

"To provide for the conservation and restoration of lands, water, wildlife, and other natural resources"

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LETTER FROM THE PRESIDENT

There is a common misconception that agricultural producers are "the enemy of the environment" – this is simply not the case. Agricultural producers (farmers and ranchers), as well as other landowners, are our state's land stewards. They are the ones working to keep the land in a healthy condition. Producers in Arizona use the land wisely to grow a sustainable crop – citrus, produce, hay, beef cattle, dairy cows, cotton, etc. – while conserving the state's natural resources. Conservation Districts provide producers with the funding sources and technical resources needed to install management practices on their working lands to conserve our natural resources.

Production from natural resources in the desert environment is limited, particularly from a shortage of water. So, land stewardship-minded producers and landowners adopt conservation management practices to conserve water and make efficient use of what little we have. These practices provide water to wildlife and livestock, help grow crops to feed the population, and help ensure that soil will absorb water, rather than have it run off and cause erosion and flooding. Erosion and flooding are damaging to watersheds, fill streams with debris and sediment, and wash out roads and dams. It takes a lot of money to fix damaged roads, dams, and the like year after year.



AACD President Frank Krentz

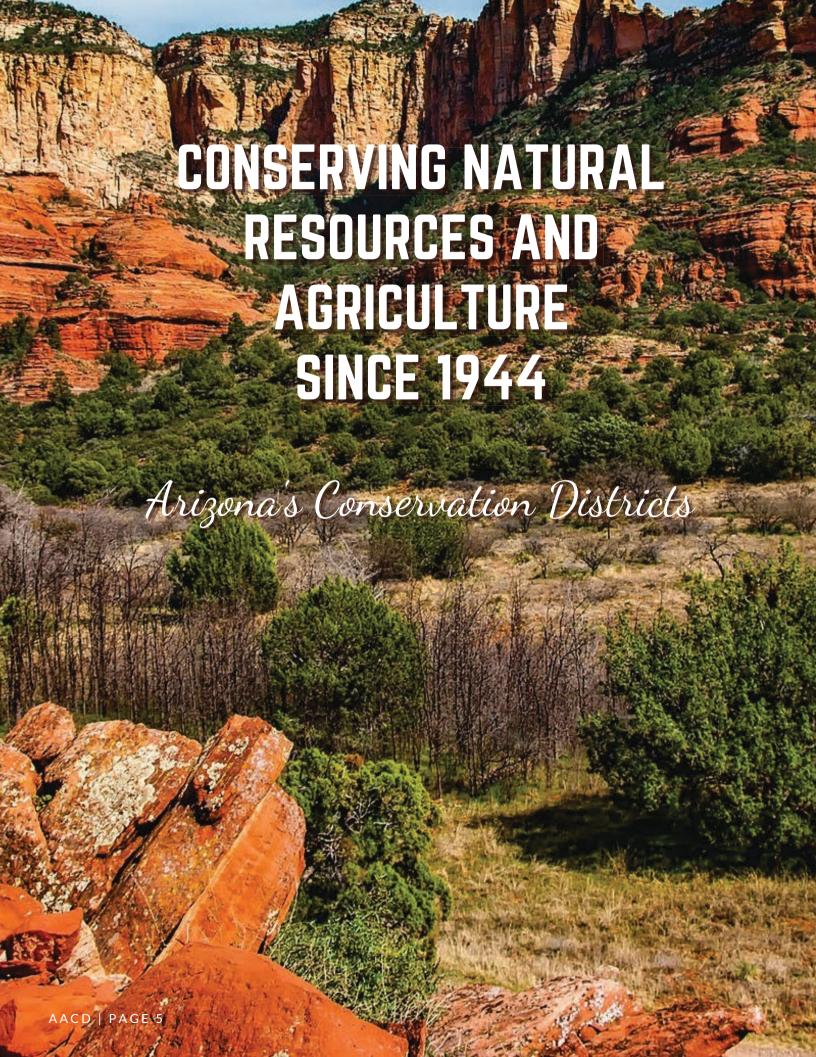
Stop for a moment and ask, where is that money coming from? Wouldn't it be easier and more cost effective if we put money toward practices that could prevent this sort of damage from occurring? That is what the Districts try to do – get money on the ground to install the conservation practices needed to help prevent repeated damage, and conserve the land that provides humans and animals the food and shelter which we need to live.

But how does something like erosion control help our wildlife populations? Think about a monsoon. The summer rains bring several inches of water in a short amount of time. The soil can only absorb so much, so that means the water has to go somewhere. That's when we have flooding. Flooding can destroy riparian vegetation and deposit sediment in streams which impacts wildlife habitat and fisheries. Healthy watersheds reduce flooding and retain water on the land to grow food and cover for wildlife. Practices like wildlife friendly fencing and water troughs with wildlife escape ramps, also help reduce conflicts with wildlife, since they can move freely across boundaries and safely use water developments. This is just one example, but the point is, it's all connected. It's all about finding a balance. That is what the Districts aim to do: help find a balance with the land to *conserve* natural resources so producers can sustainably *grow* the food supply which we all need to *live*. And they do this through thick and thin.

As producers and land stewards, we've experienced struggles in the past including droughts, low crop prices, and feed shortages. Now, as a nation, we all face the effects of COVID-19. Districts and producers across the state continue to work hard amid the pitfalls of the outbreak to keep production moving forward while still caring for the land we all depend on. It's important to remember that we're all in this together, and we can't all go it alone. We need people like you to support the Districts and all the good work they do. Stay safe out there. Remember to "Conserve, Grow, Live" and support your local Conservation Districts and producers!

Frank





ALL ABOUT THE DISTRICTS



The Dust Bowl. We've all heard about it in our grade school history classes, and you may have a vague recollection of what it was. What most people don't know is that it was the devastation of the dust storms and subsequent crop shortages of the 1930s that triggered the creation of Conservation Districts. Realizing that conserving soil and water resources was critical to the production of our food supply, the federal government declared soil and water conservation a national priority and signed it into law. States were then given model legislation to form conservation districts within their state's boundaries to address concerns at the local level. In the 1940s, Arizona's Legislature established and charged Arizona's Conservation Districts with the statutory responsibility to provide for the conservation and restoration of lands, water, wildlife, and other natural resources, and to protect water rights, the tax base, public lands, and the general health and welfare of the people. It is important to appreciate that Districts are the only organization - local, state, or federal - with such a broad authority to work on all types of natural resource conservation practices across all land ownership or land use types. All other government agencies are restricted to specific resources like water or wildlife, or land ownership types like privately owned land or land owned by government agencies.

Conservation Districts have a statutory responsibility to "provide for the restoration and conservation of lands and soil resources of the state, the preservation of water rights and the control and prevention of soil erosion, and thereby to conserve natural resources. conserve wildlife, protect the tax base, protect public lands and protect and restore this state's rivers and streams and associated riparian habitats. including fish and wildlife resources that are dependent on those habitats, and in such manner to protect and promote the public health, safety and general welfare of the people."



In a state where a large percentage of the land is in fact administered by state or federal agencies, Conservation Districts are uniquely positioned to represent Arizona's conservation concerns and goals. With their formation, Districts were charged with the responsibility to:

- Identify resource problems by surveys, research, and consultation with landowners.
- Coordinate planning to address resource problems among landowners and state and federal agencies.
- Seek funding from various sources to support implementation of conservation practices.
- Conduct education and training programs for local landowners and other interests.
- Contract for the provision of technical and other services.





There are almost 7.3 million acres of land and just as many people living in Arizona. There are also more than 800 species of wildlife and myriad diverse natural resources, all of which need the attention of knowledgeable land stewards to conserve and manage these resources at the local level while still producing a sustainable food supply. The reality is, there are simply not enough funds provided to the Districts to put enough boots on the ground to implement the necessary practices to have a sustainable, effective impact. That's where the formation of the Arizona Association of Conservation Districts found its roots.

Arizona Association of Conservation Districts

Created by the Arizona's Conservation Districts in the 1940s, the Arizona Association of Conservation Districts (AACD) was established as a means of support to help coordinate and fund locally-led conservation efforts across the state and to unify and represent District goals and interests.

As a nonprofit, AACD can apply for federal and state government grant programs and non-governmental monies (e.g., private foundations) that Districts, as subdivisions of government, often times cannot. Arizona faces stiff competition with national, state, and local entities for much-needed conservation dollars. Becuase of this, it is more important than ever to get the message of the Districts out there and understand that funding must come from many sources.

Through its efforts, AACD helps to get more conservation funds to the Districts thorugh four main categories so that they can get more conservation work on the ground.

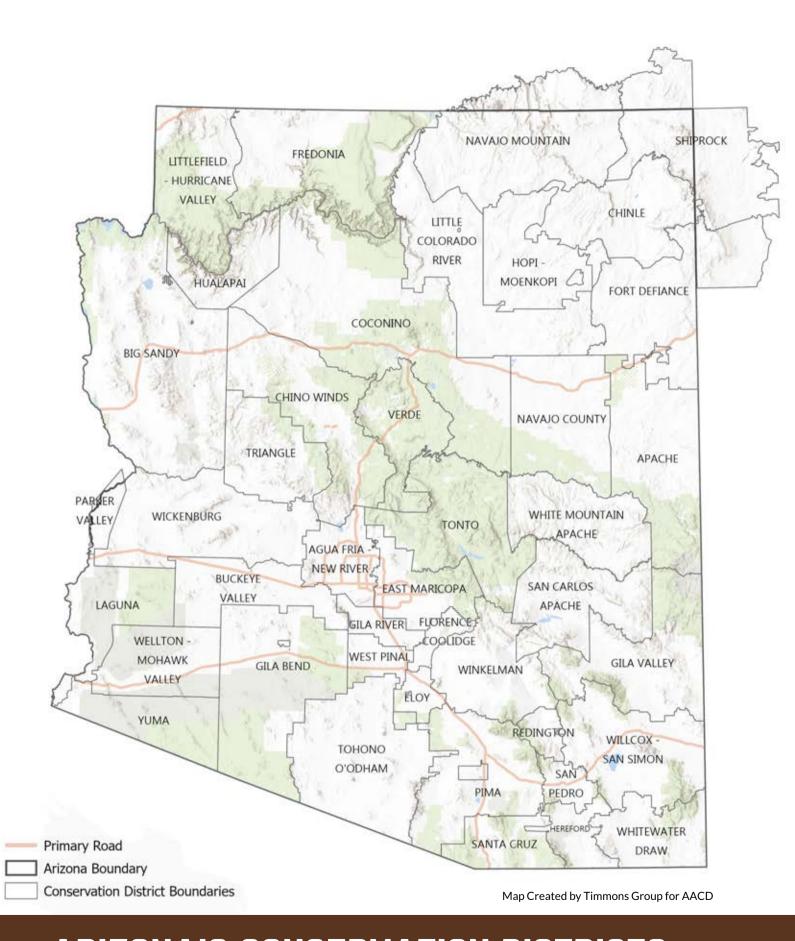


The categories are: Local Resource Assessment and Planning, Conservation Research and Education, Conservation Technical and Financial Assistance, and Coordination and Cooperation. Programs within each of these categories help Districts fund and support locally-led conservation efforts across Arizona to sustain its unique landscape, wildlife habitats, and watersheds, and assist farmers and ranchers with sustainable agricultural production.



National Association of Conservation Districts

As a state association, AACD is recognized by the National Association of Conservation Districts (NACD). The NACD is a "501(c)(3) nonprofit organization that represents America's 3,000 conservation districts and the 17,000 men and women who serve on their governing boards."



ARIZONA'S CONSERVATION DISTRICTS





CONSERVATION PRACTICES

Implementing conservation practices is something that happens year-round. Every year, Districts work with producers and other land stewards, government entities, and other local organizations to implement conservation practices to improve and sustain Arizona's landscapes and natural resources. Every conservation practice put on the ground is meant to benefit the landscape, soil and water, wildlife and wildlife habitats, and practice sustainable agricultural production. In 2019, Arizona's Conservation Districts helped coordinate, implement, and leverage over \$41 million in locally-led conservation practices from local, state, federal, and private funds.

Last year, for every \$1 the Districts received from the state, they were able to raise an additional \$93 from other sources towards implementing locally-led conservation practices.





Brush Management

Brush management is a practice used to change the kind and/or amount of brush (shrubs, small trees, etc.) on rangelands to reduce flooding and soil erosion, improve wildlife habitat, increase food production (i.e., forage) for wildlife and livestock, reduce wildfire hazard and, in some cases, to increase flow of streams and springs. The objective of brush management is not to get rid of all shrubs, but to provide and maintain a desirable balance of shrubs and grasses

Cover provides good soil protection (i.e., sustainability), protects the quantity and quality of water coming from our watersheds, provides a diverse mixture of desirable plants for forage and wildlife habitat, and reduces the risk of catastrophic wildfires that cause environmental damage and risk to human life and property.

Brush management helps prevent wildfires, increases soil stability, and provides desirable wildlife forage.

Grazing Management

In many areas of Arizona, grazing management (sometimes called "prescribed grazing") is an effective practice toward achieving the objectives of sustainable livestock production; it can also help improve water quality and wildlife habitat. When producers and other land stewards decide to implement grazing practices on their land, a grazing management plan is essential. The fundamentals of a grazing plan are to specify the desired grazing intensity, timing (season and duration of grazing and rest periods), and distribution. The specific plan depends on type of vegetation, topography, and other factors. Any grazing plan must be flexible – it must allow for adjustment during the year in response to rainfall, water supplies, wildfire, and other factors which affect both vegetation and animals, and which cannot be predicted in advance. Practices aimed at achieving better grazing distribution can also help reduce pressure on sensitive locations and favored forage species, while fencing and water developments can increase use in areas that otherwise would not be grazed, and also give wildlife the ability to roam more openly. Grazing practices include proper animal stocking rates, improved distribution of grazing livestock in a pasture, and rotating grazing livestock among several pastures in order to provide periodic seasonal rest from use to allow favored plants and locations to recover or to accommodate needs of wildlife or other land uses.

Grazing management practices can aid in the maintenance or improvement of productivity and diversity of range vegetation. These practices protect the soil from erosion, improve capture of rainfall, reduce excessive runoff and flooding, provide diverse wildlife habitat, and create sustainable forage production for livestock and wildlife.











Water Developments

Water developments benefit both livestock and wildlife by providing water in areas where none exist or to increase the amount and/or reliability of water supply where existing sources are inadequate or unreliable. There are several practices that can be used when developing livestock waters – well drilling, solar and electrical pumping equipment, water catchment systems (storage), pipelines, drinking troughs, ponds or dirt tanks, and spring development – and most of these developments include provisions to make them more accessible to wildlife. For example, escape ramps in drinking troughs allow small animals and birds to climb out if they fall in, producers ensure tanks are not covered so that birds can easily drink, and wildlife friendly fencing is installed to allow animals like deer to easily enter an area without getting caught in the wires when jumping over them. These water sources ensure that a supply is available year-round for wildlife and livestock, even if the pasture is only used for livestock during a part of the year.

Water developments across pastureland creates a yearlong water supply for wildlife where one may not otherwise exist.





Increasing Irrigation Efficiency

Irrigated farming is an important contributor to Arizona's economy. However, because it is a major user of water, it is important to implement practices that make irrigation as efficient as possible to ensure that most of the water is used by the crops and not lost to evaporation, seepage, weeds, or runoff. On irrigated cropland, there are several practices that can be used to improve the efficiency of water use. All of them have the objective of reducing water loss and maximizing the proportion of water used to grow the crops. The practices applied depend on the type of crop, the characteristics of the soil being cultivated, the quality of the water being applied, and the economic feasibility of implementing these practices. For example, flooding, which involves the release of a large volume of water onto a field periodically, is used mostly for "row crops" (cotton, vegetables, etc.), and is most effective for soils with high salinity levels. Orchards, on the other hand, benefit more from a drip system. Sprinkler systems, used mostly for forage crops, apply water more uniformly over the land and at calculated rates to allow the water to soak into the soil as it is applied. Other ways to increase water use efficiency include reducing losses that occur in moving water from its source to the field. Water is often supplied in canals or ditches and lining these ditches with concrete or other materials reduces seepage loss through the ditch banks. Reservoirs are another source of water and can also be lined or treated to reduce seepage. Improved distribution enhances soil health, conserves water, and provides additional sources of water for wildlife.





Increasing efficiency of irrigation use, as well as improved water conservation measures implemented in municipal and industrial uses, has resulted in an actual **decline** in the annual use of water in Arizona since 1980, despite a great increase in population (arizonawaterfacts.com).

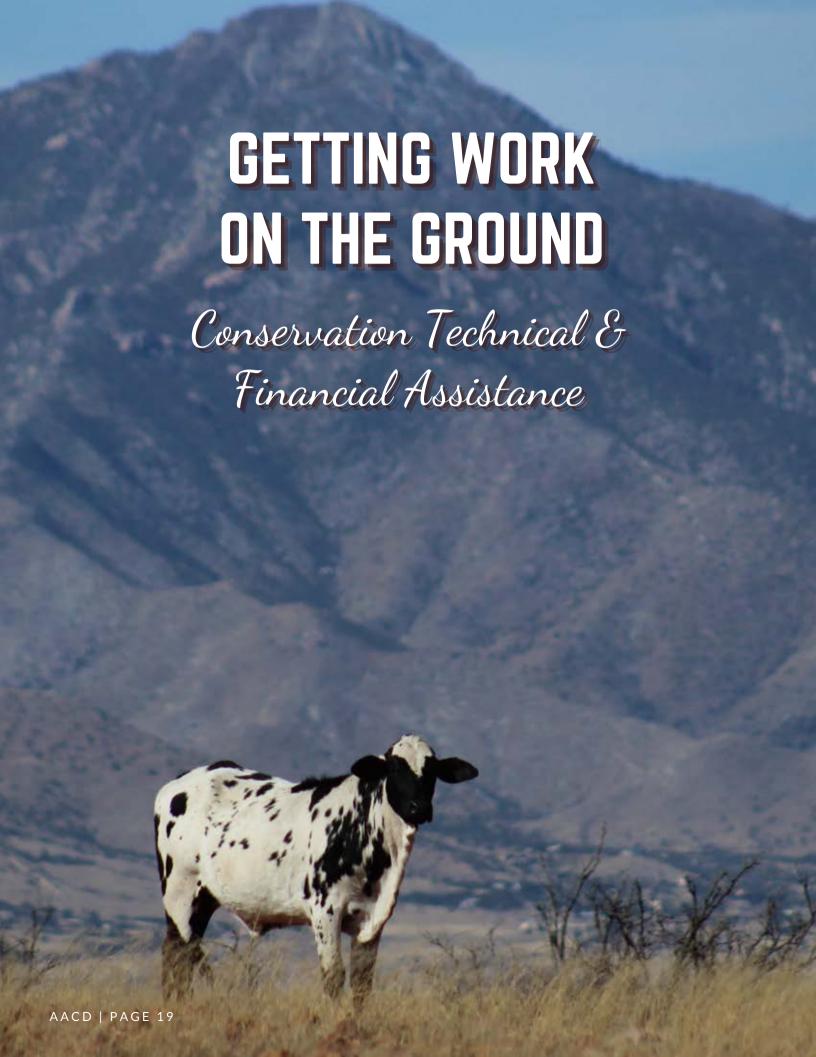
Irrigation method efficiency rates:*

• Flood Irrigation: 50-60%

• Sprinkler Irrigation: 75-80%

• Drip Irrigation: 90-95%

*These efficency rates are estimates, and certain methods are more effective for certain crops and soil types than others, regardless of the "efficiency rate."



A Decade of Conservation

Between 2010-2020, Arizona's Conservation Districts and AACD helped coordinate and implement over \$18 million of locally-led natural resource conservation improvements across the state through two Bureau of Land Management (BLM) programs, the Healthy Landscapes Partnership program and the Arizona Landscapes Enhancement Collaborative, and the Natural Resources Conservation Service (NRCS) Cooperative Conservation Partnership Initiative and Environmental Quality Incentives Program. Here is what was accomplished:

- Grassland restoration: brush control projects for invasive species removal (photo below, right)
- Improved distribution practices: fencing and water improvements to benefit wildlife and livestock distribution, forage and shelter
- Water quantity and quality practices: solar pumps, wildlife friendly watering troughs (e.g., escape ramps for smaller animals and birds), and pipelines for improved water distribution for wildlife and rangeland livestock
- Grazing management practices: grazing plans and wildlife friendly fencing (fences built to allow deer and other wildlife easy passage between pastures while controlling livestock grazing) to improve distribution of livestock across working lands
- Renewable energy: over 43,000 tons of biomass removal, which was then used for renewable energy in Arizona (photo below, left)
- Coordinated resource management plans: conservation plans for improved land management, watersheds, and wildlife habitat
- · Archeological surveys: completed to safely implement planned conservation practices





MATCHING FUNDS TOWARD THESE COLLABORATIVE PROGRAMS CAME FROM ADDITIONAL SUPPORTERS, INCLUDING:

Arizona ranchers and other private landowners | BLM Field Offices | NRCS Field Offices | AZ Game & Fish | AZ Water Protection Fund | Apache County | Pima County | Cochise County | AZ State Land Department | AZ Department of Agriculture | New Mexico Conservation Districts | Restore New Mexico | US Forest Service | Fort Huachuca | Southwest Conservation Corp | American Conservation Experience





Across the state there is something needed for every land type: a viable land management plan. Whether one is discussing forestland, cropland, rangeland, or parkland, there is someone, somewhere, who is responsible for its stewardship. There are some important steps to developing land management plans, and it takes a group of individuals committed to land stewardship to successfully develop and implement these plans.

To develop land management plans, producers and other land stewards should first look to develop a resource needs assessment and a conservation needs assessment. These assessments are based on scientific information and provide a comprehensive evaluation of the condition of the natural resource base that can serve as a platform for making decisions about local priorities and policies for conservation programs at the local level.

To help local producers and other land stewards with the process of developing these plans, Arizona's Conservation Districts and AACD in partnership with the Natural Resources Conservation Service (NRCS) have kick-started a program working with a diverse group of stakeholders to provide comprehensive, locally-led resource assessments for all land ownership types and resource concerns. This program will be largely driven by Conservation District led Local Work Groups, which bring recognized local expertise to assessments, planning, and partnerships.

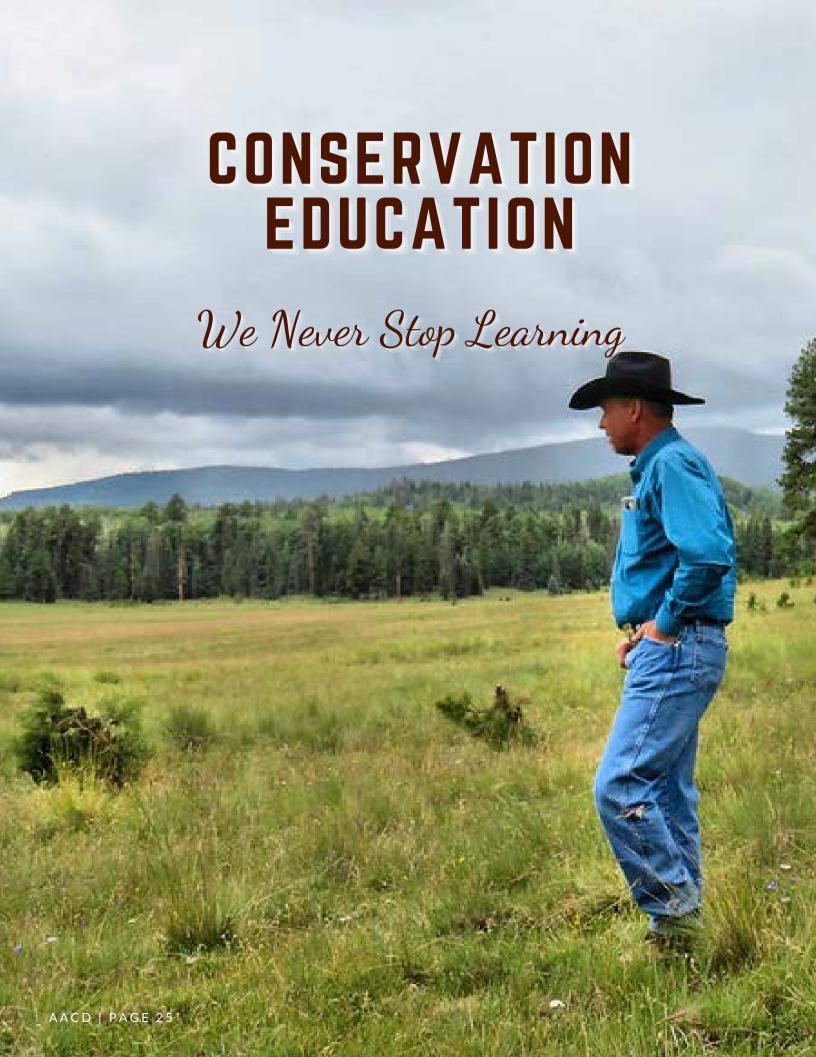
Local Work Groups are a collection of Conservation District officials, agricultural producers and other land stewards, state and federal agencies, and other interested stakeholders in the local community. Local Work Groups identify priority resource concerns and areas that need assistance, and work to help ensure that resource assessments are developed using community stakeholder input, while utilizing assessments to help identify program funding needs and conservation practices. Local Work Groups also provide their recommendations to the NRCS on local and state natural resource priorities and criteria for conservation activities and programs.

The goal of resource assessment and planning is cooperation – cooperation that leads to comprehensive conservation planning across the state. Because resource concerns for wildlife, water, fire danger, and the like extend across property boundaries, this integrated approach to problem identification and planning will help to ensure that wildlife and watershed concerns are fully evaluated, emphasized, and incorporated into plans for conservation practice implementation on ranches and farms to a greater extent than has often occurred in the past. An undertaking this large requires a lot of people, time, and money. It's through cooperative agreements, grant funds, private donations, and volunteer hours that the Districts are getting this done.









Conservation Education & Research

Conservation education is key to responsible stewardship of our natural resources. This education can happen at any age and Conservation Districts work hard to make sure this happens. This is achieved through adult and child education outreach. For example, Districts and AACD provide continuing adult education through trainings and workshops and also work with local universities to help new farmers and ranchers become successful land stewards. For local grade school children, Districts sponsor field trips, provide conservation education curriculum and hands-on classroom activities, and sponsor nationally affiliated environmental education events. And in several communities around the state, District-sponsored conservation gardens are a place where people of any age can experience hands-on conservation education and learn how to become effective land stewards. whether they live in a rural or an urban area.

Conservation education is key to responsible stewardship of our natural resources.

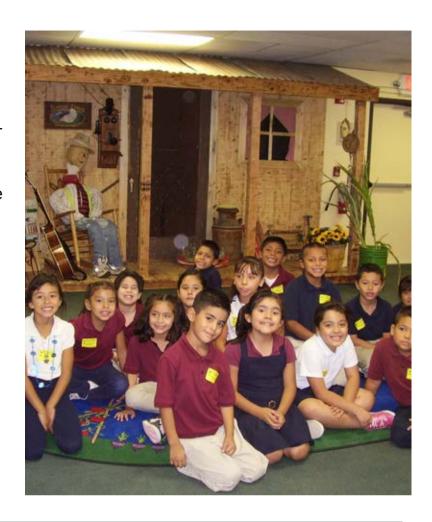






K-12 Curriculum

Conservation Districts and Districtsponsored Conservation Education Centers provide local schools with curriculum and inclassroom demonstrations and activities to teach students about natural resources in their local communities, as well as the entire state, emphasizing how everything is connected in a cohesive ecosystem. Students, and even teachers, receive hands-on learning about topics including their natural environment, where food comes from and how it's grown, and how to become responsible land stewards themselves. Also, Districts will often sponsor field trips to places like Kartchner Caverns and community conservation gardens, giving students the opportunity to see and learn about natural resource conservation and the natural environment on-site.











Conservation Gardens

A conservation garden is a great place for anyone in the community to learn about their local natural environment and how they can contribute to natural resource conservation.

Gardens often include growing demonstrations – like what types of produce you can grow in your climate – education stations that teach about composting and soil erosion, and even how a worm farm can promote healthy soil. These are just some examples of the fun things to be discovered at your local conservation garden!

Conservation gardens encourage environmental education and responsible stewardship of our natural resources.



Arizona Envirothon

Districts work to sponsor statewide environmental education initiatives like the Arizona Envirothon. Established in 1998 and modeled after the National Conservation Foundation (NCF) Envirothon, the Arizona Envirothon is a statewide competition for high school students where teams of five demonstrate their knowledge in natural resource conservation areas including aquatic ecology, soils and land use, wildlife, forestry, and an environmental "theme" that changes yearly. Teams and coaches work with natural resource conservation specialists to learn about these topics and gain an understanding for how all resources interact with the greater ecosystem. The winning team earns prizes and a chance to represent Arizona at the annual NCF Envirothon.

To learn more visit www.azenvirothon.org





Continuing Adult Education

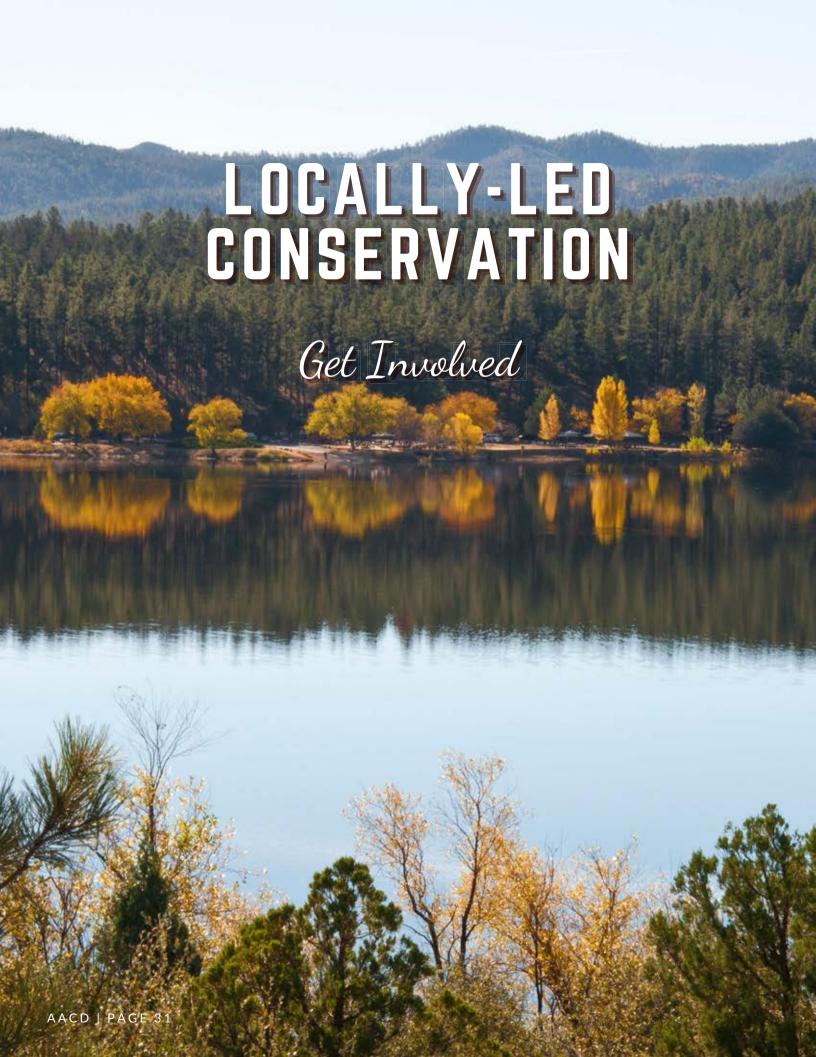
Education doesn't just start or stop with our children. Farmers and ranchers frequently attend workshops and training events to keep up to date on best practices for land management and conservation. Conservation Districts and Education Centers often sponsor and/or host trainings and workshops for farmers, ranchers, and other land stewards in their local areas. For example, some Districts hold a pesticide safety training (required by the Environmental Protection Agency) for agricultural workers and pesticide handlers. Many Districts hold educational workshops that touch on topics like water rights, soil health practices, program availability for technical and financial support, etc. These are just a few examples of the tools Arizona's land stewards utilize so they can continue to sustainably grow the food we eat while at the same time conserving our natural resources through wise-use conservation practices.

Locally-led workshops and training events foster learning and collaboration across the state to enable conservation efforts.









Get Involved with Your District

There is more than one way to get involved with your local Conservation District. From sitting on a Board of Supervisors, to becoming a Cooperator, to volunteering, there is a place for any land steward to make an impact at the local level.

WHAT ARE DISTRICT SUPERVISORS?

Each District is run by a board of locally elected or appointed farmers, ranchers, and other land stewards called "supervisors." Supervisors are unpaid and donate thousands of hours each year to help local agricultural producers and other land stewards implement conservation work. Supervisors work with stakeholders and District "cooperators" to identify resource conservation needs, set priorities, and help implement conservation practices at the local level.











WHAT ARE DISTRICT COOPERATORS?

"Cooperators" are local producers and other land stewards who reside in a District. Districts seek to join forces with interested Cooperators and leverage available resources to enhance Arizona's working landscapes for ecological and economic prosperity. Districts do this by collaborating with over 20 federal, state, and tribal agencies and other stakeholders who have authority, funding, or expertise in the management of land, water, air, wildlife, and other natural resources. With the support of Districts, Cooperators receive the technical and financial assistance needed to develop, fund, and implement sound, locally-led conservation plans and practices.



Want to get involved with your District? Visit the AACD website, identify which District you reside in, and visit their page to find the appropriate contact info to get in touch!

www.aacd1944.com/arizonas-conservation-districts/

WHAT ARE DISTRICT VOLUNTEERS?

Whether or not you're a local producer or other land steward, you can make a difference in your community and the environment. You can become a volunteer for your local Conservation District and/or local Conservation Education Center, and help teach others in your community and the state about natural resource conservation.



Willcox-San Simon's "Cooperator of the Year"

Each year the Willcox-San Simon Natural Resource Conservation District selects a "Cooperator of the Year" to highlight and honor within the District who exhibits excellent land stewardship and conservation of resources. The District alternates the annual award between a farmer and a rancher. For 2019, rancher Jesse Davis of the Sierra Bonita Ranch was the award recipient.

Jesse is the sixth-generation of his family to opperate the Sierra Bonita Ranch in Bonita, Arizona. According to family legend, Jesse's great, great, great-grandfather, Henry Clay Hooker, settled in the area around 1872 because of the abundant water and strategic location to the Forts and Reservations, and founded the first permanent cattle ranch in the Arizona territory. Jesse still operates the cow-calf operation with pride, raising primarily Hereford cattle, along with red and black Angus crosses. Jesse's commintment to his family's legacy means not only honoring tradition, but also adapting to the needs and demands of environmental changes to the land such as erosion and flooding, drought, and invasive species encroching on forage grasslands.

In conjunction with the Natural Resources Conservation Service (NRCS), Jesse has developed and is actively implmenting a Resource Management System plan on the ranch. Since his first contract in 2011, Jesse has completed several projects through NRCS funding agreements to benefit water distribution across the Sierra Bonita Ranch. He has installed two wells, 73,129 feet of pipeline, two solar pumps, five water storage tanks, and 11 troughs with wildlife escape ramps. Jesse has also partnered with the Antelope Foundation and Arizona Game and Fish Department to make fence modifications to benefit herds of pronghorn antelope that inhabit the 58,000-acre ranch. Additionally, Jesse has implemented grassland restoration practices, mechanically removing invasive mesquite trees and reseeding the land with native grass species to improve ground cover, soil erosion, and livestock and wildlife forage. He has also installed fencing to allow these pastures to rest from grazing periodically, thus increasing the stability of the soil and allowing the seed to establish. To further improve grazing management, Jesse has taken to balancing forage production with stocking rates, and even made the difficult decision to reduce herd numbers from what they were historically to a more conservative level. This decision has improved the resiliency of the ranch and, in the face of several years of drought (approximately 6 inches of rainfall, annually), Jesse has not had to sell his herd. Jesse's dedication to conservation and conservation practices help to *conserve* the natural resources available to his operation and benefit natural wildlife habitat, while he *grows* food we all need to *live* healthy lives.

Jesse has implemented many conservation practices independently and is an advocate for conservation around the state. He has served and is presently serving on the Cochise Graham Cattle Growers and Arizona Cattle Growers Association, respectively, and is an excellent example of an active Cooperator of his Conservation District.

OUR SUPPORTERS

Conservation Champion \$2,000+

BIG SANDY NRCD HEREFORD NRCD WINKELMAN NRCD

Conservation Steward \$1,000

REDINGTON NRCD

Conservation Leader \$1,500

AGUA FRIA - NEW RIVER NRCD
COCONINO NRCD
ELOY NRCD
FLORENCE-COOLIDGE NRCD
LITTLEFIELD-HURRICANE VALLEY NRCD
PIMA NRCD
SAN PEDRO NRCD
SANTA CRUZ NRCD
TONTO NRCD
WELLTON-MOHAWK NRCD
WEST PINAL NRCD

Conservation Partner \$500

HEATHER BAKER | LORIANNE BARNETT | BROOKE GLADDEN | MATTHEW HAMMOND |
STEPHANIE HAMMOND | DIANA KESSLER | FRANK KRENTZ | PHIL KRENTZ | RAY MARTINEZ
KATHLEEN MARRIGAN | SUZANNE PALIERI | MARK PHELPS | DEBORRAH SMITH |
ELIZABETH TAYLOR | DANIEL TORRENS | SHARMA TORRENS | VERDE NRCD

OUR SPONSORS

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KNIGHT ENVIRONMENTAL

DUNN RANCHES
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Silver Level

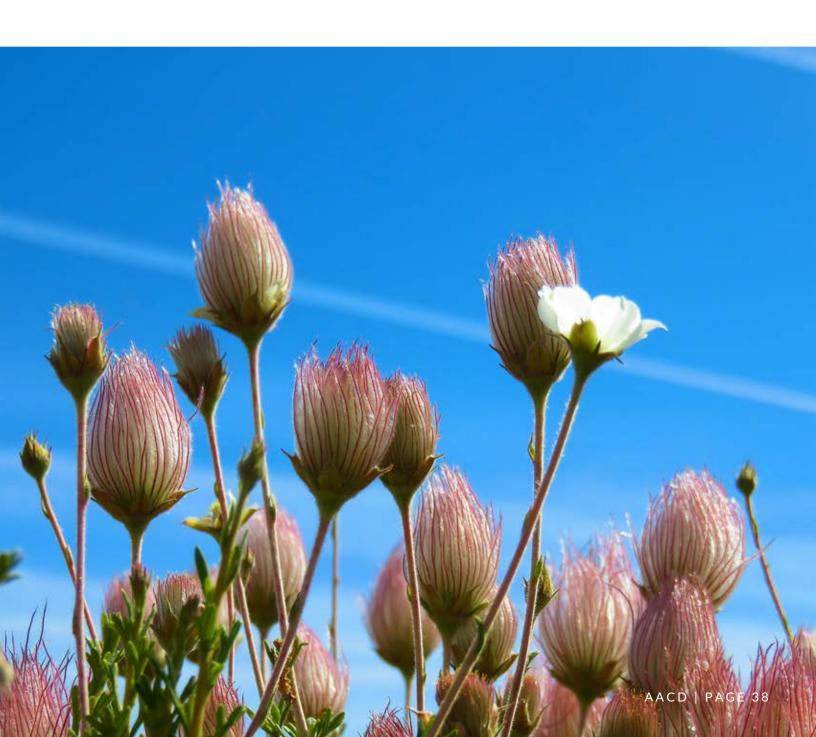
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