite place for us to bring visiting family and friends today.

Bodie lies in the center of the Bodie Hills. This isolated region north of Mono Lake encompasses 150,000 to 200,000 acres, generally bounded by Highway 395 on the west, the Nevada border on the east, Highway 167 on the south, and Masonic Mountain on the north. The nearest towns of any size are Bridgeport and Lee Vining. Most of the area is managed by the Bureau of Land Management.

The Bodie Hills are an important ecological linkage between the Sierra Nevada and the Great Basin. The Bodies contain a high level of biological diversity, harboring such diverse creatures as pronghorn, sage grouse, and pikas along with black bears, mountain lions, and golden eagles. The flora is dominated by sagebrush and pinyon pine. In the early summer of wet years, the wildflower displays can be stunning. Two streams in the Bodies, Rough Creek and Arastra Creek, are candidates for Wild and Scenic Rivers designation. There are three Wilderness Study Areas (WSAs) totaling about 54,000 acres within the Bodie Hills: Bodie WSA, Bodie Mountain WSA, and Mt. Biedeman WSA. Two others were released from WSA status with passage of the Eastern Sierra wilderness bill in 2009. The Bodie Hills are increasingly popular with hikers, mountain bikers, birdwatchers, 

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The recent approval of the Sunrise Powerlink, a transmission line that would span 117 miles from Imperial County to San Diego, much through pristine public lands, has opened up a Pandora’s Box of renewable energy proposals. Although the Forest Service is being challenged in court over approval of the Sunrise Powerlink, reviews of project proposals such as the Ocotillo Express Wind Energy Project are moving along full speed ahead.

Ocotillo Express LLC, a subsidiary of Pattern Energy, has applied for a Bureau of Land Management right of way on 15,000 acres of public lands to build a wind energy facility five miles west of the town of Ocotillo. The applicant claims the wind farm would produce 550 megawatts of wind energy from 244 turbines soaring 500 feet above surface, starting with 130 towers and adding another 114. The company plans to scrape 60 miles of roads and additional wide swaths for construction cranes, not to mention disturbing the ground for substations; administrative, maintenance and operational facilities; transmission lines; and construction laydown areas. Construction of a wind farm involves much more than simply placing a wind turbine down like a garden stake.

The project would obstruct the viewscape of the entire region and would be built adjacent to the Coyote Mountains Wilderness Area, the Jacumba Mountains Wilderness Area, and the southern boundary of Anza Borrego State Park. Part of the Phase Two portion of the project would actually be built in the Yuha Desert Area of Critical Environmental Concern!

The project area is very rich in both biological and cultural resources. The Federally Endangered peninsular bighorn sheep (Ovis canadensis cremnobates) use the area. The site represents an important connectivity zone that allows sheep to migrate to different mountain ranges. Sheep have been spotted on the site numerous times utilizing important forage habitat. Roads, transmission lines, and the turbines themselves will remove important habitat for big-horn sheep.

Much of the project site also provides very important desert scrub sandy habitat for the flat-tailed horned lizard (Phrynosoma mcallii.) The flat-tail horned lizard is simply running out of its limited habitat in the USA. It is facing a variety of threats including off-highway vehicle use, agricultural development, border security, and now, energy sprawl. Removal of several thousand acres of habitat at a time will spell a grim future for this species. Developing 15,000 acres for the Ocotillo Express Wind Farm would contribute to the decline of the flat-tailed horned lizard.

The controversy over wind energy and avian fauna is not absent here. Twelve species of bats have been documented in the project area including the California leaf-nose bat (Macrotus californicus) which is a BLM and California sensitive species.

Fatalities have now been documented at nearly every wind facility in North America. The problem has been documented as rapidly expanding air in the lungs caused by the sudden drop in pressure from the spinning turbine blades. The symptoms involve internal hemorrhaging called barotrauma. The extent of the problem is not well known because scavengers such as coyotes pick up the carcasses of the bats before surveyors can find them. Many bats have been determined to fly into spinning blades after the initial onslaught of barotrauma.

Pattern Energy has proposed experimental mitigation for this problem for wind farms including radar that detects clouds of bats and ultra-sonic “alarms” that deter bats from turbines. So far, neither of these mitigation methods have been proven effective.

The Fish and Wildlife Service (FWS) recently implemented the Bald and Golden Eagle Protection Act. This new legislation prohibits all “Take” (killing) of bald and golden eagles. In a recent survey, FWS identified the closest golden eagle nest to be 2.5 miles from the project site. At a recent meeting, Pattern Energy told the public that they have developed radar that would detect any golden eagles in the area, and the turbines would automatically be shut down. While that looks good on paper, the reality is that there is no radar out there that can determine the difference between a golden eagle and another large bird such as a turkey vulture. Pattern seems to be suggesting that radar is “species specific.” One also has to wonder if Pattern Energy considers all other raptors and large birds expendable. Bird collisions with large wind turbines have been documented for years now. A recent study of a wind farm on an island off of Newfoundland, Canada, counted over 600 bird fatalities in one year. At this point, there are very few ways to prevent this kind of mortality for birds. The rushed schedule of many wind projects leaves this problem unresolved and raises many questions concerning the long term health of avian fauna.
Cultural Resources

Adjacent to the proposed Ocotillo Express Wind Energy Project is the controversial proposed 6,000 acre Imperial Valley Solar Project which is now being challenged by three lawsuits, two of which complain about the destruction of over 400 archeological sites. The US established the Yuha Desert Area of Critical Environmental Concern to preserve outstanding cultural sites in the region. The Ocotillo Express Wind Project would cover an area over double the size of the Imperial Valley Solar Project. The Quechan Tribe’s complaint on the Imperial Project states, “ Destruction or damage to any one cultural resource contributes to destruction of the Tribe’s culture, history and religion.” The large volume of significant cultural resources on the Ocotillo Wind Energy Site is likely to raise very similar cultural issues.

Get Involved

The BLM closed the initial scoping comment period for the project on January 21st but will probably be releasing the Draft Environmental Impact Statement sometime in the spring of 2011. Comments on the suitability of this project may be submitted when the Draft Environmental Impact Report is published. 

Kevin Emmerich is a former park ranger and field biologist. He has lived in the Mojave Desert for 25 years and recently co-founded the renewable energy watch group, Basin and Range Watch. He now lives on a Nature Reserve in Nevada near Death Valley National Park.

More information on this project can be located on the BLM’s El Centro Field Office site at: http://www.blm.gov/ca/st/en/fo/el-centro.html. Information and photos of the site can also be obtained on the Basin and Range Watch web site at: http://www.basinandrangewatch.org/OcotilloWind.html

A Mythical Mandate

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on the PEIS’s “Solar Study Areas (SSAs),” comprising 676,000 acres of public land. (It is worth noting that an astonishing 30 percent of the SSA land in all states lies within the Riverside East Study Area in California, extending east from Joshua Tree National Park to the Colorado River).

Given the trajectory of the fast-track projects, public land and desert devotees hoped that the PEIS process would, as a counterpoint, lead to a more rational (and legally and biologically defensible) program, and that in the weeding-out process decision makers would acknowledge that our deserts simply cannot be the dumping ground for industrial solar. On an October conference call to which environmental groups were invited, Salazar admitted that the “process had not been perfect.” He rationalized the fast-tracks by stating that there had been no renewable energy process before he came in, and “We needed to make believers of the cynics who said we couldn’t get renewable energy done.” He then alluded to setting aside 1,000 square miles (640,000 acres) for solar—about the amount of land in the Solar Study Areas.

Yet in December, the Bureau of Land Management (BLM) and the Department of Energy released the 11,000-page PEIS with a Preferred Alternative to make available for right-of-way applications 22 million acres of BLM land.

It seems unaccountable that BLM would make such a leap beyond the SSAs, which comprise just 3 percent of the new 22 million-acre proposal. As with everything up to this point, however, it flows from the “mandate.”

Alternatives considered under NEPA are determined (and usually greatly narrowed) by a proposal’s identified “purpose and need.” The PEIS will not look at alternatives such as Distributed Generation, restricting solar development to populated areas, or conservation and demand-side management, because the BLM’s primary purpose and need has been defined as “[responding] in a more efficient and effective manner to the high interest in siting utility-scale solar energy development on public lands.” This, in turn, the agency relates to “the requirements for facilitating solar energy development on BLM-administered lands established by the Energy Policy Act . . .”

A Course that Must Be Reversed

It is not news that utility-scale, remote solar development is destructive and that alternatives such as distributed generation (DG) must be pursued. As the “mandate” persists, so does avoidance of the right path.

The Environmental Protection Agency, which is obligated to review all environmental impact statements, strongly stated in its scoping comments on the PEIS that the BLM should include a DG alternative in its analysis. Adding salt to the wound, the EPA also stated that it had mapped contaminated lands and mining sites with renewable energy potential and had identified “almost 15 million acres of potentially contaminated properties” in the U.S., many of which are suitable for renewable energy development and are close to transmission infrastructure. “We strongly encourage BLM, DOE, and other interested parties to pursue siting renewable energy projects on disturbed, degraded, and contaminated sites, before considering large tracts of undisturbed public lands.” (3)

Clearly, the current course of solar development—revved up with a non-existent mandate, driven by subsidies, bolstered by false claims of green-ness, and running along the skids of supposed inevitability—must be reversed.

As the fallacies of the push for Big Solar come into focus, it seems clear that the DOE and/or the EPA—or perhaps some new coordinating entity—needs to take charge to design and implement an environmentally sound and effective renewable energy program. It doesn’t belong in the hands of the BLM—and it doesn’t belong in our irreplaceable deserts.

Janine Blaeloch is Director of the Western Lands Project, which monitors federal land sales and exchanges across the West and beyond, and which works to protect public land from privatization. She has worked as an environmental planner in both the private and public sectors and is a co-founder of Solar Done Right.

(1) PL 109-58, Section 211.
It is mind boggling how environmental regulations can be easily manipulated by its trust-ee and how so much is left to individual discretion rather than science. The decision to approve a permit for a feedlot already notorious for regulatory violations has left a community awash in disappointment. The New River is a dramatic case in point.

Originating near Mexicali, BC, the New River is known as one of the most polluted in North America. Entering the United States near the small town of Calexico, it flows north through Imperial County and terminates in the landlocked Salton Sea. Even today many of the sources of pollution evade identification by government agencies and scientists. On a positive note, Assemblyman Manuel Perez of the 80th District has recently introduced Assembly Bill 1079 to create a roadmap for improvement projects along the New River. Additionally new technologies have evolved which allow citizens to become directly involved in problems of the New River.

IVAN (www.ivanonline.org), which stands for Imperial Visions Action Network, is a community access data base that is used for documenting environmental problems throughout Imperial County. The USHAHIDI platform, which means “witness” in Swahili, serves as the core operational mechanism for IVAN. Citizens are able to report problems directly to this on-line data base, and these issues are in turn taken up by the Imperial Valley Environmental Justice Taskforce (Taskforce). With this new technology Imperial County residents have been a vital element in reporting environmental incidents otherwise unknown to our local, state, and federal environmental enforcement agencies, and in some settled cases money has been put back into the community for mitigation projects.

In May 2010, an explicit incident was reported and read: “The feedlot is next to New River in Calexico, standing water, mosquitoes, and exposed carcass of cattle, piles of manure, concerns of west Nile virus via mosquitoes, and proximity to new river vector problem.” This was identified as the New River Feed Lot, and the report was discussed in the monthly taskforce meeting where the reporter also shared a graphic video of conditions at the feedlot at the time of the report. While IVAN delivers a new level of accountability and transparency, it can also make the status quo very uncomfortable. Gaining the interest of the governmental enforcement agencies, the incident was verified, and it was properly attended by a Department of Toxics Substances Control environmental problem solver.

Public records identified the Phillips Cattle Company as the operator with a long history of environmental complaints. The records also revealed that Phillips was currently seeking an operating permit from the Imperial County Air Pollution Control District. It
was undeniable that the feed lot operator needed to do some clean up. The distance between the feedlot and the river is approximately 20 feet. The feedlot is on a slope such that standing water has no outlet other than the New River. The polluted water from the feedlot was entering the river. Problems were compounded by the fact that the lot is sited in a flood zone, and yet another concern involved placement of underground pipes extending from the feedlot to the New River. According to records which Phillips Cattle Company placed with the California Regional Water Board, these pipes were used to release clean water into the New River, but they also have the capability to discharge contaminated water. To date the California Department of Fish and Game has never addressed this issue despite numerous calls to engage them on the probable endangerment of aquatic life.

Now what’s wrong with this picture? You have a community with complaints, a water board that had serious concerns with the Phillips feed lot, and yet the Imperial County APCD has agreed to give Phillips Cattle Company an operating permit.

Gideon Kracov, Attorney for Comite Civico Del Valle, identified numerous flaws within the permitting process, large gaps in the CEQA process, and failures to address significant impacts to the surrounding environment. This has long been a complaint from environmental justice communities throughout California. It’s very difficult to trust government when you have appointed commissioners, in this case Air Pollution Control District, that don’t do their due diligence prior to permitting projects. One wonders how much can we really leave to the governmental regulators discretion.

Because of the diligence of the California Water Resources Control Board, the Department of Toxic Substances Control, Imperial Visions Action Network, a concerned citizen, and media coverage, Phillips Cattle Company has recalled its request for approval by the APCD pending the mandated clean up and approval by the Water Board.

Two lessons emerge from this account. First, government regulatory agencies are not universally committed or effective in carrying out their mandate: they need to be watched. Second, citizen groups that are organized, active, and which document their claims are essential for protecting the health of people and the environment in many underserved communities. Disappointment need not always be the result. 

Luis Olmedo has lived in Brawley, California, since 1978. As a result of initial influences from American Lung Association and Health Care Professionals, he began to explore opportunities to address air quality concerns such as agricultural burning and pesticide spraying. He is currently active in policy work at the state level and belongs to a number of environmental justice organizations.
Continued from page 1

thallium, arsenic and lead.

Given this history, permitting of mining/milling operations was closely scrutinized by multiple agencies, the public, and several NGOs (including the Sierra Club) throughout the EIR/EIS process for which the county of San Bernardino was the lead agency. This itself concerned some environmentalists who questioned the rigor of a county-led process. Risks assessed included possible human health impacts. A primary school right next to the mine was closed in 2003. Only a few residences of state employees are immediately adjacent to the mine, but fugitive dust, windblown tailings, and groundwater contamination could impact neighboring communities of Baker, Nipton, and beyond. The Final EIR/EIS was released in June 2004. It concluded that the Molycorp facility would result in significant aesthetic, air quality, biological resource, geology/soils, and hydrology/water quality effects. Nevertheless, final permitting occurred in the third quarter of 2010.

According to Molycorp literature, modernizing the mine and processing facilities includes pioneering technological breakthroughs to minimize wastewater emissions and boost mineral recovery rates, while driving down production costs to half that of Chinese rare earth mines. It will be recycling wastewater within the facility to reduce emissions and fresh water usage. This will eliminate 120 acres of evaporation ponds. The infamous wastewater pipeline offsite is gone. Instead of requiring a tailings dam, a patented process at the facility will form a paste with the tailings by removing most of the water from slurry and deposit the paste in stable layers. They will be reducing CO2 and particulate emissions by replacing diesel-fired equipment with natural gas-fired. Onsite recycling and salts recovery will reduce transportation impacts. The company says it will employ up to 300 workers once the mine is back in full swing. Their goal is to achieve a production rate of 20,000 tons of rare earths a year.

Molycorp Inc., the mine reopening, and rare earths in general have generated extensive news coverage in 2010 and early 2011. Molycorp stock went public, and the Chinese are tightening restrictions on rare earth exports (part of the reason that man-

Kern River Gas Transmission Company filed an application with the Federal Energy Regulatory Commission (FERC) in December 2010 to construct and operate a new natural gas pipeline in the northern Ivanpah Valley within San Bernardino County. The Mountain Pass Lateral Project is designed to provide natural gas to Molycorp Mineral’s rare earth mine at Mountain Pass for power generation and steam production. The new 8.6 mile pipeline will extend southward from Kern River’s existing, east-west mainline near Primm, Nevada. The project will potentially have direct, indirect, and cumulative impacts on the State- and Federally-threatened Mojave desert tortoise. Specifically, the project will adversely impact the Northeastern Mojave (NEMO) Desert Tortoise Recovery Unit. The northeastern slope of the Clark Mountains across which the Project will be constructed is undisturbed habitat for this evolutionary significant population. The slope is the only eastern Mojave locality for the rare plant species *Muilla coronata* and is a foraging area for threatened bighorn sheep. The project will both disrupt and affect fragment habitat on the upper portion of the bajada and may adversely affect desert tortoises to be translocated from the Ivanpah Solar Electric Generating System (ISEGS). The cumulative impacts of the Mountain Pass Lateral Project, ISEGS, the Eldorado-Ivanpah Transmission Line, and the State Line solar facility proposed by First Solar threaten the survival of the NEMO Recovery Unit as a viable population in the northern Ivanpah Valley.

Basin and Range Watch, Desert Tortoise Council, and Western Watersheds Project -- parties to the FERC proceedings -- are urging FERC to require a full environmental review rather than the planned environmental assessment.

The filing may be viewed at http://www.ferc.gov using the “eLibrary” link and docket number CP11-46.
Susan Juetten lives in Washoe Valley, NV, and works for Great Basin Resource Watch in Reno. She has been part of wilderness conservation campaigns, local slow growth efforts, and has helped establish organic certification in the state. Susan gardens, hikes, watches movies, and spends time with friends for relaxation.

Bodie Hills

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4WD visitors, and those who appreciate the area’s scenic vistas and interesting history.

Although Bureau of Land Management (BLM) excluded the Bodie Hills’ WSAs from its wilderness recommendations in the late 1980s, the Bodie Hills contain abundant wilderness values. Much of the area is still relatively pristine and seemingly unexplored with one of the highest concentrations of archaeological sites in the Great Basin. Some nearby peaks are easily climbable in a half-day hike and offer amazing 360-degree vistas of the Sierra Nevada and the Mono Lake basin (see the video at: “http://www.latimes.com/travel/la-tr-4ca-20100815,0,4654884.story”). While the bulk of the Eastern Sierra is a classic subalpine environment of glaciated canyons and snowmelt streams, the Bodie Hills, by contrast, are one of the few places in California where the true atmosphere of the wild west can still be experienced.

Due to concerns about a proposed gold mine in the Bodie WSA, the Bodie Hills Conservation Partnership (www.bodiehills.org) was formed in 2010 to seek lasting protection of this unique area. Many environmental groups including the Range of Light group (Toiyabe Chapter, Sierra Club) are active participants. The coalition hopes to work with other stakeholders at the local, state, and national levels to devise a plan for permanently preserving the area’s abundant natural, historical, and cultural resources. The Bodie Hills is one of 14 possible National Monument candidates named in an internal Department of the Interior list released in 2010, and the Sierra Club’s Resilient Habitats Campaign Committee calls the area a candidate for National Monument designation as well (see http://connect.sierraclub.org/Team/Sierra_Nevada_Resilient_Habitats). Other options include National Conservation Area designation, wilderness designation for portions of the WSAs and other lands, and Wild and Scenic River status for the candidate streams.

Since Bodie is an historic gold-mining town, one can expect interest in the area from modern mining companies. The price of gold recently climbed over $1400 an ounce, and Standard and Poor’s projects a high of $1,600 an ounce by the end of 2011. Electrum, one of the world’s largest mineral exploration companies (owned by Tigris Financial Group) proposed through its Cougar Gold subsidiary to undertake initial mineral exploration in 2008 in the Bodie WSA near the old Paramount mine diggings. An initial phase of exploration was completed in 2009. In September, 2010, possibly at the request of the mining company, Rep. Buck McKeon (R-Santa Clarita) introduced legislation – H.R. 6129: “The Mono County Economic Development Act of 2010” – to release the Bodie WSA to facilitate mine development. While Cougar Gold has grandfathered rights within the WSA, release of the WSA would certainly make it easier for the company to conduct its activities. Last September, the Mono County Board of Supervisors considered whether to support this legislation. The conservation community quickly mobilized in opposition, writing more than 200 letters to the supervisors and testifying at the meeting. Surprisingly, considering the mining company’s promise of up to 300 jobs, the Board voted 3-2 to take no action. HR 6129 never made it out of committee; another legislative attempt to secure release of the WSA is expected very soon. Cougar Gold is preparing the ground more carefully this time. The company is coming to Mono County on February 15 to discuss its plans and the presumed benefit to the local area. To date Cougar has provided no specific information about its mining plans; even BLM, which has jurisdiction over Cougar’s operations, has not seen what the company is proposing. Hopefully we will know more after Feb 15.

Electrum claims to be “an environmentally conscious and socially responsible company,” but mining is inherently destructive to the environment. The Bodie Hills’ fragile environment is easily damaged, but not easily restorable. One only has to look at the scars around the ghost town of Bodie or at the arsenic-laden waters of Bodie Creek to imagine what a new gold mine might do to the Bodie Hills. Those concerned are encouraging the supervisors to ensure that the public has all the facts before the Board takes a position either on mining or on the release of the Bodie WSA. They also urge the supervisors to support a dialogue among local, regional, and national stakeholders to determine a collaborative vision for the future of the the Bodie Hills.

A resident of Mammoth Lakes, California, Malcolm Clark has been a long time member of both the Sierra Club and the Audubon Society. He currently serves as chair for the Range of Light group in the Toiyabe Chapter of the Sierra Club.
These trips are not rated. If you have not previously participated in an outing of the type you are considering, you should call the leader and ask about the suitability of the trip given your conditioning. Distance and elevation gain can give you an indication of the difficulty of a trip, but the condition of the trail, or lack of a trail can change the level. An eight mile, 900’ elevation gain hike on a good trail would be easy to moderate, the same hike cross-country could be strenuous.

Outings are sponsored by the Desert Committee, except where noted. For questions concerning an outing, or to sign up, please contact the leader listed in the write-up. For questions about Desert Committee outings in general, or to receive the outings list by e-mail, please contact Kate Allen at kj.allen@wildblue.net or 661-944-4056.

The Sierra Club requires participants to sign a standard liability waiver at the beginning of each trip. If you would like to read the Liability Waiver before you choose to participate, go to http://www.sierraclub.org/outings/chapter/forms/, or contact the Outings Department at 415-977-5528 for a printed version.

For an updated listing of outings, visit the Desert Report website at www.desertreport.org and click on outings.

The Sierra Club California Seller of Travel number is CST 2087766-40. (Registration as a seller of travel does not constitute approval by the State of California.)

WHIPPLE MTS. WILDERNESS SERVICE TRIP
March 26-28, Saturday-Monday
Join CA/NV Wilderness Committee and Mojave Group on their annual joint outing to help BLM’s Needles office enhance wilderness characteristics in desert wilderness. The Whipples are our planned destination and the rumor is that there will be Saguaro cactus involved. Central commissary. Contact Vicky Hoover at 415-977-5527 or vicky.hoover@sierraclub.org. CNRCC Wilderness Committee/Mojave Group

GOLDEN VALLEY WILDERNESS SERVICE TRIP & HIKE
April 1-3, Friday-Saturday
Work with the Student Conservation Association (SCA) in the Golden Valley Wilderness Area near Ridgecrest. Friday and Saturday are workdays; Sunday will be a hike in the wilderness area, where we might see wildflowers, if it turns out to be a good year. Call or e-mail for more details. Leader: Kate Allen, kj.allen@wildblue.net, 661-944-4056. CNRCC Desert Committee

MOJAVE PRESERVE EXPLORATION CARCAMP & HIKING
April 2-3, Saturday-Sunday
Meet Friday afternoon at the Sunrise primitive campground on Cima Road, 11 miles from I-15, just past the Teutonia Peak Trailhead. Saturday hike to Teutonia Peak, 4 miles round trip. Sunday stop at Hole-in-The-Wall visitor center and then hike six miles on the Barber Peak Loop Trail. For those who want to spend another night, we can camp at Mid Hills Campground. Fees are $12.00 per site ($6.00 with Senior Access Pass). Bring warm clothes, as evenings can be cold. Bring lots of water and food for entire weekend. For reservations, contact Carol Wiley at Desertlily1@verizon.net or 760-245-8734. CNRCC Desert Committee

ESCALANTE RIVER CANYON SERVICE TRIP/BACKPACK
April 10-16, Sunday-Saturday
We will work with National Park Service Ranger Bill Wolverton on this ongoing Russian olive eradication program. 40.5 miles of the Escalante River have been cleared. This project will clear more, using loppers, small handsaws, and herbicide. Meet in Escalante Sunday morning, caravan to the trailhead and hike in about 7 miles. Expect knee to thigh deep river crossings, and some bushwhacking. We work 4 days, dayhike 1 day and hike out Saturday morning. Participants must follow work-clothing requirements, provide their own food and gear on the trail, and travel expenses to the trailhead. For more information contact leader, Paul Plathe at 209-476-1498. Delta-Sierra Group

BIRDS, FLOWERS, AND FENCES IN THE CARRIZO SERVICE TRIP & HIKE
April 16-17, Saturday-Sunday
This is an opportunity to explore and aid an outstanding and relatively unknown national monument. On Saturday, we will assist monument staff in the removal of fence wires to allow
pronghorn antelope freer access to the range. Sunday is reserved for sightseeing. The views from the Caliente Mountains are spectacular; spring flowers may still be blooming; and the monument is known for the number and variety of raptors present. Contact leader Craig Deutsche, 310-477-6670, or craig.deutsche@gmail.com. CNRCC Desert Committee

DEATH VALLEY NATIONAL PARK WILDERNESS RESTORATION SERVICE TRIP
April 29-May 1, Friday-Sunday
Come help with wilderness restoration in this beautiful and remote desert national park. Current plan is to work in Saline Valley and camp at Warm Springs. Subject to change depending on weather/road conditions. Meet Friday at noon and car-caravan to work areas and camping. Happy hour potluck Saturday night. Bring work gloves, camping equipment, and food for the weekend. Leader: Kate Allen, kj.allen@wildblue.net, 661-944-4056. CNRCC Desert Committee

WORK AND PLAY IN THE OWENS PEAK WILDERNESS SERVICE TRIP & HIKE
May 7-8, Saturday-Sunday
This outing is principally service to preserve the boundary of the Owens Peak Wilderness Areas. Working with Marty Dickes from the Ridgecrest BLM office, we will be camouflaging illegal roads and placing signs and barriers along the wilderness boundaries. We will be joined by an SCA crew, college age interns who have been doing restoration work in this area for several months. Car camping, potluck dinner, and story telling are the evening features. Contact leader Craig Deutsche, 310-477-6670, or craig.deutsche@gmail.com. CNRCC Desert Committee

LONE PINE LAKE & MANZANAR CARCAMP & HIKE
May 14-15, Saturday-Sunday
Join us at our beautiful creekside camp in the high desert near Lone Pine. On Sat, we’ll hike a moderate 6 mi rt, 1600’ gain from Whitney Portal to beautiful Lone Pine Lake, followed by Happy Hour, a potluck feast and campfire. On Sun, we’ll caravans to Manzanar, the WWII Japanese internment camp to visit the museum with its moving tribute to the internees held there during the war. Group size strictly limited. Send $8 per person (Sierra Club), 2 large SASE, H&W phones, email address, rideshare info to Ldr: Lygeia Gerard, P.O. Box 294726, Phelan, CA 92329, 760-868-2179. CNRCC Desert Committee

TELESCOPE PEAK CARCAMP & HIKE
June 18-19, Saturday-Sunday
Join us at our beautiful forest campsite at 8,000 ft. in the Panamint Mts. On Sat, we’ll hike the tallest peak in this desert with views of the highest (Mt. Whitney) and lowest (Badwater) points in the contiguous U.S. 14 miles rt, 3000 ft. gain. Moderate/slow pace for well-conditioned hikers only. NO TIGERS. After the hike, we’ll enjoy Happy Hour, a potluck feast and campfire. Group size strictly limited. Send $8 per person (Sierra Club), 2 large SASE, H&W phones, email address, rideshare info to Ldr: Lygeia Gerard, P.O. Box 294726, Phelan, CA 92329, 760-868-2179. CNRCC Desert Committee

BRISTLECONE PINES CARCAMP & HIKE
August 20-21, Saturday-Sunday
Come with us to the beautiful White Mtns to camp, hike and just relax. On Sat, we’ll hike the Ancient Bristlecone Pine Forest on a moderate 5 mi rt interpretive trail, followed by a picnic lunch and a short optional hike to a nearby old mining cabin. Back at camp, we’ll enjoy Happy Hour, a potluck feast and a campfire. Sunday pack up and head home. Group size strictly limited. Send $8 per person, 2 large SASE, H&W phones, email, rideshare info to Ldr: Lygeia Gerard, P.O. Box 294726, Phelan, CA 92329, 760-868-2179. CNRCC Desert Committee

GHOST TOWN EXTRAVAGANZA
October 29-30, Saturday-Sunday
Spend Halloween weekend visiting the ghosts of California’s colorful past. Visit this eerie desert landscape near Death Valley; camp at the historic ghost town of Ballarat (flush toilets & hot showers). On Sat, a challenging hike to ghost town Lookout City with historian Hal Fowler who will regale us with tales of this wild west town. Return to camp for Happy Hour and potluck feast, followed by a midnight visit to Ballarat’s graveyard. On Sun, a quick visit to the infamous Riley townsite. Group size strictly limited. Send $8 per person (Sierra Club), 2 large SASE, H&W phones, email, rideshare info to Ldr: Lygeia Gerard, P.O. Box 294726, Phelan, CA 92329, 760-868-2179. CNRCC/Desert Committee
Late August was a good time to escape our stifling urban areas. Our leader, Lygeia Gerard, had scheduled a weekend in the White-Inyos, a wonderful desert range where we were able to indulge our love of wide open spaces at an altitude with very bearable temperatures.

On Friday evening about a dozen of us traveled along Highway 168 out of Big Pine to gather under an almost full moon at the spacious Grandview campground high in the White Mountains. Our focal point was the Forest of the Ancients where those magnificent Bristlecone pines – older than any other trees on earth – are somehow able to survive the high, harsh and dry desert environment. On a clear, slightly breezy Saturday morning, we leisurely carpooled to Schulman Grove (at about 10,100 ft.) on a road which afforded the most incredible views across Owens Valley to the High Sierras, home to twelve of the highest peaks in the nation.

In the parking lot at Schulman Grove (named after the man who carried out extensive studies of the Bristlecone Pines in the White Mountains), we saw the ruins of the Visitors Center, destroyed several years ago by a deranged arsonist. This center, which greatly enhanced visits to this unique area, had been a beautifully designed wood structure that housed informative history and educational aids. Fortunately, generous monetary contributions have made it possible to rebuild. The arsonist has been institutionalized, and the new Visitors Center is set to break ground in the spring of 2011.

There are two main trails through the grove: the Discovery Trail, a short path with wonderful examples of the trees and their history; and the Methuselah Walk, a 4-mile loop through an extended area. Blessed with balmy weather, we opted for the longer path. Initially it took us higher up the mountain, into dolomite and granite rocks, and past our first gnarly, twisted, awe-inspiring trees with their trunks in shades of brown, grey, and gold. After a mile or so we began to descend, with magnificent views across Deep Springs Valley and way, way beyond. The ground cover was more varied here, with desert plants and bushes of interest to the herbalists and photographers in our group, including sagebrush, Indian paintbrush, pennyroyal, mountain mahogany, squaw currant and Mormon tea, amongst many others.

Our trail eventually took us even lower, down to a concentration of Bristlecone Pines where many of the trees are known to be 3,000 to almost 5,000 years old. One tree is known as Methuselah because it has been dated as 4,767 years old and is therefore among Earth’s oldest living inhabitants. It is no longer marked to save it from people helping themselves to souvenirs. One can only guess which tree it might be.

Many of the trees, in their efforts for survival, have become beautifully contorted, natural sculptures. Some are more dead than alive with perhaps a single strip of bark feeding the entire living part of the tree from its roots. A dead tree can remain standing for hundreds of years, and some of the relics on the forest floor are reputed to be up to 9,000 years old. One tree has a sawn limb to expose its rings and a mark showing when Jesus Christ was born.

Those who hadn’t yet had enough of this truly amazing desert range, drove twelve miles further up the road to the Patriarch Grove. There they enjoyed a ¼-mile mountain-top stroll through another concentration of magnificent Bristlecones, which look surprisingly strong and healthy, considering the gale-force winds, snow depths, and blistering sun they endure.

Finally, it was back to camp for a potluck supper followed by a blazing campfire – a very satisfying end to a very stimulating day. We won’t soon forget our escape from the city.

Janet Damen has been a Sierra Club member since 1993 when she felt a compulsion to discover Southern California’s vast and beautiful landscape. Hiking and backpacking became a regular part of her life until injuries prevented her from hiking in recent years. The trip described here was part of a condition program to allow her to return to the mountains.
All policy, editing, reporting, and graphic design is the work of volunteers. To receive Desert Report please mail the coupon on the back cover. Articles, photos, letters and original art are welcome. Please contact Stacy Goss (stacy2064@aol.com, 408-248-8206) about contributions well in advance of deadline dates: February 1, May 1, August 1, and November 1.

OUR MISSION
The Sierra Club California/Nevada Desert Committee works for the protection and conservation of the California/Nevada deserts, supports the same objectives in all desert areas of the Southwest, monitors and works with governments and agencies to promote preservation of our arid lands, sponsors education and work trips, encourages and supports others to work for the same objectives, and maintains, shares and publishes information about the desert.

DESERT FORUM
If you find Desert Report interesting, sign up for the CNRCC Desert Committee's e-mail listserv, Desert Forum. Here you'll find open discussions of items interesting to desert lovers. Many articles in this issue of Desert Report were developed through Forum discussions. Electronic subscribers will continue to receive current news on these issues—plus the opportunity to join in the discussions and contribute their own insights. Desert Forum runs on a Sierra Club listserv system.

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By return e-mail, you will get a welcome message and some tips on using the system. Please join us! Questions? Contact Jim Dodson: jim.dodson@sierraclub.org (661-942-3662)

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