The Future of Ranching In the West
A summary and reflection on the 2019 Diablo Trust Annual Meeting

by Diablo Trust staff

The theme of the 2019 Diablo Trust Annual Meeting was Resilient Transitions: The Human Element of Ranching, Succession Planning, and the Next Generation. The event brought together young ranchers and established ranchers from across Arizona to discuss the future of ranching in the West.

The event also included many Diablo Trust regulars, including a panel of agency representatives. Long-time Diablo Trust friends like Stephen Cassady from the Arizona Game and Fish Department, Shai Schendel from the Natural Resources Conservation Service, and Gary Hase (USFS) at the 2019 Annual Meeting (Photo by Diablo Trust staff)

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Planting Kochia for Cattle
Can Immigrant forage kochia be a viable solution for winter & spring forage?

by Bob Prosser

It is estimated that based on available records, the last 30 years have made up the driest period of winter precipitation, possibly over the last 1,000 years, in the Colorado River Basin. As a result, the Drought Contingency Plan for the Colorado River was signed into law last month to mitigate minimal levels in the Colorado River reservoirs.

The change is resulting in effects on forage composition and health as well as an increase in bare ground. The trend is down for cool season grasses; there is even winter kill on some warm season grasses across the Little Colorado Plateau. This could have a profound effect upon both wildlife and livestock populations, not to mention a negative effect on overall watershed health. Proactive action needs be considered in order to offset the impacts of this change.

Immigrant forage kochia (Kochia prostrata), pronounced “co-kia,” although many say “co-shah,” is a half shrub, similar to winterfat. Forage kochia is native to most of central Eurasia, with at least 30 subspecies.

It was brought to the States for research in the 1950s. The first planting was in 1968, and the subspecies “Immigrant” was released by the US Forest Service (USFS) and the Natural Resource Conservation Service (NRCS) (L-R) Jeff Baker (ASLD), Arnie Schlittenhart (USDA-Farm Credit Agency) Shai Schendel (NRCS), Steve Cassady (AGFD), and Gary Hase (USFS) at the 2019 Annual Meeting (Photo by Diablo Trust staff)

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Brand Revitalization From Students

A NAU VisionDESIGNLab team helped create some new Diablo Trust brands

The Northern Arizona University VisualDESIGNLab is part of the School of Communications and works to give students hands-on design experience assisting nonprofits with creating new brand identities. This semester, a team of four students worked with Diablo Trust staff to create a new logo and outreach materials. The team, led by Professor Patricia Murphy, created a series of professional-grade logos from which the organization can choose. The team worked to tailor their designs to best convey the identity of Diablo Trust and its community.

The Diablo Trust Board of Directors will consider these new brand ideas over the next few months as a new strategic plan is also designed. Look forward to a new face of Diablo Trust this year! Some of the ideas are below.

We are forever amazed, inspired and grateful by the fantastic work of the design team for our new logo. Thank you to Emma, Colton, Alex, and Sara for giving us your time and energy, and for donating your artistry, design, and communication skills to help nonprofits like Diablo Trust enjoy a public image that matches our work on the land!
**President’s Message**  
by Norm Lowe

My, what extremes we see on the land!

The cover article by Bob and Judy Prosser of the Bar T Bar Ranch talks of the 30-year streak of dry winters killing off large areas of blue grama grass across the region.

On the flip side, the article by Kit Metzger of the Flying M Ranch celebrates one of the wettest springs on record.

Another extreme, of sorts, is presented in the headline article about ranch succession, and the difficulties of matching up with the right land-stewarding next generation of ranchers to keep our large-scale working landscapes open and functioning for large-scale natural processes of fire and wildlife movement.

It is Diablo Trust’s role to keep the many ranchers, agency staff, and citizens collaboratively involved through increasing awareness of such issues as well as opportunities, and finding ways to preserve the open space values of this region.

Forage Resource Study Group (FRSG) studies will be going on from June 18th through July 8th on the Bar T Bar, Flying M, and several other ranches in northern Arizona. Scientists from the Arizona Game and Fish Department, Natural Resources Conservation Service, Arizona State Lands Department, and the University of Arizona Extension Service will be conducting these studies, which have been read three times per year for over the last thirty years. These studies check both plant and soil health as well as livestock and wildlife utilization levels.

Back at our office, our Executive Director Megan Hosterman has moved on to other nonprofit work, and Hannah Alexander is helping part-time with office needs until we advertise for a new Program Manager later this summer.

Through grant funding from Coconino County Supervisors we are conducting our first annual Wild and Working Lands Workshop series. I invite you to attend our first session on native plants and wildlife, to be held at noon on the day of our Diablo Trust Annual Campout, August 17th, at Ashurst Run, just east of Mormon Lake. Please see our website calendar for more information.

Norm Lowe, Board President

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**From the Office**  
by Megan Hosterman

With bluebirds and snowmelt, the change of seasons is upon northern Arizona.

Spring has brought much-needed snow, rain, and sunshine to our region, with promise of a better year ahead for ranchlands.

With the seasons, Diablo Trust has also been changing. Our dedicated Board of Directors has been working to explore how to best serve our community in meaningful ways by tackling the keystone issue of ranch succession planning in the West. This refreshed focus called for a revitalized brand, and we are proud to have partnered with the Northern Arizona University (NAU) Visual Design Lab to design a new logo.

As Executive Director of Diablo Trust since September, I have enjoyed the camaraderie of our remarkable community’s commitment to the land. Together, we have successfully brought together diverse stakeholders to forge collaborative management tools through our biennial CROP meetings, held transformational intergenerational panel discussions at our Annual Meeting about the future of ranching in northern Arizona and beyond, and continued to develop ambitious research programs alongside NAU and the University of Arizona, including our most recent Citizen Science program initiated by our incredible intern, Kaitlin Begin.

These milestones have positioned Diablo Trust to continue the audacious work of preserving agriculture and conserving open space in northern Arizona for decades to come. While I will be leaving Diablo Trust at the end of the month, I am confident that Diablo Trust’s leadership will continue to grow the organization’s impact in our community.

Thank you to all of those who are unshakable champions of the work of Diablo Trust, contributing time, donations, and goodwill, so there will always be a West.

Megan Hosterman, Executive Director
Contact: info@diablotrust.org
Future of Ranching (continued from page 1)

Service, and Gary Hase from the US Forest Service, addressed similar questions to the ranchers: what important work has been done on the land, and how will that knowledge be passed down to the next generation of natural resource managers?

For most, ensuring the transition of institutional knowledge goes beyond just leaving notes and binders behind—it means giving hands-on training to the new recruits and teaching them the importance of “ground truthing,” or direct, on-the-land observation. That was how Diablo Trust was formed, and many agency representatives around Flagstaff are strong advocates.

Chase Skaarer and Alanna Riggs, both young ranchers from southern Arizona, joined Bob Prosser from the Bar T Bar Ranch and Kit Metzger from the Flying M Ranch, which make up the Diablo Trust land area, to engage in deep discussion about the challenges and opportunities both for those just starting out and those planning for the future of their family ranches.

While Chase and Alanna shared the challenges of financing a working ranch, Bob and Kit reflected on their hopes for their land once they are unable to continue ranching. The result was an enlightening panel discussion that brought forth the most pressing insights and questions about the future of ranching in the West, focused around succession planning.

On the ranches, succession planning entails finding a suitable rancher to take over ownership and management of the property. Most ranchers feel a connection to their land and want the next owner to prioritize the same goals, which can cause issues when finances and family are involved. The range of generations on the panel allowed the ranchers to reflect and consider solutions to this issue.

Why Succession Planning Matters

In the absence of successful succession planning, family ranches often end up being split up with portions sold in order to satisfy the needs and desires of the heirs. Particularly if the smaller pieces are no longer economically viable ranch units, the smaller parcels can be sold to developers, thereby fracturing open space, wildlife habitat, and watershed management.

Whereas intact ranches provide both ecological and economic benefits to the local community while preserving a family’s way of life, a change in generations can threaten all these benefits. Competing uses can raise land prices, and young ranchers striving for the satisfaction that comes from land ownership, animal husbandry, and environmental stewardship are faced with the challenge of finding both financial backing and a ranch that can be purchased at a price cattle can pay for.

“[continued on page 6]
Rocky Mountain Bighorn Translocation to East Clear Creek  
by Tom McCall, AGFD Region 2 Game Specialist

Thirty bighorn sheep were returned to their historical range as part of a translocation project led by the AZ Game & Fish Department (AGFD). The thirty animals came from a robust population of Rocky Mountain bighorns near Morenci, Arizona.

“When we can help re-establish a native species to their historic habitat, we’re truly part of something special,” said Amber Munig, AGFD’s Big Game Management Supervisor. “Projects such as these help us to conserve and protect bighorn sheep by establishing subpopulations within their native ranges, which could help if there ever were a disease outbreak. Such an outbreak wouldn’t have a devastating effect on the entire population.”

The bighorn sheep were moved from Eagle Creek near Morenci to Leonard Point on East Clear Creek/Leonard Canyon, north of Payson. The 30 animals included 7 rams, 21 adult ewes, and 2 lambs.

In April 2018, the Tinder Fire charred more than 16,300 acres just southwest of the East Clear Creek/Leonard Canyon release site. The fire helped provide proper habitat for the relocated bighorn sheep by encouraging new vegetation such as grasses, forbs, and browse plants. Improved habitat conditions should assist in anchoring the bighorn sheep into their new home, which is within historic bighorn sheep range.

The translocation was no small operation. It required extensive planning, the expertise of multiple helicopter pilots, net gunners, muggers (muggers exit the helicopter and safely secure the animals on the ground), and dozens of support staff and volunteers. Everyone on scene was dedicated to protecting and conserving Arizona’s wildlife.

Each of the animals was given a health evaluation and an identification ear tag before being released. Twelve ewes and three rams were also fitted with a GPS tracking collar to monitor their movements in their new locale. The collars were purchased with assistance from the Midwest Chapter of the Wild Sheep Foundation.

The project was a cooperative effort between the AZ Game & Fish Department and its partners, including Freeport-McMoran, the Apache-Sitgreaves and Coconino national forests, the AZ State Land Department, the AZ Desert Bighorn Sheep Society, and private landowners and volunteers, including Diablo Trust’s Bar T Bar Ranch.

The AGFD is pleased with the movements of the bighorns. Initially the bighorns ranged up to 13 miles from the release site. Most recently their movements have been confined to a five-mile radius of the release site along East Clear Creek and Willow Creek. During winter they reduced their range, likely due to increased snow depth and food availability. To date there have been two mortalities of the translocated bighorns. Both mortalities occurred shortly after the release.

One adult ram traveled south 60 miles south and died in Lake Roosevelt. A necropsy indicated signs of bluetongue, a noncontagious, insect-borne, viral disease in ruminants (like sheep) that has a high morbidity and mortality rate, especially for sheep. The second adult ram died a few miles south of the release site of unknown causes.

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Annual Campout:  
Wild & Working Lands Workshop and Overnight  
Aug 17-18 • 12:00PM Saturday—12:00PM Sunday • Ashurst Run

Potluck dinner & breakfast.  
Bring your friends, family, frisbees, & fiddles!  
www.diablotrust.org/calendar/campout-19
and operate her family’s ranch, the Bar T Bar. When Judy’s father decided to retire, Bob and Judy bought out their partners.

Bob emphasized Diablo Trust’s mission of taking care of the ranchland, but also added the importance of having a strong economic model that will sustain the family.

When other family members want to come home, sometimes growing the business becomes a necessity; there needs to be a balance of profitability and stewardship. Bob believes that family members may or may not want to be the on-the-ground managers. But this circumstance can open doors for other young people who want the lifestyle but cannot afford to own the land. To him, it’s most important that the next generation has the same goals to protect the landscape.

There is not a single solution when transitioning ranch owners; every situation will have its own needs, and every family their own ways of doing things. Communication between all parties involved is the best way to ensure that the land and the people are having their needs met.

The older generation of ranchers need to include the next generation in the conversation and the incoming ranchers should understand that the established ranchers just want what is best for the land.

Perhaps ranching families can begin their conversations as the first Diablo Trust members did: finding their common ground, building their trust levels, and prioritizing their common goals.

**Future of Ranching** (continued from page 4)

**Planting Kochia** (continued from page 1)

Large research surveys on over 200,000 acres have shown that Immigrant kochia stays where it is planted and does not invade or spread out of its designated or planted zone. It is drought tolerant and likes bare ground, but it is difficult to establish and has short-lived seed viability. There are large tracts of land planted with various subspecies in Nevada, California, Utah, and Oregon.

Immigrant kochia is highly palatable for both wildlife and livestock. They will specifically benefit from it in the winter and spring in a rotation system, like what is found on the Bar T Bar Ranch. Immigrant kochia can fill a deficit created by the drier winter and spring moisture trends.

The Bar T Bar Ranch aerial seeded 1,740 test acres in February with Immigrant kochia and Vavilov wheat grass, which acted as a carrier for the kochia. The seeds were planted across 160-feet-wide test strips on private land, on all three ranches in all three counties.

It is commonly recommended to seed in December and January, so I think we might have been too late, and the snow was melting faster than we could seed.

We plan to plant 100 acres of irrigated ground starting this fall, and another 100 acres a year from this fall at our farm in Apache County. By the fall of 2020 we should be able to harvest seed to use for seeding native ground.

We hope that further developments occur in seed treatment and/or coatings that will enable a wider window of seeding opportunities.

**The Challenge**

- Immigrant kochia likes soil disturbance to establish and the seed is expensive. The ability to mechanically disturb soil here in northern Arizona with intermingled land ownership would require official archeological clearance, which can be expensive and take a long time.

  - Flying seed on the snow is possible, but it must be mixed with other seed to feed through the seeder. Since deep winter snow is becoming very rare below 6000 feet, the seeding opportunities will be limited.

- Even if the December or January seeds germinate, we may lack the spring moisture for survival until the summer rains.

We hope that further developments occur in seed treatment and/or coatings that will enable a wider window of seeding opportunities.
“Into every life a little rain must fall,” and fortunately a lot of rain and snow did fall. I am sure that we, the Diablo Trust ranches, have regaled you with stories of the spring and summer of 2018, and what a tough time that was for us. Well, actually for everything living on the Diablo Trust ranches. So now let me share a little of what the last fall and winter seasons brought to the area.

Over the last seven months here at the Flying M headquarters we have had approximately nine inches of precipitation. Our normal is 12 to 14 for the year.

We have gone from a desperate water situation for livestock and wildlife to one of abundance. On October first, most of the stock ponds on Anderson Mesa, on the Flying M, were dry or at one-third of capacity. None of the mesa lakes had any water standing and the usual “wet time” puddles in the canyons were dry. Not a pretty picture, and it sure looked bleak for 2019 if it remained dry or was even a so-so winter.

We started the fall with around two to three inches of precipitation in October, and then around New Year’s began to stack up a snowpack on the mesa and up on the Grapevine and Diablo watersheds. Then we had that rain event in February which melted most of that snow in one night. Mormon Lake recorded almost three inches of rain, and I’m pretty sure the watershed had the same amount. It melted so fast that the water-run marks across the mesa were unbelievable. Anderson, Grapevine, and Diablo canyons all ran the deepest water since 1993. At our lower crossing on Grapevine, the water was eight to ten feet deep, and in places where the canyon bottom was narrow or the canyon had a bend, water reached 20 feet deep. Trees, even big old ones, were torn out and it moved lots of dirt and rubble.

Must have been impressive to see, but it all happened at night, so we missed it! I would have liked to have pictures of it running that high!

The water drainages all over the ranches tore up the roads, took out fences, and stacked debris up any place that water usually runs. This storm is the main reason that we now have water in every lake, tank, and pothole on the mesa. Then the next storm put 22 inches of snow at the headquarters, and probably three feet up top. It ran the canyons big one more time, but all the snow didn’t melt off.

We had to rebuild the Grapevine road crossing three times - haven’t done that in a while! Snow melt water was still flowing in our ditch system up to mid-April, so we filled all but one stock tank on the ditch system. The water in these tanks will last until summer rains, providing water to all the lower range when we hope they catch again.

All this precipitation replenished the soil moisture, and it had a lot to make up. By mid-March the grass was already greening up on the mesa and stuff was starting growing in the winter country. The nutrition situation changed fairly quickly with a lot of annuals starting early, and then the grass and browse catching up. The abundance of annuals should be a big boost to the Pronghorn.

The browse plants are growing well, which should help the deer out and elk seem to do well on all of the above. We observed less of the rodents last spring and summer but this spring should help replace them. We are seeing about the same number of birds come back this spring, except the ducks are all up on the mesa enjoying the wetland for the first time in several years. They only stopped on our lower country stock ponds long enough for the ice to melt on the mesa lakes. If it weren’t for the dead grass this would look like an excellent spring. At least the small amount of grass not killed off last year, mostly grass, is growing well. As of now all of the critters are getting fat and sassy!

So now we start looking to the southeast and wait for those summer rain clouds to start gathering!
"Learning from the land and sharing our knowledge . . .
So there will always be a West"

Upcoming Events

Sun, May 05—Oct 20: Flagstaff Community Market • 8:00AM—12:00PM • City Hall, 211 W. Aspen Ave., Flagstaff

Sat, Aug 17: Wild & Working Lands Workshop • 12:00PM—4:00PM • Ashurst Run, Flying M Ranch
All ages are invited to this interactive workshop to learn about the native plants and animals in the scenic Ashurst Run. Stay afterwards for our Annual Campout Under the Stars!

Sat-Sun, Aug 17-18: Annual Campout Under the Stars • 4:00PM Sat—12:00PM Sun • Ashurst Run, Flying M Ranch
Potluck dinner around the fire at 6:00PM. Cowboy breakfast hosted by the ranches on Sunday. All ages welcome!

Stay tuned for information on events still in the works: http://www.diablotrust.org/calendar

If you have suggestions for events, books, films, presentations, or field trips, please do not hesitate to contact us:
info@diablotrust.org