Rainmarer

WATERSHED NEWS AND VIEWS FROM THE ALTAR VALLEY WINTER 2007 NO. 4

El Niño Edition

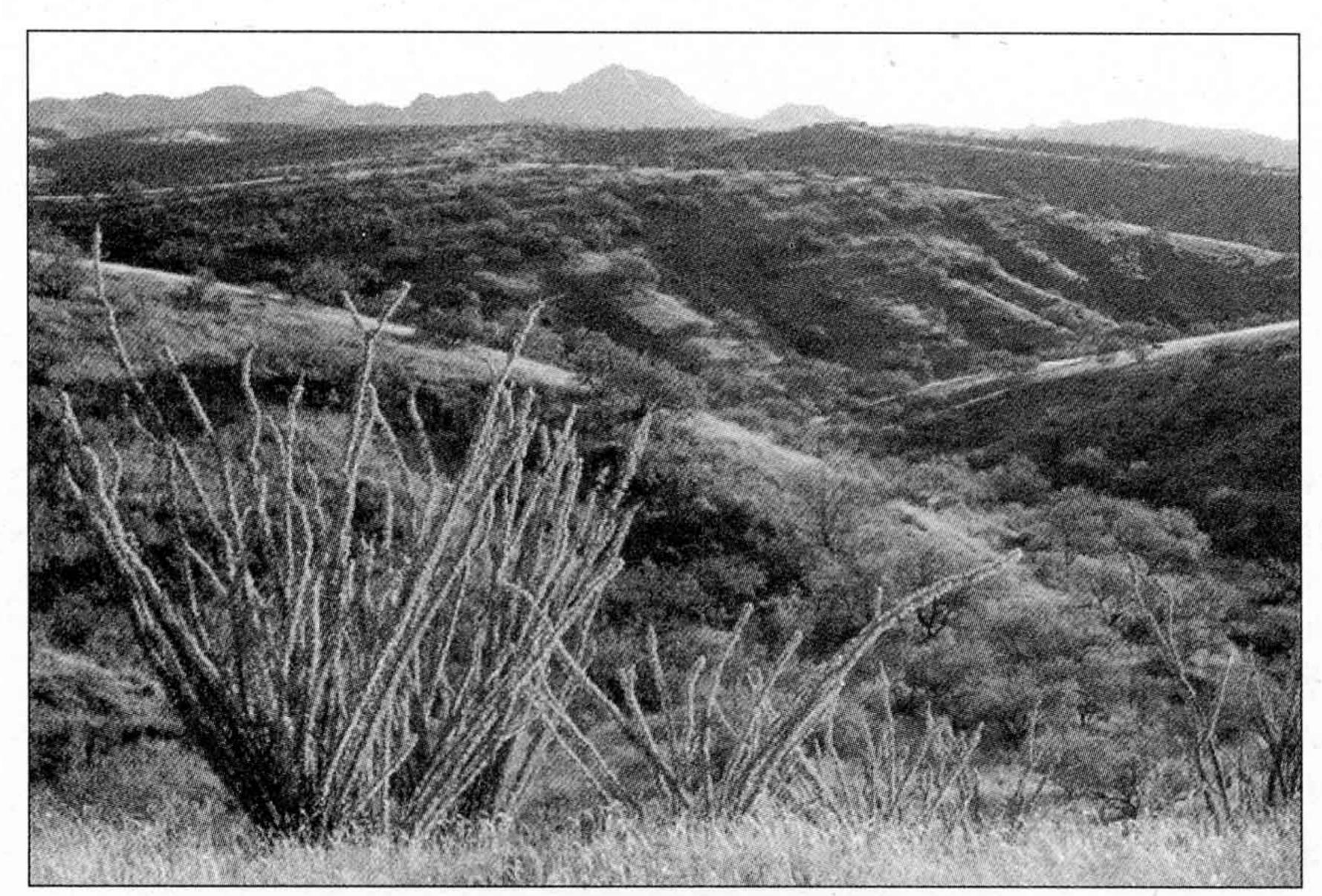


We're alive and well out here, embracing the new year with vigor! Thus far this El Nino is a bit of a hoax, but we remain ever optimistic. Despite last summer's Tucson Basin flooding, the Altar Valley remains in a long-term drought — an ever present theme in the day to day life of ranchers and resource managers. Unfortunately the flood of people crossing the border continues. Perhaps one day these trends will swap! Despite these distractions, the Altar Valley Conservation Alliance continues to march ahead in pursuit of our mission — conserving the Altar Valley for future generations.

Watching the children of Robles Elementary School soak up a year of special Sonoran desert conservation education was a highlight of the past year. An Altar Valley Watershed Fire Management Plan has gone

through public review, and work is underway to complete the planning process. Watershed restoration and stabilization remain a top priority, and we're learning a lot from arroyo restoration consultants Bill Zeedyk and Steve Carson. The Arizona Game and Fish Department's Access Program machine operator, Floyd White, incorporated these ideas into their state wide ranch road maintenance efforts -- thus stretching our efforts statewide! Last fall we began cooperative work with the Pima County Department of Transportation on rural ranch roads.

The Altar Valley landscape hasn't changed a lot, thankfully, but some of the people working the land have changed. The arrival of Mitch Ellis to the Buenos



Aires National Wildlife Refuge has brought great energy and optimism to partnership between the refuge and ranchers. Pima County has purchased the 98 Ranch at the north end of the Altar Valley, and Rancho Seco and Santa Lucia Ranches just north of Arivaca -- plus a parcel on the north end of Buenos Aires NWR. All three ranches are important building blocks of Pima County's Multi-Species Habitat Conservation Plan. All three continue to be operated as ranches, via management contracts with Altar Valley ranchers. Kerry Baldwin and John Sullivan of Pima County Parks and Recreation are the "face of the county" here in the valley. They work with the ranchers to develop a management plan that will augment plans the ranches already use in cooperation

with the Natural Resources Conservation Service. Melissa Owen and Troy McDaniel are building a vineyard at the Sierra Vista Ranch at the southwest end of the valley. Melissa has been a champion

volunteer at the Buenos Aires NWR, and brings a lot of energy and professionalism to the valley.

The growth and change surrounding Tucson are astounding and magnify the importance of Altar Valley watershed conservation. The Altar Valley Conservation Alliance remains a volunteer based organization, which makes your interest and support all the more important! Read on to learn more about our work. We hope you are inspired to be an Altar Valley partner!

Pat King and Mary Miller, Co-chairs

Pima County Presence in the Altar Valley

Back in 1997, Pima County initiated a comprehensive land use and conservation planning process that would become known as the Sonoran Desert Conservation Plan (SDCP). Members of the Alliance played important roles on numerous of the plan working committees. They helped shape an award winning plan that lays out a roadmap to protect and enhance the natural and cultural environments of Pima County while also ensuring that conserved and urban lands develop in such a way where one enhances the other. For more information on the Sonoran Desert Conservation Plan you can visit www.pima.gov-SDCP Hot Link.

A key element of the Sonoran Desert Conservation Plan was a goal of identifying and acquiring important biologically and culturally sensitive lands across the County and to protect them for future generations. In 2004, the voters of the County endorsed the establishment of a bond funded acquisition program. More than \$174 million dollars was approved by the voters. Lands across the County, including the Altar Valley, clearly fit into the primary acquisition categories established for the bond program. Willing sellers have stepped forward and Pima County has acquired over 46,000 acres of private lands and grazing leases in the valley over the last 24 months. On most of the lands, management agreements have been established with the original owners to maintain the land as working landscapes and manage consistent with SDCP conservation goals. Places in the Valley that are now, or soon to be, part of the County Reserve system of lands include Rancho Seco, King 98, Madera Highlands, Old Hayhook and Buckelew Farms. Additional lands will be acquired as opportunities present themselves and the 2004 Bond funds hold out.

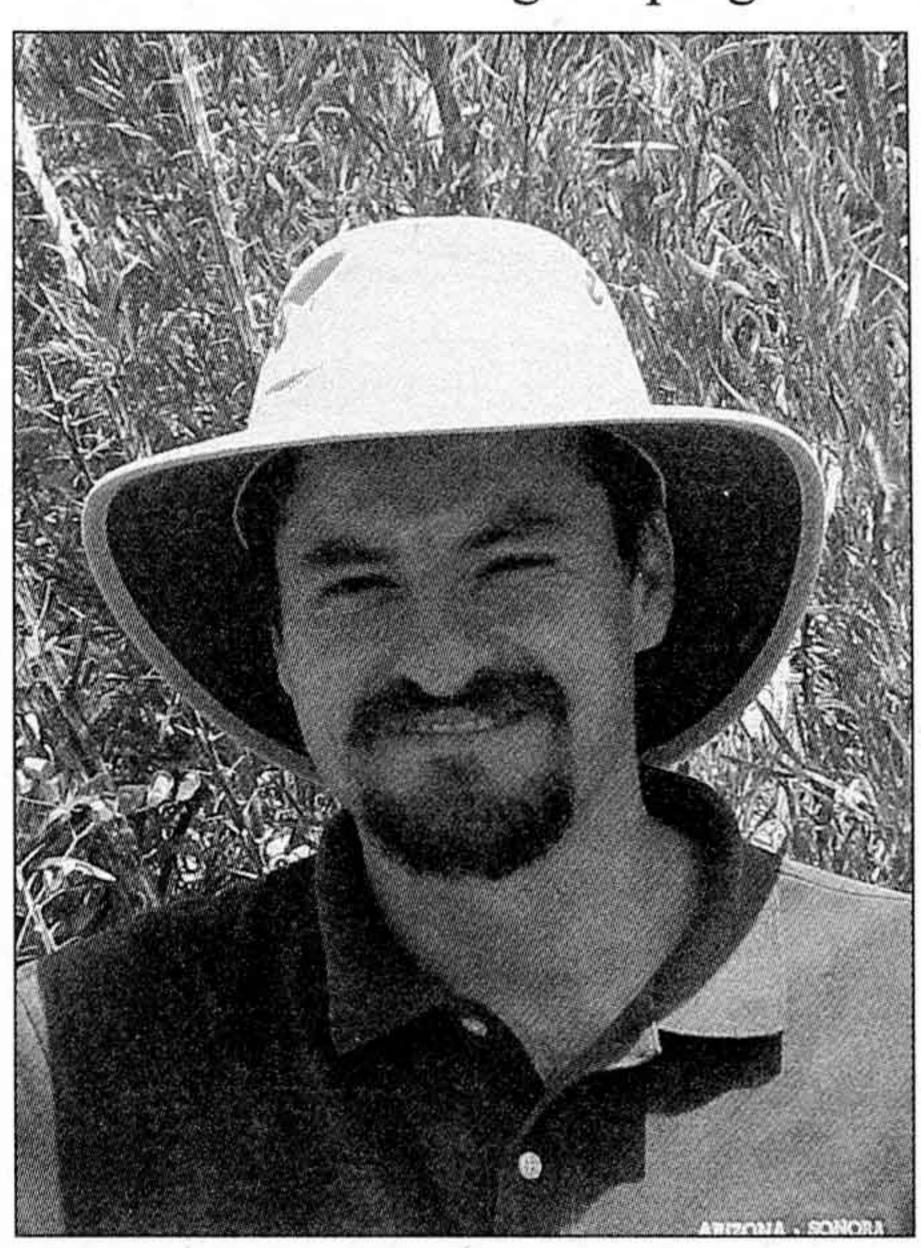
Pima County Natural Resources, Parks and Recreation (NRPR) has the primary responsibility for management oversight over the new open space lands. The key County management contacts are Kerry Baldwin, NRPR Natural Resource Division Manager and John L. Sullivan, the NRPR Rangeland Resource Program Manager. Both can be contacted at the NRPR headquarters in Tucson at 877-6000. As members of the Alliance, we have been pleased to have had the recent opportunity to assist in the development of comprehensive management strategies to rehabilitate, enhance and conserve the valley's diverse natural resources as a concerned landowner.

The NRPR staff and the Pima County Administration look forward to even more opportunities in the future to partner with the diverse members of the Alliance to meet our shared conservation and ranch conservation objectives.

Kerry Baldwin, Pima County Natural Resources, Parks and Recreation, Natural Resource Division Manager, 3500 W. River Rd., Tucson, 85741, 520-877-6161, Kerry.Baldwin@pima.gov

Amigos del Desierto

Sonoran desert creatures have been frequent visitors at Robles Elementary School this winter. The school, located at the Northern end of the Altar Valley was adopted by the Arizona-Sonora Desert Museum's Amigos del Desierto Program. Altar Valley Conservation Alliance members served as the matchmakers to bring the program to local children.



ASDM educator Jesús Garcia—a wonderful teacher and role model for youth!

Funded by the Stonewall Foundation and targeting primarily Hispanic bilingual elementary schools, "Amigos" provides students with a unique continuum of high quality environmental science programs and projects offered, both in their schools and at the Desert Museum, throughout the academic year. Using the Sonoran Desert as a model for teaching a variety of life and earth science topics, the goals are simple: to excite children about science and the natural world by helping them develop a greater respect and understanding of the Sonoran Desert region and our place in it; and to provide Tucson area Spanish-speaking children with

quality environmental science education programs.

The Robles Elementary School "Bobcats" embraced the program with wonderful enthusiasm and appreciation! Museum educator Jesús Garcia visited the school weekly to bring conservation education lessons to the children. Many classes visited the Museum, and each child received a free pass to take his or her family to the Desert Museum. The fourth graders experienced a few nights camping in the sky island country of Mt. Lemmon. All of the classroom activities were well integrated with ongoing curricular requirements. The students created a field guide to many animals of our region through their annual yearbook project.

Stay tuned for more news. Robles Elementary, with support from the Desert Museum, the Altar Valley Conservation Alliance, Pima County, Altar Valley Parent Teacher Association, and many local fans, received an Arizona Heritage Fund grant to build a native wildflower garden and desert tortoise habitat on the school grounds; and the school has submitted another Heritage proposal to develop an environmental education curriculum!

Returning Fire to the Altar Valley

The desire to return fire to the Altar Valley landscape has been a top priority of the Altar Valley Conservation Alliance since the beginning of our work together. In fact, it was one of the concerns that sparked creation of the Alliance in 1995. Since then, the Buenos Aires National Wildlife Refuge has continued its annual burning program. There was a large human caused wildfire in Thomas Canyon several years ago. Santa Margarita Ranch has accomplished two prescribed fires, 340 acres in 2001 and 640 acres in 2006. The benefits achieved by these fires serve as reminders of all the good fire can do, but they are a drop in the bucket.

Based on historical evidence, the Altar Valley landscape should burn every 5 to 20 years. Using round numbers and assuming a 10 year fire return internal, that means that roughly 50,000 acres out of the 500,000 watershed should burn annually. The Altar Valley Conservation Alliance is deep into a planning effort designed to heat up the valley fire program!

The Altar Valley Fire Management Plan is a collaborative effort. between the Alliance, the US Fish and Wildlife Service, the US Natural Resource Conservation Service, Buenos Aires National Wildlife Refuge, the Arizona Game and Fish Department, the Arizona State Land Department, and The Nature Conservancy. It addresses the roughly 546,000 acre Altar Valley watershed. The plan will establish rules to assure compliance with the Endangered Species Act, which has been the main obstacle to conducting burns in the valley. The goals of this fire plan are threefold:

- 1) Establish a program to reapply fire as a tool for range land management and watershed improvement;
- 2) Ensure conservation of species listed as threatened or endangered under Section 7 of the Endangered Species Act
- 3) minimize impacts to the ranching industry, to the extent that it may be affected by ESA considerations.

A draft Altar Valley Fire Management Plan was completed last winter and presented to the public for comment in January and February 2006. Work is underway to integrate comments and complete the plan and the accompanying biological and environmental assessments. Key issues include: Pima pineapple cactus conservation, cactus ferruginous pygmy owl conservation, liability, and survey and monitoring cost containment. Stay tuned for more news. In the mean time, here is some information about fire to help everyone be ready for the return of burning to the Altar Valley!

Walter Lane and Mary Miller

Altar Valley Fire Primer

Naturally occurring wildfire played a role in shaping the semi-desert grasslands, plains grasslands, oak savannas and pine-oak woodlands of Pima County. Fires started by lightning in early summer storms or by Native Americans were common prior to the turn of the century. Natural fire frequencies for grasslands and savannas in Pima County have been estimated at between 3 and 20 years. Periodic fire in these ecosystems would certainly favor perennial grass species over shrubs and cacti and helped to maintain a grassland aspect throughout much of southeastern Arizona. Anglo settlement of the region caused a variety of impacts that reduced the frequency of or eliminated fires as an environmental factor. Cultural impacts like grazing, farming, woodcutting and fire suppression interacted with natural phenomena like drought and changing precipitation patterns to cause a shift from grasslands to the shrub dominated landscapes of today.

Natural fires are caused by lightning.

Prescribed fires are started by people.

Prescribed natural fires are fires that people allow to burn, usually according to parameters described in a fire management plan.

The Altar Valley Fire Management Plan addresses all three varieties.

Prescribed burning reduces the total amount of woody vegetation and promotes growth of native species that have evolved with natural fires. Prescribed burning treatments, while expensive, may cost as little as one tenth that of a large scale wildfire suppression effort and promise to reduce the potential for catastrophic wildfire.

All burn plans are developed using national standards developed by qualified and experienced fire management professionals. The Altar Valley Fire Management Plan will establish the rules to guide use of prescribed fire, and the circumstances during which natural fires can be allowed to burn.

In recent times prescribed burning has been used on southeastern Arizona range lands as an effective tool to reduce stands of shrubby plants and restore grassland. Since 1978, tens of thousands of acres on the Buenos Aires National Wildlife Refuge have been burned to kill snakeweed, burroweed and top-kill mesquite. Since 1985 about 10,500 acres of range land on the Anvil Ranch have been prescribe burned, within five large pastures totaling over 20,000 acres. These burns resulted in a mosaic of burnedunburned areas beneficial to both wildlife and livestock.

Fire management professionals from a variety of organizations — the Buenos Aires NWR, Arizona State Land Department, US Natural Resource Conservation Service, The Nature Conservancy, and local fire departments — will work together to plan and conduct burns. They will work closely with landowners to determine the need and strategy for fires, monitor weather and fuel condition to maximize results and assure that fires are conducted safely. The team will work with local communities and news media to let people know about fire projects, as there will be smoke impacts on adjacent communities.

Thanks to Dan Robinett, the Pima County Sonoran Desert Conservation Plan Ranch Technical Team, and the Buenos Aires National Wildlife Refuge.

Prescribed Burning on the Anvil Ranch

Back in 1984, John King and Dan Robinett (US Natural Resource Conservation Service) were checking monitoring transects and discussing future plans for the ranch. Fall monitoring was a time when these two could go out and evaluate how our grazing practices were progressing. John could bounce ideas off a range science technician, and benefit from Dan's experiences with other ranchers and the University of Arizona, with whom Dan had worded extensively.

We needed to do something drastic to beat back the burrowweed and mesquite, which had a pretty good hold on the ranch. There were a couple of alternatives -- chemicals or fire. Chemicals were expensive to purchase and apply. They also needed certain weather conditions to react positively. Fire was less

costly and used to occur naturally.

We decided to burn. We had a couple wet summers which gave us some fuel load. We then determined the best pastures to burn and put in the necessary applications with various agencies. That winter we cleared the fence line around the pasture. In March, Dan and John began checking humidity levels and wind direction and speed.

By April, we were ready to black line -- where you burn about 50 feet into the pasture all around the pasture. We started late in the afternoon when the humidity levels are increasing, so that the fire didn't burn too far. John ran the drip torch, and the kids and I ran the water truck. We followed behind John and made sure the fire was burning away from the road. Dan followed behind and monitored the rate the fire was spreading. If it was getting too large, we held up and let that particular area burn down before progressing.

Perennial grass cover

Herbaceous production

The big fire happened in late May and early June. With the outside edges burned out, we could go out and start large portions of the pasture and get a good big fire burning which could carry itself and really burn out the smaller mesquite and burrowweed. Local fire departments helped work the fire -- a great training

As we went back to monitor hot spots and check to see how far the fire had burned,

we were amazed at the wildlife that

inhabited the moonscape looking

burn. Deer, javelina, and rabbits

the growing season for the next two

years after the burn, to allow the pe-

rennial grasses to fill in spaces left

by burned shrubs. After two years,

the monitoring transect showed that

the main forage, Santa Rita three-

awn, had increased from 5% to 67%

1985. The maximum effect of this fire was achieved 10 years after the fire. took full advantage of the spines that were burned off the prickly pear PERCENT FREQUENCY and cholla -- a big crop of candied apples! A quail hunter friend was Factors or Species astounded that quail were dusting in every pile of ash. They too took advantage of the fire to rid themselves of pesky mites. Santa Rita threeawn Arizona cottontop The pasture was not grazed during

Anvil Ranch range monitoring trend transcect results of a pasture burned in

The maximum effect of this fire was achieved 10 years after the burn. The anticipated life span is twenty years, at which time the area should be burned again to maximize the health and vitality of these ecosystems

> while burrowweed decreased from 60% to 4%. Perennial grass increased from 2% to 8% in the five years following

Fire is not a one time solution. It needs to be an ongoing regime that should reoccur every 15 - 20 years to be most effective. We plan to use the Altar Valley Fire Management Plan when it is done.

by Pat King

Further Lessons on Conservation Collaboration

This past year or so, Bill Zeedyk, a retired US Forest Service hydrologist and wildlife biologist, has spent time here in the Altar Valley teaching us about water harvesting from ranch roads and arroyo restoration. After a few days in the field with Bill, you don't see things the same way. You see meandering streams is roadbeds, and genealogy charts branching upstream from every arroyo bottom. Bill's lessons got me thinking about collaborative conservation work a little differently too.

Much of Bill's teaching is intuitive once you start to look. Water travels downhill as quickly as possible, but a stream also naturally seeks a meandering path

The meanders increase the distance the water travels, thus decreasing the speed of water. Slower water is weaker water, in terms of its ability to carry sediment. The object is to keep rainwater as near to where it falls as possible and to keep soil in place. With water and soil in place, grass grows and in turn adds further stability to the system. The movements of people and animals, our tracks, trails, and roads, change the way water travels across the landscape. We can't avoid this reality, but we can manage it to our advantage. Water harvesting is all about addressing the location, structure, and maintenance of trails and roads to put water that would otherwise run off elsewhere back onto productive land as quickly as possible. If you catch the water before it gains strength, it won't carry as much sediment, and you'll avoid erosion and the Pima County road grader experts learning new tricks. ecological eye sore of head cutting.



Mary Miller

Practically speaking, Bill teaches people about how to fix roads and trails to drain water back on to the land. Having addressed the prevention angle, he then takes on arroyo restoration, his true love. Bill teaches people to build simple structures within stream channels that accentuate the stream's natural tendency to meander. Again, slower water allows sediments to settle and grass to grow. and the system becomes increasingly stable.

Bill made me chuckle when he admitted that he couldn't remember names or faces of people, but that he could picture every stream bed and dry arroyo he had ever walked. Bill urges you to check things out from the ground, and to start your exploration from upstream looking down, because that's the way the water flows Most importantly of all, don't assess the situation from the seat of the bull dozer or a car nor with an eager group of shovel wielding volunteers steaming along behind you. The lesson here - check the problem out on the ground. In finding the source of the problem, you may come up with very different solutions. If there are different people concerned about the problem, take the people to the ground and make them walk and talk together.

Bill did a workshop on our ranch after a short but intense monsoon season that turned our ranch road into an ideal case study. While driving the ranch road to the bus stop, our kids often asked, "Why can't Bill fix this one?" when we bumped our way through a particularly nasty arroyo crossing, which I now know is located at the worst possible place in the stream's meander. Fixing this spot would require rerouting the road. We might pull it off someday, but in the mean time, Bill's advice is to choose your battles. Don't pick your worst problems, as you could throw endless money, machinery, and time at them - and you still may not completely solve them. Chip away at the smaller problems that you can manage, and the return promises to add up quickly.

Speaking of arroyo crossings, Bill taught us that the best place to cross a stream channel is a spot called the crossover. Imagine a stream channel as a series of connected S shapes. The top and bottom of the S, the curves, are the meander and the straight part that connects them is called the crossover. The mean-

dering parts of the stream are ever stretching and moving against the channel, but the crossover is relatively stable (notice I am not saying that it doesn't move). So if you must cross a stream channel with a road or trail, you try to hit it head on perpendicular to the crossover. Thinking broadly, it has struck me that the land must be the crossover point of collaborative conservation. Complex laws, diverse needs and wants, varied personalities and principles, and other factors far beyond our control affect our work on behalf of the Altar Valley. There is a constant barrage of reasons that we can't succeed. When we return our collective focus to the land, we find clarity and a path through the complexity.

This path will never be a simple one, however. Remember Bill's premise that a straight channel is not a stable channel. A healthy channel is a diverse channel, with meanders created by

moving water and sediment and a crossover point that adjusts as needed. There are so many things we can't completely control within the watershed - when it rains, who sells or buys land, the flood of illegal aliens crossing through the valley, nor the migration of birds, bats, or the occasional jaguar. Similarly we have extremes within people and society - personalities, laws, and organizations embraced by one person and hated by another. Though at times these differences can divide, these extremes help create diversity and a place in the middle where everyone can

The mission of the Altar Valley Conservation Alliance is stewardship of the Altar Valley for future generations. Stewardship projects, supporting sound science and policy, helping with land protection efforts, and community education are our tool kit. Our best moments have always involved bringing people to the land to walk and talk - we need to keep that up. We need to remain focused - we can return fire to the Altar Valley. We can heal arroyos both small and large. We can help people with land protection, when they ask for our help. We can bring good people into the valley to address scientific questions about fire, owls, and cactus. We can help people learn about the lively partnership between ranching and conservation. We have drought and floods, chances to fix things, and then just the fact that everything moves and the system adjusts. It helps me to think about aiming for the crossover and appreciating the meanders, even when they make me a little bit crazy. So thanks again, Bill. We aim to keep Zeedyking here in the Altar Valley.

Water Harvesting on Ranch Roads

ALTAR VALLEY FALL STEWARDSHIP DAYS October 25 - 28, 2006

More water harvesting structures were built in the Altar Valley this fall, thanks to another great workshop with Bill Zeedyk and Steve Carson! Fall Stewardship Days were enthusiastically supported by a number of organizations – Pima Department of Parks and Natural Resources, Quivira Coalition New Ranch Network, Arizona Game and Fish Department, Road Machinery, Buenos Aires National Wildlife Refuge, Arizona State Land Department, US Natural Resource Conservation Service, and the Pima Natural Resource Conservation District. This diverse, enthusiastic and generous coalition speaks to the broad appeal of Bill and Steve's watershed enhancement and restoration work! This year's workshop had two distinct phases – work on the "big road" and then a teaching session on the Elkhorn and Las Delicias Ranch.

A year ago, we were delighted to have Pima County Department of Transportation's Ted Ramirez as a student. Over the summer, we had the opportunity to strategize with Ted and his colleagues about the ever-eroding fate of the "big road" - the seven mile County Road that begins at Highway 286 and crosses the Palo Alto, Las Delicias, and Elkhorn Ranches up to the foothills of the Baboquivari Range. Years of road grading have lowered the depth of the road bed one to three feet below ground level, such that the only place for water to go was down the road itself; which then overloaded drainages crossed by the road, causing more erosion. The road was at times impassable, and the loss of water heart wrenching to rain deprived ranchers!

Ted saw the possibility of using the Elkhorn Road as a training opportunity and pilot project for Pima County Department of Transportation. His staff hauled in vast quantities of fill, as the water harvesting structures had to return the road to the original elevation, and be very gradual for safe travel. Bill and Steve then worked with a dozen Pima County staff equipped with a dozer, road grader, front end loader, and two water trucks to build a series of big structures. It was impressive to see guys who had worked on this road for years talk about the changes they'd seen in the road and try the new ideas. Their crew boss, Richard Leon, did a great job directing his crew. One of my favorite moments of these days was watching him create a cardboard model

of one of the structures to explain things to his crew. You know you're getting somewhere when the students start teaching! We truly look forward to watching these big structures settle into place and start doing their job of returning water to the watershed in a beneficial way. We hope this project also results in significantly lower maintenance costs for the County, and a much better road for travelers! Richard looks forward to meeting other Altar Valley ranchers with County roads to consider doing more work of this nature.

The two day teaching portion of the water harvesting workshop began at Elkhorn Ranch, where students had the chance to look at a wide range of structures put in a year ago along a 1 ½ mile stretch of private road. There were many signs of progress! The road was narrower, with more vegetation along the edges and in the middle of the road. Substantial stands of grass were evident in the areas where drainages were built. The icing on the cake was the fact that the landowner had done virtually no maintenance on the road, saving several days of human and machine labor! Students also observed some places where additional structures or adjustments were needed – a great reminder of the importance of going back to your work to learn and change course as necessary. In the afternoon, Bill provided a classroom session based on his new water harvesting book, published by the Quivira Coalition.

Day two found the class gathered early in the morning at the Las Delicias Ranch, surrounded by an expansive view of the Altar Valley! The target road, which led to the ranch's Diablo Canyon well was aptly named – as it was virtually impassable in spots, with a particularly bad portion badly located right in a drainage area. The class walked the road with flagging and spray paint in hand to mark the location and type of structures. Meanwhile, Steve Carson and Arizona Game and Fish Department machine operators Floyd White and Mike Kuhns put two dozers to work. The next generation of Altar Valley ranchers, Alicia Miller and James Bryant, were the seeding crew. By day's end, Las Delicias Ranch had a useful stable road and the whole crew felt quite accomplished!

All in all, a lot of work was accomplished on the ground, and the process of thinking and working together forged friendship and shared commitment to doing more of this work together. Many photos were taken, including many designed to be monitoring photos, thanks to Van Clothier. The Altar Valley Conservation Alliance is very grateful to all of our partners for their generosity and enthusiasm. Let's keep going!

A7F NN X H & 24 H & 3N Conserving the Altar Valley for future generations A7F NN X H & 24 H ♦ 3N

Ranch Round Up~The Chilton Ranches _

Previous Rainmaker editions have introduced you to various ranches centered around Arivaca in the southeast portion of the Altar Valley -- the Arivaca Ranch and Bruce and Karron Buchanan, the Jarillas Ranch and Tom and Dena Kay, and the Noon Ranch lands and Rob and Mary Kasulaitis, Bob Grantham, and Ted and Robert Noon. This time we'll take you to the Chilton Ranches, with lands around Arivaca and up in the northern end of the Altar Valley near Robles Junction.

History, knowledge and experience are the guiding hands that help the Chilton family run their two ranches in the Altar Valley. Since 1888, the Chiltons have been Arizona cattle ranchers. They have raised cattle in the northern pines and the desert southwest.

The Chilton Ranch and Cattle Co. led by Ken Chilton and his two sons, Jim and Tom, left their northern Arizona ranches in 1978 and purchased the Diamond Bell Ranch, southwest of Tucson. This vast desert ranch touches the town of Three Points on its northwest corner, runs 10 miles south along Route 286, heads over to the Sierrita Mountains up to Stevens Butte and runs along Ajo Way (Route 86) for approximately 3 miles.

"We still needed a bigger place to support two generations," says Jim, "So when a good ranch came on the market in 1987 just 30 miles south of the Diamond Bell, we decided to buy it." Jim and his wife Sue established their new home in Arivaca, a small historic ranching community first put on the map in 1695 by Father Eusebio Kino. Father Kino was Arizona's original rancher.

Ken and Tom Chilton live on and manage the Diamond Bell. Ken was a schoolteacher and a rancher. His wife Margaret, who recently passed away, also taught school. Tom, a professional rodeo cowboy and banker, left the financial world behind to run the Diamond Bell for the family.

"The Diamond Bell is an excellent cattle ranch," says Jim. "It has good water scattered throughout. It's a little more work to gather the cattle at the Diamond Bell, because of its terrain. But the cows and calves do very well there," says Jim.

The Chilton Ranch in Arivaca encompasses about 50,000 acres. Like most Arizona ranches, it is a blend of privately owned land and land leased for grazing from the state and federal governments.

"We love the Arivaca area, the people and the scenery," says Jim. "The ranch has such a wonderful diversity of native plants. We have more than 35 different native

Jim and Sue travel between Arivaca and the Los Angeles, CA area. In addition to ranching, Jim and his son own a municipal investment banking business. Sue is the driving force behind a Spanish and English program in the LA School district, a program she designed and has taught since 1984. Sue is also a competent naturalist who continues to collect and study plant specimens, as well as learning to identify the local subtropical migratory birds.

Sue's natural history avocation resulted in an appointment to the Arizona Game and Fish Commission. She served as a commissioner for 5 years and chaired the commission in 2004.

With generations of experience on the land, the Chiltons have always taken an educated approach to grazing and raising quality cattle. On their own initiative, they invited the Natural Resources Conservation Service to help create a range conservation plan for the Diamond Bell.

In 1991, they purchased the Montana Allotment ("Montana" means mountain in Spanish and does not refer to the state of Montana) in the Coronado Forest between the Mexican border and Arivaca. They immediately implemented a restrotation grazing system in cooperation with the Forest Service. The system gives the lowland pastures 20 months rest out of 24 to increase the perennial grass cover and rapidly recruit riparian vegetation. In most years the Chiltons average 20-25 percent "utilization" (removal of primary range forage grasses) across the allotment. The Forest Service only limits utilization to 45 percent.

Today that allotment provides habitat for wildlife including javelina, deer, coatimundi, songbirds and Mearns quail. "There is absolutely no inherent incompatibility between raising livestock and providing habitat," Sue is happy to point out. "A good ranch is good for both."

Despite impressive stewardship, however, the Chiltons found themselves perpetually at odds with the Center for Biological Diversity (CBD), supposedly over three federally listed species: the Sonora chub, the lesser long-nosed bat and the Chiricahua leopard frog. (The CBD is considered by many Westerners to be a radical environmental activist organization.)

In wet years, the "threatened" Sonora chub minnows swim under the Mexican border fence and up an intermittent wash known as California Gulch. They venture only a few hundred yards into the United States because the Mexican side of the border marks the end of the perennial water and the extreme northern edge of their range. The Forest Service fenced and removed this tiny segment of California Gulch from the Montana Allotment right on the US/Mexico border in 1997 in response to a CBD lawsuit. Although the leading researcher on the chub found the species secure and abundant in Mexico, it was listed because it was "rare" in the United States. In fact, most fish are rare in dry washes.

The lesser long-nosed bat is another south-of-the-border species. Adult males never travel north into the United States. Pregnant females migrate each spring to a few Southern Arizona locations where they remain for the summer. This species' 1988 "endangered" listing relied on a questionable report finding only 135 speci-



Courtesy of the Chilton Family.

mens in the United States. Evidence is mounting that the listing proponents looked in the wrong places at the wrong time. Experts have counted more than 14,000 in Arizona within a year of the listing. In 1993, they documented more than 200,000 lesser long-nosed bats roosting along the U.S./Mexican border.

In June 2002, U.S. Fish & Wildlife Service (FWS) added the Chiricahua leopard frog to its "threatened species." In its petition to list the frog, CBD claimed: "More than 75 percent of its habitat has been lost to livestock grazing, dams and water diversions." Ironically, the final FWS listing rule indicates that the frog was eradicated from major Arizona waterways primarily by exotic bullfrog predation, and more than one-third of survivors are supported by ranches in earthen cattle tanks. "We and our neighbors in the Altar Valley Conservation Alliance have been working on a plan to reintroduce this frog as soon as we have a management plan from the Forest Service and a consultation with Fish and Wildlife so our conservation efforts don't lead to activist lawsuits," said Jim.

In 1997, the CBD and Forest Guardians sued the Forest Service to require consultation with Fish and Wildlife regarding endangered species on 158 grazing allotments, including the Chilton's Montana Allotment. The CBD's stated goal is to remove livestock grazing from all federally managed and state owned land. The Chiltons remained steadfast in their efforts to be excellent stewards of land and to keep their ranching activities alive despite CBD lawsuits. The CBD has attempted to stop the renewal of the Chilton's grazing permit four times. In a landmark decision on December 17, 2001, the Ninth Circuit Court of Appeals proclaimed the FWS Biological Opinion for the Montana Allotment "arbitrary, capricious and unlawful." The Court further ruled, if an endangered species is present, FWS has the burden to prove grazing would kill or injure the species before it can issue an incidental take statement and demand regulatory jurisdiction. The CBD appealed this decision and requested an Environmental Impact Statement and suspension of grazing during the two-to-four year interim.

The final straw for the Chiltons was a July 2, 2002 CBD news advisory with online links to their appeal and to 21 photographs of areas in the Montana Allotment with inaccurate captions. Their news advisory alleged "much" of the Chilton's Forest Service Allotment is "grazed to bare dirt." They repeated an earlier allegation by Sierra Club and CBD that Jim and his wife Sue, then chairman of the Arizona Game and Fish Commission, "have an agenda hostile to wildlife and endangered species." CBD kept the inflammatory news advisory and photos online for more

The Chiltons filed a defamation suit against CBD and won. All 10 jurors agreed the CBD's news advisory did not "accurately describe the condition of the Montana Allotment." Nine voted that CBD's press release contained "false statements" and "misleading photographs." And that the CBD had published it "with an evil

by Peggy Rowley, with a A special thanks to Cindy Coping and Range magazine for allowing us to use much of their article, "Got'Cha! A Fed-up Arizona family sues radical enviros for their lies - and Wins," which appeared in their Summer 2005 edition.)

FOR YOUR CALENDAR

ALTAR VALLEY CONSERVATION ALLIANCE COMMUNITY MEETING

Mark your calendars for Friday morning February 9, 2007 King's Anvil Ranch...west of Rte. 286 Sasabe Hwy, just south of milepost 38

NATURAL HISTORY OF THE PIMA PINEAPPLE CACTUS A Field Discussion Guided by Bob Schmalzel

Coffee and conversation 8:30 a.m. 9:00 a.m. sharp Altar Valley news from Alliance partners Pima Pineapple Cactus discussion and short walk Lunch...Sandwishes provided & potluck welcomed!

Please RSVP to Pat King anvilranch@wildblue.net or 822-1065 Partner organizations or individuals are invited to share news—Please let Pat know if you would like to be om the agenda. Suggested time frame for presentations is 5-10 minutes.

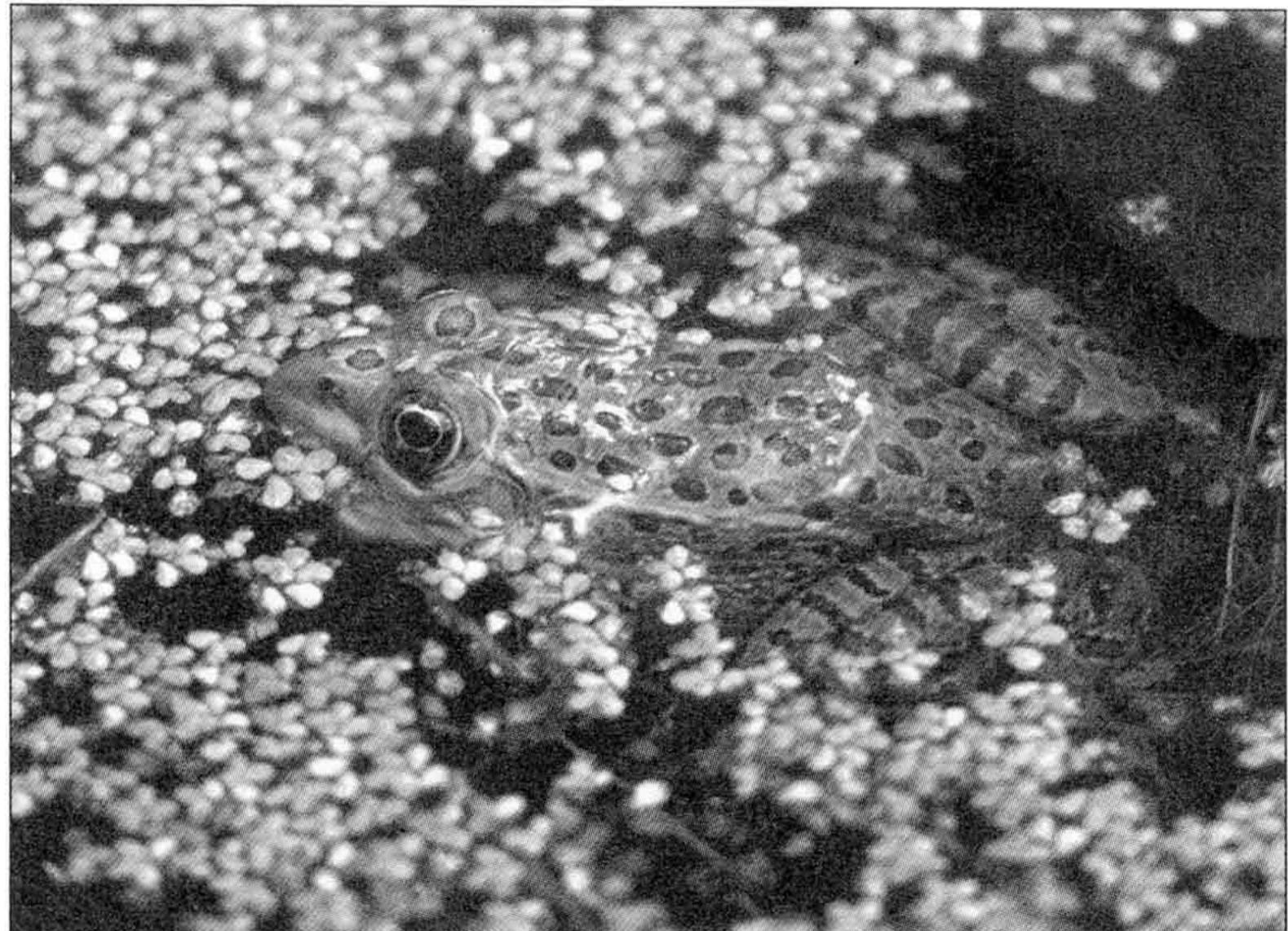
Neighborhood frog—Chiricahua leopard frog

The Chiricahua leopard frog (Rana chiricahuensis) is a moderate sized leopard frog native to the Altar Valley. Its native habitat includes mid-elevations springs, cienegas, and streams. However, as ground water tables dropped throughout its range, from arroyo down cutting and ground water pumping, the Chiricahua leopard frog found refuge in the livestock waters and those remaining perennial waters that were available.

The Chiricahua leopard frog was listed as a threatened species without critical habitat in a Federal Register notice dated June 13, 2002. Included in the listing was a special rule, under section 4(d) of the Endangered Species Act, that provides an exemption Chiricahua leopard frog. from the prohibitions against take, for nor-

mal operation and maintenance of livestock tanks on nonfederal lands. This exemption basically recognizes the importance of livestock waters to the conservation of this species.

So what does this mean if you find frogs in your livestock waters on nonfederal lands? First, there are potentially four species of frogs that could be in your livestock waters and only one is listed under the Endangered Species Act. Second, if you have Chiricahua leopard frogs



livestock operations on nonfederal lands should not be impacted. Third, you may have an opportunity to assist in the recovery efforts of the Chiricahua leopard frog and at the same time improve your waters for your livestock operations, through various grants and agreements available for the conservation of threatened and endangered species.

in artificial livestock waters, your

Safe Harbor Agreements provide necessary legal protection for landowners interested in helping with frog conservation. A safe harbor agreement strikes a deal between the Photo by Jim Rorabaugh and courtesy of USFWS US Fish and Wildlife Service and a land owner whereby the land owner

cannot be punished for loss of the endangered species, provided the species does not decline below an agreed upon baseline. Altar Valley landowners are also anxious for the US Forest Service and Bureau of Land Management to work out their management guidelines. Once these tools are in place, the path forward for frog recovery will be much more welcoming. Work on these tools is underway. Contact Marty Tuegel, USFWS, at 520.670.6150 x.232; if you have further questions on frog conservation.

THE HISTORY OF RANCHING IN THE ALTAR VALLEY CIRCA 1910

Beginning in 1907, there were big changes in the ownership of ranches in the Altar Valley. In that year, Pedro Aguirre and Noah W. Bernard died, leaving the Buenos Aires Ranch and the Arivaca Ranch in the hands of their children. Noah W. Bernard's son, Noah "Nonie" C. Bernard, took over management of the Arivaca Ranch, also known as Las Ruinas Ranch, until his siblings came of age. He went into partnership with George Pusch, John Zellweger and Ramon Ahumada, the ranch manager, and they formed the Arivaca Land and Cattle Company in 1912. This was the second or third iteration of the company. They subsequently partnered with Jack McVey in the Las Jarrillas and Tres Bellotas Ranches. Eugene N. Sheperd also became a partner. Financial trouble followed them, as well as a bad drought in 1920-21. Pusch became ill and couldn't assist with the business operation of the ranch. In the early 1920s the Bernard children pulled out of the ranch. The remaining principal partners were John Bogan and Eugene Sheperd, but the ranch was in serious financial trouble throughout the decade. Bogan passed away in 1927. The Buenos Aires Ranch was inherited by the eldest daughters of Pedro Aguirre, Margaret and Beatriz Aguirre, who sold it in 1909 to La Osa Cattle Company, which was then owned by Col. Sturges.

Upstream on the Arivaca Creek, southwest of Arivaca, William "Billy" Marteny (1869-1930) homesteaded his own property and proved up on it in 1910, followed by an additional homestead that he acquired in 1918. That land was at the headquarters of the Montana Ranch and is now owned by the Buenos Aires Refuge and the Chilton Ranch. Originally from West Virginia, Marteny had come to Arivaca in about 1889 from Texas where he had learned the cattle business. He recorded several brands, of which the most well

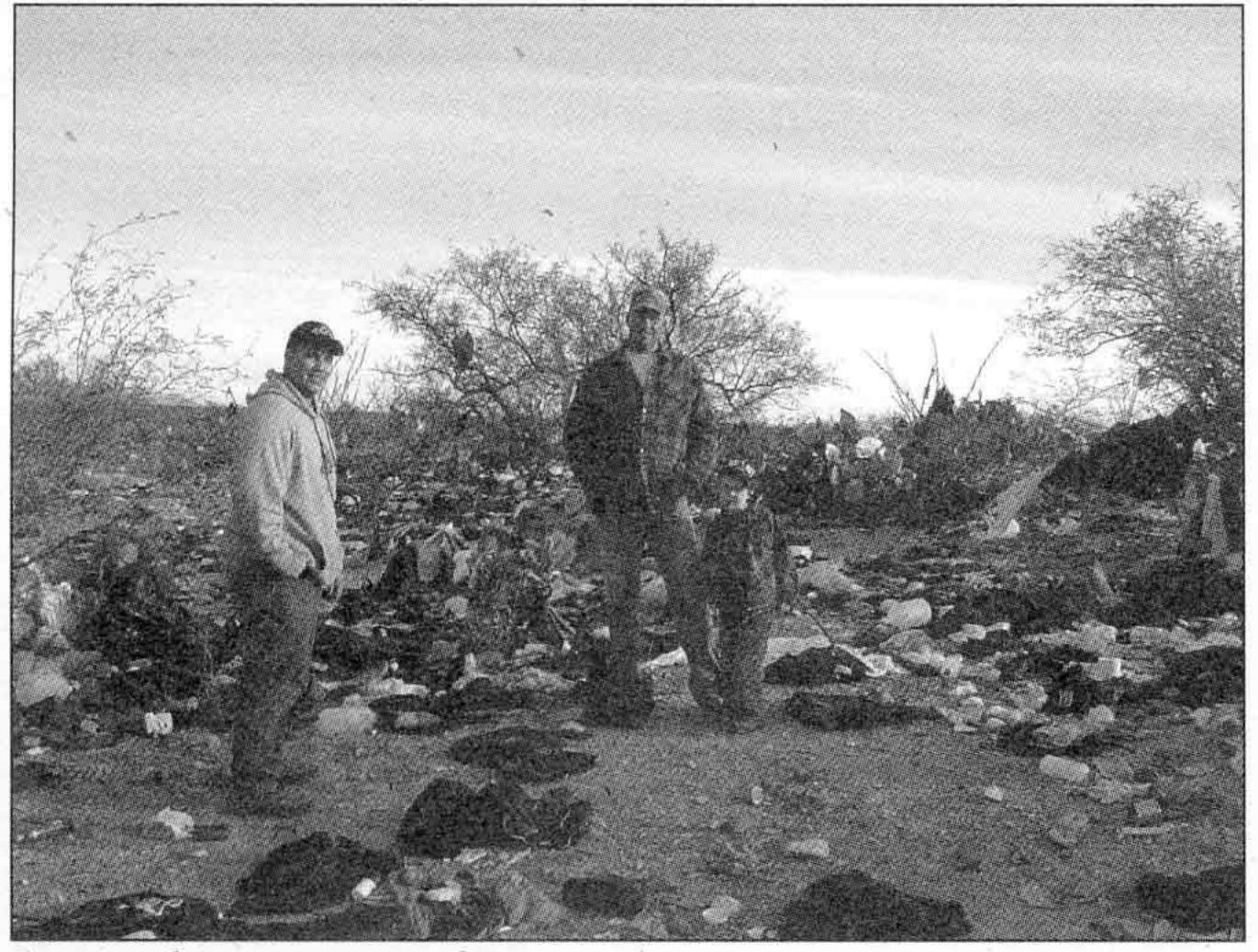
known were the 800, the T +, and the 3-B which referred to Tres Bellotas. Later he recorded the 15, which had belonged to Alonzo Noon and family. Marteny sold his homestead and the other properties to Phil Clarke in 1919 and with the proceeds purchased the Robles Ranch at what is now known as Robles Junction or Three Points. He and his wife Della and family lived there and in Tucson until his death.

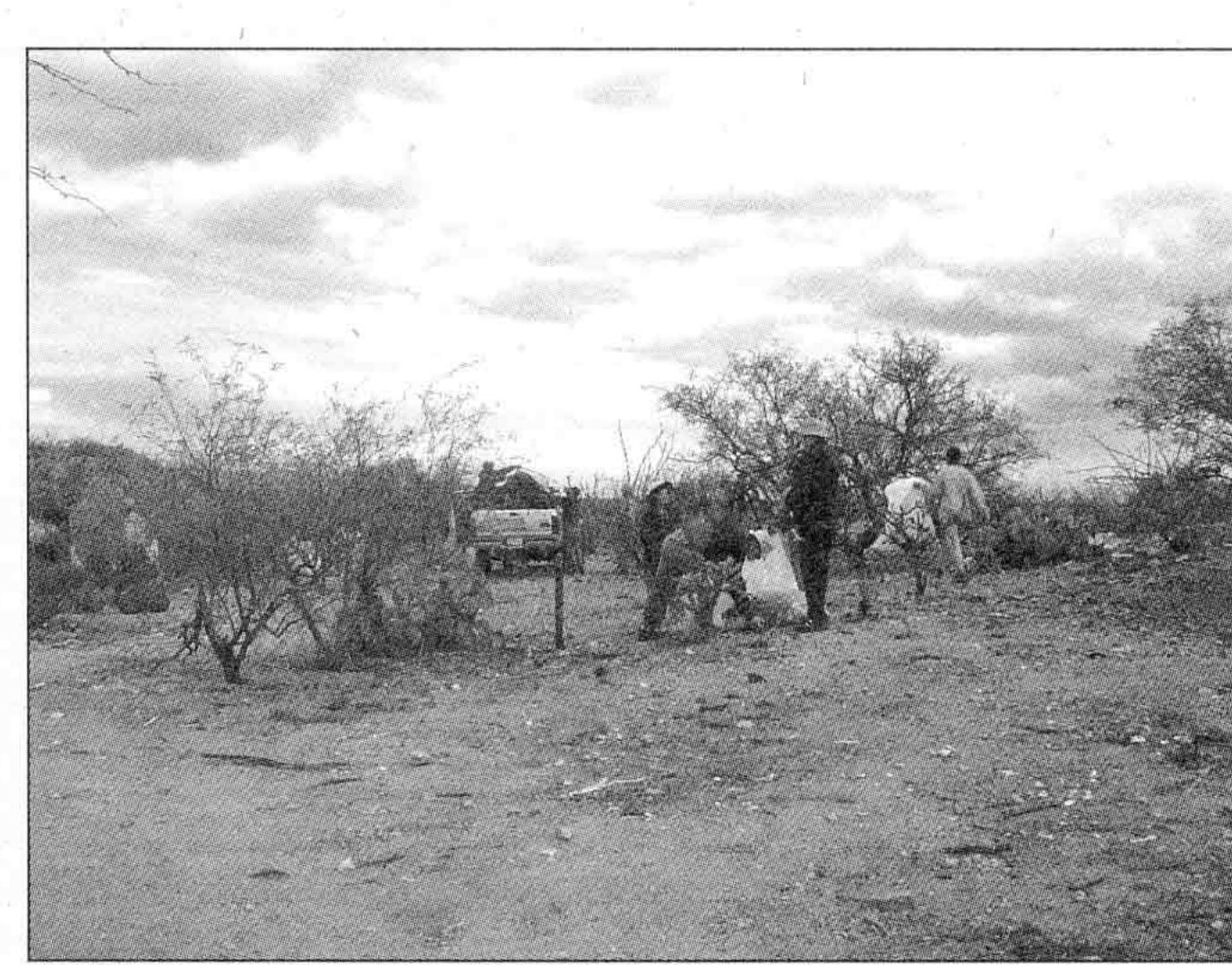
Jack Kinney (1872-1949) was more widely known than most of the other Altar Valley ranchers. He was born in Dixon, Il and became interested in the cattle business at an early age, when he went to work as a cowboy for Henry G. Boice, a cattleman who trailed cattle from Texas to Montana and eventually to Arizona. Kinney got to know the cattle business and struck out on his own in Eastern Montana, where he became involved in banking and state politics. He married Alice Brophy in 1899. While shipping Mexican cattle to Montana, he became acquainted with the Altar Valley, and beginning about 1913, he began buying ranches -- including La Osa and Buenos Aires from Col Sturges, the Palo Alto from the Coberlys, as well as Las Moras, Pozo Nuevo, and the Secundino Ranches. Kinney became a member of the Pima County Board of Supervisors and left his name on Kinney Road. He was involved with banking in Tucson and helped start the Tucson rodeo in 1925. Later he bought extensive acreage near Red Rock. A new development north of Tucson has the name La Osa, as does the guest ranch near Sasabe -- Jack Kinney owned them both. To be continued ...

(Many thanks to Mary Noon Kasulaitis for her ongoing historical contributions. For references and interesting reading, look for California Cowboys by Dane Coolidge, Journey of the Heart by Annette Gray, and Echoes of the Conquistadors by Yginio Aguirre.)

Conservation Champions

have been busy in the Altar Valley! The Adopt-a-Road program for Highway 286 (championed by Altar Valley landowner Melissa Owens) and the Hunters Who Care network (led by Lance Altherr and Gabe Paz with Arizona Game and Fish Department) have invested countless hours gathering tons of garbage throughout the Altar Valley. Given the constant flow of people crossing the US/Mexico border, their work is really important for the valley's health.





And the importance of the valley clean-ups is self evident!

Many thanks to our generous donors!

We greatly appreciate your financial support ... your enthusiasm and trust inspire us!

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Conservation Happening from the Ground Up!

- Congratulations to eight breeding pairs of cactus ferruginous pygmy owls living happily on Altar Valley watershed ranch land.
- The Arizona Game and Fish Department Access Program spent several weeks installing water harvesting structures on Anvil and Elkhorn Ranch roads in March 2006.
- Monitoring of the Palo Alto Ranch Pima Pineapple Cactus Mitigation Bank was completed in December 2005.
- Santa Margarita Ranch teamed up with the Buenos Aires National Wildlife Refuge and Arizona State Land Department to accomplish a prescribed fire in late May.
- The Refuge completed a series of prescribed burns in May totaling 14,000 acres in an effort to manage and improved wildlife habitat.
- The Buenos Aires National Wildlife Refuge Habitat Management Plan should be in final draft by the end of September, maybe sooner. This plan will drive the "on the ground" activities designed to improve wildlife habitat on the Refuge and should be available for review very soon.
- The Refuge completed additional masked bobwhite quail specific habitat work in May near the Secondido area in the form of soil discing, soil aeration, and brush pile creation. More of this type of work will be called for under the new Habitat Management Plan.
- Refuge staff and partners will be traveling to Mexico in August to conduct survey work for masked bobwhites and develop partnerships with Mexican landowners.
- Public use facility improvements on tap for the next year include a live animal exhibit at the Refuge visitor center for masked bobwhites and several improvements at the Arivaca Cienega Trail.

Mitch Ellis



THANK YOU ROAD MACHINERY!
Many thanks to Toby Allen of Borderlands Construction for matching up the with road machinery.

A Good Road Lies Easy on the Land

"A road lies easily on the land if it is located on a land form where it can be readily and effectively drained (neigher too steep nor too flat); is functional when used as intended (class of vehicle, season and suitable weather conditions); has appropriate drainage features (closely spaced, properly situated and adequately maintained); preserves the natural drainage pattern of the land form; conserves water; does not cause or contribute to accelerated soil loss, lost productivity or water pollution; does not encroach on wetland or riparian areas; and is scenically pleasing.

"A road is not easy on the land if it collects, concentrates or accelerates surface or subsurface runoff; causes or contributes to soil erosion; impairs or reduces the productivity of adjacent lands or waters; wastes water; unnecessarily intrudes upon key habitats; stream channels, flood plains, wetlands, wet meadows or other sensitive soils; and is aesthetically offensive." -- Bill Zeedyk

Bill Zeedyk's A Good Road Lies Easy on the Land ... Water Harvesting from Low-Standard Rural Roads is hot off the press. Contact The Quivira Coalition (505) 820-2544 or www. quiviracoalition.org for a copy.

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Mary Noon Kasulaitis, Secretary (520) 398-2344
Tom Sheridan, Community Representative (520) 822-1053

Ranch Round Up

Arivaca Ranch
Baboquivari Peak Ranch and Palo Alto Ranch
Chilton Ranch -- Arivaca and Diamond Bell Ranch
Elkhorn Ranch
Jarillas Ranch
Kasulaitis Family
King Anvil Ranch
McGee Ranch and Sierrita Mining and Ranching
Rancho El Mirador
Santa Margarita Ranch
Rancho Seco
Sierra Vista Ranch
98 Ranch

Partner Round Up

Altar Valley School District

Arizona Game and Fish Department
Arizona Open Land Trust
Arizona-Sonora Desert Museum
Arizona State Land Department
Buenos Aires National Wildlife Refuge
Coronado Resource Conservation and Development District

Coronado Resource Conservation and Development District
Pima County
Pima Natural Resource Conservation District

Quivira Coalition
The Nature Conservancy
US Fish and Wildlife Service
US Natural Resource Conservation Service

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The Rainmaker is edited by Peggy Rowley and Mary Miller, and published by the Altar Valley Conservation Alliance, a 501(c)3 conservation organization. Articles may be freely reprinted for non profit purposes, provided that credit is given to the author and the Altar Valley Conservation Alliance.

Please contact the Altar Valley Conservation Alliance for a complimentary copy of *The Rainmaker*. Copies are distributed to all partners and supporters. A minimal annual contribution of \$35 is suggested to assure continued receipt of The Rainmaker. We apologize for any errors or omissions. Please let us know of any corrections, questions, ideas, concerns, or the like: Altar Valley Conservation Alliance, c/o King Anvil Ranch, HC 1 Box 97E, Tucson, AZ 85736.

Designed and printed by Betts Printing, Tucson, AZ.

Conserving the Altar Valley for future generations

conservation organization.

Please share your ideas and questions with us!

The Altar Valley Conservation Alliance nee	eds your ideas and support! Please contact any of the	e Executive Co	ommittee by phone or by mail at:
CORRESPONDENCE: Altar Valley Conservation Alliance c/o King Anvil Ranch	DONATIONS: Altar Valley Conservation Alliance c/o Peggy Rowley, Treasurer	Your financial support is greatly appreciated!	
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