

# currents

## FOOD CONSPIRACY CO-OP



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Grand Canyon State  
Electric Cooperative  
Association, Inc.



@GCSEGA



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*Cover: Food Conspiracy Co-op members stand outside of the new storefront.*



David Lock, GCSECA CEO

As the Speaker of the Arizona House of Representatives Rusty Bowers recently said, Arizonans aren't crawling from cactus to cactus in search of water to drink. However, a confluence of factors have given reason for some to envision the scenario.

The West is in a drought – causing flows on the Colorado River to diminish. Reduced flows affect everything and everyone in Arizona, in some way, shape or form.

As a water nerd and as someone who has resided where the Colorado River begins and near where it ends, the discussions about how to deal with diminishing water resources fascinate me. They also hit home to the farmers, ranchers, business owners and residents of Arizona co-op country, and resonate with purchasers of power generated from dams along the Colorado.

A good chance exists that water levels will fall to a point in Lake Mead by August that the first-ever shortage will be declared for Colorado River water users. Through negotiations with the six other states that make up the Colorado River Compact, Arizona has agreed to forego 512,000 acre feet of water if the shortage is declared. That is 18% of the state's water supply, or enough water to serve 1.5 million families for a year. It's also 30% of the water the Central Arizona Project is entitled to take from the Colorado. That water serves cities, farms and ranches in central and southern Arizona.

Arizona's water leaders have anticipated and planned for shortages. There are mitigation plans in place to help soften the blow should a shortage be declared – a blow that will almost exclusively fall on the state's agricultural community. And the state and its citizens have done an amazing job of conservation to make things a bit more tolerable. We use less water today with a population of more than 7 million people than we did in the 1950s, when fewer than 1 million lived here. Conservation efforts have left 40 feet of water in Lake Mead that Arizona can use in the future, to lessen the impacts of drought.

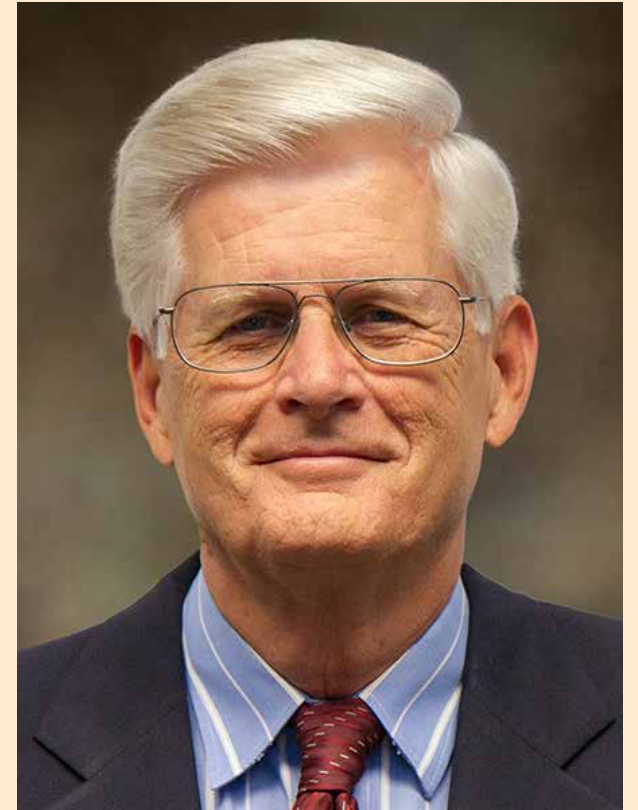
Efforts are ongoing to plan for a drier future. The seven states dependent on the Colorado River are negotiating a Drought Contingency Plan that would extend beyond 2026. A renewed focus on conservation, augmenting (replacing) groundwater and looking for other supplies has been sharpened. Bipartisan legislation has been introduced to begin conversations about the touchy subject of groundwater management.

We, as the providers of another critical commodity to rural Arizona, need to be in the midst of these discussions. Water policy and practices affect every aspect of our lives and, in many cases, livelihoods. Leaders as diverse as former Gov. and Interior Secretary Bruce Babbitt and current Arizona Department of Water Resources Director Tom Buschatzke have said the state is in decent shape – even if persistently dry conditions to continue. But planning and negotiating and addressing tough issues needs to continue earnestly and urgently to ensure we aren't some day stumbling from cactus to cactus.

Dave Lock

The Trico Electric Cooperative Board of Directors will have some new faces. During Trico's 2021 Annual Meeting held via Zoom on Saturday, April 24, the election results for Districts 1, 2 and 5 were announced.

In District 1 (Marana, Dove Mountain), there were three candidates: Don Black, Todd Rooney and Tony Thomas. Mr. Black, the incumbent, was reelected for a three-year term. Arnoldo Ballesteros Burruel ran unopposed in District 2 (Marana, Avra Valley) and will replace Brad DeSpain, who is retiring from the Board after 27 years. In District 5 (Arivaca, Sasabe, Green Valley), Damon Goodmanson and Joe King were the candidates to replace Barbara Stockwell, who is retiring after serving on the Board since 1979. Mr. King was elected.



Don Black, District 1



Arnoldo Ballesteros Burruel, District 2



Joe King, District 5

# Cooperation Among Cooperatives – Working Together for Our Communities

Arizona's electric cooperatives have built their foundation on the seven cooperative principles. These principals are at the core of every cooperative. Whether in the energy industry, agriculture industry, or even within a food cooperative, we can find these foundational core principles in action. Though many Marana and Tucson-area residents are familiar with the local electric cooperative, Trico Electric Cooperative, many are also familiar with another local cooperative in the area, the Food Conspiracy Cooperative.

Food Conspiracy Cooperative (FCC) has been serving the Tucson community by increasing access to healthy and organic food since 1971. They have done this through the cooperative business model, beginning with friends swapping bulk foods in the parking lot, until now in their own building with paid staff and a guiding Board. At this same location on Tucson's 4th Avenue, FCC is celebrating its 50th Anniversary by activating an expansion project for which their owner-members have been asking for years: an entrance from the parking lot into the back of the store with additional parking.

What is being called the East Entrance Project, will open an entrance on the east side of the store, integrate the campus with gardens and gathering spaces, and increase parking options, all while putting a premium on increased flow, accessibility, and green space.

True to cooperative values, FCC is inviting member-owners and the wider-Arizona community to invest in the Capital Campaign via the purchase of Preferred Shares. Different than a donation, Preferred Shares allow community members a return on their investment over the life of the shares, at which point they are paid back by the Cooperative. Shopping and investing in FCC is open to everyone, but they hope investors will choose to become member-owners in the Cooperative.

Ownership consists of a single equity payment of \$180, annual dividends when FCC is profitable, and engagement in the democratic process at Board meetings and elections. Information about process of becoming a member-owner, the East Entrance Project and Capital Campaign are all on the FCC website.

After 50 years of sharing healthy food, FCC is thrilled to expand further physically, while continuing the evolving story of shared abundance when shared resources flow with a common vision.

Trico Electric Cooperative's Manager of Public Affairs and Sustainable Energy Programs, Laree St. Onge, had the pleasure of meeting and talking with FCC leadership earlier this year. "One of the seven cooperative principles is Cooperation Among Cooperatives, and although FCC isn't an electric cooperative, they are still a cooperative



with similar values," said St. Onge. "Trico Electric Cooperative is happy to support the Food Conspiracy Cooperative's initiatives through social media posts as well as other communications and hope that this assistance will highlight what a strong and supportive community we live in."

Cooperatives come in all shapes, sizes, and industries. Our cooperative principles bind us together with one focus in mind – the people who power us. Keep an eye out for more local cooperatives in your communities!

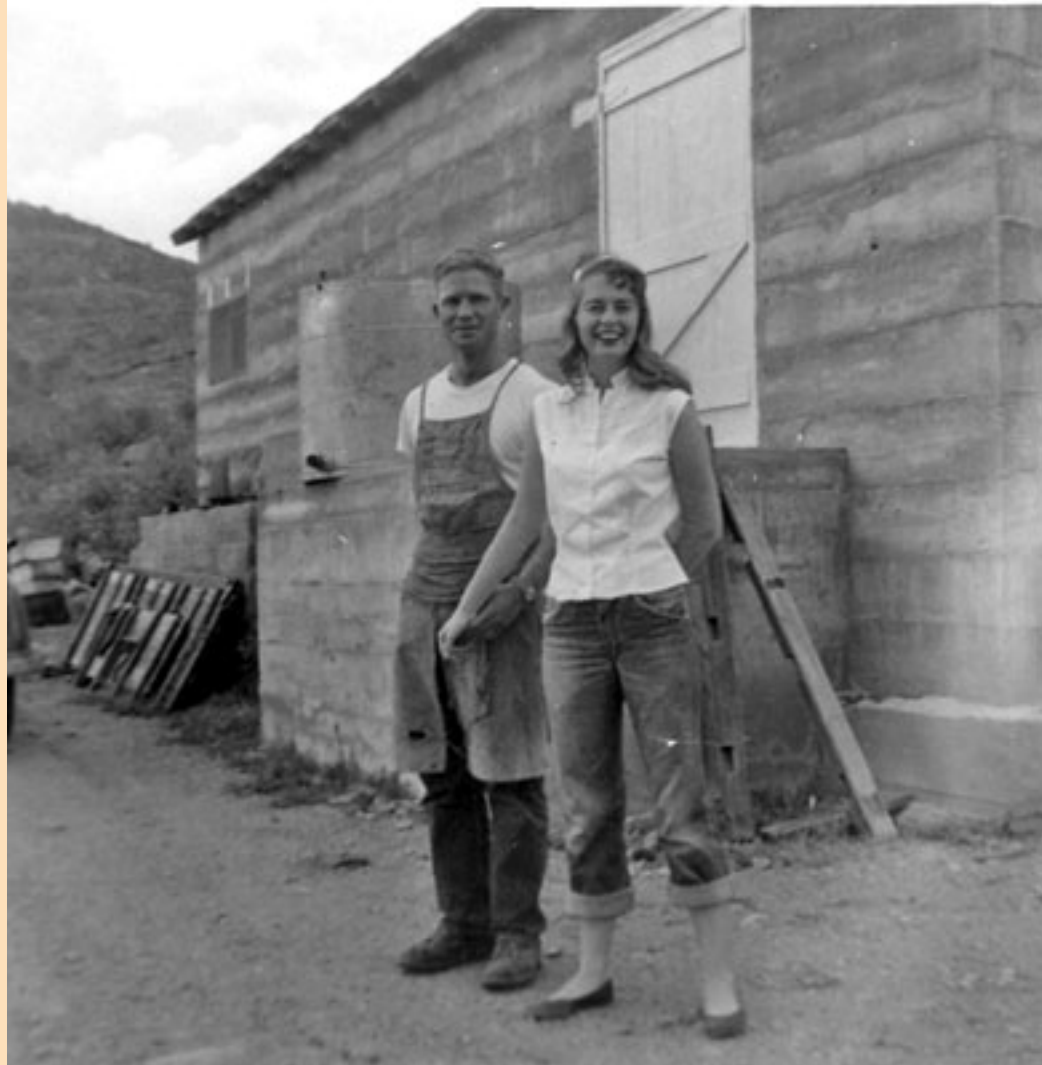
For more information on Food Conspiracy Cooperative, please visit their website at <https://foodconspiracy.coop/about-us/east-entrance-project/>; on Instagram (@foodconspiracy), or on Facebook at [www.facebook.com/foodconspiracy](http://www.facebook.com/foodconspiracy).



# Celebrating Barbara Stockwell

Barbara Stockwell has served on behalf of Arizona's rural electric cooperatives for over 40 years. Her tireless dedication to the community, paired with her strong sense of family, has made her a role model to her fellow colleagues and to the co-op members—especially to other women.

Barbara is a self-described "people person". Throughout her lifetime, she has always been involved with clubs and organizations. She likes meeting new people and being involved in good causes. When she was a young child, Barbara's mother was very active in a local Cooperative Extension Homemakers' Club, which is where her sense of pride for her community was first instilled. Later in life when Barbara had her own family, she followed her mother's footsteps and was an organizing member of a Cooperative Extension Homemakers' Club in Arivaca, AZ. Arivaca is a small town near the Mexican border in Pima County. Despite its small size, there were nearly 20 clubs around the county that gave Barbara great community involvement and the opportunity to meet other rural women.



Barbara attended college at the University of Arizona, where she majored in English and received a minor in Spanish. During her college years, she also married the love of her life and started a family in Arivaca. Barbara's husband operated his family beehiving business, where they managed 1400 hives while she raised their four children. Being a homemaker was her number-one priority and one of her greatest joys, but after the untimely death of her late-husband, Barbara decided to regain more community involvement. Her children were older and at a more independent age, and Barbara was ready to take a new journey in life. Little did she know that her fateful decision would lead her to many years of service, countless new friendships and amazing new life experiences.

In 1978, Barbara was asked to serve on Pima County's Cooperative Extension Board as an agriculture member. Ultimately, Barbara served for 20 years on the extension board, plus another 10 years as an alternate member. After a close family friend and one of the incorporators of Trico Electric Cooperative, Inc, Fred Noon, retired from the Board of Directors, Barbara decided to take her chance and run for his seat. Barbara had

extensive years of community involvement, which helped her win the board position. She has now served 14 terms—42 years—and has held nearly every position except for board President.

In addition to her long-standing position on Trico Electric's board, Barbara has served on Grand Canyon State Electric Cooperative Association's (GCSECA) Board of Directors for nearly 20 years, holding all offices at different times. She also sat on the Southwest Transmission Cooperative Board for 14 years, the Arizona Electric Power Cooperative for one year, and held a three-year term on the National Rural Telecommunication Cooperative Board.

Through all her years of service and involvement, Barbara's fondest memories are creating connections with new people from all over the state and country. "Electric cooperative members are always great human beings, many with rural roots, so we have a lot in common," Barbara said. "Home, family and community are all important to us, and everyone is rooted in serving the community. Ultimately, being with people, while doing something for "my people" was my greatest experience. Family and service are fundamental to the quality of life," Barbara continued.

Barbara has also paved the way for many women. For years, she was one of the only women on the boards she served. She acted as a trailblazer for other women in the community and encouraged their involvement. Her presence on the Trico Electric Cooperative Board of Directors will be missed, but her legacy will live on through everyone she has impacted. GCSECA thanks Barbara Stockwell for her service.



# Habitat for Humanity in Bullhead City



On Saturday, May 1st, Habitat for Humanity met in Bullhead City for a home dedication to the Chamber family who qualified for a home built, and funded, by Habitat for Humanity. Habitat for Humanity is a global non-profit that believes everyone has a right to a decent place to live. Homeowners, alongside contractor volunteers, work to construct beautiful, quality homes that are structurally sound and energy efficient.

Bullhead Regional Habitat for Humanity President Rich Tempelman stated, "Thank you to the many volunteers, individuals, groups, churches, companies and local organizations that have partnered to make this home possible. Our goal is to make this family's monthly bills as manageable as possible. Appreciate Mohave Electric donating the solar system to reduce this family's electric bill for many years to come, saving money that can be spent on other necessities."

Mohave Electric Cooperative (MEC) works to assist the community, and has partnered with Habitat for Humanity over the years to provide renewable energy and lower energy cost solutions for the members. MEC is happy to announce that, with the help of a quality contract crew, APO Electric, the Chamber family received a 12.24 KW solar system worth \$25,000.00 at no cost to the family or Habitat for Humanity through MEC's Solar Initiative for the Community program. This solar system is expected to produce 1,800 kWh per month and will continue to assist the Chamber family in energy savings for 25 years to come.



# Study Finds that Economic Impact of Arizona G&T Cooperatives and Apache Generating Station Grew by more than 16 Percent in 2020

## KEY FINDINGS

US Economic Research \* April 2021

In 2020, **Arizona G&T Cooperatives** generated an estimated **\$285.1 million** in direct, indirect, and induced economic activity (output) in southeast Arizona (Cochise, Graham, Greenlee, and Santa Cruz counties), which includes **\$45.3 million** in associated household earnings, supporting **516 jobs** region-wide.

*Each job at Arizona G&T Cooperatives creates an additional 1.3 jobs in the regional economy.*

As part of the overall impact of Arizona G&T Cooperatives, the co-op's **Apache Generating Station** produced an estimated **\$95.5 million** in economic output in the regional economy in 2020, which includes **\$15.2 million** in associated household earnings, supporting **173 jobs** throughout the region.

- 221 direct jobs** at Arizona G&T Cooperatives
- 48 jobs** in transportation and warehousing
- 43 jobs** in retail trade
- 27 jobs** in health care and social assistance
- 24 jobs** in food and beverage service
- 21 jobs** in administrative and waste management services
- 18 jobs** in professional, scientific, and technical services
- 114 jobs** in other industries across the region

- 74 direct jobs** at Apache Generating Station
- 16 jobs** in transportation and warehousing
- 14 jobs** in retail trade
- 9 jobs** in health care and social assistance
- 8 jobs** in food and beverage service
- 7 jobs** in administrative and waste management services
- 45 jobs** in other industries across the region

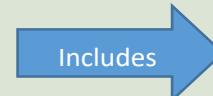
**Arizona G&T cooperatives** generated **\$5.3 million** in direct, indirect, and induced **tax revenue** for local tax jurisdictions in 2020.

**Apache Generating Station** produced **\$3.6 million** in direct, indirect, and induced **tax revenue** in 2020 for local jurisdictions.

- \$2.1 million** to school districts
- \$1.3 million** to special districts (community college, hospital, fire, flood, library & tech education)
- \$1.1 million** to county governments
- \$757,000** to municipalities

- \$1.5 million** to school districts
- \$1.1 million** to special districts (community college, hospital, fire, flood, library & tech education)
- \$806,000** to county governments
- \$236,000** to municipalities

**Arizona G&T Cooperatives**  
**Direct, Indirect, and Induced Impacts**  
 \$285.1 million in economic output  
 \$45.3 million in household earnings  
 516 jobs  
 \$5.3 million in local tax revenue



**Apache Generating Station**  
**Direct, Indirect, and Induced Impacts**  
 \$95.5 million in economic output  
 \$15.2 million in household earnings  
 173 jobs  
 \$3.6 million in local tax revenue

An economic impact study (EIS) examining the economic activity generated by Arizona G&T Cooperatives/Arizona Electric Power Cooperative in 2020 found that jobs and earned income of AzGT employees, as well as money spent on outside goods and services and taxes that were paid, had a significant positive impact on the regional economy, which include an area covered by four counties; Cochise, Graham, Greenlee and Santa Cruz counties. In fact, the 221 jobs at AzGT support more than 500 jobs in the region, and the total economic impact of operations increased by more than 16 percent. Dr. Robert Carriera with U.S.EconomicResearch, who authored the study, called the cooperative's operations a "stabilizing force" in the regional economy.

# Challenging Times Don't Stop YES Fair Students

## Projects uploaded and judged remotely; wind turbine experiment wins AzGT award

The competition of ideas, presentation of data and explanation of procedures that make up the Sulphur Springs Valley Electric Cooperative's (SSVEC) YES Fair continued through the uncertainty of the pandemic. But this time, the judging and awards ceremony were held in a different forum.

The Youth, Engineering and Science (YES) Fair usually concludes with rows of three-sided displays throughout the Windemere Hotel in Sierra Vista and an awards ceremony in that same venue during the end of February or beginning of March. Such timing last year made the YES Fair the only in-person science fair held in Arizona in 2020. But the times caught up with the event; this year, SSVEC adapted and required students to upload their projects online so that judges could review them in a virtual setting.

"This year was a little different from last year's YES Fair," said Erin Broussard, environmental administrator II for Arizona Generation and Transmission Cooperatives (AzGT). "I reviewed all of the high school age projects through the Google Classroom that was set up. It's always nice to see what students are interested in researching and doing projects on."

This is the third YES Fair for Broussard to judge for the AzGT Award. She usually awards a project that has some connection to energy, and this year was no exception. Amanda Whalen, a senior at Veritas Christian Community School, won the award, which included a \$150 gift card for her and a \$100 gift card for her advisor, for her project titled, "Making a Saguaro H.A.W.T. (Horizontal Axis Wind Turbine)"



This year, the YES Fair was judged virtually. Amanda Whalen presented her project with a video instead of speaking with judges in person as in previous years.



(l-r) J.D. Wallace, AzGT communications, social media and marketing administrator presents the AzGT Award to Amanda Whalen, a senior at Veritas Christian Community School. Her mother, Maria and her advisor, Daniel Doyle stand by her side.

"I created a wind turbine tower that uses biomimicry to incorporate the design of a saguaro cactus, so it has the pleats and spines of a saguaro, and I tested whether using such a tower would improve the efficiency of a wind turbine and also if it would have greater load-bearing capacity than a normal tower," Whalen explained. "Saguaro are designed in such a way that they redirect wind upward. They actually have very shallow root systems and they are able to stand up against wind because the pleats and spines just redirect that wind upward instead of hitting it directly. So,

because of the lift that's created at the top of the plant, that's why I got the idea to make it into a turbine tower so that wind would be directed upward toward the turbine itself."

For her experiment, Whalen built a standard, cylindrical tower as a control and one that resembled the design of a saguaro. She found that a turbine placed on top of the saguaro-shaped tower received more wind and turned more than when it was on top of the control tower. The saguaro-shaped tower also held more weight than the control tower.

"Nature usually has the answers that science doesn't. So I think it's always a good idea to look to nature for those answers," she said. She also won a \$2500 scholarship from the Huachucans and placed in the top eight projects in the Southern Arizona Regional Science and Engineering Fair (SARSEF).

"It feels humbling, in some ways, definitely," said her advisor, Daniel Doyle. "And it really has given me more of a drive, particularly looking at future years of wanting to make sure I invest in the students and give them something to look towards; remind them of the opportunities that they have. And it's great to have a little bit of recognition, but it really is the students helping me be recognized. It's their work."

"Obviously, I'm very, very proud of her because of her work ethic," said Maria Whalen, Amanda's mother. "As parents we've never really had to push her; she always pushes herself and always wants to succeed in what she does and spends many, many hours, more hours than is required, probably she has spent on her projects, every single year."

Whalen is no stranger to energy projects, nor to the AzGT Award. She received it in 2019 for exploring the possibility of generating hydroelectricity within water treatment plants.

"I think it shows that they really care about the community and especially about the kids and their future because this has already affected my future in a really deep way," said Whalen, who is still deciding where to attend college but has chosen to major in chemical engineering. "It's made me want to go into science and it's helping; it's giving me opportunities to make that happen. So, it's really generous of them and it just shows how much they care about the places they serve as well."


"I think it's important for AzGT to participate in the YES Fair because we are a part of the community and these students are potential future employees. I also feel like it's important to encourage and foster a love of STEM in students at an early age," Broussard said in reference to science, technology, engineering and math (STEM) education. "The YES Fair allows students to research something that is interesting to them while learning the scientific method, and I appreciate how they are asked to reflect on what went well or could have gone better. I like judging the YES Fair because I like to see what the future might hold."



Amanda Whalen showed in pictures how she compared a standard, tubular tower as her control against a tower with pleats and spines like that of a saguaro. The saguaro-shaped tower directed more wind to the turbine and held 452 pounds compared to 400 pounds held by the control tower.



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