

CLIMATE CHANGE: SOLUTIONS

CANYON ECHO

<http://sierraclub.org/arizona>

Grand Canyon Chapter

Fall 2017

Climate Solutions

By Gary Beverly



It seems like every week brings new scientific reports showing that climate change is even more intense and arriving earlier than predicted, accompanied by even more political irrationality rubbing salt in the wound. These are dark times for our environment, and it's easy to feel discouraged.

Despite Trump/Pence, all is not lost. To restore your spirit, go see Al Gore's film "Inconvenient Sequel." The film reaffirms the danger (with alarming scenes of melting glaciers, rising water levels, and human disasters) and then describes Gore's role at the Paris Conference, where he helped finalize the agreement.

Gore points out that every major social movement in history suffers setbacks on the path to success, so he says, "Keep at it!"

Gore trains thousands of local activists worldwide in his "Climate Boot Camps." We see enormous progress in solar/wind power and electric cars. This year, installed solar/wind generating capacity will exceed nuclear power. Public opinion is finally recognizing the problem (see wearestillin.org). As deniers chip away at Obama's climate policies, local, regional, and individual efforts are increasingly important.

Individually, you might also strive to set a personal example by making changes to reduce carbon emissions. The most powerful individual act is to create or join a movement. According to Bill McKibben: "Movements

are what take 5–10 percent of people and make them decisive because in a world where apathy rules, 5–10 percent is an enormous number."

How about starting a movement to compel your city and county to minimize greenhouse gas emissions? The Mayors Climate Protection Center (www.usmayors.org/mayors-climate-protection-center/) provides "... guidance and assistance ... to reduce the greenhouse gas emissions that are linked to climate change." More than 1060 cities nationwide have signed the Mayors Climate Protection Agreement, including 13 Arizona cities. Is your city a signatory? If so, work to improve your local climate change plans. If not, work to sign 'em up!

Climate activists know that the Paris agreement isn't enough, but what is enough? The answer is in the magnificent and impressive new book "Drawdown. The Most Comprehensive Plan Ever Proposed to Reverse Global Warming" (Penguin Books, 2017), edited by Paul Hawken (available at drawdown.org or local booksellers). "Drawdown" is that point in time when the concentration of greenhouse gases in the atmosphere begins to decline on a year-to-year basis. Hawken assembled a team of 200 scientists to model and compare hundreds of potential global actions by calculating CO2 reduction, costs, and savings, and then ranking the solutions into scenarios. Here are the top ten solutions to achieve

See *Climate Solutions* on pg 5



Don't forget to vote in chapter and group elections! See p. 6 for ballot and instructions. Deadline is December 1.



Climate Marchers Photo by Toni Hefer

Poverty, Energy & Equity

By Cynthia Zwick



Poverty is an ongoing and growing problem across the country. In Arizona, 17% of our families, 25% of our kids, and 16% of our elders live in poverty. Every day, families and individuals struggle with choices they never should have to make, e.g. pay the electric bill, buy food, or go to the doctor.

As a voice for families in poverty, the Arizona Community Action Association advocates for fair policies, supports

community action agencies, and collaborates with local businesses, elected officials, and non-profit organizations to influence and generate lasting change.

Among our most important efforts is our energy policy that supports the needs of low-income customers and includes funding for agencies providing weatherization.

See *Poverty, Energy & Equity* on pg 17





Arizona Chapter Action Directory

Canyon Echo

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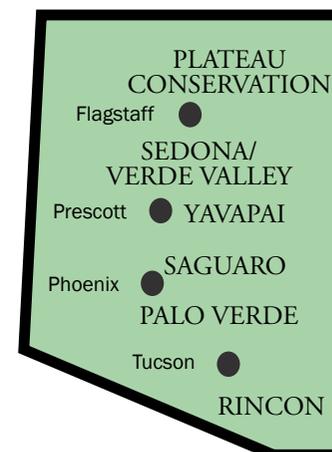
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2017 Group Voting Representatives to Chapter Ex-Com (see p. 14 for contact information):

Palo Verde:	Don Steuter	Rincon:	Meg Weesner	Yavapai:	Tom Slaback
Saguaro:	Jim Wilkey	Sedona/Verde Valley:	Brian Myers		

Chapter Announcements

OCT 4, NOV 1, DEC 6 (WED) 6:30 p.m. Political Committee meetings. Help us elect more environmentally-friendly candidates! If you are interested in helping improve the political climate in Arizona, consider being part of our Political Committee! All Sierra Club members are welcome to participate. For information, contact Dale Volz at 480-892-5102 or dvolz@earthlink.net.

OCT 24, 6:30 p.m. Energy Team meetings. October's meeting includes a presentation on efforts to promote carbon fee and dividend legislation to combat the effects of global warming. Climatologists and top economists of all persuasions agree that placing a price on carbon is the most effective action possible to curb CO2 production, and at the same time encourage clean energy and protect natural resources. Sandy Whitley, a volunteer with CCL and also a member of the Sierra Club energy Team will present CCL's proposal, explain how it works and why it will be an effective solution for reducing green-house gasses in our atmosphere. **November's meeting will be on the 28th.** For more information, please contact Harry Lumley at 480-474-4993 or lumleyhw@gmail.com.

NOV 1 (WED) 5:30 p.m. Publications Committee meeting. Have an idea? Help plan future issues of *Canyon Echo*! Contact Meg Weesner at 520-290-1723 or mweesner@att.net.

DEC 1 (FRI) Copy deadline for Winter 2018 Canyon Echo. Articles, art, photographs, poetry, essays, and brief epiphanies are welcome. Contact Sandy Bahr before submitting at 602-253-8633 or sandy.bahr@sierraclub.org to discuss word count, photos to include, licensing, issue topics, and to request submission guidelines.

DEC 27 (WED) Times TBD. Canyon Echo Mailing Party. Volunteers save the Chapter hundreds of dollars by preparing *Canyon Echo* for mailing. Thank you! The job is easy to learn, and we all have a great time. Any amount of time that you're available is appreciated. Contact Jerry Nelson at 602-279-4668 or peakbagger2@gmail.com for details.

JAN 13-14 (SAT-SUN) Chapter Conservation (SAT) and Executive Committee (SUN) meetings. Club leaders meet to consider matters related to statewide conservation efforts, share experiences across groups, and coordinate strategy to align our Chapter mission and goals with that of national Sierra Club. For more information, contact Don Steuter at 602-956-5057 or dsteuter@hotmail.com or Keith Bagwell at 520-623-0269 or kbagwell50@gmail.com. Meetings will be held in Phoenix.

Grand Canyon Chapter – What’s Going On?

Keep Up to Date with Our Chapter!

Are you into social networking? So are we!

facebook

Chapter page – http://bit.ly/gcc_fb
 Arizona Water Sentinels page – http://bit.ly/azsentinels_fb
 Borderlands Campaign page – http://bit.ly/border_fb
 Energy – http://bit.ly/cleanenergy_fb
 Grand Canyon Campaign page – http://bit.ly/gccampaign_fb



Sandy Bahr – <http://twitter.com/SLBahr>
 Borderlands Campaign – http://twitter.com/SC_Borderlands
 Grand Canyon Campaign – http://twitter.com/SC_GrandCanyon



Chapter – http://bit.ly/gcc_meetup

Picnic Time!

Sunday, November 12

11:30 a.m. – 2:30 p.m.

Papago Park, Phoenix (Ramadas #9 and 10)

As a way to say *thank you* to all of our members and volunteers, we invite you to join us for this fun potluck and volunteer/member awards recognition picnic! Spend a day at Papago Park and meet and mingle with others devoted to Arizona’s environment. FREE! All you need to bring are your friends and family and a dish you wish to share. Sierra Club will provide a main dish and drinks. Not yet a member? Please join us!

RSVP to 602-253-8633 or grand.canyon.chapter@sierraclub.org.

Directions provided when you RSVP!

Sign Up for the Electronic Newsletter!

Help save resources and money by signing up for the electronic newsletter! Send an email with your full name and membership ID (8-digit number on your mailing label) to CanyonEchoESub@gmail.com or fill out the short form at http://bit.ly/e_echo. You will receive an email when issues are available online.



Buy Your 2018 Sierra Club Calendars!

Item	Cost	Quantity	Total
Engagement Calendar	\$14.95	_____	\$ _____
Wilderness Calendar	\$13.95	_____	\$ _____
Shipping (\$5 first; \$1 each add'l to same address)			\$ _____
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Help support our work by purchasing these lovely calendars! Filled with beautiful pictures and handy information, they make great holiday gifts! Proceeds benefit our Inspiring Connections Outdoors campaign.

Please fill out the order form and mail with a check made payable to “Sierra Club” to 514 W. Roosevelt St., Phoenix, AZ 85003.

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Cast of Characters

Dynamic Duo Defends Environment



Dr. Kathy Mohr-Almeida and fourteen-year-old daughter Anna are a force to be reckoned with. Kathy became an activist because of Anna:

“I cannot imagine looking Anna in the eye down the road and telling her I did nothing to prevent catastrophic climate change. Mitigating the negative impact of human activity on the climate is a very important value in our home – more important than personal goals.”

Kathy's involvement with the Sierra Club began several years ago when she joined the Beyond Coal Campaign, and has continued to evolve. She now chairs the Palo Verde Group in Phoenix, serves on the Chapter Executive Committee as an at-large member, and chairs the Chapter Membership Committee. Her creative talents became quite apparent in preparing (with a little help from her friends) colorful “flower power” signs for the Climate March back in April of this year.

Other groups Kathy and Anna are active with are Moms Clean Air Force, Rainforest Action Network and their Conflict Palm Oil Campaign, Kids Climate Action Network, and Tonantzin Foundation (for Traditional Healing).

There are several issues here in Arizona Kathy believes to be most urgent. One is the battle to Save Oak Flat from the environmental nightmare of Resolution Copper's proposed mine. She and Anna have attended demonstrations and events, pressed Congress, and

are involved with the Arizona Mining Coalition. Another issue is the “project that won't die,” The Escalade, proposed at the confluence of the Colorado and Little Colorado Rivers on Navajo land in Grand Canyon. Kathy is also very concerned about the composition and powers of the Arizona Corporation Commission, which she tries to change by being very active in her own Legislative District 25. She and Anna are animal lovers and believe that the biodiversity of Arizona's wildlife is threatened, and they plan to get more involved in that issue, too.

Kathy has lived in Arizona since 1989 while husband Johnnie, an HVAC technician involved in property management, is a native of the state. They currently live in Mesa with Anna and a menagerie of chickens, guinea pigs, dogs, and cats. In her spare time (not much of that), she enjoys reading, gardening, and art. Her other interests include psychology, spiritual ecology, and feminism.

Dr. Kathy has her own practice specializing in psychological therapy and education.

Kathy definitely has a sense of humor and likes to tell stories. She tells one about Anna, on a recent D.C. lobbying trip while at a press conference, asking to take a selfie with Senator Sheldon Whitehouse of Rhode Island, to which he graciously acquiesced. At a later time, seeing him on television, Anna exclaimed “I had no idea he was so high up!”

Arizona says, ‘Yes, We Will!’

By Amanda McCoy



As Hurricane Harvey charged in and flooded southeastern Texas and torrential monsoon rains continue to devastate thousands in South Asia, I began to wonder, will this change Donald Trump's opinion on environmental issues? Earlier this summer, Donald Trump decided to pull the United States out of the Paris Climate Agreement. Staying true to his sentiment of “America First” he's quoted as saying, “I was elected to represent the citizens of Pittsburgh, not Paris.” However, this decision does, in fact, impact American citizens all the way from Pittsburgh to Phoenix; there are 372 mayors across the United States who agree (Medium, 2017). Climate change knows no boundaries, does not adhere to arbitrary borders, and certainly does not discriminate.

The individual states' responses to the withdrawal has been encouraging, with states such as California, North Carolina, and New York (wearestillin.com) deciding to subvert Donald Trump's irresponsible decision to turn a blind eye on arguably the gravest global issue of the 21st century by publicly pledging to adhere to the world's agreement. Arizonans are certainly no strangers to rising temperatures and understanding the importance of climate resiliency. Currently, there are six cities (Moffat, 2017) in Arizona actively standing up for climate justice, and

hopefully, as a state, we will be unified in this omnipresent threat of climate change through the voice of our governor.

Phoenix, Tempe, Mesa, Surprise, Flagstaff, and Tucson have pledged to stay committed to the Paris Climate Agreement (Moffat, 2017; wearestillin.com). In Phoenix, Mayor Greg Stanton publicly acknowledged the urgency in which we must respond, especially in a desert city such as Phoenix (Gardiner, 2017). Up north in Flagstaff, Mayor Coral Evans has committed to the Paris accord with an ambitious climate change initiative plan that carries them through to 2019. Down south in Tucson, some of the immediate responses to the issue of climate change include encouraging eco-conscious development by waiving permit fees and adding more incentives for home builders and developers to make ethical choices (Davis, 2017). Arizona embodies the spirit of the Southwest, the strength of the desert, and the tenacity of the sun to stand up and stand strong for what is right, and what is right is fighting for climate justice. So when we hear our leaders say that we, as a country, will not be a leading nation in the fight against climate change, we the people, we here in Arizona, will chant back, “Yes, we will!”

Amanda is a member of the Publications Committee and an active Sierra Club member

Host a House Party in Phoenix or Tucson!



- You get the word out and invite between 2-10 people, between now and December, and we will do the rest
- We'll show the film Chasing Ice, bring appetizers and drinks, bring materials and lead a light discussion on remaining involved in climate change.

For more information contact Alicia Hamilton: alicia.hamilton@sierraclub.org

Thank You to Our Donors!

Thank you to our monthly donors!



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Thank you to Nancy Hill for hosting our fundraiser at Hazel & Violet Letterpress.

Thank you to our Water Sentinels supporters



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Thank you to all of the donors who donated cash at the Arizona Water Sentinels Benefit Concert as well and special thanks to Nia Maxwell and Fiddler's Dream for hosting this great event.

The Morning Stars Sing Together (\$500+)

Jeffery & Carole Augustine
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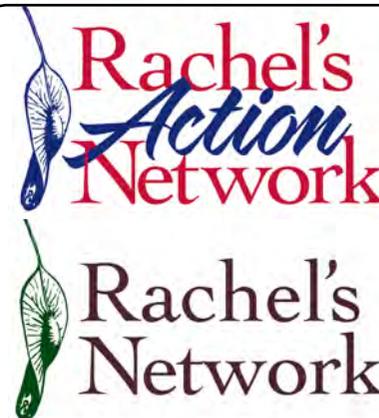
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Sandra Whitley

Thank you to Charles and Margaret Parker for donating in honor of Joe Shannon's birthday!

Thank you to Katherine Jacklin for donating in honor of her father on Fathers' Day!

Thank you to Chris Holmquist for donating in memory of Jack Halen. RIP Uncle Jack.



Thank you to Rachel's Network and Rachel's Action Network for supporting the work of our Borderlands Team. Supported by a grant from Rachel's Network members, borderlands organizer Dan Millis is working full-time on the effort, plus Sierra Club is mobilizing new constituencies and organizations in the coalition, mounting legal challenges to the procurement process, alerting the media to border wall impacts, and supporting public exhibits of conservation photojournalist Krista Schlyer's work.

Thank you to all who donated to protect our borderlands!

Erin Blanding
Isabella Bowland
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Elly Van Gelderen

Climate Solutions continued from pg 1

drawdown by 2050 in decreasing order: onshore wind turbines, tropical forests, refrigerant management, reduced food waste, plant-rich diet, silvopasture, photovoltaic farms, educating girls, family planning, and tropical staple trees. Then the list goes on for another 70 solutions, and we need them all. "Drawdown" is an encyclopedic educational resource for activists and a tour-de-force of science applied to a complex social and technological problem. It shows a path away from climate change disaster. That gives me hope.

Gary is Chair of the Yavapai Group.

Note: These lists include donations received from June 1 st through August 31st.

Sierra Club Elections

Who can vote?

All current Sierra Club members in good standing (dues paid) who belong to the Grand Canyon Chapter.

How do I vote?

- 1) Review the candidate biographies on pp. 7-9
- 2) Mark whether you have a Single or Joint (household) membership.
- 3) Vote by marking the box space(s) beside the candidates of your choice. Vote for no more than the number of candidates indicated for the Chapter or Group.
- 4) After voting, photocopy or cut out your ballot and place it in an envelope with your **name, membership number** (if not known, call 602-253-9140), and **address** as the return address. Your membership number is the 8-digit number above your name on your newsletter mailing label. **Deadline: December 1. Ballots postmarked later than December 1 OR without a name and address on the envelope will not be counted.**

Why are there two boxes following each candidate's name?

The second vote column is for joint memberships (two people living in the same household who are members). If you fill in the "S" box, your vote will count **once**. If you have a joint membership, fill in the "J" box and your vote will count **twice** for one household. If you have a joint membership and the two members want to vote for different candidates, check two "S" boxes in the same section. **Do not check both the S and the J boxes.**

What do I need to remember when marking the ballot?

Do not put your name on the ballot. Before counting, names and joint memberships will be verified from your return address on the outside of the envelope. Ballots will be counted after the deadline (December 1). All members may vote for Chapter Executive Committee candidates, but members may only vote for the candidates in the Group in their respective residential location. If you are unsure of which Group you're in, contact 602-253-9140 or grand.canyon.chapter@sierraclub.org.

ELECTION BALLOT

Postmark deadline for ballots is Dec. 1!

Is your membership Single or Joint?

Single Joint

CHAPTER EXECUTIVE COMMITTEE All Members Vote

Vote for no more than 4 candidates	Single (Membership Type)	Joint
Bev Full	(S)	(J)
Jim Vaaler	(S)	(J)
Richard Toll-Ward	(S)	(J)
Kathy Mohr-Almeida, Ph.D	(S)	(J)
_____	(S)	(J)

GROUP EXECUTIVE COMMITTEE: *Vote ONLY for Your Group*

If you are not sure which group you're in, contact 602-253-9140 or grand.canyon.chapter@sierraclub.org.

PALO VERDE (Phoenix) Vote for no more than 4

Michael Brady	(S)	(J)
Jim Vaaler	(S)	(J)
Kathy Mohr-Almeida, Ph.D	(S)	(J)
Fareed Abou-Haidar	(S)	(J)
Chris Gehlker	(S)	(J)
_____	(S)	(J)

SAGUARO (N. Maricopa County) Vote for no more than 3

Harry W. Lumley	(S)	(J)
Sally Howland	(S)	(J)
Dianne Dietrich Leis	(S)	(J)
_____	(S)	(J)
_____	(S)	(J)
_____	(S)	(J)

SEDONA/VERDE VALLEY Vote for no more than 3

Rebecca Hydock	(S)	(J)
Anne Crosman	(S)	(J)
Brian Myers	(S)	(J)
_____	(S)	(J)

RINCON (Tucson) Vote for no more than 4

Keith Bagwell	(S)	(J)
Catalina Ross	(S)	(J)
_____	(S)	(J)

YAVAPAI (Prescott) Vote for no more than 3

Jenny Cobb	(S)	(J)
Tom Slaback	(S)	(J)
_____	(S)	(J)

Very Important!

Be sure to include your name and address on the envelope (not on the ballot). **Any envelopes without this information will be discarded and the ballot will not be counted.** Mail to

Sierra Club Elections
514 W. Roosevelt St.
Phoenix, AZ 85003



Meet the Chapter Executive Committee Candidates

Beverly Full (*Membership #10337194*)

I am a Life Member of Sierra Club, have been active in the club for 50 years and with the Grand Canyon Chapter since 2000. As a veteran outings leader, I've led hundreds of National and Chapter outings into wilderness areas and on endangered rivers and currently serve as Chapter Outings Chair. I've also been an active member of the Chapter Political Committee and organized the Sierra Club Saguaro Group in North Maricopa County. I would be happy to serve another term on the Chapter Excom and would appreciate your vote.

Jim Vaaler (*Membership #41365102*)

I will continue in the future as I have in the past to lead outings and work on public land issues such as the Plan Revision for Tonto National Forest as well as other public land issues as they arise. However there is an overarching issue that has become of great concern to me recently and that would be the state of politics in our Country. In the past, it seems now many years ago, politics was something that worked towards finding solutions to our problems. Now politics has become a problem, indeed it has become a sickness. There is a potential solution to this sickness and that is to marginalize our two party system by registering as an Independent. Independent does not mean a third party, it means no party at all. When one political party engages in science denial, whether it is climate change, or believing in the Savory grazing "method", we have serious problems and I believe it is now time to rethink the method we use in solving our problems. One thing is for certain: our two party system has got to go.

Richard Toll Ward (*Membership #44798528*)

- Stewarded 80 acres of cut-over doug fir land in SW Oregon, 1971-1977.
- Developed a family homestead on 5 acres of "scenic beauty" in Sisters, Oregon. Details available.
- Working on protecting 95+ acres of Sonoran Desert at the 5,000 foot altitude in the foothills of the Lue Mountains.
- River Steward for the San Francisco River in Greenlee County, AZ.

Kathy Mohr-Almeida, Ph.D. (*Member # 43413679*)

I would like to serve a second term on the Sierra Club Grand Canyon Chapter Executive Committee because I am deeply committed to the conservation of Arizona's resources and wildlife, and the mitigation of environmental issues in Arizona. Vigilance of the Rio Verde, the San Pedro, Fossil Creek, and Oak Flat must continue, as well as protecting threatened and endangered species. I am particularly concerned with the protection of the Grand Canyon and its related resources and the potential for destruction and toxic waste inside our national treasure. The monitoring of state, federal and corporate activities are crucial to the protection of our natural resources and biodiversity.

My continuance on the Grand Canyon Sierra Club Executive Committee will advance the bridges I have built over my previous term between our community and multiple local and national environmental communities outside of Sierra Club. I will continue to advocate for environmental projects and issues important in Arizona alongside these groups, and lobby at state and federal levels for our identified goals. I work closely with youth climate activists, am fully Spanish-English bilingual and possess a sharp, open mind. I enjoy collaborating with GCSC community!

Meet the Group Executive Committee Candidates

YAVAPAI GROUP

Jenny Cobb (*Membership #47163310*)

I have served on the Yavapai Group Executive Committee for the past two years; I am currently the Secretary. For several years I have been helping the Water Sentinels monitor the upper Verde River every month and I am an outings leader. I am deeply involved with grazing and mining issues, wildlife corridors, recovery of the Mexican Gray Wolf, climate change, supporting rights of indigenous peoples, air quality, and stewardship of forest trails. I am also the Yavapai-Prescott Broadband Leader of Great Old Broads for Wilderness (environmental partners of the Sierra Club in Arizona), conservationists who are advocates, stewards and educators for wild lands. My truck is always ready for field work, packed with camping and backpacking gear. I am a retired college instructor.

Tom Slaback (*Membership #12611684*)

Sierra Club member for more than 42 years, involved in Group, Chapter, and Water Sentinels leadership positions. The unquenchable thirst by the City of Prescott and towns of Prescott Valley and Chino Valley for water that is to be used to promote unrestricted population growth continues to threaten the base flow of the upper Verde River. The Peavine Trail is still threatened by bisecting roads. The \$3.8 million remaining in the Open Space fund must be spent on acquiring open space. Prescott National Forest vegetation management plans along with continued livestock grazing threaten 600,000 acres of our public lands, streams, and wildlife. I ask for your vote so that I can continue to speak for our environment and that we can "Protect, Explore, and Enjoy our shared natural heritage.

Meet the Group Executive Committee Candidates (Contd.)

PALO VERDE GROUP

Michael Brady (*Membership #45718433*)

As Donald Trump and the extreme right slice and dice our country and sell out to exploitive industries, those forces keep getting stronger. We need dedicated people to help protect our environment and serve as needed to keep our wild lands wild and our air and water clean. I have been serving on the Palo Verde Group Executive Committee, and it would be an honor to continue for another two years.

Jim Vaaler (*Membership #41365102*)

I will continue in the future as I have in the past to lead outings and work on public land issues such as the Plan Revision for Tonto National Forest as well as other public land issues as the arise. However there is an overarching issue that has become of great concern to me recently and that would be the state of politics in our Country. In the past, it seems now many years ago, politics was something that worked towards finding solutions to our problems. Now politics has become a problem, indeed it has become a sickness. There is a potential solution to this sickness and that is to marginalize our two party system by registering as an Independent. Independent does not mean a third party, it means no party at all. When one political party engages in science denial, whether it is climate change, or believing in the Savory grazing "method", we have serious problems and I believe it is now time to rethink the method we use in solving our problems. One thing is for certain: our two party system has got to go

Chris Gehlker (*Membership #41385231*)

I love the activist members of the Palo Verde group and it hurts to watch them fight old battles over issues such as forest and range management and know that they have already lost. The scientists tell us that even with the best management and serious effort to fight climate change not only ponderosa but piñon and juniper will be reduced to a few stands by 2050 and be gone by 2100. I will try to instill the group with visionary ideas the could actually save something such as transplanting whole ecosystems to different latitudes and elevations.

Kathy Mohr-Almeida, Ph.D. (*Member # 43413679*)

I would like to serve a second term on the Palo Verde Group Executive Committee because I am deeply committed to the mitigation of environmental issues across Arizona. My membership on the Palo Verde ExComm allows me to closely monitor state, federal and corporate activities, which is crucial to the conservation of Arizona's resources and biodiversity. I will continue to advocate for environmental projects and issues important in Arizona, and lobby at state and federal levels for our identified goals. Youth climate crisis leadership development remains a large part of my focus. Young people are incredibly resourceful, creative, and hold the moral authority to hold our governmental systems accountable. My professional background is in Education and Psychotherapy. I currently work with families who have Department of Child Safety involvement, am adjunct faculty with Benedictine University and Prescott College, and am Executive Director of Kids Climate Action Network. I am fully Spanish-English bilingual, and believe that the inclusion of marginalized people in political processes is paramount and socially just. I have served on the GCSC Executive Committee, am involved with Moms Clean Air Force, and Rainforest Action Network, among other groups.

Fareed Abou-Haidar (*Membership # 20321237*)

I am running for another two-year term on the Palo Verde Group's Executive Committee. As a resident of Arizona for over 30 years, I have seen it grow, not always for the better, and have become deeply familiar with its problems, especially those related to urban sprawl. I now believe a revived, desirable urban core will do wonders to bring people back from the fringes. For years, we've faced a legislature that rejects anything that protects our environment, even something as innocent as the efforts of some cities to ban plastic bags. And now we face a vicious administration in Washington that threatens to take away our National Monuments and other public land and hand it over to those who would tear it up. We have a big struggle ahead. Your vote in this election is important! Thank you."

SEDONA/VERDE VALLEY GROUP

Rebecca Hydock (*Membership #50760983*)

Let me first extend my greetings and thanks to all Sierra Club Members for their support of our mission to protect and preserve our planet.

Growing up in Southern California, I enjoyed the natural beauty of the land and water. My interest in nature lead me to study the biological sciences, and to obtain a Bachelors Degree in Biology from University of San Diego (USD). I have traveled to many parts of the world including the Middle East, India and Europe. After moving to Arizona in 2011, and exploring the northern regions of land, plant and wildlife, I became interested in the absolute protection and preservation of all of it.

It would be my highest honor to act on the Executive Committee of the Sedona - Verde

Valley Group. I have been proud to support and work closely with Chairperson Brian Myers, and Conservation Chair Tina Choate-Myers for the last several years. As a resident of Sedona, it is my interest to continue the work of preservation of our habitat for the entire region. Thank you, and I do look forward to becoming an Executive Committee Member and continuing my work with the team.

Anne Crosman (*Membership #10075629*)

No statement .

Brian Myers (*Membership #44535327*)

No Statement.

RINCON GROUP

Keith Bagwell (*Membership #42044629*)

My dedication to fighting for a clean, healthy and vibrant environment for all living things goes back many decades. My activism in the Sierra Club and its Rincon Group is reaching nearly two decades. The Sierra Club is my choice because it is a volunteer-based, democratic, grass-roots organization the concerns of which, like mine, span the breadth of environmentalism. Clean air, clean water, untainted food and environmental justice are just as important to me as the preservation of wild flora and fauna in the habitat they need for survival and we humans need for solace. The ominous threat of climate change makes our task more compelling than ever. We must move vigorously from our fossil-fuel economy to conservation and clean energy sources. The Rincon Group consists of wonderful people who are dedicated to environmentalism. It is a joy to work with and serve them. I ask for your vote for another two-year term on the Rincon Group Executive Committee.

Catalina Ross (*Membership #45875114*)

No statement..

SAGUARO GROUP

Harry W. Lumley (*Membership #47885646*)

I wish to extend my tenure as a member of the Saguaro Group Excomm. I have been a member of Sierra Club, Grand Canyon Chapter since 2011 following 25 years of overseas duty with the U.S. Dept. of State living in four continents. I have first-hand experience and observations of a wide variety of cultures and their varying impact on the environment. I have a degree in Biology and a keen interest in preserving our natural resources. As a member of Sierra Club, I am currently serving as the Chair for the Saguaro Group of Grand Canyon Chapter and am a Chapter Excomm member. I am preparing to attend the annual Council of Club Leadership convention as the Grand Canyon Chapter delegate. I also recently assumed the chairmanship of the Chapter's Energy Committee. I hope to continue preserving our natural resources through work with the Sierra Club in whatever capacity I am able. I am a member in good standing.

Sally Howland (*Membership #47783566*):

I am Sally Howland and I am applying for Excomm. I have lived in Anthem, AZ for four years. During that time I have been active with the Saguaro Group of the Sierra Club. I have served as secretary and lead outings. I have also been responsible for finding and organizing speakers for our monthly meetings. I a regular participant in testing water on the Lower Verde for the Water Sentinels.

Dianne Dietrich Leis (*Membership #42527348*)

My name is Dianne Dietrich Leis, and have been a member of Sierra Club for over 25 years. My life's work as a landscape and nature photographer has afforded me an opportunity to experience the incredible beauty of our wild lands in the first hand as very few people can. For this I am very blessed. I wish to continue serving on the Saguaro Group ExCom to continue the work of the Sierra Club, specifically in the areas of education and public outreach. I appreciate your vote.



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Solar and Batteries Soon to Beat Grid Energy Prices

By Russell Lowes

The largest contributor to global climate chaos is energy, at 61%*. This makes many of us want to be able to go off-grid. How about you? Your reasons to go off the grid might include energy self-sufficiency, bad utility management, etc. What about saving money? The economic breakeven may be here sooner than you think.

Let's say that you have decided there are four things you want to do at your house. One, you want to reduce your energy use. Two, you want to buy solar. Three, you want to buy a battery system to back up your solar when the sun is not shining. Four, you want to be able to go off the electricity grid.

This is how the process of battery-backed solar might work in the near future.

1) Reducing energy consumption: Let's say you use 575 kilowatt hours of energy per month, a typical Arizona usage; 200 kWh (Kilowatt-hours) is a typical reduction per month by using energy efficiency techniques like insulating shades for your windows, weatherization, etc.

This translates into: Your old 575 kWh x 12¢/kWh, which equals \$69.00 plus utility service charges, goes down to your new 375 usage x 12¢/kWh, or \$45.00/month + utility fees.

With just this step alone, your savings



Solar supporters outside TEP Photo by Sandy Bahr

would be \$24.00/month, \$288/year, \$5760/20 years.

2) Adding solar to your house: Now you won't have to buy as many solar panels. Instead of paying for maybe 5.6 kilowatts of capacity (the average used by the National Renewable Energy Lab, at tinyurl.com/NRELSolarPage8), you would instead buy 3.9 kWh. With the current tax credits, your solar energy

would cost about 5.1¢ per kilowatt-hour to your home, plus financing, or 7.9¢.

3) Adding battery backup to your rooftop solar: There is a goal by the battery industry to bring costs down to 14¢/kWh, when combined with solar. While this is more than the average in Arizona, you only have to get a portion of your energy from batteries, and with lower solar costs here in the Southwest,

the deal gets sweeter. For example, you can get 35% of your energy needs met with energy efficiency from step 1 above, and 45% from solar from step 2, and 20% from battery energy from step 3.

Well, that leads us to the point I opened with...

4) Going off-grid: First, you have to boost the number of solar panels to power the batteries, so your cost of solar would go up from 7.9¢ to roughly 9.3¢/solar kWh, fully financed. Let's project future battery costs at 20¢/kWh, fully financed. Remember that your old cost of electricity was \$69.00/month? If my cost projections materialize, maybe the early-mid 2020s, the cost of your energy would fall to \$57 per month.

This has been about the process of going off the grid, but there are reasons to stay on the grid. One is so you can share your electrons with others so they don't have to use dirty fossil or nuclear energy from the grid. However, if the utilities resist the solar revolution, and keep putting onerous charges on our bills, we may not have much choice. The best choice for you and your family, for you and your business, might be to go off-grid.

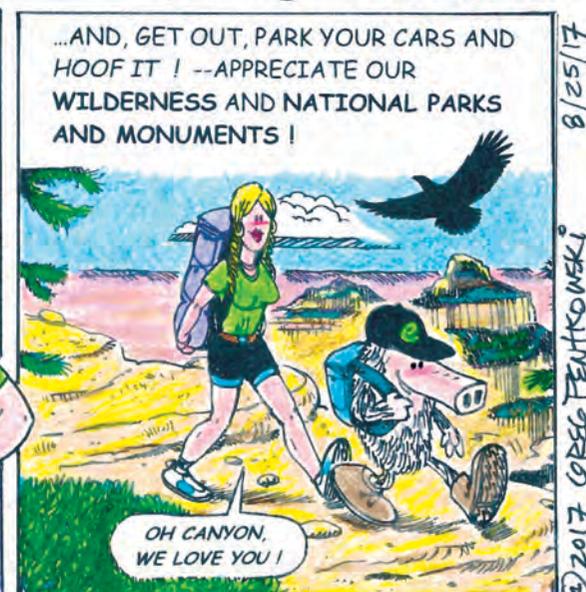
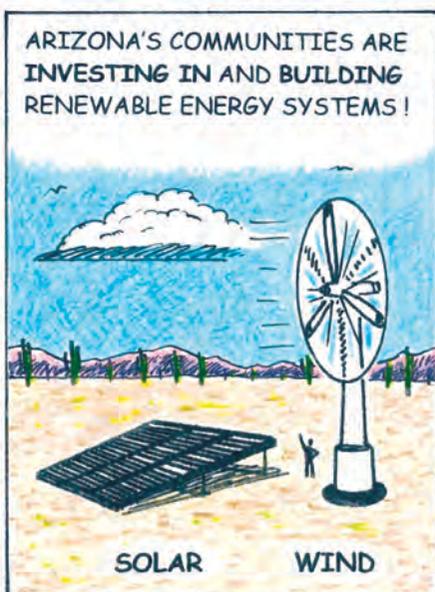
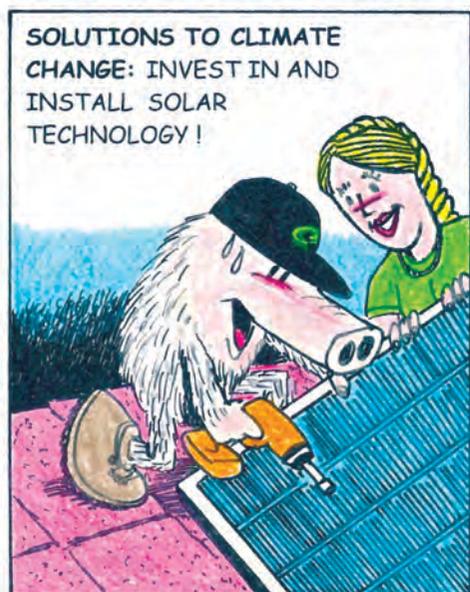
*IPCC, "World Greenhouse Gas Emissions by Sector" chart.

Russell is Energy Chair for the Rincon Group

Beyond the Slab

-- CELEBRATING OVER 30 YEARS OF PUBLISHED ECO-AWARENESS !

By Greg Pentkowski



8/25/17 ©2017 GREG PENTKOWSKI



Currently the Verde supplies fresh drinking water to more than two million people in Maricopa County. The river supports an estimated 700 jobs and \$100 million in economic activity in the Verde Valley. Its steady flow supports one of the most diverse eco-systems in our state, with two thirds of all life forms in Arizona living in its riparian zone. More than 240 bird species either live year-round or use the Verde greenway for yearly migrations, making it one of the most vibrant bird sanctuaries on earth.

We invite you to come and learn more about this exceptional resource and how YOU can make a difference in preserving the Verde for future generations of humans AND for the plants and animals that make it their home.

“An Evening on the Verde” will be hosted by Saguaro Group on Thursday, Oct. 19, at the FCF-Holland Community Center, 64250 N. 60th Street, Carefree, AZ

6:30pm – Refreshments and the opportunity to meet Sierra Club members as well as others working to preserve the Verde River.

7:00pm – Viewing of “Viva La Verde,” a film by Hugh Denno highlighting the history and current stressors on the Verde River.

7:45pm – Question and answer session with Gary Beverly, PhD, of the Sierra Club and Citizens Water Advocacy Group.

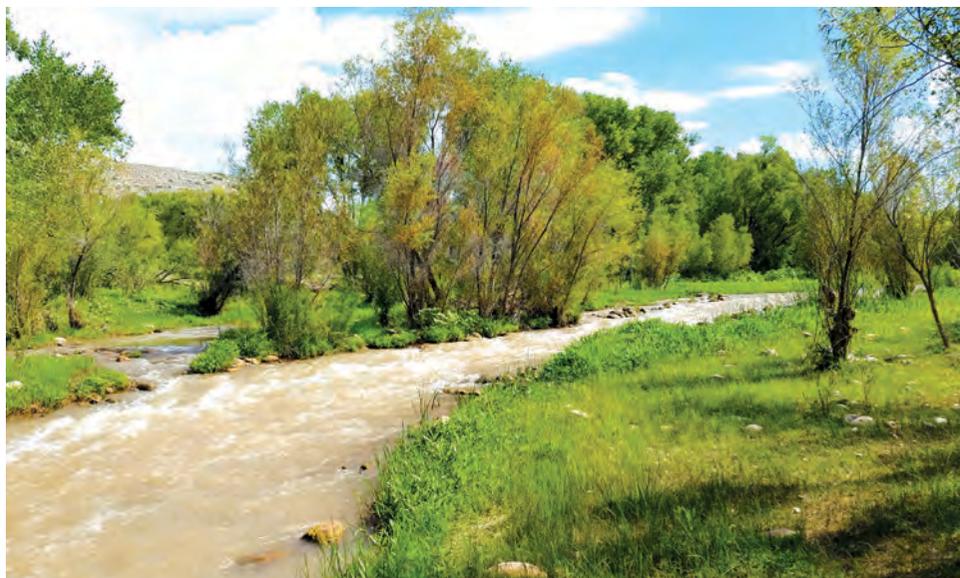
Dianne is a member of the Executive Committee for the Saguaro Group

Why Should we Care about the Verde River?

By Dianne Leis



Once upon a time Arizona had eight perennially flowing rivers. Each supported healthy, riparian ecosystems with abundant wildlife and plant communities that come with a dependable, year-round source of water. Now, due to man’s interventions, we have only ONE surviving river that still flows continuously over its entire length. That river is the Verde. Without serious conservation efforts it will go the way of its lost sisters.



Verde River Photo by Toni Hefer



Still Life with a View

by David Chorlton



Begin with an operatic crockery item:

place it at the center of the world where it engenders fear that a wrong touch will send it tumbling into shards with the desert shimmering behind it. Now arrange some stones,

but with more balance than in nature; almost enough to tip the table to the right were in not for the soft weight in a peach positioned to facilitate comparison between flavor

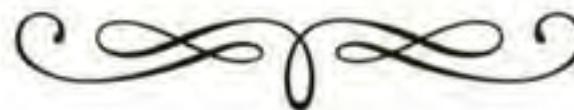
and the solid Earth. Make space for green to break through: the slender leaves that tap into air, the fleshy ones whose world

is a clay pot, and the ones that flow toward the foothills

where they turn into light. Have the room be a refuge for birds who accept whatever space is given them to animate the foreground while in the wide expanse outside a hummingbird

is perched on the whorl of a fingerprint. Take this moment as a breath

being held to preserve it, an exercise in swift creation with no chance for redress should the mountain collapse or the photograph pinned to the wall fade when rain is all that remains of a forest in the clouds.



Mitch Stevens - Featured Outings Leader



Mitch at Wilbur Outings Photo by Don Smith

Mitch Stevens, a New York City product, has built on his love for the outdoors in general, and Arizona's special places in particular, to become one of the state's premier outings leaders. Taking people to the unique and special places that Mitch has discovered makes them more willing to contribute and more focused on working, often with the Sierra Club, to protect these areas and to ensure that our nation has solid policies to keep them special. That's the driving motive that led Mitch to become the Rincon Group Outings Chair. Although he grew up in a huge city surrounded by asphalt, concrete, and towering buildings, one summer Mitch went to a camp in the woods of Pennsylvania. That stuck with him, so he majored in geology at City College of New York and longed to get back into the outdoors. He got his chance while working on his degree, taking a field trip to Bighorn Basin and Yellowstone National Park in Wyoming. "I was almost obsessed with the West and its wildlands after that," he said. His next trip was to the Southwest, and that sealed the deal. He and his wife decided to move west, and they examined San Diego, Tucson, and Albuquerque as possible home bases. They settled in Tucson in 1984. "The warm climate was really appealing; I was tired of the snow, ice, and gray skies. And there is something

about the desert here that fascinates me."

Mitch began hiking and exploring Arizona and the Southwest. Eventually, that led him to rejoin Sierra Club, and in 2006 he began leading hikes for the Rincon Group. "I meet great people, and it's good for the environment," he said. When the Rincon Group Outings Chair position opened up in late 2008, Mitch stepped up and took on the task. He leads seven or eight hikes a year while ensuring that the Rincon Group has an ample stable of outings leaders who meet the necessary qualifications and, with his help, put together appealing hikes for people of all interest and skill levels.

He leads one long backpacking trip each year. In recent years, he's led excursions to spectacular Kanab Creek, the longest tributary to the Colorado River in Grand Canyon. His group followed it from the Indian Hollow trailhead to the Colorado, a hike of 55 miles. Another version of that very popular trip was a nine-day outing that started at Monument Point at the North Rim, descended to Thunder River and Deer Creek, then traversed the Colorado River to Kanab Creek and back to the Rim at Sowards Point. Mitch has also led trips to the Sierra Nevada Mountains of California and the canyon country of southern Utah. Stay tuned for more adventures!

Experiencing Beauty and Friendship

By Tais Jimenez



My name is Tais Jimenez and I recently graduated from Pueblo High School. While I attended Pueblo, I was involved in the Outdoor Adventures Club which partnered with the Sierra Club my senior year. We went on several hikes throughout the year but the most notable were the Grand Canyon camping trip as well as the Sedona camping trip.

Despite living in Arizona my entire life, these trips allowed me to experience something I had never had the chance to experience before. For both of these trips it was my first time going to either place and it was a wonderful experience to see it with my fellow club members and sponsor. The vastness of the Grand Canyon was breathtaking and the hikes into the canyon were phenomenal. Sedona was a completely different experience as we were surrounded by beautiful red rocks. Not only was I able to experience the beauty of nature, I was able to experience the beauty of friendship as well. From the long van rides to sleeping in the tents, we all were able to get to know one another on a deeper level. Leaving the city to go out to nature is a wonderful thing; it allowed



Photo courtesy of Tais

me to step away from all the noise and appreciate the earth and the people on it. These were unforgettable trips that I will cherish forever.

Tais Jimenez is a recent graduate of Pueblo High School

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Simple Energy Savings that help the Environment

By Cathy Della Penta   

Here are my few simple suggestions to help our environment:

1) Do you use plastic bags? I know of someone who buys Zip Lock plastic bags, and after one use, puts them in recycling. That means she is spending more money than is necessary. Remember, there is a patch of plastic the size of Texas floating in the Pacific Ocean. If we can't stop using them completely, we can at least use fewer of them. Suggestion: Once you have used a plastic bag, wash it. Use soap and water and slosh it around, then rinse and hang out to dry.

2) Do you have an electric hot water heater? They are designed to work 24/7. But we really don't need hot water every single hour of the day. Suggestion: Buy a timer. (Also, consider solar hot water.) Get a licensed plumber to install it. I have my hot water tank on 10 hours a day, from 8 a.m. to 12 noon, and then from 6 p.m. to midnight. If I take a bath in the afternoon, when the timer is off, the tank still has enough hot water and I bathe just fine. However, suppose I want to do a full afternoon of 6 loads of laundry? All I do is flip the switch, and I get hot water. The regular time will kick in automatically after that. And you should see a difference in your electric bill.

3) Have you heard of "ghost electricity"? Every single plug that we have in an outlet has small amounts of electricity being drained. Some suggestions: a) Purchase a surge protector that has an on/off switch and plenty of outlets. Put your TV, DVD, CD, VCR and Sound Bar plugs all into the surge protector, and turn it off when you are not using the equipment. Mine is off all night. b) If you use Ethernet, unplug your computer when you are not using it. If you use wireless for your computer, turn it off at night. c) No one is suggesting you pull out every plug to

every lamp in the house; however, try pulling a couple out. I have 3 lamps that I unplug every night before I go to bed.

4) Going on vacation or going away for the weekend? Suggestion: Turn your hot water heater off at the circuit board. Make sure you have your electric circuit board locked, too. When you return, you will need to power up the heater again, and readjust the timer. It's easy to do. No need to pay for energy you are not using.

5) Going on vacation or away for the weekend? Suggestion: Turn your A/C up higher than you normally keep it when people are in the house. I normally have mine at 78 degrees in the hotter months. Because I have house plants, I don't turn it up very high, to 80 degrees, but even that little bit will save on electricity costs.

Cathy Della Penta is a lifetime Sierra Club member

Support for Ironwood Forest



Congressman Raul Grijalva and Tohono O'odam Vice Chair Verlon Jose

"I want to stand here before you, and the Creator, and before all the ancestors that are standing around us, that we do not see—and say to all the birds and animals and the plants, that we, as O'odham, we as Desert people, have an executive order from the Creator, we have a higher order from the Creator, that begins in our teachings, that we have a responsibility, that we have a respectful responsibility to care for the people, for the land and the animals, regardless of barriers, borders and boundaries." – Verlon Jose, Vice Chairman of the Tohono O'odham Nation, standing in Ironwood Forest National Monument, August 2, 2017

In Memoriam - Joseph Wenzel, Ph.D 1929 - 2017

By Tom Slaback   

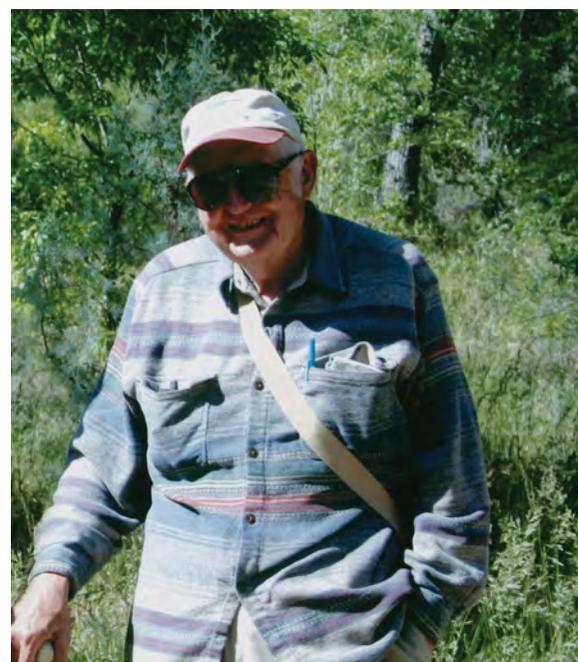


Photo by Tom Slaback

Joe, a long time Sierra Club member and volunteer, and an Army veteran, moved to Prescott in 1990 after a career in electrical engineering. He immediately became involved in the Yavapai Activity Group. He and wife Leslie volunteered their home for many meetings of the Yavapai Group Executive Committee and Grand Canyon Chapter on their backyard patio. Occasionally there, during the local political season, we would meet and greet those candidates that had an environmental leaning. Once a month, on Wednesday, we held movie night in their living room, showing the latest environmental documentary or a Hollywood critter flick. Joe was the Yavapai

Group treasurer for many years and was also the Chapter secretary. The Chapter recognized Joe for his many years of service with its Behind The Scenes volunteer award in 2009. Joe became interested in paralegal studies and studied environmental law which he used to help us in our struggles with the local federal agencies. Joe is survived by his wife Leslie and four children. Joe will be laid to rest at the Prescott National Cemetery. We will miss your wry sense of humor and love for the land. Rest In Peace.



You Already Have Solar Panels - Now What?

By Elna Otter   

Partly as a result of Al Gore's efforts and the efforts of others, we are now at a point where more than 70% of the US population believes in the threat of climate change. More than 97% of all scientists have shared that belief since the beginning of concerns about global warming. The cost of renewable energy continues to fall, and solar and wind are now cheaper than fossil fuel. Yet we continue to see new fossil fuel energy plants, pipelines, and exploration. The amount of CO₂ in the atmosphere continues to climb, despite the worsening indicators of climate change. Where have we failed?

It has been suggested that all of the individual efforts to cut fossil fuel use are insufficient under the best of circumstances to effect the needed changes. That is not to say that such efforts are not in vain, just insufficient.

We should not subsidize fossil fuels. According to Oil Change International, governments worldwide provide \$775 billion to \$1 trillion or more annually in subsidies, not



Solar Panels Photo by Louisa Ballard

including other costs of fossil fuels. When externalities are included, the unpaid costs of fossil fuels are upward of \$5.3 trillion annually.* This makes the change to renewables appear less price-competitive because of the subsidized prices for fossil fuels. This is not acceptable.

We have also failed in that we didn't take into account the fact that a lot of rich people, and some of us, have a lot of money invested in fossil

fuel. Companies like Exxon Mobil and BP have their stock valuation based on their "reserves," and they certainly don't want to have to write them off, even if their use would signal the end of life on earth. The big banks have been making money bankrolling these projects, and they certainly don't want

to stop now either. If we own stock in these banks or if we keep our money in there, our money is being used for that purpose. The national Sierra Club has mandated that local chapters remove their funds from those big banks. Grand Canyon Chapter expects to have its money in one or more credit unions or local/regional banks by year's end.

Neoliberalism is looking to solidify and/or enable further progress

on supporting industry over the environment and social concerns. Most of us are aware of the large number of laws that have been sponsored by the American Legislative Exchange Council.

Right now we are losing ground in what is really a fight for human survival on this planet. We might each make a checklist of our individual energy use, investments, etc. When all is said and done, we can't just modify our personal use of carbon, we need to be activists to work against the political and economic efforts being made that are pro-industry and against the people and the environment.

*See "Fossil Fuel Subsidies: Overview"; by Oil Change International. Externalities would include environmental impacts, military conflicts and spending, and health impacts.

Elna is Chapter Secretary

The use of Electric Vehicles

By Meg Weesner   

I've always wondered if I could get by with an electric vehicle (EV). Would it have enough range to meet my needs? Would I be able to afford it? With this year's Canyon Echoes focusing on climate change, I thought I'd try to find a few members who have electric vehicles and ask them how the vehicle works for them. In response to my request in the spring Echo, ten EV owners from around the state agreed to answer a few questions.

As expected, many of the EV owners lived in the Tucson and Phoenix metro areas, but EV owners were also from Prescott, Sedona, and Palominas, south of Sierra Vista. The cars they drive include Teslas, Nissan Leafs, Chevy Volts (which also have a gas engine), a Kia Soul EV, and a Toyota RAV4 EV. They have owned them from six months to more than five years.

Many of the owners had rooftop solar, but not all. Some used off-peak charging

starting at midnight to reduce the cost of charging, but the ones who compared costs said that their electric bills went up just slightly, much less than the cost of gas they would have used during a month. Some owners used a regular 110V plug, but some had installed a 220V outlet for a faster charge, and this could cost as much as \$1,000.

Driving range of the vehicles varied from 267 miles for a Tesla S to as low as 35 for an older vehicle driving in cold weather. Both age and cold temperatures reduce the range,

but most reported having a range of 50 to 70 miles. There were a variety of strategies for managing this limitation.

Some used the EV just for local driving and had another car for driving out of town. The Chevy Volt has a gas engine in addition to the EV motor, so it can go up to 400 miles if you use gas. The Tesla S is the champion; when driven with care, it can go upwards of 300 miles on a charge. One driver spends winters in Phoenix and summers in New Jersey, driving the Tesla back and forth. More and more

hotels are offering charging stations. Tesla has installed SuperChargers around the country. Several owners reported using the PlugShare app to locate charging stations, and have used it to contact other EV owners for help.

EV owners reported very low maintenance costs – no oil changes, no gasoline, just tires and wiper blades.

Here is some of the advice they give to others asking about buying an EV: "Don't hesitate, especially for in-town driving." "The acceleration is astounding." "They have a lot of power and zip." "An EV is not for everybody. But it should fit well into households that have more than one car. They can use the EV for everyday driving, and rely on the other vehicle if a long trip is needed."

Meg is Rincon Group Chair



Photo by Margaret Case

How Traditional Knowledge Can Help Save the Planet

By Isabel Menzel 

There is a prophecy that has been concurrent within indigenous tribes throughout eras in time that says there will come a day when man-inflicted damage on the earth will become irreversible, and we will know when that time is when animals begin to appear in places they've never lived before and plants sprout from the soil in regions that have never before been called their home.

Traditional indigenous knowledge is often submerged in the value of treating the earth and all of its elements in a respectful way to sustain our wellbeing for generations to come. It is a deep-rooted respect for nature and maintaining a balance between man his environment. Applying this wisdom could hold the key to solving today's troubling sustainability challenges.

Kevin Barr, a member of the legislative assembly of Yukon Territory, Canada, and part of the Tlingit First Nations' tribe, emphasizes that a



Artist Michael Kanteena Photo by Isabel Menzel

respect for all living things is essential to reach an equilibrium between conservation and human survival.

“Traditional native people look at

the land and only use what we need. We are a part of nature, not the masters of nature,” Barr says. “There are so many man-made laws that say it's

okay to do hydraulic fracking, that say it's okay to turn our pristine lakes to leaching pits, because someone wants to make millions of dollars: big corporations, lobbyists, politicians. They make man-made laws that say, ‘Hey, this is okay.’ At the end of the day, the laws of nature will decide if that was okay or not.”

Barr lives with an understanding that all life is precious. Everything that you take should be out of necessity and not greed. When an animal's life is taken, its death is an offering to sustain another life.

“We believe that if you're going hunting that the animal offers itself to you and you show respect by using everything,” Barr says. “Up here in the Yukon, the population of the deer stays stable. Here, with the climate, the deer really only sustains itself and it never gets to a place where you could harvest it. So the First Nations' people here, they just don't hunt them. They could, but they know if they did, there would not be any deer here.”

Michael Kanteena is a member of the Laguna Pueblo tribe in New Mexico and is an award-winning potter and artist inspired by the designs of the Chacoan traditions. He talks about the ancient Pueblo people of Chaco Canyon, located in New Mexico in the Four Corners area. The canyon has long been abandoned, but the ruins are still sacred to the Pueblo people and he deeply respects the heritage and traditions of the Chacoan culture.

“Their whole society, no one ever starved, everyone took care of everyone else,” Kanteena says. “They believed in Mother Earth providing and people, whether old or young, would be taken care of.”

Hingson Reappointed to Overflights Group

By Dick Hingson 

The federal National Parks Overflights Advisory Group (NPOAG) is reappointing Grand Canyon Chapter member and longstanding noise/aviation activist Dick Hingson to his third consecutive three-year term as the Sierra Club's representative according to National Park Service co-chair Vicki Ward. (The Federal Register in mid-September will carry formal announcement of Hingson's continuing term, to begin on date of publication.)

Two other environmental openings being filled on the NPOAG may be then announced.

The NPOAG was established by Congress in 2000.

The NPOAG is made up one member representing general aviation, three members representing the commercial air tour industry, four members representing environmental concerns, and two

members representing Native American interests. A continuing NPOAG member on the environmental side, well known to Grand Canyon Chapter, is Rob Smith, representing National Parks Conservation Association (NPCA). Rob's first three-year term expires on July 4, 2019.

Dick and Rob both have labored mightily on the contentious issue of air tour noise invading the national parks since the late 1980s, especially impacting Grand Canyon National Park.

The NPOAG meets at least once yearly in various locations; the next meeting is set for October 18–19 at FAA Western-Pacific region headquarters near Los Angeles International Airport. Persons seeking more information on NPOAG, particularly if wanting to attend the Los Angeles meeting, should contact Dick Hingson in advance at dhingson@infowest.com.

More information and links, re air tours vs. natural quiet concerns, are available at <https://www.nps.gov/subjects/sound/airtours.htm> The stalled Grand Canyon natural quiet restoration project remains under the NPOAG's purview, now 30 years after passage of the National Parks Air Tour Management Act, P.L. 100-91, on August 18, 1987. The Park Service position continues that, while recognizing “improvements,” the law's requirement for substantial restoration of natural quiet in Grand Canyon National Park still has not been met. Most national parks with significant numbers of air tours are, further, still lacking an air tour management plan, as directed by the National Parks Air Tour Management Act of 2000.

Dick is the Grand Canyon Chapter volunteer leader on Overflights

Isabel is a Photojournalist

Happenings Around the State

Five groups and one regional conservation committee make up the Grand Canyon Chapter. All events and meetings listed below are open to members 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. (x) Group ExCom members

Palo Verde Group (Phoenix)

<http://sierraclub.org/arizona/palo-verde>

Chair/Membership:	Kathy Mohr-Almeida (x)	480-329-8503	kathylynn626@yahoo.com
Vice-Chair/Programs:	Michael Brady (x)	480-990-9165	az.brady@gmail.com
Secretary:	Bettina Bickel (x)		bbickel08@gmail.com
Treasurer:	Jerry Nelson (x)	602-279-4668	peakbagger2@gmail.com
Conservation:	Don Steuter (x)	602-956-5057	dsteuter@hotmail.com
Outings/Wilderness:	Jim Vaaler (x)	602-553-8208	jimvaaler@msn.com
ICO:	Lisa Vaaler	602-468-4158	lvaaler1@gmail.com
Ex-Com (At-Large):	Fareed Abou-Haidar (x)	480-345-1779	fdadlion@cox.net
	Gary Kraemer (x)	602-373-6301	drrealitycheck@gmail.com
	Blair McLaughlin (x)	480-515-3850	blair.mclaughlin@cox.net

OCT 5, NOV 2 (THU) 6:30 p.m. Conservation Committee meetings. Contact Don Steuter. Location TBD.

OCT 12, NOV 9 (THU) 6:30 p.m. Executive Committee meetings. Contact Kathy Mohr-Almeida. Location TBD.

OCT 19, NOV 16, DEC 21 (THU) 6:30 p.m. Free monthly programs. The Palo Verde Group offers monthly programs on the third Thursday of each month from 6:30–8 p.m. Location TBD; contact for details. Monthly programs are open to the public. Visit <http://sierraclub.org/arizona/palo-verde> or call 480-990-9165 for more information.

Saguaro Group (North Maricopa County)

<http://sierraclub.org/arizona/saguaro>

Chair/Website:	Harry Lumley (x)	480-474-4993	lumleyhw@gmail.com
Vice-Chair:	Doug Murphy (x)	602-329-3690	dbmurphy@cox.net
Secretary:	Sally Howland (x)	602-663-2889	sally_howland@yahoo.com
Treasurer:	Ehrick Howland	602-663-4479	ehrick3@hotmail.com
Conservation:	Jo Sylvester	602-595-6170	stitchinjo@yahoo.com
Membership:	Bev Full (x)	480-221-2554	bfull@cox.net
Outings:	Peter Weinelt (x)	623-388-2209	vitalpaw@yahoo.com
Service Projects:	Urb Weidner	602-595-3301	northwoods@cox.net
Political:	Jim Wilkey (x)	480-649-2836	nvgvup@gmail.com
Ex-Com (At-Large):	Dianne Leis (x)	480-432-9181	dianne.leis@gmail.com

Oct. 7 (Sat) 8 a.m. Monthly meeting. Join us for breakfast at Grotto Cafe, 6501 Cave Creek Rd, Cave Creek for a social breakfast with a discussion of upcoming events and issues affecting our local environment for the coming year. Followed by a hike, see events.

Nov. 4 (Sat) 8 a.m. Monthly meeting. Join us for breakfast at Grotto Cafe, 6501 Cave Creek Rd, Cave Creek. Learn about foraging plants that are found in our area. Followed by, a hike see events.

Dec. 2 (Sat) 8 a.m. Monthly meeting. Join us for breakfast at Grotto Cafe, 6501 Cave Creek Rd, Cave Creek. Daniel J. Leavitt, a herpetologist with the AZ Game and Fish Department, will talk about the reptiles and amphibians that he studies including desert tortoises and garter snakes. Followed by a hike, see events.

Rincon Group (Tucson)

<http://sierraclub.org/arizona/rincon>

Chair:	Meg Weesner (x)	520-576-2083	mweesner@att.net
Secretary:	Catalina Ross (x)		cross@email.arizona.edu
Treasurer:	Ken Bierman	520-882-2708	kbierman1@gmail.com
Communications:	Cyndi Tuell (x)		cctuell@hotmail.com
Conservation:	Keith Bagwell (x)	520-623-0269	kbagwell50@gmail.com
Energy:	Russell Lowes (x)	520-321-3670	russlowes@gmail.com
Membership:	Thomas Hatfield (x)		thomas.hatfield@gmail.com
Outings:	Mitch Stevens	520-991-1199	mitchstevens@stevensloydgroup.com
ICO:	Kyle Kacerek		kyle.kacerek@gmail.com
Political:	Lee Oler	520-791-9246	cloler@cox.net

The Rincon Group Conservation Committee meets at **6 p.m.** in the first floor conference room of the **Historic YWCA, 738 N. Fifth Avenue**, in Tucson. The Rincon Group Executive Committee meets there at the end of the Conservation Committee meetings, at about 7:15 p.m. The meetings are open to the public. Sierra Club members, in particular, are urged to participate in the Conservation Committee meetings. The meeting dates this quarter are Thursday October 28 and Thursday December 7. Please join us!

Rincon Group programs are from **7 p.m. to 8:30 p.m.** on the second Thursday of the month. They are in the **Ward Three Tucson City Council Office, 1510 E. Grant Road**. They are free and open to the public. Refreshments are served.

Thursday, October 12. The Mysterious Northern Mexican Gartersnake. The northern Mexican gartersnake was listed as threatened under the Endangered Species Act in 2014. Primary threats include loss of habitat and introduced species. Relatively little is known about this highly cryptic and difficult-to-monitor snake, including how best to protect the habitats on which it depends. Tiffany Sprague, as a researcher with Arizona State University, studied microhabitat selection and movements of northern Mexican gartersnakes at Bubbling Ponds Hatchery in Cornville. She introduces us to the world of this special species and discusses the results of her work, plus a number of cool observations that have advanced our understanding of this mysterious creature.

Thursday, November 9. Ironwood Forest National Monument, A Jewel Under Assault. Interior Secretary Ryan Zinke studied Ironwood for shrinkage or elimination at the behest of President Donald Trump, three Arizona congressmen called for its removal and mining companies big and small say they want it reduced in size or rescinded. President Bill Clinton created the 129,000-acre monument in June 2000 under the 1906 Antiquities Act. It houses the densest ironwood-tree forest in the Sonoran Desert and is home to dozens of desert and mountain denizens, several of them endangered. Bill Thornton, a member of the Friends of Ironwood Forest National Monument Board, tells us what advocates for this unique monument are doing to preserve it.

Thursday, December 14. Will the San Pedro River Go Dry? The San Pedro River is the last significant river in the U.S. Southwest that is not dammed and it is a major stopping point for many dozens of migratory bird species, some of them endangered or in trouble. Its water and cottonwood-willow habitat are critical for many mammals, amphibians and reptiles. But the growth of Sierra Vista and Fort Huachuca has reduced San Pedro flows by 67 percent from those of the 1940s. Huge development proposals in Sierra Vista and Benson would suck enormous amounts of groundwater out from under the river and the planned SunZia Transmission Line would put huge towers and wires across the San Pedro River Valley. Jennifer Martin, Water Sentinels Coordinator for the Sierra Club Grand Canyon Chapter, and Tricia Gerrodette of Sierra Vista discuss the uniqueness of this river and opposition to the dangerous development proposals.



An Inconvenient Sequel: Truth to Power

By Amanda McCoy 

Truth to Power to start, I thought to myself, am I going to learn anything from this documentary? Granted, I am no stranger to the discourse of climate change and the broken relationship between humanity and Mother Earth, but there is always more to learn and new perspectives to gain.

The film chronicled stories that are all too familiar to environmentalists, showed how the fight for climate justice

is painstaking and exhausting, and gave us some insight into Gore's connection to the fight.

The takeaway from the film was the honesty of grief that comes along with the pursuit of "saving the world." Despite that grief, it felt like there was an attempt to send a message of encouragement to those feeling worn down and hopeless in the age of Trumpian politics. Had the documentary offered more of a

solutions-based conclusion or clear direction on where to go next, it would be worth encouraging people to see. But, unfortunately, I think the film offers much of what we already know.

Amanda is a member of the Publications Committee and an active Sierra Club member

As I sat in a theater of six (myself included), in the middle of the day waiting for An Inconvenient Sequel:

Sedona/Verde Valley Group <http://www.reliablescribe.com/svvg>

Chair:	Brian Myers (x)	928-300-7734	ibisalliance@gmail.com
Vice-Chair:	Anne Crosman (x)	928-284-9252	annecrosma@aol.com
Secretary:	Tina Myers (x)	928-300-7733	ibisalliance@gmail.com
Treasurer:	Paul Rauch (x)	928-821-4215	sequoia.tree55@gmail.com
Webmaster:	John Sheffield	928-204-1517	jsheffield40@gmail.com

For information about activities in the Sedona/Verde Valley area, contact Brian Myers.

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

Chair/Outings/Web:	Gary Beverly (x)	928-308-1003	gbverde@cablone.net
Vice-Chair/Conservation:	Tom Slaback (x)	928-778-4233	theprescottkid@cablone.net
Secretary:	Jenny Cobb (x)	928-541-9746	cobbsrun@msn.com
Treasurer:	Michael Adcock (x)	928-237-9143	michaelthemt@cablone.net
Ex-Com (At-Large):	Doug Treadway (x)	928-899-5409	douglastreadway@yahoo.com

OCT 4, NOV 1, DEC 6 (WED) 6 p.m. Executive Committee meetings. Members are welcome and urged to attend and participate in our monthly Executive Committee meetings. These are where we choose the issues we are involved with and do our strategic planning. Located at Yavapai Title Conference Room, 1235 E. Gurley St., Prescott.

Plateau Conservation Committee (Flagstaff) <http://sierraclub.org/arizona/plateau>

Chair:	Joe Shannon	928-380-9537	jshannon278@gmail.com
Public Land Recreation:	Mike Popejoy	982-707-1419	m.a.popejoy@gmail.com
Soundscape Activist:	Dick Hingson	928-699-8366	dhingson@infowest.com
Volunteer Coordinator:	Lindsey Jones	602-478-5795	lulu56765@gmail.com
Water Conservation:	Ian Harrison	928-266-0154	harrisonianj@gmail.com

NOV 9, DEC 14 (THU) 6 p.m. Conservation Committee meeting. Please join us! The Plateau Conservation Committee (northern AZ) holds meetings to discuss environmental happenings and ways to get involved. Sierra Club members are urged to attend and to participate. Open to the public. Located at Joe C. Montoya Community Center, 245 N. Thorpe Rd., Flagstaff. Contact Joe Shannon for more information.

Poverty, Energy & Equity continued from pg 1

The weatherization assistance program reduces energy costs for low-income households by increasing the energy efficiency of their homes and ensuring their health and safety. Based on current energy prices, living in weatherized homes can save approximately \$400 a year on energy bills. That's a lot of money for low-income households that generally spend nearly 14.4% of their total annual income on energy. Most households spend only 3.3%.

Today in Arizona, nearly 436,000 homes are eligible for weatherization. Approximately 10,000 have been weatherized since 1977. The program was created in 1973 in response to the Arab oil embargo to assist low-income families without the resources to adapt to volatile energy markets.

At the beginning, the program relied on measures such as plastic window insulation. Over the years, it has evolved into a more sophisticated program that addresses whole-house energy efficiency and promotes a whole-community approach. Crews use computerized energy audits and advanced diagnostic equipment, such as a blower doors, manometers, measures pressure differences and infrared cameras, to determine the most cost-effective measures for each home. Typical measures include installing insulation in walls and attics, reducing air infiltration and pressure imbalances,

sealing and repairing ducts, and tuning and repairing heating and cooling units.

Weatherization reductions in home energy consumption and lower utility bills for low-income families equate to a 35% reduction in primary cooling and heating energy use. For every dollar invested in the program, weatherization returns \$2.51 to the household and society. Nationally, for every \$1 million invested, 52 direct and 23 indirect jobs are created.

Every major utility in Arizona supports the federal program through funds that are leveraged with federal weatherization dollars as well as 15% of the state's Low Income Home Energy Assistance Program (LIHEAP) allocation.

While weatherization is an essential component of the energy efficiency portfolio, there is much greater need than is currently being served. More funding and agency capacity is desperately needed to make a significant improvement in the efficiency of homes and the resulting utility-bill savings. The current administration's proposed 2018 budget eliminates all weatherization and LIHEAP funding, a proposal that, if implemented, would devastate communities and families – an outcome we simply cannot allow.

Cynthia is executive director of Arizona Community Action Association

Explore and Enjoy Arizona

Find more events and opportunities on our online calendar at <http://www.sierraclub.org/arizona/outings>.

OCT 2-7 (MON-SAT) Annual Fall Labyrinth Canyon, Green River Canoe outing, tour and camp in Bears Ears National Monument. Car pool to Moab, Utah and either share as motel room at Motel 6 or camp at local campground (Pizza & Pool party at Motel 6 pool) Tuesday, meet outfitter and get bused to Crystal Geyser for launch. Canoe 53 miles in the next 5 days camping along the river from nights. Cost is \$350 which covers the shuttles, the rentals, the food while in camp, and maybe the tip if we have any money left. return to Phoenix. The Bears Ears tour will be on Sat., Sun., returning to Phoenix on Monday (Oct. 7-9). Contact Leader, Bev Full, for reservations and information at bfull@cox.net or 480-221-2554 or 480-214-3492.

OCT 13-16 (FRI-MON) "A" Utah Canyoneering This intermediate Utah canyoneering adventure will do two separate canyons. Gravel Canyon (ACA Rating: 3B III, 7.5 mi, 8 hours) will be explored on Saturday Oct 14 and Maidenwater Canyon (ACA Rating: 3B III, 3.7mi, 8 hours) will be traversed on Sunday. This exciting adventure features multiple rappels, down-climbing, scrambling, rock hopping, and swimming. Participants must provide their own gear, including helmet, harness, safety chain, descending device, wetsuit and carabiners. Previous experience rappelling and medical forms are required. The driving time from Tucson is about 9 hours so participants will leave Tucson on Friday and return on Monday. Contact Donald Smith at donsc@the3smiths or 520-591-9938. **Tucson**

OCT 14 (SAT) "B+" Fortuna Peak Dayhike This 10-mile peakbag will take us up 1300 feet to the 5,260-foot-high summit of Fortuna Peak in the mountains north of Superior. Although much of the hike will be on dirt roads, the offtrail route will involve slippery slopes and thick, spiny, and brushy vegetation (leather gloves recommended). Views will be excellent. Drive 70 miles from Tempe. Call Ken McGinty at 602-265-2854. **Phoenix**

OCT 28 (SAT) "B" Diamond Mountain Dayhike On this 9-mile exploratory

ATTENTION, CURRENT AND POTENTIAL OUTINGS LEADERS!

Are you interested in leading outings for Sierra Club? Or are you a current leader who needs to update your first aid or outings leader certification? Here's an opportunity to become qualified!

Outing Leader Training 101 and First Aid Certification

Saturday, November 18

9 a.m. (CPR – \$10)

9:30 a.m. (first aid – \$25)

1:30 p.m. (OLT – free)

Held at home of Bev Full, north Scottsdale

Scholarships are available. First aid and OLT 101 are required of all Sierra Club outing leaders. First aid training is required every three years, and OLT 101 is required every four years. CPR training is optional. Pizza lunch provided.

To sign up or for more information, contact Bev Full at 480-221-2554 or bfull@cox.net.



peak bag in the Mazatzal Mountains near Sunflower we'll climb 1500 feet in elevation to the 5,120-foot-high summit of Diamond Mountain. Much of our route will follow a jeep trail, but the final ascent will be offtrail. Expect steep and rocky slopes, spiny plants aplenty, and commanding views. Drive 45 mile from Scottsdale. Call Ken McGinty at 602-265-2854. **Phoenix**

NOV 3-4 (FRI-SAT) "C" Wet Beaver Creek Hike and Car Camp Walk and swim in this little wilderness paradise in the Coconino Nat'l Forest. See the book 100 Classic Hikes in Arizona. We'll camp Friday night near the trail. Tips on riparian photography will be offered, including "dreamy" slow shutter water shots. Tripod or bean bags will be useful. We'll spend time in the water so wetsuit and neoprene socks might be in order. Limit 10. Contact Eric Morrison at ericlmorrison@gmail.com or 520-248-5149 (text/voice). **Tucson**

NOV 4 (SAT) "B" Kentuck Mountain Dayhike On this 7-mile offtrail peakbag we'll ascend 1600 feet to the 5,013-foot-

high summit of Kentuck Mountain near Seven Springs. We'll follow the gentlest ridge we can find, but the ascent may still be a struggle. From the summit we'll either return by the same route of our ascent or follow another ridge. Expect the usual offtrail adversities: steep and rocky slopes, thick and thorny vegetation (leather gloves recommended), and who knows what else? Drive 40 miles from Scottsdale. Call Ken McGinty at 602-265-2854. **Phoenix**

NOV 4-5 (SAT-SUN) "A" Redfield Canyon Wilderness Backpack (14 mi. RT). Redfield Canyon is a dense jumble of cliffs and boulders about 40 miles northeast of Tucson and is located deep within the remote Galiuro Mountains. This backpack will be entirely off-trail but hiking is relatively easy in the bottom of the canyon. From Jackson Cabin we will hike down Redfield Canyon and camp along the creek where we will learn about the rich history of the area. Sunday, we return via Swamp Springs Canyon and drive home. Contact Donald Smith at donsc@the3smiths or 520-591-9938. **Tucson**

NOV 8-11 (WED-SAT) Canoe or Kayak the Colorado River Travel through the Black Canyon and Eldorado Canyon Wilderness. Carpool and camp first night (Wed) at Willow Beach Campground, get picked up and launched below Hoover Dam (Thurs), Camp in the Canyon on Thurs. night and Friday continue into Eldorado Canyon and camp. Saturday get picked up by our outfitter and returned to cars which are safely parked at the hotel parking lot. Tentative cost: about \$250. Contact Leader, Bev Full, for reservations and information at bfull@cox.net or 480-221-2554 or 480-214-3492.

NOV 11 (SAT) "B" Rocks and Wine in the Dragons Located in the Dragon Mountains, our hike will cover one of the most incredible granite rock formations at Cochise Stronghold, Rockfellow Dome. This stunning rock outcrop offers some of the best rock-climbing in Arizona. We will hike a little known trail to the dome and complete the loop by returning on the Cochise Stronghold trail. After exploring Rockfellow Dome and other spectacular rock formations at Cochise Stronghold, we will enjoy a relaxing wine tasting adventure in the vineyards near Willcox, Arizona. There will be a small fee for the wine tasting, TBD. Contact Mitch Stevens at 520-991-1199 or mitchstevens@stevenslloydgroup.com. **Tucson**

NOV 11 (SAT) "B" Peak 4,939 Dayhike This 4-5 mile offtrail exploratory ridgetrek will take us to a 4,939-foot summit in the New River Mountains near Seven Springs. Our absolute elevation gain and loss will be less than 200 feet, but there will be plenty of up- and downhill travel. Hiking along these ridges has never been a walk in the park, so there's no reason to suspect this hike will be either. For certain, we'll have fine views and grassy and rocky ground. Hopefully, the bugs won't be too annoying. Leather gloves recommended. Drive 44 miles from Scottsdale. Call Ken McGinty at 602-265-2854. **Phoenix**

NOV 12 (SUN) "C" Catalina State Park Romero Pools Hike 6 miles 1500 ft EC. This is the third in a series of out-

ings to Arizona's state parks, celebrating the 60th anniversary of the Arizona State Park System. The trail leads into the Catalina Mountains to a series of small pools. Entrance fee is charged for each vehicle. Contact Meg Weesner for details at 520-290-1723 or mweesner@att.net. **Tucson**

NOV 18 (SAT) "A" Fort Tule Dayhike

On this 16-mile hike we'll follow dirt roads, burro paths, a river bottom, and off-trail routes up and down mesas and along creeks in the Bradshaw Mountain foothills north of Lake Pleasant. Expect steep, slippery, and rocky slopes; acres of volcanic cobble; and thorny plants aplenty, including endless cholla fields (leather gloves recommended). Wet feet are possible if the Agua Fria River has water. Drive 30 miles from Phoenix. Call Ken McGinty at 602-265-2854. **Phoenix**

NOV 18-19 (SAT-SUN). "B" Holdout Canyon in the Santa Teresa Mountains

Tucked into the rugged backcountry of the remote Santa Teresas is a little known gem, Holdout Canyon. On Saturday we will drive 4 hours from Tucson, utilizing 4 wheel drive roads to access one of the most inaccessible wild areas in Arizona. We will set up a car camp for the night and take a short hike in late afternoon. The next day we will hike into Holdout Canyon and explore the canyon and beyond. Contact Mitch Stevens at 520-991-1199 or mitchstevens@stevenslloydgroup.com. **Tucson**

NOV 25 (SAT) "B" First Water Trailhead to Canyon Lake Marina Dayhike

This third in a series of hikes connecting these two points in the Superstition Wilderness will take us 7.3 miles by the Second Water and Boulder Canyon trails. We may also try some offtrail exploration (leather gloves recommended) if time allows. Expect plenty of up- and downhill travel and commanding scenery. Drive 40 miles from Tempe. Call Ken McGinty at 602-265-2854. **Phoenix**

DEC 2 (SAT) "B+" Black Canyon Trail: Bumblebee Road to Rock Springs

Dayhike This 13-mile trail hike, McGinty's favorite from the 2016-2017 season, will take us through a highly scenic area along the foothills of the Bradshaw Mountains near Black Canyon City. The trail is in good condition and follows dirt roads in places. Although

there will be plenty of up- and downhill travel, we'll basically be hiking downhill. Wet feet are possible crossing the Agua Fria River. Drive 55 miles from Phoenix. Call Ken McGinty at 602-265-2854. **Phoenix**

DEC 2 (SAT) "B" Elephant Head Day Hike

Elephant Head is the prominent lower-elevation peak on the northwestern part of the Santa Rita range. We'll gain close to 1100 feet and cover a distance of 6.3 miles through fairly rough terrain with some vertical exposure. Though the distance is not great this is considered a fairly challenging hike (there are many websites dedicated to this hike that you can view). We'll be rewarded with nice views without venturing far from Tucson, and the Santa Ritas have some interesting geology we'll experience and discuss. No limit. Contact Eric Morrison for details at ericmorrison@gmail.com or 520-248-5149. **Tucson**

DEC 3-6 (SUN-WED) Canoe the Lower Colorado River

Travel through Cibola and Imperial Wildlife Preserves. Sunday, carpool to Walter's Camp (3 hrs.). Monday, meet outfitter and launch canoes/kayaks to paddle down river to Picacho Park Beach campground. Tuesday, paddle to main Picacho camp area to camp and hike. Wednesday, paddle 10 miles to Fisher's Landing where we are picked up and returned to our cars at Walter's Camp, then drive back to Phoenix area. Tentative cost for rentals, shuttles, camp fees, and food will be \$250. Contact Leader, Bev Full for information and reservations. bfull@cox.net or 480-221-2554 or 480-214-3492.

DEC 9 (SAT) "B" Bootleg Canyon

Dayhike On this 10-mile exploratory adventure, we'll follow Bootleg Canyon from the Bartlett Dam road downstream toward the Verde River and back. We're likely to slog through sand, and should the canyon become impassible, we'll follow ridges and hike along the canyon rim. Expect thorny plants (leather gloves recommended) and steep and rocky slopes. The scenery in this mountainous country should be spectacular. Drive 40 miles from Scottsdale. Call Ken McGinty at 602-265-2854. **Phoenix**

DEC 10 (SUN) "B-" Picacho Peak State Park Summit Trail 5.5 miles, 2600 ft EC. This route is short, but steep and deceptively difficult. Be ready for scrambling on steep rocky routes and wear leather gloves to protect your hands while clinging to metal cables and chains. We'll talk about the proposed I-11, one route for which will go south of Picacho Peak. This is the fourth in a series of outings to Arizona's state parks, celebrating the 60th anniversary of the Arizona State Park System. Entrance fee is charged for each vehicle. Contact Meg Weesner for details at 520-290-1723 or mweesner@att.net. **Tucson**

DEC 16 (SAT) "B" Pueblo La Plata

Dayhike This 8-mile hike will take us to one of the larger archaeological sites in Agua Fria National Monument, the ruin BLM prefers people to visit in the monument. Following trails and an offtrail route, we will cross the Agua Fria River and Silver Creek and climb 300 feet to the rim of Perry Mesa. Expect plenty of uphill travel, steep and slippery slopes, vicious cacti and catclaw (leather gloves recommended), and possibly wet feet. Drive 60 miles from Phoenix. Call Ken McGinty at 602-265-2854. **Phoenix**

DEC 23 (SAT) "C+" Wave Cave

Dayhike Following a dirt road, and primitive trails, this 4-6 mile hike near the Peralta trailhead in the Superstition Wilderness will take us to a cave con-

taining an unusual wave-shaped rock. Expect fine views; steep, rocky slopes; spiny plants aplenty (leather gloves recommended); and other desert adversities. Drive 60 miles from Tempe. Call Ken McGinty at 602-265-2854. **Phoenix**

DEC 30 (SAT) "C+" Goldfield Oven

Dayhike This highly interesting 8-mile sand slog will take us into the desert near Stewart Mountain Dam, where we'll visit an old limestone kiln, trek along the Salt River, view the most twisted saguaro ever, hike among the wild horses or their droppings, and enjoy the spectacular scenery of the Goldfield Mountains. Most of the hike is relatively level or gradually up and down. Drive 35 miles from Scottsdale. Call Ken McGinty at 602-265-2854. **Phoenix**

JAN 6 (SAT) "B" Goldfield Ridge

Dayhike On this 10-mile offtrail trek we'll hike along a prominent ridge in the Goldfield Mountains from the Apache Trail and follow the same route back to our cars. This is a hike for those who love up- and downhill hiking. Expect steep and rocky slopes, plenty of brushy and thorny vegetation (leather gloves recommended), and breathtaking views of the Goldfield and Superstition mountains and Canyon and Saguaro lakes. Drive 45 miles from Tempe. Call Ken McGinty at 602-265-2854. **Phoenix**

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		
"C"	3-8 miles, 500-1,500 ft. EC	RT	Round Trip
"D"	<3 miles and 500 ft. EC	OW	One Way

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 Bev Full at 480-221-2554. Hikes and outings are also listed online. CST 2087766-40. Registration as a seller of travel does not constitute approval by the State of California.

Sierra Service Opportunities

Get involved and make a difference! Join us for these exciting service outings!

Water Sentinels Monitoring

Verde River: Saturday, October 14/San Pedro River: Monday, October 16

Contact: Jennifer Martin, 602-254-8362, jennifer.martin@sierraclub.org

Get your feet muddy and your hands wet with the Arizona Water Sentinels! These are great opportunities to help protect our important rivers. Volunteers are needed to take water samples and to make field observations. A group also monitors shallow groundwater levels in wells in the Murray Springs Clovis Site and near the San Pedro River near Sierra Vista. These data help track impacts to the rivers and to advocate for their protection. What could be better than spending a day in gorgeous scenery while working to make a difference?

Lower Verde Water Monitoring

Saturday, October 14

Contact: Doug Murphy, 602 329-3690, dbmurphy@cox.net

Join the Saguaro Group and Arizona Water Sentinels as we monitor water quality on the Lower Verde River. We will be sampling water quality, recording data, documenting the river's condition, taking samples for analysis, and picking up trash at Needle Rock beach on the Lower Verde, just minutes from north Scottsdale. This is a great opportunity for children and families to learn about the river. Call for carpool information or check meetUp

Buffelgrass Removal

Saturday, October 28, November 25, December 23

Contact: Frank Staub 520-260-1400, fjstaub@hotmail.com or mitchstevens@stevenslloydgroup.com.

Join the Rincon Group for a 3 miles roundtrip. 300-400' elevation change. The buffelgrass cancer is spreading, killing our desert animals and vegetation, and creating fire hazards. If you're a strong hiker and don't mind some hard work, here's your chance to help. We'll eliminate at least one of the patches of this awful plant in a remote, off-trail part of Saguaro National Park (West) that's too rugged for the regular buffelgrass removal crews. Bring hat, snacks, sturdy footwear, and at least 2 liters of water. Long pants and sleeves recommended. Park service personnel will attend and provide gloves and tools. Afterward, tour Frank's post and beam house with straw bale infill, off-the-grid solar, passive solar heating, and rainwater harvesting.

Hands-on Assistance to Southwest Wildlife Conservation Center (SWCC)

Tuesday, October 17, 9:00am.

Contact: Urb Weidner 602-300-8505, northwoods@cox.net.

Join us as we provide hands-on help to SWCC, a group that rescues native wild animals that have lost their homes to development or that are found injured, orphaned, or abandoned. When possible, the animals in their care are rehabilitated and released—healthy and wild—back where they belong.

Assistance will take the form of raking, trimming, painting, cleaning, or anything that needs to be done. We will also tour the facility and get a first-hand view of their activities. This will be a fun, helpful, and interesting event. The activity will run approximately 2½ - 3 hours. Light snacks will follow work/tour.

Rio Salado Habitat Restoration

Sunday, October 15, November 12, December 10

Contact: Jennifer Martin, 602-254-8362, jennifer.martin@sierraclub.org

Help us restore habitat! Join us for an invasive weed pull and clean-up at the Rio Salado Habitat Restoration Area, just south of downtown Phoenix. Once a dump site, the area is now a lush riparian corridor that supports a variety of wildlife and recreation opportunities. We need help removing trash and buffelgrass, a non-native, invasive species that alters habitat and increases fire risk. In April, we'll also be planting native cottonwood trees! Snacks, drinks, gloves, and tools provided.

Spur Cross Ranch Conservation Area Trail Maintenance

Saturday, Nov. 11, 10:00am

Contact: Urb Weidner, 602-300-8505, northwoods@cox.net

Spur Cross Ranch Needs a Hand. Spur Cross Ranch Conservation Area (the newest of Maricopa County's Regional Parks) needs some help restoring damaged trails. This scenic park is home to archeological sites, Sonoran desert plants and animals, and riparian areas along Cave Creek. Carpooling from North Phoenix to the park will be available, along with refreshments. Late start is due to bike race on same day. Plan on approximately 2½ hours.

New Adventures for Tiffany Sprague

After nearly 11 years with Sierra Club, Tiffany Sprague, our Chapter Coordinator and Publications Editor, has moved on to new adventures. Luckily, she is not going too far! She has accepted a position as Field Institute Manager with McDowell Sonoran Conservancy, where she will continue her good work to protect Arizona's wild places and wildlife while educating and inspiring others to do the same.

Tiffany has the following words to share: "The past decade with Sierra Club has been one of the most rewarding experiences of my life. I have learned more than I could imagine and am proud to have been part of our amazing accomplishments. I cannot even begin to express how much I've enjoyed my time

engaging with our incredible members and supporters. Together with our partners, we are a force to be reckoned with! I am proud to be part of such an awesome and inspiring team and look forward to continued engagement as a member and volunteer. Thank you, all!"

And Sierra Club says, thank you Tiffany for more than a decade of conservation work with Sierra Club's Grand Canyon Chapter. We are a better organization and have accomplished much with your help and support. We look forward to seeing you on the trail and more, continuing the work to protect Arizona, its people, its wildlife, and all that makes this place we call home so special. Happy trails! See you in the McDowells



Tiffany Acting on Climate Photo by Sandy Bahr