

# The Inflation Reduction Act

# CANYON ECHO


<http://sierraclub.org/arizona>

Grand Canyon Chapter

Summer 2023

## The Inflation Reduction Act Delivers Benefits to Arizona

### HOW IS THE IRA HELPING ARIZONA?

by Sandy Bahr 

The Inflation Reduction Act (IRA) was passed by Congress and signed into law by President Biden in August of 2022. This law provides historic investments in climate, communities and jobs, and an equitable transition to clean energy, some of which we have already begun to see in our communities. When fully implemented, the law will bring an estimated **\$4.1 billion** of investment in large-scale clean power generation and storage to Arizona by 2030. A 2020 report found that federal clean energy stimulus investments similar to those adopted in the IRA would add more than 82,000 clean energy jobs in Arizona over five years and support the continued growth of the state's electric vehicle industry.

In addition to its promise of job growth and lower energy costs, the Act will help slash climate pollution in the U.S. by an estimated **40%** by the end of the decade, which will significantly improve air quality in the region and protect Arizona residents from the detrimental effects of pollution.

Just after taking office, Governor Katie Hobbs established an office of resiliency to, in part, make sure Arizona is pursuing the grants and other programs contained in the IRA. Local governments and schools are also pursuing the programs in this new law. One key aspect of the IRA is that these investments, including in energy efficiency, will benefit those most impacted by the climate crisis, especially Indigenous communities and communities of color.

Check out the articles and map and join our Climate and Energy Action Team to learn more about the IRA and how you can help ensure the benefits for Arizona are fully realized.

Sandy Bahr is the director for Sierra Club's Grand Canyon (Arizona) Chapter

### IRA HELPS WITH ENERGY EFFICIENCY

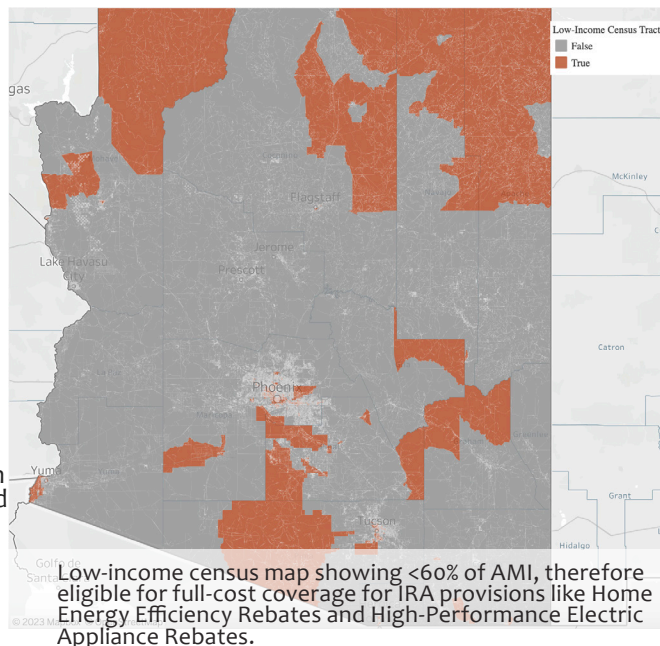
by Nick Arnold 

The Biden Administration's Inflation Reduction Act invests billions into clean energy, energy efficiency, and building electrification to reduce U.S. emissions while reducing household energy bills. While the tax incentives and benefits apply to all Americans, there are extra opportunities available to households under 150% Area Median Income (AMI) – including full project cost coverage!

You can see on the map which census tracts have a majority of households with <60% of AMI – meaning these households qualify for the best IRA benefits.

These neighborhoods would benefit immensely from targeted outreach to let them know about IRA opportunities like the High-Efficiency Electric Home Rebate Program and Home Energy, Performance-Based Rebate Program to encourage them to take advantage of energy efficiency and electrification programs to reduce their monthly bills while eliminating indoor air pollution from gas stoves and heaters.

Nick is the Arizona State Lead for Climate Cabinet



### IRA HELPS WITH ROOFTOP SOLAR

by Adrian Keller 



Residential Solar Installation. Photo by Adrian Keller.

Last summer, President Biden signed the Inflation Reduction Act (IRA) into law, the largest single investment the US has ever made in clean energy. Thanks to the IRA, more Americans—from homeowners and small businesses to farms, houses of worship, and nonprofits—will be able to go solar and save money.

The federal investment tax credit (ITC) has historically been one of the most successful tools for lowering the cost of installing rooftop solar. The ITC would have been reduced this year and disappeared altogether by 2024, but the IRA extends and expands this important credit. Individuals who pay federal income taxes can receive a tax credit worth 30% of the total cost of installation until 2032. This significant cost reduction brings solar within reach for many more families. Additionally, battery storage also qualifies for the 30% tax credit, and that's now true whether or not it's paired with on-site solar.

One new program in the IRA that is particularly game-changing is "direct pay." Before the IRA, only tax-paying entities could qualify for the federal solar tax credit. This left nonprofits, houses of worship, school districts, and municipalities to pick up the total cost of solar themselves. Through direct pay, non-tax-paying organizations will be able to receive a cash payment from the federal government for 30% of the cost of going solar in lieu of a tax credit. Projects that meet additional criteria, such as using domestically manufactured parts or being located in a community disproportionately impacted by fossil fuels, could even qualify for larger payments—well above 30% of project costs.

Rural communities also stand to benefit immensely from changes the IRA makes to the Rural Energy For America Program

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Explore, enjoy, &

protect the planet





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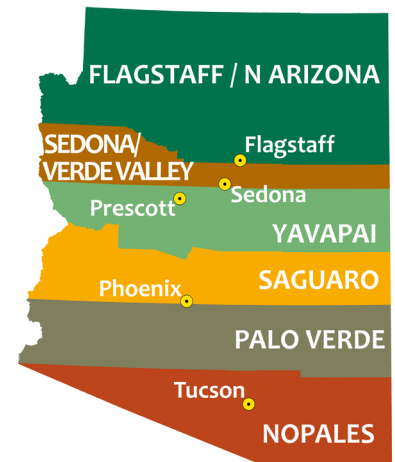
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**Saguaro Group Rep.** Jo Sylvester  
**Yavapai Group Rep.** Tom Slaback  
**Rincon Group Rep.** Anakarina Rodriguez

At-large members of the Ex Com are elected by the members statewide. Group representatives are elected in their group geographic area. Other positions are appointed by the Ex Com.



BIPOCC: Black Indigenous People of Color Committee

CCL: Council of Club Leaders

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## Happenings around AZ

Five groups and one regional conservation committee make up the Grand Canyon Chapter. All events and meetings listed below are open to those interested in learning more about Sierra Club. You can find out more at <http://www.sierraclub.org/arizona/events-activities>. Schedules are subject to change.

### Saguaro Group (North Maricopa County) <http://sierraclub.org/arizona/saguaro>

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<b>Ex-Com (At-Large):</b>	Lorena Hernandez		

Palo Verde Group executive committee meetings are the **second Thursday** of each month and programs are the **fourth Thursday** of each month.

### Flagstaff-Northern AZ Group <http://sierraclub.org/arizona/plateau>

<b>Contact</b>	Kay Bordwell	928-779-3517	<a href="mailto:kbordwell4@gmail.com">kbordwell4@gmail.com</a>
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Flagstaff group programs & Executive Committee meetings are held **on the second Thursday of the month**. Contact Kay Bordwell for more information about events in Northern AZ.

#### Jul 8 (SAT) – Sinclair Wash Reach Clean Up

Weed eradication and clean-up on the Sinclair Wash Reach. Wear work clothes, boots and bring work gloves.

### Yavapai Group (Prescott) <http://sierraclub.org/arizona/yavapai>

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Yavapai group programs & Executive Committee meetings are held **on the first Wednesday of the month**.

### Nopales Group (Tucson) <http://sierraclub.org/arizona/rincon>

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## Chapter Announcements

**Wildlife Activist Group Meetings JUL 10, AUG 14, SEP 11 (MON) 6pm.** Wildlife Activist Group meetings (virtual). Interested in making a difference for wildlife? Want to help protect habitat, gather important research data on wildlife, or watchdog the Arizona Game and Fish Commission? Please consider joining our Wildlife Activist Group. For more information, please contact [sandy.bahr@sierraclub.org](mailto:sandy.bahr@sierraclub.org).

**Renewable Energy & Climate Action Team Meetings, AUG 22, SEP 26 (TUE) 6:30pm:** Energy and Climate Action Team meetings (virtual). Discussions and programs encompass renewable energy and energy efficiency campaigns nationally and locally. Everyone is invited to participate, no matter how much or how little you know about energy issues. For more information, please contact [sandy.bahr@sierraclub.org](mailto:sandy.bahr@sierraclub.org).

**Arizona Sierra Club Conservation Meetings, AUG 8 SEPT 7 6:30pm:** This is the monthly conservation meeting (virtual) of the Arizona (Grand Canyon) Chapter and Palo Verde Group (Phoenix area), where we discuss a broad range of environmental issues. Come and learn more about issues or bring an issue you care about and share what you feel can be done, or what you are doing, about it.



This spring, the Palo Verde Group held a sticker design contest that was open to high school students. The winning submissions were designed by Alexandra Estanislao, a graduating senior at Glendale High School (GHS) and a member of the GHS Conservation Society and Dafne Idaly Lopez Torres, another graduating senior at the Center for Academic Success #2 in

Douglas. The students were awarded prize money and a gift membership with the Sierra Club. Look for one of these stickers the next time you see the Sierra Club at an event!



#### Alexandra Estanislao

Arizona Wildlife and the ecosystem as a whole inspired my design. Being part of the Glendale Conservation Society and volunteering with the Sierra Club gave me the opportunity to explore the wonders of Arizona despite the few years I've been living here. It opened my eyes to see such magnificent life forms coexisting with us, be it plants or animals. It is fascinating that the state we call home is also their home; therefore, protecting them and their environment is a choice that needs to be acted upon.

#### Dafne Idaly Lopez Torres

First of all, I've always thought that our environment and ecosystems are fundamental to our existence; however I wasn't informed about the wildlife in Arizona, so I decided to do some research and to my surprise, found that there's several endangered species at the moment in Arizona. This discovery inspired me to do my design. To begin, the species that I included in my design are the Mexican grey wolf, Mojave desert tortoise, the Chiricahua leopard frog, black-footed ferret, Arizona ocelot, and California condor. In addition, I chose purple for the species because purple is a color that represents royalty and these species



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On April 11, 2023, the Grand Canyon Tribal Coalition announced an effort to call on President Biden to establish Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument to protect 1.1 million acres of lands surrounding Grand Canyon National Park.

#### Why does this matter?

Tribal Nations have been the stewards of the Grand Canyon region since time immemorial. The region holds significant cultural and spiritual narratives. The Tribes have been rooted in this iconic landscape where their stories and histories are told among the layers of rock and sand, and in the water that flows through Grand Canyon.

Though intimately connected with the well-being of Grand Canyon National Park, these lands are significant in their own right. The proposed monument includes many natural and cultural resources that are significant and sacred to Tribes. This area is home to abundant biological diversity and unique ecology, including life-giving springs that are threatened by uranium mining. The Grand Canyon region provides important habitat for rare and endangered species, such as the California condor and Mexican spotted owl. It is also a critical refuge and migratory corridor for hundreds of bird and

## Grand Canyon Tribal Coalition calls on President Biden to establish Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument

by Sandy Bahr



mammal species.

To ensure protection of this region, the Grand Canyon Tribal Coalition, consisting of leadership representatives of the Havasupai Tribe, Hopi Tribe, Hualapai Tribe, Kaibab Paiute Tribe, Las Vegas Band of Paiute Tribe, Moapa Band of Paiutes, Paiute Indian Tribe of Utah, Navajo Nation, San Juan Southern Paiute Tribe, Yavapai-Apache Nation, Pueblo of Zuni, and Colorado River Indian Tribes, is asking President Biden to establish the Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument. They are joined by Representative Raúl Grijalva and Senator Kyrsten Sinema, as well as many environmental and conservation groups, hunters and anglers, businesses, and local government, among others.

Baaj Nwaavjo means “where tribes roam” for the Havasupai Tribe, and I'tah Kukveni means “our ancestral footprints” for the Hopi Tribe.

#### What Can You Do?

Please join the tribes in asking President Biden to establish Baaj Nwaavjo I'tah Kukveni Grand Canyon National Monument [here](#). You can also submit letters to the editor and share social media in support of the proposed monument.

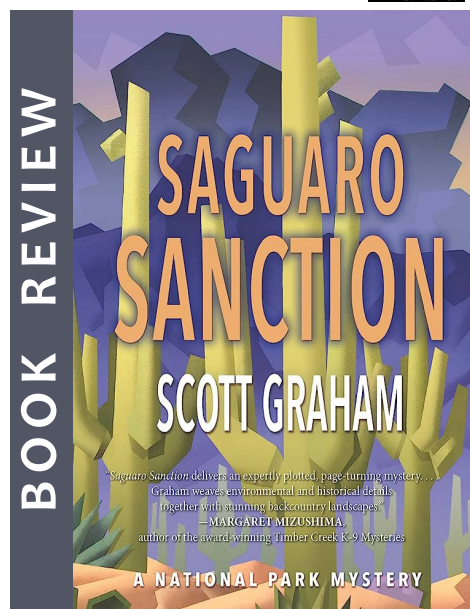


Moonrise Over Vermilion Cliffs looking over the proposed Monument Lands. Photo by Amy. S. Martin



Yucca in bloom in the East section of the monument looking at Vermilion Cliffs. Photo by Amy. S. Martin

● review by Stan Bindell



Arizona environmentalists will appreciate Scott Graham's book *Saguaro Sanction* as he masterfully weaves together an environmental mystery about the Tohono O'odham, petroglyphs, and pictographs. *Saguaro Sanction* is part of his national park murder mystery series. Graham mixes his love of national parks with his fascination for archaeology as his protagonist in the series is an archaeologist.

The reason he chose Saguaro National Park for the setting was because his grandparents moved to Tucson in 1963 and he spent his youth visiting the Sonoran Desert environment. “I just loved it,” he said. “It’s been high on my list all along for a setting for a mystery. The first thing I think about is the days after the rainstorms when there is this beautiful smell that comes from the desert. That is a memory that I’m fond of.” Graham said after rainstorms that the desert becomes alive with animals, plants, and human activity.

Graham has spent a lot of time on reservations as his wife is an emergency room doctor on the Navajo Nation. “I enjoy seeing the care and joy that Native Americans have for their land,” he said.

Graham likes to share that view through his plots with his settings, including reservations. The Tohono O'odham reservation borders Saguaro National Park. Graham said *Saguaro Sanction* gave him a chance to talk about the love the Tohono O'odham have for the land, but also of the migrants that pass through their land. “They care about the plight of those people and seek to find a middle ground,” he said. Graham is well aware that tribal members are sensitive about what is written about them. For this book, Graham only used what the Tohono O'odham had released publicly on their website. He said the sacredness of Baboquivari Peak on Tohono O'odham land is important.

Graham's national park mystery series is doing so well that Torrey House Press has signed him to do two more books. “The book is selling well. The publisher is happy with me and I’m happy with them,” he said.

Graham's national park mystery books also talk about the history of each park, which includes the impact of the ancestral people. “There is some native component to the plotline in more than half the books,” he said. Graham's first book in the series came out about ten years ago. The key protagonist is archaeologist Chuck Bender, but Bender's family is also involved in the book and readers

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## Outings Updates

### Salt River Raft Trip, May 14–17, 2023 • by Jim Vaaler



Salt River – downstream from Blackjack. Photo by D Mowry

This trip was done with Tonto National Forest (TNF) river staff and was administrative in nature. We were there to evaluate the condition of campsites within the Salt River Canyon Wilderness Area and to assess this wilderness area in general. While problems along the river corridor were quite noticeable, they were not nearly as severe as allowing cattle within a stone's throw of the river corridor; Cattle should never be allowed access to the river corridor. There were three rafts on this trip, with two of the rafts carrying Tonto National Forest staff and myself rowing a boat as a guest in the third raft. The flow was about 1,000 cubic feet per second (cfs), so the rafting got fairly challenging in a number of the rapids.

I was with TNF staff on a trip four years ago and we observed numerous campsites with a lot of cut trees. On this trip we observed the same unacceptable behavior, plus at Coon Creek we had to haul out a large amount of trash. Whether you are in a Wilderness area\*, an Inventoried Roadless Area (IRA\*), or camping and rafting on tribal land, there are certain behaviors that are unacceptable. Things like cutting off tree limbs, carving and hacking on trees, leaving trash behind, excessively engineering campsites, and building dams in little creeks are not acceptable outdoor ethics. While these practices are pointed out when one receives a river permit, apparently there are those who think the “message in the bottle” is not for them.

This is a problem not just on the Salt River, but pretty much on all rivers in the American West. The rafting public is not adhering to the adage of “leave only footprints and take only pictures.” While most of this damage is likely attributable to the self-guided sector of the rafting community, one cannot rule out guided outfitters as part of the problem also.

#### SO WHAT IS THE SOLUTION?

Perhaps it is time to consider a temporary moratorium on Salt River rafting? This would accomplish two objectives: It would allow this Sonoran Desert river corridor to recover from the misuse that is currently happening, and it would also get the attention of the rafting community as to the need

to conduct rafting trips in a way that does not damage the wilderness character of the river. While this may seem like a strong measure to some, unfortunately it may be the only way left to solve the problem. With river management there is always the give and take of managing a river for resource protection and user access. The mandate of Tonto National Forest is resource protection first.

As a final note, I have been rafting the Salt River now for 49 years and have seen many changes, some good and some bad. For example, this is the first year that the tamarisk bark beetle has shown up in the Salt River watershed. I'm not sure if this is good or bad, but it was assuredly inevitable. On the good side, the TNF river staff are planting desert willow seedlings along the river corridor at a number of different locations.

\*Wilderness Area – protected by law by the 1964 Wilderness Act

\*Inventoried Roadless Area – potential wilderness on Forest Service lands

*Jim is a Chapter Executive Committee Member of the Grand Canyon Chapter of the Sierra Club*



### Supporting Burrowing Owls, April, 2023

• by Ana Gorla 



Greg from Wild at Heart holding a burrowing owl. Photo by Ana Gorla

In April, we wrapped up Earth Week by teaming up with Wild at Heart to support our local burrowing owls. These owls have been facing habitat loss due to urbanization and human activities. With the help of 20 volunteers, we erected release tents where the owls stayed for 30 days before being released into the wild. It was a great opportunity for our volunteers to learn more about these fascinating creatures and witness them up close while placing them in new tents and providing them with food.

Events like this remind us of the positive impact we can all make in the lives of local wildlife and how we can contribute to their future. We're grateful to have been a part of this initiative and will continue to support local wildlife in any way we can. Thank you to our volunteers and Wild at Heart!

*Ana Gorla is the Energy and Public Lands Coordinator for the Grand Canyon Chapter of the Sierra Club*



## Cast of Characters Amritha Karthikeyan



### Tell us a little bit about yourself.

Hello! I'm Amritha, a rising senior at Arizona State University studying Data Science and Sustainability with a minor in Studio Art. I am very passionate about sustainability, urban planning, and environmental justice.

### What are your hobbies or interests?

I spend most of my free time grabbing boba with friends, going on walks, or going to whatever art studio I'm enrolled in for that

semester and working on projects like ceramics or printmaking. I also love video games and am currently playing the Legend of Zelda game on my Nintendo Switch.

### Do you have a favorite place to walk, run, hike, bike or watch wildlife? If so, where is it and why is it your favorite?

Being in Tempe, my favorite place to walk is just around campus and the Secret Garden. My favorite way to be in nature is to bring painting supplies and have a picnic in a nearby park or field, because I'm able to both rest, relax, and coexist with the birds and trees.

### What made you want to volunteer with Sierra Club?

I was involved with the first Arizona Youth Climate Strike in 2019 with Arizona Youth Climate Coalition back in high school, where I met Sandy Bahr. She introduced me to Sierra Club and the organization, and eventually when I became a college student, I was interested in still continuing climate advocacy work. I always love learning about climate change and issues and I always feel like I have to do something about it, and Sierra Club gives me the opportunity to constantly educate myself and be involved.

### What do you like most about advocating for environmental protection and climate justice?

My favorite part about advocating for environmental protection and climate justice is the community aspect. Climate change and environmental protection can be very hard to think about and deal with it, and it's very inspiring me to see people come together as a community to do something about it. It makes me feel less alone and more motivated and excited to do work.

### What are the biggest challenges to this work in Arizona?

Besides the politics surrounding it, I think the biggest challenge to this work in Arizona can be getting people who don't necessarily work in this field to care about sustainability or policy. Since we as a city is so spread out, it's important for people everywhere to be involved and enthusiastic.

### What accomplishment are you most proud of and why?

My biggest accomplishment is probably creating and being a part of a space at my school that is for Asian Native Hawaiian Pacific Islander folks to meet and advocate for civic engagement, environmental justice, and political issues. This was a space I always wanted when I first started university so I'm proud to help create a space like this for others who are looking for that community.

### What one word do you think describes you best?

Compassionate.



Isaac School District's First Electric School Bus. Photo by Ana Gorla

## Isaac School District Touted Historic Funding for Clean Electric School Buses

On May 9, 2023, EDF Action, Moms Clean Air Force, Chispa Arizona, Sierra Club, Arizona PIRG (Public Interest Research Group), and Defend Our Future partnered with Isaac School District to showcase the importance of the federal funding that the district received to upgrade its school bus fleet. Electric school buses are a cleaner, safer, and more cost-effective way to get students in Phoenix to school.

Speakers highlighted how children throughout Arizona ride in dirty diesel-powered school buses every day, which exposes them to harmful air pollution that exacerbates asthma attacks and results in missed school days. In Arizona, the Latinx community



Isaac School Bus press release. Photo by Ana Gorla

is more likely to be exposed to higher concentrations of problematic particle pollution from this filthy tailpipe exhaust.

Isaac School District is working to bring policy solutions to its schools that will invest in its children's future with clean electric school buses. Over 92% of students in the district are Latinx and this investment will help bring policy solutions around air quality to already overburdened communities. Isaac School District recently received \$2.37 million in funding to help accelerate the transition to clean, zero-emission school



Hazel & Rivko from Moms Clean Air Force with Sandy Bahr. Photo by Ana Gorla



Sandy Bahr and Ana Gorla from Sierra Club. Photo by Ana Gorla

Contd. p8



## Conservation Update

### Water vs Copper: The Continuing Saga of Pinto Creek

by Don Steuter

It was always hoped that Pinto Creek, just outside of the western boundary of the Superstition Wilderness, could avoid the fate of Pinal Creek east of Globe, where costly water cleanup operations have been underway for the last thirty years. Both surface and groundwater in the Pinal Creek area were badly polluted from almost a century of mining. Despite better regulations

short distance downstream from Carlota and began heavy pumping of its wellfield at the confluence of Pinto, West Fork Pinto, and Horrel Canyon, which caused base surface flows to completely cease for most of the ensuing years, killing off trees for about a half-mile downstream.

While the Carlota Mine seemed to be winding down, in 2019 Capstone decided to expand and extend its 5000-acre operation onto the adjacent Tonto National Forest land, triggering an environmental impact study to see what the effects of an additional 20 years of mining would inflict on the surrounding area. The findings were sobering: about five miles of Pinto Creek downstream of the wellfield would likely dry up, and about 35 square miles would see lowered groundwater tables. In addition, by 2039, the main tailings dam would top out at over 1000



Pinto Creek drying up. Photo by Craig Johnson

for today's more modern mines, Pinto Creek is hardly faring any better.

In 2008, about a half-mile length of Pinto Creek just north of Highway 60 was destroyed in order to access the Carlota copper ore body. Water for this mine came from a pump at the confluence of Pinto Creek and Haunted Canyon, which, despite having a pump-back mitigation system, still reduced surface flows and killed off some of the riparian vegetation. In 2013 Capstone Mining purchased the then-closed Pinto Valley Mine located a



Pinto Valley Mine. Photo by Craig Johnson

feet, making it one of the highest dams in the world and raising concerns that a catastrophic failure could send toxic tailings down Pinto Creek into Roosevelt Lake imperiling the drinking water supply of the Phoenix metropolitan area.

These recent developments are now documented in a film produced by videographer Craig Johnson entitled "Every Last Drop: The Demise of Pinto Creek." A link to the video is available on the Grand Canyon Chapter website, see <https://www.sierraclub.org/arizona>.



Don is the Conservation Chair for the Grand Canyon chapter of the Sierra Club

## Water Sentinels Update

### Helping Arizona Rivers

by Humberto Badillo

For years, the Southwest had a cowboy mentality when it came to the stewardship of its rivers: First came the cattle, then the Johnson grass, followed by buffelgrass. On the land, the cattle and exotic grass can be removed. What about the water? The degradation of top soil by free roaming cattle has caused *E. coli* to find its way into our precious rivers. Monitoring *E. coli* in the Verde and San Pedro rivers is vital to keeping our water clean, especially now, with the global climate crisis resulting in tighter and tighter water supplies.

The work that the Sierra Club's Water Sentinels does on the Verde and San Pedro rivers through donations and volunteerism is invaluable. It was at a Park-and-Ride in North Phoenix where I met up with Jennifer Martin to carpool. Passing New River, NPR was on the radio, so I asked Jennifer if she remembered Prairie Home Companion. She said she attended one of the live shows once, and we got to talking. We arrived at Camp Verde and met up with the other volunteers. We split into teams, and off we went to test the waters of the Verde River. At our first stop there were some friendly transients and a horse-riding outfit. We took samples and headed to our second stop, which was under a bridge that had geometric designs acknowledging the people who once inhabited Tuzigoot. From there, we started back, met up with the other teams, collected their samples, and headed back to Phoenix. The monitoring of *E. coli* by the Water Sentinels on the



Verde River Monitoring. Photo by Jennifer Martin

San Pedro and Verde Rivers has brought everything I've previously learned about riparian river systems full circle. The San Pedro has a lot of history with such places as Clanton Ranch and Charleston. It also has large areas of a native grass called sacaton that keeps erosion in check. It's here that one learns the importance of the springs that are fed by the groundwater that keeps these rivers flowing.

Humberto Badillo is a Sierra Club Volunteer



San Pedro River Monitoring. Photo courtesy of Jennifer Martin

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**The Morning Stars Sing Together (\$500+)**

Janet Witzeman

*The Grand Canyon Chapter is also thankful for the generous support from those who chose to remain anonymous.*

From p6

buses and at the event, there was a clean school bus to showcase this positive transition for the school district that speaks to a cleaner, healthier future for our children.

Recently, the Environmental Protection Agency opened up the second round of funding for clean school buses. This is part of President Biden's clean energy plan that created a Clean School Bus Program to set aside \$5 billion over the next 5 years for electric school buses. Already over 90% of school districts nationwide have requested clean electric buses as they are better for the environment and more economical than propane or methane gas-fueled buses.

Children across Arizona, including in the Isaac School District, can start breathing a little easier with electric buses.

*Article from news release sent regarding the event.*



From p3

are part of a powerful animal kingdom that it's important to our existence. Also, the background color is green to represent that they're part of the same ecosystem or at least connected by one. Finally, the phrase that I wrote in my design is inspired by the Native Proverb of "Only when the last tree has died and the last river has been poisoned and the last fish has been caught will we realize that we cannot eat money" I tried to capture the importance to invest in our environment and ecosystems. I want it to be a call for action.

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From p4

get to watch the family grow together as Bender is learning to be a dad to his two stepdaughters. The two daughters and wife Jonelle play a greater role in each book in helping to solve the crimes. The two daughters, Carmela and Rosie, grow a year older with each book.

Graham said he has always respected the way author Tony Hillerman wrote about the Navajo people and he feels Hillerman's daughter Ann is continuing her father's legacy by doing the same.

Graham said when his first book contract came up that he called Hillerman, who was kind enough to talk with him at length about the contract. "He gave me wonderful encouragement and he was neat to talk to," he said.

Graham said a sense of place is important to him as he shares his thoughts about the national parks as intimately as possible. He makes sure to tell the readers about the backcountry of the parks that many visitors don't see. "I have the scenes away from the paved roads. I want to give people a sense of place in a fun and entertaining way," he said.

Graham has visited almost all of the national parks west of the Mississippi; mostly with his wife and sons Taylor and Logan while they were growing up. That is when he learned about the reverence for the land that Native Americans hold. He was raised in Durango, Colo., near two reservations. His wife, Sue, continues to work in a trauma center just north of Window Rock.

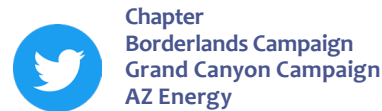
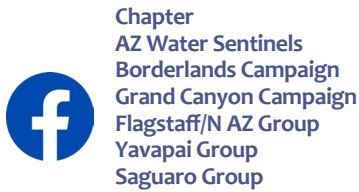
Graham's books in the national park mystery series include *Canyon Sacrifice*, *Mountain Rampage*, *Yellowstone Standoff*, *Yosemite Fall*, *Arches Enemy*, *Mesa Verde Victims*, and *Canyonlands Carnage*. Graham won the National Outdoor Book Award for his book *Extreme Kids* in 2007.

Graham was raised by two parents, who took him to national parks, and has continued that legacy by taking his kids to national parks, but he also realized they were good locations for mystery, mayhem, and murder.

Graham points out that a mystery series in national parks is not an original idea, as he's read a series of national park mystery books written by Nevada Barr. However, Graham's books differ because the main character is an archaeologist and involve a significant amount about archaeology. Barr's main sleuth was a park ranger.

Stan is ex-com at large for the Yavapai Group

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## Beyond the Slab

— CELEBRATING OVER 30 YEARS OF PUBLISHED ECO-AWARENESS !

By Greg Pentkowski

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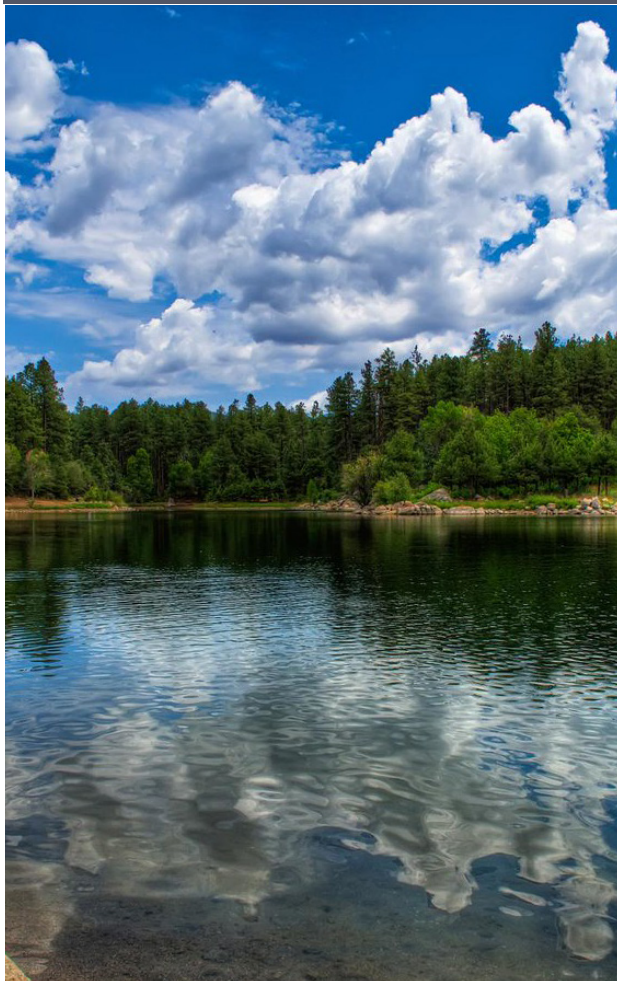
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## Explore and Enjoy Arizona



Goldwater Lake Prescott Arizona. Photo by Michael Wilson

**JUL 8, 2023 (SAT) Time 8:30. EASY.** Garden Party Trail #318 to White Rock trailhead, and return on Trail #318 Day Hike (2 miles RT, EC Minimum) Beautiful trails. For reservations, meeting time to carpool, and place contact Jenny Cobb [cobbsrun@msn.com](mailto:cobbsrun@msn.com) 928-925-1320 or Jimmy Castro [jimmygordoo1@gmail.com](mailto:jimmygordoo1@gmail.com) 928-499-7396. To register: <https://act.sierraclub.org/events/details?formcampaignid=7013q000002RcWTAA0>



Arizona Lands Owl. Photo by Jim Dublinski

**AUG 12, 2023 (SAT) Time 8:30. EASY.** Goldwater Lake Area Trail #396 Day Hike (2 miles OB, 200' EC) Popular trail for bird and wildlife watching. For reservations and more information contact leader Jimmy Castro [jimmygordoo1@gmail.com](mailto:jimmygordoo1@gmail.com) 928-499-7396. To register: <https://act.sierraclub.org/events/details?formcampaignid=7013q000002RcWYAA0>



Poppy, Public Lands. Photo by Sandy Bahr



Lynx Lake, Prescott National Forest, Arizona. Photo by Kevin Dooley

**SEP 9, 2023 (SAT) Time 8:30. EASY Lynx Lake Trail #311 Day Hike** (2.3 miles RT, EC minimum) This popular hiking trail, located in the Lynx Lake Recreation Area, travels around Lynx Lake. The man-made, 55-acre lake attracts a diversity of wildlife and the birdwatching here is particularly excellent. The western half is paved and the eastern half is a narrow dirt footpath. Ponderosa pines and other trees provide dappled shade along most of the route. For reservations and more information contact leader Jimmy Castro [jimmygordoo1@gmail.com](mailto:jimmygordoo1@gmail.com) 928-499-7396. To register:

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From. p1

(REAP). REAP is a federally funded grant and loan program that helps farmers and rural small business owners access renewable and efficient energy technologies, including rooftop solar. Solar can be a gamechanger for farms and rural small businesses, as it offers energy choice, security, and lower energy costs long-term. The IRA quadruples funding for REAP over the next 10 years, and grants can be much larger than previously allowed. REAP grants used to be capped at 25% of a project's total cost, and that cap is now up to a whopping 50%.

The best part about these new initiatives for distributed solar is that folks don't need to wait—these incentives are available today. Households across the country have already claimed their solar tax credit or will be eligible to after installing solar this year. Nonprofits, churches, and schools are already investing in solar this year thanks to direct pay. And farmers and rural small businesses can apply for a REAP grant at any time.

We all stand to benefit from increased adoption of small-scale, people-owned solar in our communities. That's because distributed solar strengthens the electric grid, creates jobs, fights climate change, reduces water use in the West, and lowers energy costs for families, farms, and small businesses. Thanks to the IRA, we're poised to see much more of it.

Adrian Keller is Arizona Program Director for Solar United Neighbors

### Hiking Guidelines

The Sierra Club is a nationwide organization with active local outings for members and non-members. Please join us as we make friends and explore life-enriching interests. Simply find an outing by date and contact the leader for directions, reservations, time, and additional information. RESTRICTIONS: NO FIREARMS, RADIOS, OR PETS (unless noted otherwise). Outings are by reservation. Call early (group limit 20)

Each hike is rated for degree of difficulty and risk by the leader.

"A" >16 miles or >3,000 ft. elevation change (EC)

"B" 8–16 miles and 1,500–3,000 ft. EC RT Round Trip

"C" 3–8 miles and 500–1,500 ft. EC OW One Way

"D" <3 miles and 500 ft. EC

The trip leader has absolute authority to question trip participants as to their equipment, conditioning, and experience before and during the trip. All participants on Sierra Club outings are required to sign a standard liability waiver. If you would like to read the liability waiver before you choose to participate in an outing, please go to <http://content.sierraclub.org/outings/local-outdoors/resources> or contact the National Outings Dept. at 415-977-5528 for a printed version. Sierra Club liability covers leaders only. Each person is responsible for his/her own first aid equipment. If you are injured, notify the leader immediately. If you leave the trip, with or without the leader's permission, you are considered to be on your own until you rejoin the group. Hikers are encouraged to carpool and share the driver's fuel expense. Donations are accepted from all participants at \$1 (member) and \$3 (nonmember). Money is collected by the leader and deposited with the group treasurer. For more information, contact the Sierra Club Grand Canyon office at 602-253-8633. Hikes and outings are also listed online at <https://www.sierraclub.org/arizona/events-activities>. CST 2087766-40. Registration as a seller of travel does not constitute approval by the State of California.