



## PRESTIGIOUS STEWARDSHIP AWARD GOES TO BABBITT RANCHES

After writing out 26 pages of projects that underscore a tireless commitment to conservation, the Arizona Game and Fish Department has even more to say



*Bill Humphrey of the Arizona Department of Transportation and Velma Holt of the Arizona Game and Fish Department install goat bars to help pronghorn travel freely under fences along a stretch of Highway 180, known as an important pronghorn corridor.*

about Babbitt Ranches and the reasons why the department nominated it for the National Private Lands Fish and Wildlife Stewardship Award—one of the most prestigious awards for private land stewardship in the world.

This is the first time this recognition, from the International Association of Fish and Wildlife Agencies, has gone to an Arizona landowner.

*Continued on page 7...*

## WINDY RANGLANDS HOWL WITH OPPORTUNITY

The answer to whether harvesting northern Arizona's wind power is economically viable truly is blowing in the wind, but hang onto your hat, researchers say their best hopes are whirling around the CO Bar Ranch.

This fall, Sustainable Energy Solutions, headed up by Northern Arizona University associate professor of mechanical engineering Earl Duque, will be installing three anemometers, devices that measure and record the wind speeds, on Babbitt Ranches.

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### OH, WELL! WATER FOUND AT BABBITT RANCH DRILLING LOCATION!

It would have opened a whole new frontier of oil and gas exploration in the state. Geologists say all the key elements were there. But when they drilled some 4,300 feet through the Bright Angel shale and the Tapeats sand, what they found was water!

"It was almost potable fresh water flowing at nearly 200 barrels an hour from the shallow Supai formation," said petroleum geologist Michael Senich.

The drilling took place at a location near an old abandoned well site south of Gray Mountain in December. The geologic formations present had strong indications that natural gas might exist.

All of the data gathered from the Babbitt #1 well will be re-evaluated to see if there is any remaining opportunity to find gas in the area. The fresh water find may be an advantage for livestock and wildlife in the future.

"It's disappointing that there was no gas but it's good to find water—that helps the ranch," said Senich.



*Wind turbines, like this one in New Mexico, could one day harvest wind in northern Arizona.*

## CATARACT RANCH STUDIED FOR BEST MANAGEMENT PRACTICES

Babbitt Ranches has been identified as one of the last great places by The Nature Conservancy for high ecological integrity and ecosystem health. As such, it is one of seven western ranches being studied for the impacts fire and livestock grazing have on the land.

"The idea is that many areas throughout the arid West have historically received frequent fire and grazing from native animals such as bison and elk. They may be more resistant and respond much better when grazed and burned," said Dr. Louis Provencher, one of the principle investigators for the project and TNC Director of Conservation Ecology in Nevada. "We want to test the interactive affect of fire and livestock grazing on the condition of natural communities along evolutionary gradients of fire frequency and large ungulate grazing."

The ranches in the study include public and private lands and offer a broad range of ecosystems with varying aridity, natural fire regimes and grazing history such as desert grasslands in New Mexico, sagebrush steppe in Idaho and Wyoming, an ephemeral marshland and Palouse prairie in Oregon. Some of the ranches are owned in part by the Conservancy. Others, such as the Cataract Ranch, include easements granted to the non-profit conservation organization.

The study calls for experiments in some areas involving the manipulation of the land with fire and grazing. In many other areas across the arid West where management plans are in place, the study will look at the impact of current, non-experimental management using the same sampling methods and determine whether the results of the more intensive experimental study can be generalized to a larger geographic area.

"We want to see what combination of grazing and fire causes the greatest soil stability and soil integrity, which gives it the greatest resistance from rain and wind erosion. We will also examine which management practices minimize invasive encroachment (from non-native species like cheat grass) and which favor an optimal mix of cool and warm season forbs and grasses," said Dr. Bob Unnasch, a Senior Ecologist with The Nature Conservancy.

Because western rangelands have undergone unprecedented changes over the last 150 years, researchers believe an important facet of restoring and preserving the function of these ecosystems is reintroducing desired fire regimes and determining the viability of livestock management as a conservation strategy.

Provencher and Unnasch say land managers will benefit from the findings with new information about the best prescriptions for their areas and guidelines for both the intensity and spatial scale for monitoring ecosystem change associated with management.

TNC is funding the initial \$100,000 phase of this 10-year study.

## A TASTE OF BABBITT RANCHES HISTORY

The Hashknife Outfit was a huge one-million acre ranch that really stretched across two million aces because of the checkerboard ownership of the land from Canyon Diablo to Holbrook. The Arizona Cattle Company, with the A-1 brand, was another big ranch operating at the same time, in the late 1800s and early 1900s. The Arizona Cattle Company's headquarters was in Fort Valley. A-1 Mountain, which overlooks Fort Valley, got its name from the A-1 brand.

Flagstaff historian Richard Mangum says the cowboys of the two ranches probably would meet each other, but it was the Babbitts who united them when they purchased both ranches in 1902.

"Of course, cowboys ate beef meal after meal," said Mangum. "And some of it was kind of tough. Legend has it that one of the cooks from the A-1 group came up with a sauce to take the rank taste out of some of the stuff that wasn't first-rate quality."

Reportedly, the sauce was a hit with the ranch hands and the cook gained quite a reputation. He took his concoction back East and sold the formula to a foods company that mass produced what is still known today as A1 Steak Sauce.

### FOR MORE INFORMATION ABOUT BABBITT RANCHES

CALL:

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VISIT OUR WEB SITE:

**[www.babbitranches.com](http://www.babbitt ranches.com)**



## ANNUAL HORSE SALE FEATURES 36 HASHKNIFE FOALS



The draw of the Driftwood bloodline is as strong as ever. Babbitt Ranches Manager Victor Howell says people are expected to come from all over the region this month for a chance to take home descendents of a century-long line of horses famous for their rodeo and work performance.

The Hashknife Horses Annual Sale at the Redlands Camp, some 19 miles off Highway 64 on the Cataract Ranch, will begin 10 a.m., Saturday, July 10. For the first time, the ranches are advertising on KTNN to get the word out to the Navajo Indian Reservation.



"A lot of horse owners live on the reservation," said Howell. "They are very rodeo-minded and we want to make sure they know about the sale."

Last year the top-seller was a \$5,000 buckskin colt from the Cowboy Drift line and The Ben Mare.

"We're looking forward to another great sale this year," said Howell.



## BABBITT GRAVEL PAVES THE WAY

Motorists who have traveled on U.S. Highway 89 or on any number of northern Arizona's many miles of state routes have likely driven over Babbitt Ranches gravel.

Bill Humphrey, transportation construction technician for the Arizona Department of Transportation, says the Babbitts are helping taxpayers save money by making aggregate available from the Gray Mountain Pit near Cameron on the CO Bar Ranch.

"The further away the aggregate source is from the construction site, the more costly the project," said Humphrey. "The Babbitts have recognized the fact that mining and pits are needed. They've opened up their land to allow our contractors to extract this needed resource."

The dark gray volcanic bedrock is found about three to 10 feet below the soil. The soil is pushed off; the rock is then blasted out and crushed into workable aggregate. That material is then used to create the smooth surface on highways.

After the aggregate is removed, the contractor reclaims the area by sloping the top soil over the edges of the pit.



## EMA CONTINUES ON ITS QUEST FOR KNOWLEDGE

Suppose you want to know about the prehistoric ruins around Wupatki National Monument, or where the water sources are in southern Colorado, perhaps where bald eagles spend the winter or what geologic forces created the canyonlands of southern Utah.

This kind of information about the environment and natural resources of the southern Colorado Plateau will soon be very easy to tap. The Ecological Monitoring and Assessment Foundation and Program at Northern Arizona University and the U.S. Geological Survey are developing a massive and comprehensive data base called the Information Management System.

"Our graduate students probably are having great fun going into the archives and extracting the information from places like the Arboretum, the Museum of Northern Arizona, Cline Library and the Forest Service," said Dr. Bill Auberle, EMA program director. "Having all this information from historical records and research reports in one place has never been done before."

In addition, the data will be merged with a GIS map. Auberle expects that by the end of the year, researchers, land managers, high school students and whoever else might need to access information about the Four Corners region and beyond will be able to go the Web site, click on a location on a map and ask the program what they want to know.

"Let's say you get to the CO Bar or maybe Wupatki National Monument...so you click on the map and you'll get a signal that says you've selected the eastern part of Coconino County, what would you like to know about it? Are you interested in photographs, endangered species, geological formations, who owns the grazing rights? So by using the map—that is as user friendly as we think we can get it—you'll be able to pick the location and the topic and get you right to the information," said Auberle.

The Information Management System is one way EMA is accomplishing its mission of education and outreach. Groups such as the Hopi Tribe, The Nature Conservancy, the Grand Canyon Trust and many others with common research needs and opportunities are working together to make the best information available accessible to the public.

The project has been funded through the efforts of Babbitt Ranches and USGS to acquire a grant from Environmental Systems Research Institute, the company that manufactures the software for the GIS system.

On another note, EMA researchers are in the Verde Valley this summer looking for endangered and threatened birds such as the willow flycatcher and the yellow-billed cuckoo and assessing their habitat on a 300-acre riparian zone.

Assisting NAU biology graduate students in the project are volunteers from the Northern Arizona Chapter of the Audubon Society and the USGS Biological Resources Division. "This is a multi-agency and multi-participation kind of a project," said Auberle, "just the kind of thing that EMA can and should be doing."

## NATIONAL GEOGRAPHIC PUTS BABBITT RANCHES COWBOYS IN THE SPOTLIGHT

As a National Geographic photographer traces the evolution of the cowboy, Babbitt Ranches cowboys are among those representing that rugged breed of independent men who would happily use a pile of pine needles for a pillow and an open range as an office.

Photographer Rob Kendrick is traveling from Mexico to Canada capturing the essence of this legendary symbol of the West and revealing the subtle style differences that can determine where a cowboy is from.

For example, Nevada cowboys are said to wear a hat called a "vaquero," the traditional Mexican cowboy hat with its broad brim all the way around. Younger Texas cowboys often sport what's known as a "taco hat" with the sides completely swept up coming to a point in the front.

"They heard about us by word of mouth from some guys over in Texas," said Babbitt Ranches Manager Victor Howell. "I think they're interested in us because being a cowboy is a dying art. Fewer and fewer people are producing America's food; fewer and fewer people are working the land all the time."

Howell says it takes knowledge of the land and experience to be a good cowboy. "It takes an intuitive sense about animals. When you've been around livestock you get to know what an animal's gonna do before it does."

Like all good western shoots, cowboys and sunsets go hand in hand. Kendrick waited until about 6 p.m., on a May afternoon, until the natural light was just right. "It was just like they took pictures in 1880. The photographer put a hood over his head and each picture took a couple of minutes to take," said Howell.

The photographs are expected to appear sometime next year.

## VISION KEEPS WILD BILL CENTER WILD

Borrowing a page from a chapter in Arizona's late 1800s railroad history, young professionals in architecture, design and engineering are recommending that the Wild Bill Ranch Ecological Center be fashioned after a traditional logging camp.

Students from the ECOSA Institute of Prescott took on the assignment for a full semester to determine what sort of structures would be appropriate on the 23-acre parcel northwest of Flagstaff that Babbitt Ranches had given to NAU for use as a research and education site.

"We asked them to determine the potentials of the area and suggested that the land tell us what to do," said NAU professor Tom Rogers, chair of the construction management department in the College of Engineering. "For their level of maturity and the amount of time we gave them, their professionalism and insight was awe inspiring."



*Small mobile buildings, as shown in this historic photo, were carried to logging sites by train to form a temporary village.*

When the railroad company finished logging or transporting logs from the area, they put the buildings back on the train and moved them to another location," said Bill Auberle, program director of the Ecological Monitoring and Assessment Foundation and Program at NAU.

The students took the concept of small, 450 to 500-square-foot portable buildings and used the same theme in architectural design for the future educational and research facility.

"They modified it to include solar panels for electricity generation and water catchments to collect water from the rooftops so that the facility can operate without drilling a well and without having to tie to an electric line. It's designed to be a very efficient sustainable facility," said Auberle.

The plan calls for cutting only one tree and Rogers calls it fabulous. "When it is created, you'll say this is a facility that suits the land and when it is taken away, you won't know it was there."

Projected uses for the donated land and proposed facility include a gathering place for natural resource professionals, a research center for ecological data, a sustainable training venue and a demonstration site for alternative land use.

## RESTORING GRASSLAND A BURNING ISSUE

As pinyon and juniper trees have become more established in the high desert, restoring open grasslands and natural habitat for struggling species such as antelope remains a burning issue on the CO Bar Ranch.

This summer, the Arizona Game and Fish Department and Babbitt Ranches are cutting trees and conducting prescribed burns across some 300 acres on the southwest corner of the ranch near U.S. Highway 180, north of the San Francisco Peaks.

The projects are designed to reduce the number of dead and dying trees as a result of drought and bark beetle infestation and rejuvenate the native grasses by recycling nutrients back into the soil.

"As the grassland improves so will the habitat for antelope," said Rick Miller, habitat program manager for the Arizona Game and Fish Department. "Opening up the area will improve the vigor of the natives grasses and also ease the movement of antelope through this key wildlife corridor."

Miller says the pinyons and junipers take up water and nutrients and reduce the forage available for antelope. "Plus, they block visibility. The antelopes' principle way of sensing predators, such as coyotes, eagles and lions, is with their eyes."

For the past 15 years, wildlife biologists have been concerned about the low reproductive rate of Arizona's antelope herds. Miller says through extensive efforts on the part of Babbitt Ranches, the herd that travels across the CO Bar Ranch seems to be stable or even increasing. Those efforts include installing goat bars to help the animals travel under fences, providing water tanks, mechanically thinning trees and burning dead and dying vegetation.

Other species, such as the ferruginous hawk, are expected to benefit from an improved grassland ecosystem, as well.

The current thinning and burning projects are being made possible through a \$210,000 grant from the Arizona Game and Fish Department with 25 percent matching funds from Babbitt Ranches. Coconino Rural Environment Corps crews are conducting much of the work. Another 300-acre burn is scheduled later in the year.

## HENDERSON HIGHLIGHTS PRESERVATION AND RANCH RELATIONSHIP

After nearly 19 years as superintendent of Flagstaff National Monuments, Sam Henderson says he values the extraordinary relationship shared with Wupatki neighbor Babbitt Ranches.

"The preservation work that went on and the archaeological surveys of the seamless resource that is Wupatki are highlights of my career," he said.



*Sam Henderson may have hung up his National Park Service hat but not his interest in preservation.*

Henderson retired in January, chalking up 36-and-a-half years with the National Park Service. "The phenomenon of Wupatki is that it is bigger than just the monument. Babbitt Ranches welcomed us to consider its resources as part of the monument's resources."

A Memorandum of Understanding now exists between the ranches and the Park Service. In essence, Babbitt Ranches will manage the land identified for possible

future transfer to the monument to protect the cultural and natural resources.

Some 2,500 acres of the CO Bar Ranch are considered part of the ancient community where Pueblo Indian tribes came together to share and trade goods. The land extends north to Crack in Rock and the Little Colorado River.

Henderson says the relationship with the Babbitts was built on a strong conservation ethic and a sense of responsibility to the land. Besides working together to protect cultural resources, the two cooperated on wildlife projects to help species such as pronghorn.

"Sam has played a critical role in the conservation of northern Arizona's precious resources," said Bill Cordasco of Babbitt Ranches. "We have great respect for Sam, his vision for Wupatki and the leadership he provided."

Henderson is currently a board member of the Museum of Northern Arizona. He plans to travel and spend time with his two young grandchildren.

## STUDY TO DETERMINE IF JUNIPERS ARE TAKING OVER AND WHY

Writings from early explorers to the West indicate that profound changes have taken place in the pinyon-juniper woodlands over the last 150 years. Studies in the Pacific northwest suggest that junipers now occupy four times the land they did in the 1930s.

"There's talk that juniper is encroaching into the grassland of northern Arizona, although that's not been quantified and the causes have never been determined," said Dr. Samantha Arundel, associate professor of geography at Northern Arizona University.

This summer, Arundel plans to conduct a study that will document and describe any vegetational change that has occurred on a 161,000-acre area of the western CO Bar Ranch. She will also be working to determine the extent of the changes and explain why they happened.

Through the use of Geographic Information System spatial software, Arundel will be comparing photographs taken in 1954 to those taken of the same area in 1997 to document what is grassland, what is pinyon-juniper woodland and what other plants are in the test area.

After identifying whether changes have occurred in the last 40 years, she will then look into factors that may have caused the changes.

"The first thing I'm going to look at is climatology to rule that out if it's not a factor. I will be looking at past climate changes particularly and the influence of climate change on plants," she said. "Then, I'll be looking at factors such as grazing and fire suppression to determine their impact on the vegetation."

The results of the study are expected to benefit land manager and ranchers. "For grazing, it's the grasses that are needed, so ideally you hope that you could reverse the change if it's not part of a normal physical process. If there are vegetative changes because of climate, you need to know that, too."

To partially fund the study, Arundel has applied for a conservation grant from the Environmental Systems Research Institute, which donated the GIS software for the study last year.



*The Indian Wells Chapter of the Navajo Indian Reservation expects to include this area in its community development plan over the coming year. Some 680 acres of Indian Wells north of Winslow are part of the Cataract Ranch.*

## STEWARDSHIP AWARD ...continued from front page

"It shows the tremendous efforts they're making to incorporate wildlife in the day to day ranching operations," said Ron Sieg, Flagstaff regional supervisor for the Game and Fish Department. "Babbitt Ranches demonstrates that true land ethic."

In nominating Babbitt Ranches for the award, the department praised the ranches for its continuous role in wildlife management on private ranch holdings and allotments citing routine meetings with biologists on wildlife distribution issues, habitat needs, habitat use and projects.

The award also highlights wildlife projects that benefit the entire ecosystem, even when those activities impact the livestock operation. It lists fence improvements and wildlife crossings that help pronghorn, water projects that benefit elk, deer, birds and other animals, the creation of a conservation easement that protects vast stretches of land and the fact that the ranches routinely choose not to use pastures impacted by drought.

"It's exciting for the Arizona Game and Fish Department to have the Babbitt Ranches as a landowner/partner working on a daily basis to improve the health of Arizona's natural resources," said Department Director Duane Shroufe. "You can be assured that this work is

very special and important when the Babbitt Ranches can compete nationally and be awarded such an honor."

The International Association of Fish and Wildlife Agencies is made up of wildlife agencies and organizations of the states, provinces and federal governments of the U.S. and Canada, groups such as the U.S. Fish and Wildlife Service, National Park Service, Bureau of Land Management, Forest Service, National Rocky Mountain Elk Foundation and Ducks Unlimited. For more than 100 years, it has been a key organization in promoting sound resource management and strengthening federal, state and private cooperation in protecting and managing wildlife and their habitats.

The wildlife stewardship award was presented during the association's annual meeting in Wisconsin last September.

## WINDY RANGLANDS

...continued from front page

Duque says a wind study he's conducting will determine where to place wind turbines, but the best chance for developable wind energy appears to be west of Cameron on Babbitt Ranch land.

"Wind is measured in terms of classifications. Zero means no wind and class seven means it's so windy you don't want to live there," said Duque. "We're looking at all three of the ranches and we know there are a lot of fours, fives and sixes out there."

Duque says wind energy is an attractive industry for several reasons. "It's a renewable resource that's already there. It has zero emissions. It doesn't use water, which is a big deal in Arizona. And, it is the cheapest to produce, by far, of all the renewable energy sources."

Per kilowatt hour, wind comes in at about 4.2 cents, natural gas at 4 to 8 cents and coal at 2 to 3 cents.

Duque will be measuring the wind power on the ranches over the next year looking for consistency in the wind and the potential for economic development.

SeaWest Windpower, an energy producing company, says wind energy is the fastest growing energy sector worldwide. With fields of turbines that look like giant white windmills, many ranchers and farmers are finding that wind is a clean product they can harvest and sell.



*This historic photo of a cattle shipping facility at Belmont is believed to have been taken in the 1940s or '50s. Babbitt Ranches is putting out a call for historic photos that tell the story of the ranches and families of northern Arizona. The result will be a photo journal chronicling more than a hundred years of western American history. Copies of photos can be sent to Babbitt Ranches, P.O. Box 520, Flagstaff, AZ 86002.*

## HASHKNIFE HORSES COMMEMORATED AS COLLECTIBLES



In the ranch business heyday, the Hashknife brand was one of the most prominent trademarks in the 1880s and '90s. Today it still stands as the symbol of quality in American quarterhorses and now is featured in a line of model replica horses.



Peter Stone, owner of the Peter Stone Company, is featuring the Hashknife quarterhorse in his Historic Ranch Series. There are five different models, including a stallion, a gelding, a mare and a weanling foal. The adult models are about nine inches high and 11 inches long. All have the Hashknife brand on the left flank.

"The most popular is the gelding with the roached (crew cut) mane," said Stone. "The Hashknife brand is intriguing to people because of its historical significance. The ranch had migrated from West Texas to New Mexico to eastern Arizona and was acquired by the Babbitt family."



Stone knows a bit about the Hashknife legacy and Babbitt Ranches. As a graduate student in Flagstaff in the early '60s, he wrote several papers about northern Arizona history, the Hashknife brand and the families of the area. He also was on the rodeo team at Arizona State College and worked as a ranch hand on the CO Bar.



After receiving his master's degree of art in cowboy and Indian history, he went into the business of making and distributing replica horses. His days of horse packing in the San Francisco Peaks inspired him to later design the Historic Ranch Collection and the Hashknife series.

Hashknife collectibles range from \$40 to \$50 and can be purchased through State Line Tack at [www.statelinetack.com/slt/main.jsp](http://www.statelinetack.com/slt/main.jsp).

## TAKING CARE OF BUSINESS WHEN IT'S ALL IN THE FAMILY

Some 95 percent of small businesses in Flagstaff are family owned and operated, according to Dr. Lisa Majure, associate professor of finance at Northern Arizona University. And because of the large number of family businesses, the College of Business and the Bank One Center for Business Outreach at NAU will be hosting a Family Business Forum this fall to offer awareness about the dynamics involved in family businesses and assistance in managing them.

Majure says Babbitt Ranches is the driving force in initiating the program. "Babbitt Ranches, along with many other family-owned businesses in Flagstaff, are interested to learn and understand more about the issues inherent in family business. They feel strongly that family businesses that deal with their family issues will achieve greater success."

John and Jane Covey will present *The 7 Habits of Highly Effective Families*. In addition, the forum will include an exercise involving business owners on one panel and family mediators on another. A moderator will pose questions on various situations that could come up in business related to family; the mediators will critique how the business owners said they would handle the issue.

"Separating family and business roles is a key problem along with the fact that you're not dealing with a stranger, you go home with these people. So it's a different relationship, not an employee/employer relationship, it's the whole family working together," said Majure. "In some cases, problems are technically related, but often family issues interfere with making good decisions."

The Family Business Forum, which will address such topics as succession, job responsibilities, conflict resolution and strategic planning, will be held the morning of Thursday, Sept. 30, at Little America. For more information, or to register, contact the Bank One Center for Business Outreach at 928/523-3322 or visit the Web site at [www.cba.nau.edu/fbconf](http://www.cba.nau.edu/fbconf).