

ENVIRONMENTAL SUCCESSES & SEEKING SOLUTIONS


CANYON ECHO

<http://sierraclub.org/arizona>

Grand Canyon Chapter

Winter 2023

Maricopa County Cities Tackle Climate Change

by S. Dawn Abel 



Phoenix Metropolitan area from South Mountain. Photo by Toni Malcolm

Larger wildfires, more intense drought, and overtaxed/failing utility services are largely the results of climate change. All impact quality of life. In Maricopa County, the most populous Arizona county¹, its cities are making major strides tackling heat, drought, and fossil-fuel use. In 2022, its cities implemented sustainability and energy conservation solutions to mitigate the growing climate challenges that impact their populations. Solutions include less fossil-fuel use; water reuse, reclamation, and recycling; and heat-reduction methods.

Phoenix is already implementing its cool corridor plan for downtown. This includes more trees, lighter pavements, and cooling stations. Phoenix recycles 89% of its wastewater. The city is also increasing public transportation to outer city limits to reduce fossil fuels and is working to implement more electric vehicle charging stations.

In October, Scottsdale presented its most updated information on how the city is responding to the Colorado River basin drought. Efforts

include “increasing aquifer recovery abilities; expanding the recharge of recycled water; increasing water audit initiatives at city facilities; and activating mitigation strategies³.” The city has targeted the end of 2022 to complete its Sustainability Plan to align with its 2035 General Plan.

Tempe is “investing in technologies that use less energy to power city buildings, streetlights, and water treatment facilities, incorporating renewable energy to achieve carbon neutrality in municipal operations by 2050⁴.” Additionally, in early 2022, the Sustainability Office discussed updates to its Climate Action Plan, primarily focused on extreme heat mitigation⁵ and neighborhood climate justice⁶.

Mesa updated its Climate Action Plan⁷ this past June to “reflect the community’s vision to enhance quality of life, embrace smart city innovation, and improve social equity.” Currently, Mesa’s plans include achieving carbon neutrality by 2050 by reducing greenhouse gas emissions and enhancing carbon sinks; reducing greenhouse gas

emissions from city operations by 50% by 2030; and prioritizing the use of renewable, resilient energy to achieve 100% renewable energy by 2050. The city has also committed to cutting its own water consumption by 5% at city facilities, including parks⁸.

Peoria is working on heat and fossil-fuel mitigation by planting more trees and adaptive plants to help reduce the heat-island effect and help lower nighttime temperatures while also “tracking use of electric vehicles to estimate demand and inform future plans for charging stations⁹.” The city protects its water supply through aquifer recharging¹⁰ and is constructing transmission piping to move the reclaimed water from the Beardsley Water Reclamation Facility¹¹.

Glendale is using funds to help non-residential customers “upgrade their irrigation systems with innovative landscape irrigation technology. The goal of the project is to encourage non-residential customers to create water-efficient landscapes located in an increasingly hot and dry

climate¹².”

The takeaway is that dense urban cities are planning for or implementing climate mitigation solutions to ensure long-term sustainability, with some projects aided by partnerships and federal grants.

REFERENCES

S. Dawn Abel is a climate advocate and Sierra Club member

Check Out Our Volunteer Opportunities

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protect the planet



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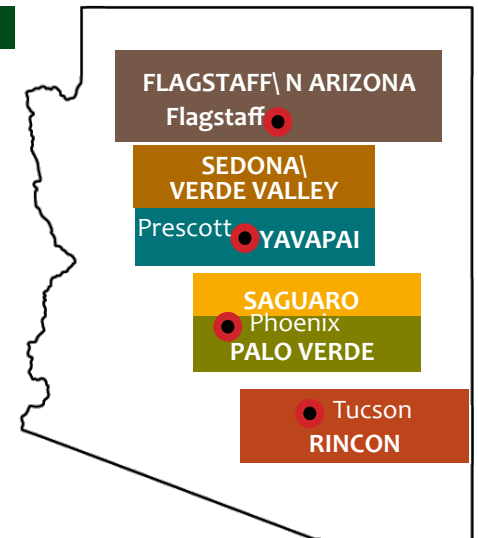
At-large members of the Ex Com are elected by the members statewide. Group representatives are elected in their group geographic area. Other positions are appointed by the Ex Com.

Table of Contents

Maricopa Counties Tackle Climate Change	1	Poem: The Verde River	7
Chapter Officers	2	Restoration Efforts: BLM	8
Happenings around Arizona	3	Recommended Reading	8
Chapter Announcements	3	Arizona, we have a water problem	9
Arizona Youth Leading the Way	4	The Slab	9
Annual Volunteers & Partners Picnic	5	Guest Article: Tony Skrelunas	10
Environmental Day	5	Explore & Enjoy Arizona	11/12
Donors	6/7	Conservation on the border	12



Elections for various positions will take place in January so this information is subject to change.



BIPOCC: Black Indigenous People of Color Committee

CCL: Council of Club Leaders

Happenings Around AZ & Chapter Announcements

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.

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

Contact Kay Bordwell 928-779-3517 kbordwell4@gmail.com

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.

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

Chair/Web/Treasurer: Gary Beverly 928-308-1003 gbverde@cableone.net
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Yavapai group programs & Executive Committee meetings are held **on the first Wednesday of the month**.

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

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Membership: Sue Barsky

(Hike + Meeting) JAN 7 (SAT) 8:15 Meeting Saguaro Group: speaker Vick Preston, ExDir of Desert Foothills Land Trust, "A legacy of local land conservation: for people, for wildlife, forever." Following the meeting Vicki will be leading a hike (D) easy on one of the DFLT protected areas. email: sally_howland@yahoo.com or signup on Sierra Club's Meetup site.

(Hike & Meeting) FEB 4 (SAT) 8:15 Sandy Bahr, Director of the Sierra Club Grand Canyon Chapter, will update us on the Arizona Legislature's 2023 session. Following the meeting we will hike at Apache Wash Trailhead. Hike "D" flat 3 miles. email: sally_howland@yahoo.com or signup on Sierra Club's Meetup site.

(Hike) MAR 4 (SAT) 8:15 Saguaro Group's social hike at the Tom's Thumb Trailhead, 23015 N. 128th St, Scottsdale, AZ 85255. An easy 4-mile hike. Meet at the Trailhead near the restrooms. email: sally_howland@yahoo.com or signup on Sierra Club's Meetup site.

(Hike) April 1 Meeting hike to be announced. Watch the Sierra Club's Meetup site.

Palo Verde Group (Phoenix) <http://sierraclub.org/arizona/palo-verde>

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

Ex Com THU Jan 12, Feb 10, 6:30pm

Programs THU Jan 26, Feb 23, Mar 23, 6:30pm

Palo Verde Group (Contd.)

JAN 26 (THU): Volunteer Lobbyist Workshop with Sandy Bahr
 Are you interested in making a difference and helping to protect Arizona's air, land, and water? Promote clean energy? Help address climate change?

Join us for this virtual lobby workshop with Chapter Director Sandy Bahr. Sandy will help volunteers prepare for Environmental Day at the Capitol. We will learn how to effectively advocate for environmental issues, confirm your legislative district, learn about the request to speak system, the legislative report card, and more.

FEB 23, (THU): Darren Chapman - TigerMountain Foundation
 Please join us via Zoom. We'll welcome guest speaker Darren Chapman, a community pro-activist who has committed his life to helping people. He is the Founder and CEO of TigerMountain Foundation (TMF), which has implemented Empowerment Initiatives to uplift communities and eliminate blight. Join us for this opportunity to learn more about TMF, its initiatives, and how we can get involved.

MAR 23, (THU) - Dr. John Barentine: Arizona's Light Skies: Past, Present, and Future (virtual)

For the March meeting, we will welcome Dr. John Barentine to discuss Arizona's night skies. Dark night skies loom large in Arizona's history, and are part of why the Grand Canyon State became known as a global mecca for astronomy and space science. Access to natural nighttime darkness remains an important issue in Arizona's current politics and plays a role in its future, as light pollution from its cities reaches ever further into the corners of our state.

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

The new Rincon Group executive committee will be organizing on January 23. In the interim, please contact the chapter office at grand.canyon.chapter@sierraclub.org or (602) 253-8633 for questions on events and issues.

Chapter Announcements

Wildlife Activist Group Meetings

JAN 9, FEB 13, MAR 13 (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.

Renewable Energy & Climate Action Team Meetings

JAN 24, FEB 28, MAR 28 (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.

Arizona Sierra Club Conservation Meetings

JAN 5, FEB 2, MAR 2 (THU) 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 learn more about issues or bring an issue you care about and share what you know. For more information, please contact Don Steuter at dsteuter@hotmail.com.

Arizona's Youth Leading the Way

Glendale High School Conservation Society

by Jada Finesilver 

Glendale High School's club on campus invites teenagers to wake up morning with promises of and a day of laborious work. exactly the selling points. this student-run organization understanding of the environment about an array of different the factors harming them, and ways in which students can make a difference.

“
building the
environment we
deserve”

Conservation Society: that successfully comes as early as five in the soil under fingernails Well, those aren't The truthful allure of tion is the deep unment through learning vegetation species,

With the club slogan, “Building the environment we deserve,” the Glendale Conservation Society (GCS) is committed to being involved in cleaning and beautifying the community—both on a local and state-wide level. Through partnerships with various environmental organizations such as Sierra Club, Natural Restorations, Xeriscape, and more, the members of GCS travel throughout Arizona to perform various acts of restoration.

Invasive species of vegetation, if left unchecked, disturb native ecosystems by overgrowing, which results in a decline of biodiversity in that area. The removal of these non-native species is something that GCS is very accustomed to. In fact, the first community service trip that GCS attended in the 2022–2023 academic year was dedicated to the removal of buffelgrass, which originates from Africa and dominates ecosystems, harming the other plant life in Arizona.

In addition to extracting harmful vegetation, GCS also plants vegetation that enriches the soil, is beneficial to local insect life, or serves the area in another way. For example, on November 20, 2022, GCS helped plant milkweed. Milkweed is a food source for monarch butterflies, and it increases their reproduction, which is great for the monarch butterfly's sensitive population.

General maintenance and trash cleanup are equally as important to the

upkeep of the environment. In the upcoming months, GCS will be working in Salome and Gila Bend aiding in soil preparation, among other things. Some trips will also be completely reserved for trash pickup, combatting littering due to the public's general disregard for the environment.

With over fifty members and consistent growth in membership, GCS promotes a close kinship and durable bonds among members. Spending early mornings together, working with one another during volunteer trips for hours on end, and sharing meals after a hard day's work are all a part of GCS. This causes students to walk away with a deeper involvement within—and a more sentimental connection to—the community.

This club is representative of the initiative belonging to the newer generations. The youth's interest in preserving nature and environmental consciousness is not

only admirable but pertinent to the future of humanity. Dedicating time and energy towards the maintenance of the community is for the benefit of every resident. We encourage all people of all ages to join their local environmental organizations and help keep our planet clean.



GCS Members cleaning up the Rio Salado.
Photo by Nyelli Guadalupe Loya

Jada Finesilver is Glendale High School Conservation Society President

Changemaker High School Overnight Field Trip to Prescott

by Raymond E Urquidez 

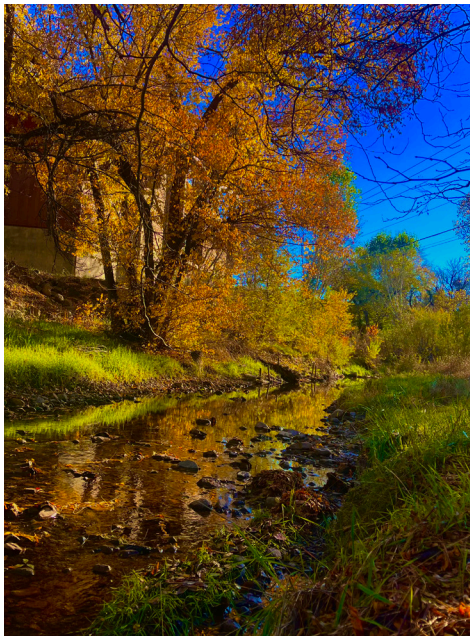


photo by Raymond E Urquidez

Changemaker High School students were presented the chance to go on a trip to Prescott, Arizona. A variety of students applied to participate, and I happened to be one

of the lucky few who were selected.

CHINO VALLEY

On the day of the trip, it started as a sunny cool day when we left Tucson. On the way to Phoenix, we all as a class had a moment of excitement, and were looking forward to what kind of experiences awaited us. We eventually started approaching the stormy skies in Chino Valley, where the rain awaited and welcomed us with a heavy downpour.

We met up with Dr. Gary Beverly, a Verde River connoisseur, who wanted to take us to the river, though the rain inconveniently canceled our expedition. We were kindly invited to Dr. Beverly's home, a beautifully constructed home surrounded with beautiful flora. We were informed about the Verde River, how its biodiverse species can benefit the land, how water levels have been impacted throughout the years, and the significance of the river.

During a tour of the property we were shown an astonishing greenhouse and were given information about how to maintain it. The information that was shared with us as well as the visit will always stick with me, and I am grateful to have learned

about the grand Verde River.

PRESCOTT COLLEGE CAMPUS TOUR

Once we arrived at the Prescott College campus we were greeted by all that Prescott College had to offer. From the moment we stepped off the van we felt a warmth and sense of community. Every person we interacted with was welcoming and supportive. The hospitality during the entire trip was amazing, from the housing that we stayed in, to the tours and workshops, up to various experiences that were designed to help us see ourselves in the college atmosphere.

Through this experience I was able to see first hand what support was offered there, the opportunities that students have while attending a smaller, more community-oriented school.

GRANITE DELLS HIKE

On our last day in Prescott we went on a hike at the Granite Dells Ecosa City Trail around Willow Lake. The views were astonishing and through our hike our attention to the abatement and water contamination and the division of land between public and private became more apparent. As a group, with the support of Ellen Bashnor, we discussed

some of the challenges with conserving ecosystems and the importance of getting behind these efforts.

Changemaker students, having this opportunity, introduced us to a new environment and the ability to see what is native to the land and the beauty that surrounds us. We left feeling more connected to the land and wanting to find out other ways that we can preserve these ecosystems.

The trip was an unforgettable experience, filled with a variety of criteria of what it was like to be a Prescott College student, but we also had the opportunity to be shown the beauty of Prescott. The land, the wildlife, the people, and the culture fascinated me and my peers.

A huge shoutout and special thank you to Sierra Club-Grand Canyon Chapter, Bee Cena, Jule Rich, Chorissa Butler, Gary Beverly, Ellen Bashnor, Todd Mireles, Jared Russo, and Oscar Medina for the wonderful experience you have offered Changemaker High School.

Raymond is a student at Changemaker High School

Thank you!

Celebrating Volunteers & Partners at Annual Picnic

On Sunday, November 13th, Sierra Club Grand Canyon Chapter volunteers, staff, partners, and friends gathered at South Mountain Park and Preserve, on Akimel O'odham and Piipash lands, to celebrate the exceptional work of volunteers and partners and to enjoy a picnic and some good company.

The event kicked off with excellent music from **Don Steuter** and **Joel Dowling**, some yard games, and lots of conversation. This year, we recognized **Bonnie Bariola** for her 10 years—really 35 years—of continuous membership; **Steve Cook** for Special Achievement relative to his work on

energy and water quality in the Prescott area; **Al Bellavia** with an Outings Award for his work with the Tucson Inspiring Connections Outdoors program that helps to connect youth with the outdoors; **Lesly Castillo Colin** and the Glendale High

School Conservation Society with an Outstanding Youth Award for their service work in the Rio Salado, on the Tonto National Forest, etc.; and **Dave and Nancy Maple** for their Outstanding Service to the Arizona Water Sentinels and the Verde River.

Dianne Post received our Environmental Law Award for her work to represent several residents in Randolph, Arizona, before the Arizona Power Plant and Line Siting Committee and the Arizona Corporation Commission where she put on a strong case to center environmental justice. **Defend Our Future Arizona** and **Alex Ross** were recognized with our Environmental Partner Award for their collaboration to get the Inflation Reduction Act climate and environmental justice provisions passed via a broad range of advocacy and actions.

Two people were honored posthumously with Lifetime Achievement Awards. **Kim Crumbo**, who passed away in 2021, was recognized for his incredible, life-long contributions to conservation efforts and public lands protection, and **Donna Cassano**, who served on the staff of Lobos of the Southwest for over a decade, advocating for endangered Mexican gray wolves, other wildlife, and public lands.

Oscar Medina, the Grand Canyon Chapter chairperson, was recognized with a Leadership Award at a training in Tucson the following weekend. His work to lead the chapter, consistently



Volunteer & Partners Annual Prizegiving.
Photo by Jordan Gorla

participating in meetings and events and often organizing or chairing them, organizing training and workshops, and helping to lead on our Equity Trail Map and equity values, among many other things were acknowledged. Unable

to attend were **Kathy Collins** and **Pierre Jouin**, who were recognized with the Steve Pawlowski Memorial Award for rivers and streams; **Kelsey Yule** with the Behind the Scenes Award for her work supporting the borderlands program; **Dan Watman** with the Lens on the Border Award for his work to promote restoration of the Binational Friendship Park; and **Amber Lee Ortega** and **Nellie Jo David** with Lifetime Achievement Awards for their years of dedication to protect the Borderlands and to elevate Indigenous voices.

If you were able to join us this year, thank you, and if you were not, we hope to see you at next year's picnic or before then, out on a hiking trail, at the Capitol, or in a public meeting.

Arizona Solutions to Arizona Challenges



Environmental Day at the Capitol

Please mark your calendar for our annual lobby day at the Arizona Capitol, Environmental Day at the Capitol on February 7th. This year's theme is Arizona Solutions to Arizona Challenges. We will be meeting outside and in person at the legislature, but also livestreaming the speakers and making every attempt to connect people to meetings with legislators virtually and in person. We will meet as small groups in the morning with legislators and then as a larger group starting at noon in Wesley Bolin Plaza near the Capitol.

You need not have any experience to participate, just a willingness to learn and speak up. Leading up to the day, we will also host forums and webinars on lobbying and on key issues we will be discussing. On January 18th at 6:30 PM, our virtual program will be Water, Climate, and Democracy—where we've been and where we're headed at the Arizona Legislature. It will include a review of the 2022 legislative session with a specific focus on water and on what is headed our way for the 2023 session. A Volunteer Lobbying Workshop is scheduled for January 26th at 6:30 PM and on January 18th a Water, Climate, and Democracy presentation that reflects on the last legislative session and looks at what we will see in 2023.

RSVP for Environmental Day on February 7th by using [this link](#).

RSVP for Water, Climate, and Democracy on January 18th [here](#).

RSVP for the Volunteer Lobby Workshop on January 26th at [this link](#).

To stay up to date on what is happening at the Legislature on a regular basis, please sign up for our weekly legislative updates [here](#).

Thanks so much! We look forward to seeing you at the Capitol!

Support Your Local Sierra Club

When you make a donation to the Grand Canyon Chapter, you support Sierra Club's work in your own backyard. You allow us to continue our efforts to protect wilderness and wildlife, to improve the quality of life in our cities, to curb global climate change, and to promote the enjoyment of nature. If you haven't already, please also consider signing up to become a monthly, recurring donor to support local Chapter efforts!

Contributions to the Sierra Club are not tax-deductible; they support the Sierra Club's citizen-based advocacy and lobbying efforts.

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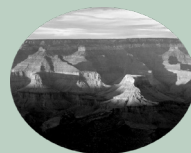
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Nancy Chidester	Sandra Guerrero	Mark Lessner	Ken McGinty	Joy Schechtman	Jeanne Yawger
Frederick Clor	Michael Haboush	Richard Lewis	Cary Meister	Peter Sinclair	Rochelle Yospe
Joann Daniels	Mark Hackbarth	Janis Lipton	Nancy Meister	Rebecca Smith Gross	Sandra Zarcone
Andre Dargis	Charles Haman	Ron Lonski	Eugene Mertz	Martha Stampfer	
Frederick Davis	Elizabeth Harding	Jane MacKenzie	Andrew Moiser	Marty Swartz	
Lynn Demuth	Ms. Dede Harris	Peter Magnuson	Lisa Royer Nicholson	Martha Thompson	

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Bonnie Hughes	Mr Stephen Nunn	
Janette Huntington	Abigail Okrent	

The Verde River

*Who will speak for the diversity of life in a healthy river?
 Who will arrive and behold her movement free and unpolluted?
 Are we a part of this living river and the aquifer that feeds her?
 Are we a part of the pollen from the cattail, and are we a part
 of the mayfly and the fish,
 the mesquite and the bluebird?*

*The Verde River reflects our own aliveness and belonging
 in the deepest cold, green pools,
 in the stretch of current around a series of boulders,
 in how the aquatic plants dance beneath the surface.
 We may ponder the mystery of life unfolding around the next bend
 and the knowledge that, without clean water,
 without protected aquifers and free-flowing rivers,
 without the practice of sustainability on this living sacred earth,
 most if not all life on this planet will cease to exist.
 The bluebird and the kinglet fly to the river's edge
 and beak into the water for a drink.
 Somehow, we may feel without words
 the water of our own body responding in praise.
 We have a deep thirst for what the river can teach us.
 Our first step is to be still now and listen:
 the potshard and the cottonwood,
 the beaver, the eagle, and the coyote?
 Does the river speak to the free spirit of our heart?
 Do her natural rhythms flow with our natural rhythms?
 Does each tributary add her unique song of life?
 How do we be still and listen?*

Poet Alan Christensen from Jerome, AZ, joined our Sierra Club outing to the upper Verde River last December. The experience moved him to submit this poem.

The Morning Stars Sing Together (\$500+)

John Durham	Roz Switzer
Stephen Pamperin	Patricia Wallace

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

In Memorium

In memory of Beverly Full: Elna Otter Kay B Jones Carol Nilsen Judith Werkstell
In memory of Barbara Cain from Tucson: Jenise & Leslie Porter

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 AZ Energy: [@AZBeyondCoal](https://twitter.com/AZBeyondCoal)

Restoration Efforts at Ironwood Forest National Monument

by June Lowery



BLM State Director Raymond Suazo and Gila District Manager Scott Feldhausen celebrated National Public Lands Day (NPLD) at the Waterman Restoration Site located on the Ironwood Forest National Monument with our partners Arizona Native Plant Society and the Arizona Sierra Club, and more than 50 members of the public.

The celebration included a short ceremony unveiling a new interpretive display showcasing the restoration work and its benefits to the Sonoran Desert ecosystem. Following the ceremony, attendees toured the new interpretive display and demonstration garden, enjoyed lite refreshments and received NPLD t-shirts and National Environmental Education Foundation fee-free coupons.



BLM State Director Ray Suazo provides BLM remarks.

In the early 2000s the Waterman Site had become an 18-acre buffelgrass monoculture because of unauthorized use; unfortunately buffelgrass is extremely invasive and damaging to the Sonoran Desert ecosystem. Thanks to the efforts of BLM staff, interns, and partners, this site is now a restored upland saguaro-palo verde landscape with over 110 native plant species and fewer than 150 buffelgrass plants still emerging per year.

“To ensure that the native vegetation continues to thrive, periodic checks for buffelgrass and preventive management and spraying will be necessary,” said State Director Raymond Suazo. “To further this critical work, BLM Arizona received \$390k in Bipartisan Infrastructure Law funding for the Monument that is being put into a new multiple-year buffelgrass treatment contract.”

The Waterman Restoration Site project supports the Department of the Interior’s goal of working to conserve at least 30% of our lands and waters by the year 2030. It also supports the BLM’s conservation and restoration goals of focusing on restoring our lands and waters, creating resilient landscapes, and addressing climate change.



Pictured from left to right: Arizona Native Plant Society President Doug Ripley, Sierra Club Arizona President Sandy Bahr, BLM Arizona State Director Raymond Suazo, & Arizona Native Plant Society State Conservation Chair John Scheuring unveil the new interpretive display



Gila District Manager Scott Feldhausen talks with Sierra Club Arizona President Sandy Bahr and Catalina Council Scout Executive Jeff Hotchkiss.



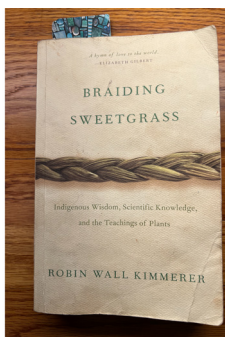
Arizona Native Plant Society State Conservation Chairman John Scheuring poses by one of the new interpretive panels.

June Lowery is the Public Affairs Specialist at the Bureau of Land Management. Photos by June Lowery

Recommended Reading

Contributions by Gary Beverly

Reading about environmental values and history is as enjoyable and important as being outdoors to experience our amazing earth. Here are two of my favorites, and I recommend them to you. Please share your favorite reading or viewing with the editors for the next issue of *Canyon Echo*.



Braiding Sweetgrass - Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants,

by Robin Wall Kimmerer (Milkweed Editions, 2014). Robin Wall Kimmerer, an enrolled member of the Potawatomi Nation, is a mother, scientist, a Distinguished Teaching Professor of Environmental Biology, and director of the Center for Native Peoples and the Environment at SUNY. *Braiding Sweetgrass* celebrates indigenous knowledge and integrates it with science, creating a touching experience that helps us to fully understand our world.



Life on Fire: Wildlife on the Volcano's Edge

Free on Amazon Prime Video: Six 1-hour episodes. Now that Mauna Loa is again erupting, it is important to understand how volcanos create new land, change landscapes, and affect wildlife. This is an excellent science-based documentary series featuring astoundingly beautiful videography of volcanos, landscapes, and wildlife between the deep ocean and the skies in six locations worldwide. Far better than *Nova*, in my opinion.

ARIZONA, WE HAVE A WATER PROBLEM!

by Sandy Bahr

Anyone who has been paying attention, even a little bit, understands that we live in a dry place that is getting increasingly drier. The Colorado River was over-allocated from day one, and with the long-term drought and climate change, the water coming down the river is dwindling. The rapidly decreasing levels of water in Lake Mead and Lake Powell are causing the house of cards that is the Colorado River Compact to collapse—it was never sustainable and it left out native American Tribes, those who have the most right to the water in the river. The health of the river and all the creatures who depend on it are also at risk as less water is coming down the river.

Our groundwater pumping is unsustainable as well, only limited within the five active management areas and somewhat in the irrigation non-expansion areas, outside of which, anything goes. We see super pumpers move in on private and state trust lands and dry up neighboring wells. There is outrage about alfalfa grown here going to Saudi Arabia, but what difference does it make if it is grown for there or for here, we are still mining groundwater, drying up wells, causing land subsidence, and contributing to fissures in the earth.

We know what we need to do, but the political will has not been there. The politicians propose desalination and pipelines—expensive, environmentally -harmful, and unsustainable proposals that ignore what happens on the other end of the pipeline. As long as it is outside of Arizona and out of our sight, we seem to be fine with it. We need to live within our means and must first reject these “fixes.”



Colorado River basin Glen Canyon Utah. Photo by Alicyn Gitlin 2022

Agriculture uses most of our water in Arizona; by growing crops that use less water and limiting new agriculture, we can better prepare for an increasingly dry future. By putting strong limits on groundwater pumping statewide and new developments that cannot provide an assured water supply—a real water supply, not just paper water—we can stop this runaway train of water depletion. By trying to sustain our rivers and keep them flowing, treating them like the ecologically important arteries of life they are rather than just plumbing to move water to our cities or crops, we can move a step closer to a sustainable future.

We absolutely cannot continue business as usual. Arizona, we have a water problem and it is us and the people we elect, officials who are unwilling to make the hard choices, the tough decisions. It’s time to say no to all of that alfalfa, massive developments, and water-intensive industry. It’s time for us to demand more of those we elect and insist that they change the laws that allow for the continued depletion of groundwater and the drying up of our rivers, the laws that risk our kids’ future. We need leaders who will consider the future and understand, acknowledge, and plan for a changing climate. We live in deserts and generally dry places here in the Grand Canyon State. Let’s act like it. We need a plan that is sustainable. We need to change.

Sandy is Director of the Sierra Club Grand Canyon Chapter

Beyond the Slab -- CELEBRATING OVER 30 YEARS OF PUBLISHED ECO-AWARENESS !

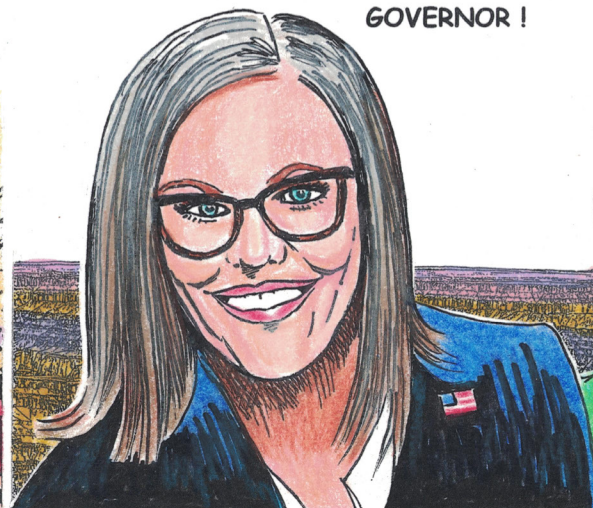
By Greg Pentkowski

WELL DONE AGAIN ARIZONA !

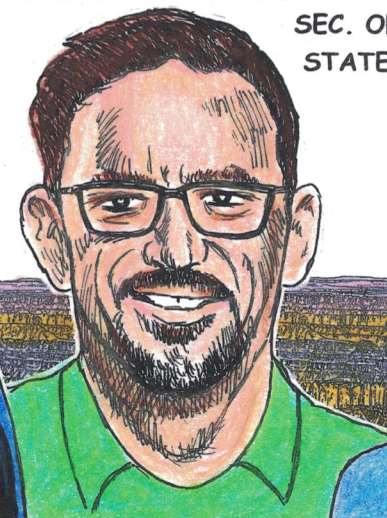
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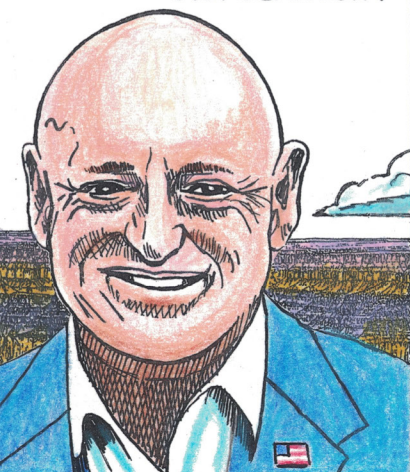
KATIE HOBBS ELECTED GOVERNOR !



ADRIAN FONTES ELECTED SEC. OF STATE !




MARK KELLY RE-ELECTED U.S. SENATOR !



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Guest article: Tony Skrelunas—in considering Native American Communities

By Tony Skrelunas 

Native American communities have lived on these lands within the sacred mountains for thousands of years. To live in these deserts and mountains they had to become intimate with the seasons and moisture levels of each, to know the vegetation types, and to understand how to grow crops in such a low-water environment.

The pillars of the tribes are the members who still carry on the old way in living off the land. They still farm and ranch using ancient knowledge passed through the generations.

With the sacred mountains as witness, the tribes cultivated treasures such as corn, melons, and squash, carried on the heartiest seeds, carefully planted to maximize every drop of water, prayed and sang to their crops, used organic methods to keep out pests, engaged the community members in helping with the fields, harvested the sacred pollen, and used the corn for making all kinds of rich foods.

Sheep became part of the Navajo mainstay about 600 years ago. Navajo incorporated the plant and climate knowledge to develop a breed that fits the high desert environment: the Navajo Churro.

They used herding and breeding techniques that ensured land health and good health for the community.

With the coming of the modern economy, Native Americans of the Southwest have had to adapt. Many of the generations who went to school in the mid-1900s experienced a time of acculturation attempts from all modern institutions. To get rid of the language and the cultural ways and songs, to acculturate the “Indian.” These times also came with the replacement of traditional governing systems with western-style governments that had elections and different branches, and economic revenue sources were needed to fund these new governments. At that time, the tribes had few options other than to utilize their newfound wealth under the land. Ample premium coal and oil reserves offered a source of ongoing revenues and good paying jobs.

Over the past five years, this picture has been shaken to the core. Unable to compete with local natural gas and renewable energy power sources, coal-fired power plants are shuttering their doors, turning off the coal mine sources, cutting off revenue and jobs for tribal members.



High Desert Corn Field. Photo by Tony Skrelunas

Obviously, there is also the slowly changing climate that the ancient farmers and shepherds began noticing in the past 15 years. The lessened rainfall and snowfalls, higher temperatures, changing wind patterns and invasive plants all have started to affect these practitioners of the land. The sheep herds and farms have had to be reduced.

With the ongoing pandemic, the economies of the tribes are also tenuous. Shopping centers have had to close.

Family cafes and movie theaters are closing or going out of business. The tribes of the high desert have been particularly hit hard with their large elderly populations and underlying health disparities. Thus, to this day there are mask requirements in every business.

Yet there is hope and a light that folks always will have in their daily prayers. They remain positive and excited about coming up with solutions as their ancestors have done since emerging into this fourth world the Navajo call the Glittering World. They were banished from prior worlds because they didn't live in harmony with the land. They hold out hope that things can change, that humanity will change.

Opportunities to create revenue, jobs, and businesses, to maintain the language and culture, and to maintain the pillars of the tribe is the prayer of those now forging the economic path. It's exciting to be a part of this initiative to develop utility-scale solar that uses left-over power lines and offers new jobs and revenues, to build coop sheep herds that use ancient breeds and knowledge, to develop independent grocery stores that source locally, to ensure farmers still farm using time-tested techniques, and to figure out ways to ensure traditional knowledge is shared and carried on.

Tony is a member of the Navajo Nation raised within the cultural teaching systems by his great-grandparents. He works to preserve what is sacred, such as tribal knowledge systems that will ensure our future survival. He spends time-saving our tribal ways which include traditional food systems, creating respectful economies, and ensuring that tribes across the planet communicate in these challenging times. His unique outlook is best captured in the following article on his website: <https://www.tribeawaken.com/post/30-000-years-of-tribal-trade-and-sustainable-economic-trade-and-life-in-the-americas>

Yet there is hope
and a light that
folks always will
have in their
daily prayers



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Explore and Enjoy Arizona

JAN 7 (SAT) 8:15 Meeting Saguaro Group: speaker Vick Preston, ExDir of Desert Foothills Land Trust, “A legacy of local land conservation: for people, for wildlife, forever.” Following the meeting Vicki will be leading a hike “D” easy on one of the DFLT protected areas. email: sally_howland@yahoo.com or signup on Sierra Club’s Meetup site.

JAN 14 (SAT) “D” Wander in the Pinyon-Juniper (flat terrain) in the Prescott National Forest near Drake with Tom Slaback, Conservation Chair, Yavapai Group, Sierra Club. Tom will talk about the history of this area and local conservation issues. Outing is subject to unforeseen winter weather. For reservations, meeting time, and place contact Jenny Cobb cobbsrun@msn.com 928-925-1320 or Jimmy Castro jimmygordo01@gmail.com 928-499-7396.

JAN 15 (SAT) “D” 9:00 Beautiful easy walk/hike at Sabino Canyon Recreation Area. Get up close to the desert. Lots of good views and up-close to saguaros and other cacti. The route is about 2.5 miles RT, with 150 ft. elevation change. Meet in front of the main tram stop near the visitors’ center after parking. No dogs. Bring water, hiking boots recommended. Contact Randall Krause for details, randallcoach@gmail.com or 818-714-0063. Tucson



Burrowing Owls. Photo by Jenohn Wrieden

JAN 21 (SAT) 8:00 Join Sierra Club and the Glendale High School Conservation Society with helping Wild at Heart, a volunteer organization dedicated to preservation of Arizona’s native wildlife, construct burrows for burrowing owls that have been relocated out of the path of development. We will be working on lands near Gila Bend, AZ, which is about an hour southwest of Phoenix. All roads are accessible via passenger vehicle. All tools are provided. Gloves will be available, but if you have a favorite pair of your own you may want to bring them along. Contact Sandy Bahr for details, sandy.bahr@sierraclub.org or 602-999-5790.

JAN 28 (SAT) “C” Discover the Upper Verde River Wildlife Area. After viewing bald eagles at Del Rio Springs, we’ll hike down to the Verde River to learn about the natural history of the upper Verde River including wildlife, endangered species, geology, hydrology, and riparian ecology. Also, learn about the conservation issues that threaten the future existence of this extremely valuable desert river. In particular, groundwater pumping threatens to reduce the upper Verde to a dry wash, destroying the riparian habitat of several threatened and endangered species. You may ask for photos of the area. Limit: 12 hikers. Registration required: <https://www.sierraclub.org/arizona/events-activities> For more info, contact Gary Beverly at gbverde99@gmail.com (email preferred) or call 928-308-1003. Prescott

FEB 4 (SAT) 8:15 Meeting Saguaro Group: Sandy Bahr, Director of the Sierra Club Grand Canyon Chapter, will update us on the Arizona Legislature’s 2023 session. Following the meeting we will hike at Apache Wash Trailhead. Hike D flat 3 miles. email: sally_howland@yahoo.com or signup on Sierra Club’s Meetup site.

FEB 11 (SAT) “D” Spence Basin Trails Dayhike (2.5 miles OW, & It;300 EC) Nice hike through the forest and along Spence Creek and back to trail 332, which is part of the Prescott Circle Trail and the old railroad bed. Great Views. There are many trails in the basin, and we can add another loop for those wanting to go further. Outing is subject to unforeseen winter weather. For reservations, meeting time, and place contact Jenny Cobb cobbsrun@msn.com 928-925-1320 or Jimmy Castro jimmygordo01@gmail.com 928-499-7396.

FEB 11 (SAT) “D” 9:30–11:00 . Easy group walk with your dog at Catalina State Park Get a taste of the desert and mountain scenery on this easy hike at Catalina State Park. Learn about the saguaro and other nature with beautiful views of Mt. Lemon in the distance. Dogs on a maximum 6-foot leash welcome. The walk will be 1.7 miles RT with a 127-ft elevation change and includes the Sutherland and Nature trails. Contact Randall Krause for details, randallcoach@gmail.com or 818-714-0063. Tucson

FEB 25 (SAT) “C” Discover the Upper Verde River Wildlife Area. After viewing bald eagles at Del Rio Springs, we’ll hike down to the Verde River to learn about the natural history of the upper Verde River including wildlife, endangered species, geology, hydrology, and riparian ecology. Also, learn about the conservation issues that threaten the future existence of this extremely valuable desert river. In particular, groundwater pumping threatens to reduce the upper Verde to a dry wash, destroying the riparian habitat of several threatened and endangered species. You may ask for photos of the area. Limit: 12 hikers. Registration required: <https://www.sierraclub.org/arizona/events-activities> . For more info, contact Gary Beverly at gbverde99@gmail.com (email preferred) or call 928-308-1003. Prescott



Natural vegetation in Arizona sustains bees. Photo by Jim Dublinski



Upper Verde River. Photo by Gary Beverly



Catalina State Park. Photo courtesy of Wikimedia Commons

Explore and Enjoy Arizona

MAR 4 (SAT) 8:15 Saguaro Group's social hike at the Tom's Thumb Trailhead, 23015 N. 128th St, Scottsdale, AZ 85255. An easy 4-mile hike. Meet at the Trailhead near the restrooms. email: sally_howland@yahoo.com or signup on Sierra Club's Meetup site.



US/ Mexico border wall, AZ. Photo by Eric Meza

Volunteer Opportunities.....

...for Conservation at the US/Mexico Border

by Erick Meza

The complex challenges at the border require innovative ideas, raising awareness, taking actions, and working alongside frontline communities to strengthen environmental conservation.

The construction of the border wall has reduced territories and blocked migration corridors of many wildlife species, including several on the endangered species list. Since 2019, the Sierra Club Borderlands program has partnered with the Southern Border Communities Coalition and lawyers from the ACLU on a lawsuit against the federal government to mitigate some of the damage that has resulted from the construction. Our lawsuit is demanding actions such as: protecting permanent wildlife corridors, providing appropriate storm drainage, decommissioning temporary construction roads and restoring those areas, stopping installation of bright lighting, installing erosion control, and providing watershed restoration.

In order to make accurate requests in our litigation we visit and consult with frontline communities and organizations that collect data on site. It has been a truly collaborative effort on many fronts. We know that positive results and commitments from the US government will be coming up soon.

Political campaigns increase challenges in the borderlands as border security becomes a hot topic. Political stunts like the border walls made of shipping containers are illegal and detrimental to wildlife. The Sierra Club Borderlands works on raising awareness by documenting the damage and sharing it in our newsletters, via the mainstream media, and social media.

Amidst the struggle, the borderlands remain a beautiful place full of cultural and biodiversity that is worth fighting for.

The border communities continue to prove their resilience, making transboundary conservation efforts that involve technology, art, humanitarian aid, political campaigns, outings, and more.

Sign up for our regular monthly newsletters, come volunteer with us, and consider a donation to support our work!

Erick Meza is the Grand Canyon Chapter's Borderlands Coordinator

MAR 11 (SAT) "D" Santa Fe Trail 709 Dayhike (4 miles RT, 200 ft. EC). Hike on the old railroad bed downhill around City Hill to the Old Iron Springs Community with Railroad Historian Tom Slaback. We will be discussing the Prescott forest ecology. Spectacular views. This Outing is subject to unforeseen winter weather. For reservations, meeting time, and place contact Jenny Cobb cobbsrun@msn.com 928-925-1320 or Jimmy Castro jimmygordo01@gmail.com 928-499-7396

MAR 18 (SAT) "C" Discover the Upper Verde River Wildlife Area. After viewing bald eagles at Del Rio Springs, we'll hike down to the Verde River to learn about the natural history of the upper Verde River including wildlife, endangered species, geology, hydrology, and riparian ecology. Also, learn about the conservation issues that threaten the future existence of this extremely valuable desert river. In particular, groundwater pumping threatens to reduce the upper Verde to a dry wash, destroying the riparian habitat of several threatened and endangered species. You may ask for photos of the area. Limit: 12 hikers. Registration required: <https://www.sierraclub.org/arizona/events-activities>. For more info, contact Gary Beverly at gbverde99@gmail.com (email preferred) or call 928-308-1003. Prescott

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, 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.