

Preserving the WonderTM

Summer 2021

KSB's Quarterly Environmental Message: In Sedona, the Environment ...IS...the Economy. Keep Sedona Beautiful's mission is to protect and sustain the unique scenic beauty and natural environment of the Greater Sedona Area



PRESIDENT'S MESSAGE: Operation Warp Speed for the Climate

In our Spring Newsletter I spoke of the significant changes that we're living through, including the impact of COVID-19

on our lives. On May 13th the Centers for Disease Control (CDC) recommended that those of us who are vaccinated do not need to wear masks in most situations. Life is beginning to return to normal.

For Keep Sedona Beautiful, this means that we can resume holding in-person events and meetings. We'll also be able to resume operations at our office (360 Brewer Road) and offer our meeting room for rental. Given the normal lull in activity during the Summer, we expect to be fully back to normal operations in September. As always, we'll continue to monitor CDC guidance and adjust our plans if needed.

A sincere thanks to all of you who have continued to support KSB through the pandemic by attending our virtual Speaker Series events, keeping your routes litterfree, making your feelings known to elected officials on issues of concern and renewing your memberships. If you haven't yet renewed for 2021, please visit this webpage to renew.

Operation Warp Speed resulted in the development of COVID vaccines in an incredibly short time. While many of the technical underpinnings had been in the works for the previous decade, this success

demonstrates what can be done when sufficient funds and focus are applied to solving a problem. The recent monumental effort to vaccinate the public also shows how governmental resources can be marshalled for the common good.

Now, we need an <u>Operation Warp Speed for</u> the climate.

As you'll see in the Good News column of this edition of Preserving the Wonder, the private sector is making stunning advances on a number of fronts. Enormous resources are being focused on research and development to bring to market technologies that move us toward a green economy. Please take a few minutes to read about these advances.

In addition, the Federal Government is now moving aggressively to address the climate crisis. Shortly after taking office, the President signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad", signaling the administration's commitment to action. The National Climate Task Force recently released "Conserving and Restoring America the Beautiful" that supports the principle of the 30 by 30 initiative to protect 30% of our land by 2030.

Progress is being made on all fronts. To those of you who have been vaccinated, go outside, take your mask off and soak in the beautiful clean air of Sedona.

Craig Swanson, President



10,000+ VOLUNTEER HOURS OVER 5,000 HOURS LITTER LIFTING

Yes! We are relevant and will continue to be so as long as stewardship, preservation, quality of life and caring for our community are important to our daily lives and future generations.





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Meet the New KSB Board Members



Steve Estes Steve Estes spent his first career, spanning more than 30 years, in the field of human services. His professional endeavors focused on positions such as juvenile probation officer, substance use counselor and other numerous assignments in community mental health services.

Upon returning to graduate studies, Steve earned his Master of Public Administration degree at Northern Arizona University, with a focus on environmental policy. His pedigree in the human services fields, however, drew him to assignments as CEO for three different nonprofit community mental health agencies.

Steve's environmental passion persisted, resulting in positions as co-chair of the Yavapai County Water Advisory Committee and eventually in assignments as Outreach Director for Friends of the Verde River and for the Verde Valley Land Preservation Institute (VVLPI). He subsequently served on VVLPI's board of directors and ultimately as its president. Upon VVLPI's merger with Keep Sedona Beautiful, Steve now serves on KSB's board of directors.



Bob Rothrock Bob and Kristen Rothrock arrived in the Verde Valley in 1979, glad to have escaped the Phoenix behemoth. Bob has tried to have fun and improve the lives of others. He is happiest when he can do these simultaneously. Some would say he has been moderately successful in these efforts.

After a thirty-year teaching career, mostly in middle school social studies, he began his unpaid career in volunteer work. He served a term on the Cottonwood City Council from 2002-2006, promoting responsible development. Bob was also a founding board member of Verde Valley Land Preservation Institute, a group dedicated to preserving and enhancing open space. He was also active with Friends of the Verde River, organizing river experiences for the public.

Bob and Kristen enjoy many outdoor activities. Boating and biking, birding and hiking are all on the itinerary. They hope to meet you on the river or trail ... someday.

MEET NORTHERN ARIZONA UNIVERSITY INTERN GRANT BLATTMAN

Grant Blattman is a Keep Sedona Beautiful summer intern from Northern Arizona University who has either written or contributed significantly to much of the content in this Summer 2021 issue of **Preserving the Wonder**. Read below to hear from Grant about what prompted him to seek out this opportunity.

When I approached my freshman year at NAU, I dreamed of leaving my small hometown in northern Nevada and venturing out on my own. From the desert sand dunes of Winnemucca to the mountains and trees of Lake Tahoe, I spent my youth exploring everything that northern Nevada had to offer. But all things must end, good or bad, and I set off to college, like many young people my age often do.

I started my first two years just like everyone else. I went through and completed my general education classes, but I didn't really have any plan for what I wanted to do with my degree. I had written for NAU's "*The Lumberjack*" before, but I lost motivation because I didn't feel particularly passionate about the articles I was writing.



NAU Intern Grant Blattman

I have always loved wildlife. When I was young, I would stuff my pockets with unfortunate caterpillars and crabs that I had collected from the beach because I was so interested in them. Reflecting on those memories made me realize that I cared deeply about the environments that those creatures lived in, and thus, I should pursue a career in protecting the environment.

I had heard loosely about an internship that an organization called Keep Sedona Beautiful was offering in one of my English classes. I sent the email to them, saying that I was interested, and well here I am, months later writing articles for the newsletter and writing about things I am passionate about and interested in.

I have had the opportunity to work with talented people from all walks of life. People from all over flock to Sedona to see its beauty. This has given me the opportunity to meet people from many different areas that have a passion for protecting their community. In the process of co-writing the newsletter, I have learned how many people it takes to keep the community involved and informed.

But there is much work to be done and we cannot do it alone. We need young people who have a passion for the environment to help us along the way. We need more people that want to make a difference. For those of you out there that might wonder if this type of opportunity is for you, contact KSB at ksb@keepsedonabeautiful.org. They have many options for involvement outside of their newsletter.

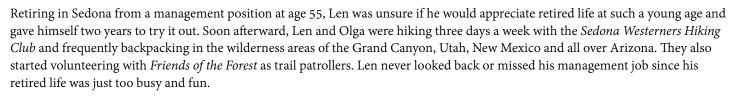
KSB CELEBRATES LITTER LIFTER LEN OSTROM

Twenty-six years ago, eBay and the History Channel launched, Batman Forever was the highest grossing film, OJ was convicted, Jerry Garcia and Selena passed away and Len Ostrom signed up to litter lift a mile with Keep Sedona Beautiful (KSB). Until his retirement in March of this year, Len, now 82, diligently kept that same mile free of litter for all those years!

Back in 1995, Len and his wife, Olga, had just moved to Sedona and called KSB to inquire about litter lifting volunteer opportunities. "We live in this beautiful environment," Len said recently, "and trash takes away the beauty and clutters it up. I am trying to keep the environment pristine."

Len grew up in Minneapolis but lived in both Duluth and St. Cloud, and he and Olga would take their children to Northern Minnesota to camp (their youngest is now 55 and oldest is 62). They would frequent remote campsites with fire rings and find old bottles

and tin cans to backpack out. For Len, litter lifting his KSB mile was just an extension of picking up campsite litter with his family.



When asked about his litter lifting days, Len relayed the story about a person who smoked Marlboro cigarettes and would throw out the empty boxes every week. Len could tell when the person had a cold because menthol boxes would appear. He picked up those cigarette boxes for over 15 years before they suddenly stopped, so it remains a mystery what happened. The person may have quit smoking, moved away, or passed away. Len never knew who it was, but the frequency of those boxes never happened again.

Today, to keep active and healthy, Len and Olga walk five miles a week and, true to their passion for the Sedona environment, they take litter bags with them, just in case.

To Len Ostrom, Keep Sedona Beautiful extends a big thank you for the thousands of hours of litter lifting and the dedication both Len and Olga have for keeping this area free of litter.

If this story inspires you to want to follow in Len's footsteps, contact ksb@keepsedonabeautiful.org to sign up for an open route (there are several available: 179 between the VOC and 17, 89A from Upper Red Rock Loop road to the Sedona Medical Center, and four routes on beautiful Red Rock Loop Road) or consider being a substitute volunteer and covering for people on vacation. Call today and leave a message at 928-282-4938. Change your world!

NATIVE PLANT WORKSHOP UPDATE

Keep Sedona Beautiful hosted several Native Plant Workshops in the second quarter of the year and has two workshops planned for the third quarter:

Re-Wild Your Garden Through Plant Partnerships, Saturday, July 10th, from 8:30 - 10:30 a.m.

It's a great time to visit a unique garden! In this workshop participants will visit the garden Richard Sidy has nurtured since 1982 and learn how to naturalize plants and build diverse, resilient and interconnected plant communities. Richard is president of Gardens for Humanity and a founding member of the Sustainability Alliance. A teacher for more than 35 years, Richard advocates for sustainability education, food security and environmental education.

This workshop takes place at the gardener's home, with limited attendance, so early registration is highly encouraged. Social distancing and masks are required. Vaccinated attendees welcome. To register for this free workshop, email your name to ksb@keepsedonabeautiful.org. If there is availability, KSB will return the email with confirmation of attendance and an address.

Native Plant Workshop Update cont. on page 4



Native Plant Workshop Update cont. from page 3

Making Prickly Pear Jelly, Saturday, September 25th, from 6:00 – 7:00 p.m.

Have you watched prickly pears ripening in your yard but had no idea what to do with the fruit? Don't waste this fun-colored, natural food that will impress your guests when they come to visit. Making Prickly Pear jelly, syrup or margaritas is easier than you think, but like any cook knows, it's all about the recipe and the tools. This Zoom webinar provides a simple recipe and explains the steps necessary for success. Mark your calendar for Saturday, September 25th, now.

Below is a recap of each of the three workshops held during the Spring:

Nature's Best Hope, Thursday, April 29

Due to circumstances beyond our control, Dr. Robin Weeks had to postpone his workshop scheduled for April 29th. In the place of Dr. Weeks' lecture, KSB offered a video of Dr. Doug Tallamy titled "Nature's Best Hope." Doug is the author of several books. His recent book, *Nature's Best Hope*, which was released by Timber Press in February 2020, is a New York Times Best Seller.

Recent headlines about global insect declines and three billion fewer birds in North America are a bleak reality check about how ineffective our current landscape designs have been at sustaining the plants and animals that, in turn, sustain us. Such losses are not an option if we wish to continue our current standard of living on Planet Earth. In the video, Dr. Doug Tallamy discusses simple steps that each of us can and must take to reverse declining biodiversity and explained why we, ourselves, are nature's best hope. To watch at any time, please click here.

Organic Gardening, Thursday, May 27

On Thursday, May 27th, Doug Copp held an in-person organic gardening workshop at his home in West Sedona. Doug is life-long gardener who has been growing plants organically in Sedona for almost 30 years.

Organic gardening uses natural methods to grow plants rather than trying to dominate nature with chemicals. The organic gardener nourishes the soil using compost, cover crops and crop rotation. Then the fertile soil grows the plants. Participants learned about making compost by adding roughly 75% brown material (leaves, straw and wood chips) and 25% green material (non-meat food waste, grass clippings and herbivore manure) to produce humus, something that nature does naturally when leaves fall off the trees and decompose on the forest floor. Micro-organisms and worms need oxygen and water, just like humans, so frequent turning and watering is vital.

Next, Doug explained the advantages of raised beds to

overcome Sedona's rocky soil. The biggest challenge in gardening is predators. Barriers, hand-picking and beneficial insects are used to deal with pests. Barriers include fencing, collars and floating row cover cloth. Row covers also provide a greenhouse effect to extend the garden season. Shade cloth is used to prevent sun scald on plants during the hottest days. Manual watering, at the base of plants, delivers the correct amount of water to each plant and gives the gardener time to inspect plants and handpick off insects like squash bugs and hornworm caterpillars (who camouflage themselves on tomato plants).

The Why, How and What of Natural Dyeing with Local Plants, Saturday, June 19

On Saturday, June 19th, people gathered at the home of Monique Sidy for a hands-on workshop on *The Why, How and What of Natural Dyeing with Local Plants*. Attendees were able to prepare local plant dyes and apply to small fabrics supplied for the workshop by Monique.

Monique Sidy is an accomplished artist, printmaker and web designer. Her work has been displayed at the Gemeente Museum in The Netherlands and at galleries in Italy, Norway and the U.S. Visit her website at moniquesidy.com.

For more information check the KSB website.



How Long Trash Hangs Out in the Environment

Multiple groups help to keep Sedona free from discarded trash and work to raise awareness for the growing problem of trash in the greater Sedona area. Red Rock State Park Ranger Riley Scantlebury created this impressive graphic as a reminder of just how long trash "hangs out" in Sedona. Let's all work to keep Sedona trash-free, and let's pack it in and then pack it out. Thank you, Riley!





DARK SKY UPDATE

In 2001, the City of Sedona adopted an Outdoor Lighting Ordinance to preserve our dark sky, and it was later updated to deal with LED lights. The law allows outdoor lights that were installed before 2001 to be retained.

In 2019, the City and the Sedona Chamber of Commerce & Tourism Bureau jointly adopted the *Sedona Sustainable Tourism Plan* to address long-term environmental protection, lower-impact visitor experiences, and residents' quality of life. Among many initiatives, the plan established a project to retrofit old light fixtures so that they comply with the City ordinance. KSB agreed to take the lead role in making this project happen to reduce impacts to our dark sky.

KSB is putting the project together now and is seeking the involvement of volunteers—even if you can contribute just a few hours a month. It's a great chance to work with local businesses and residents who want to lower their impact. KSB is looking for volunteers with electrical or handyman skills who can help small businesses and homeowners change to better light fixtures.

If you'd like to volunteer, please contact Mark Lawler, KSB Dark Sky Committee Chair, at 928-821-6972 or email LawlerMark@Earthlink.net. Thank you!





THE MILKY WAY: SPECTACULAR IN SUMMER

In the greater Sedona area, our dark sky lets us easily see the Milky Way. Summertime is when the Milky Way is at its glowing best. This is when the constellations of Scorpius and Sagittarius are high in the southern sky. These constellations frame the very heart of our home galaxy, where gravity and stellar evolution have concentrated dense and bright clusters of stars.

A great summer activity is to pick a moonless night, well past twilight, relax in a lawn chair facing south, and scan the core of the Milky Way with binoculars. You'll be amazed by contorted glowing gas clouds, dust lanes, broad star clusters, perfectly spherical globular clusters, and vast numbers of stars that fill the field of view everywhere. It's a grand excursion into a complex and dynamic place. There are new moons on July 9, August 8 and September 6.

Also look with your naked eye for the perfect teapot shape of Sagittarius, which appears to emit steam from its spout! Scan farther north to see how this central part of the Milky Way joins to long bands of glowing star clouds, still quite spectacular, coming from Aquila the Eagle and Cygnus the Swan (also called the Northern Cross), all the way to W-shaped Cassiopeia to the far north. You can get a sense of looking edgewise into a disk-shaped galaxy that is thickest and brightest at the center and dwindles in thickness and intensity toward the outer edges. There are a number of mobile phone apps that can help you easily locate stars, such as Sky View, Star Finder, or Star Walk 2.

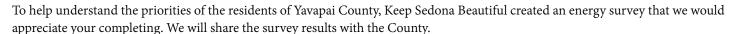
TAKE THE ENERGY SURVEY!

Yavapai County is in the process of updating its Comprehensive Plan to cover the next 10 years. This critical document will guide the Planning and Zoning Commission, as well as County Supervisors as they consider development proposals over the next decade. The Comprehensive Plan also contains the goals and policies of the County.

If you are not yet familiar with the process for updating the Comprehensive Plan, <u>CLICK HERE</u> for an explanation.

By law the County must include a section in its Comprehensive Plan covering energy. However, the statute only requires that the

Comprehensive Plan must include a discussion on "Planning for energy use that: (a) Encourages and provides incentives for efficient use of energy and (b) Identifies policies and practices for greater use of renewable energy."



To take this important survey, CLICK ON THIS LINK.

Please do not take this survey unless you are a resident of Yavapai County. Please respond only once per household.



PRESERVING THE WONDER™ SPEAKER SERIES

Looking forward to the third quarter of this year, KSB will have a full slate of interesting presentations. For example, Wayne Ranney will present, as will Steven Prager from the Audubon Society. More information is forthcoming in eBlasts to members, as well as on the Events Calendar and the Speaker Series page of KSB's website, but here's a little more information on our upcoming speakers, as well as a listing and recap of what happened this Spring.



On Wednesday, July 14th at 5:00 p.m., Wayne Ranney will present The Mogollon Rim: Arizona's Other World-class Landscape. Everyone has heard of the Grand Canyon but only people from Arizona are familiar with our state's second grandest landform, the Mogollon Rim. Nearly as long as the Grand Canyon and similar in some respects, the Rim has an interesting origin story that is not readily apparent to the casual eye. Wayne will talk about how this amazing feature came into existence.

Wayne Ranney is a geologist, river guide, and author based in Flagstaff, Arizona. He completed his Master's degree in geology at Northern Arizona University by compiling a geologic map of the House Mountain volcano southwest of Sedona. Out of this project he published his first book, "Sedona Through

Time," now in its 3rd edition and is considered the foremost book on the subject. A few of his other books include "Carving Grand Canyon" and "Ancient Landscapes of the Colorado Plateau." Wayne also works as an international guide and geologic interpreter with trips to all seven continents and more than 90 countries, including those in Africa, the Amazon, Antarctica, Patagonia, and the North and South Poles. Learn more about his writing, outdoor adventures, and lectures at www.wayneranney.com or his blog at earthly-musings.blogspot.com.



On Wednesday, September 8th, at 5:00 p.m., Steven Prager will present on Keeping Beer and Rivers Flowing. Yes, that's right ... keeping beer ... and rivers ... flowing. If you're interested in the connection between birds, beer and clean flowing water, you don't want to miss this Zoom presentation.

Steven is an Outreach Biologist with Audubon Arizona. He connects the community with a variety of conservation action opportunities (bird survey, policy action, hands-on habitat work). Steven has a B.S. degree in Conservation Biology/Ecological Sustainability from Arizona State University.

Audubon Arizona seeks to protect birds and the places they need, today and tomorrow, by using science, advocacy, education and onsite conservation.

In the second quarter of 2021, KSB continued to offer its Speaker Series virtually, via Zoom webinars. The April speaker, Dr. Nancy Steele, Executive Director and CEO of Friends of the Verde River, shared how groups are working collaboratively toward a healthy, flowing Verde River System now and in the future. A key focus of her work in past roles has been around augmenting water supplies by increasing the ability of cities to infiltrate stormwater to supplement groundwater supplies. Dr. Steele presented some exciting options for future water conservation and use.

Wendy Hodgson, who is an avid plant collector, Herbarium Curator Emerita and Senior Research Botanist at the Desert Botanical Garden in Phoenix, was our guest presenter in May. For the past 20 years, Wendy has been studying and documenting the flora of the Grand Canyon region. Wendy shared reasons for the great diversity in the Canyon and retold stories of botanists who braved the elements to gather the Canyon's most intriguing specimens. Interestingly, the Grand Canyon is home to more than 1800 plant species. Personally, Wendy has collected more than 32,000 herbarium specimens.

The June speaker, Nikki Cooley, Diné, who is Co-Manager for the Institute for Tribal Environmental Professional Tribes and Climate Change Program, spoke about the services, tools and resources that ITEP's Tribes & Climate Change Program offers to Tribes/Indigenous communities, as well as to nonTribal partners and entities with respect to addressing climate change. She covered the cultural and environmental crisis that Tribal/Indigenous people are facing because of climate change and what they are doing about it, and she provided case studies of the actions and strategies the Southwest is taking.

Look for more information on upcoming presentations soon. KSB will gradually move from Zoom webinars to live presentations during October and November.

Good News

It seems that each day brings another news story about a significant technological advance aimed at transitioning to a green economy. This inevitable shift is likely to result in an economic boom as new, sustainable jobs are created. For every job in the fossil fuel industry that is lost, one or more jobs is likely to be created in support of green initiatives.

Click on any of the following items to access a related story, understanding that this is a small sampling of the good news all around us.

The shift to a green economy requires significant advances in battery technology:

- Aluminum-ion batteries may charge 60 times faster than lithium-ion
- Nanotech makes more efficient batteries that last at least 9 times longer
- Swedish researchers have developed a new kind of structural electric car battery
- https://www.forbes.com/sites/energyinnovation/2021/03/16/plummeting-battery-prices-mean-electric-freight-trucks-could-be-50-cheaper-to-own-than-diesel/?sh=1be8ca41418c

Generation of clean renewable energy requires new ways of storing that energy for use when needed:

- The U.S. just smashed its record for energy storage
- The batteries that could make fossil fuels obsolete
- Light-activated material stores potential energy for months or years
- The potential for liquid air storage
- These stackable blocks could keep coal plants running, emissions-free
- An analysis of 5 promising technologies

Finally, a hydrogen-based economy may be closer than we think.

In our next newsletter, Good News will focus on the advances in eliminating single-use plastics.

YAVAPAI COUNTY COMPREHENSIVE PLAN

Yavapai County held the first meeting of their Citizens Advisory Committee that will assist in the update of the County Comprehensive Plan. In that meeting, Director of Development Services David Williams noted that there is no hard deadline for unincorporated Communities and organizations to submit their Vision Statements as input into the Plan. KBS has submitted our Vision Statement. You can read it by clicking THIS LINK.

The County released the results of the initial survey of residents that asked their opinions on issues relevant to the Plan. We urge you to review the results by clicking <u>THIS LINK</u>, to go to the County's presentation of the results, or click on <u>THIS LINK</u> to view a simpler summary of results compiled by KSB.

A significant majority of respondents agreed or strongly agreed that the County must protect our water resources, open spaces and way of life, and that future development must balance the needs of the economy with protection of the environment.

For example, respondents agreed or strongly agreed with the following statements:

95%	Ensuring clean air and clean water for future generations and for the health of our natural environment should be a priority
06%	The planning and approval of new developments should include a careful analysis of the projected

The planning and approval of new developments should include a careful analysis of the projected impacts on the natural environment

A plan to permanently protect and preserve environmentally sensitive land should be implemented

92% Protecting our surface water and groundwater from being overdrawn and depleted should be a priority

The impacts from proposed developments on water availability should be assessed and shared with the public during plan review

Yavapai County Comprehensive Plan cont. on page 9

Yavapai County Comprehensive Plan cont. from page 8

In other land use activity:

- The entire 172-acre *El Rojo Grande* property has been sold to a buyer who intends to reside on the property. This is great news for the community.
- AutoCamp continues to have interest in the 18+ acres of land northwest of Sedona. It has not been rezoned and County zoning code prohibits multiple trailers from being placed on a property. The Save Bear Mountain group is unaware of what AutoCamp intends to propose for the property if they choose to submit a revised proposal. All of the objections they, KSB and others had to their earlier proposal still stand.
- There have been no recent developments on *Spring Creek Ranch*, which is now within the city limits of Cottonwood.

OHVS: OH, THE PROBLEMS THEY CAN CAUSE



Many people love renting and taking out their own Off Highway Vehicles to explore Sedona's natural beauty. But used improperly or illegally, OHVs cause serious problems for residents and the environment.

OHV stands for "Off Highway Vehicle" and is a vehicle that is engineered to be driven off the highway. They can take many forms and can range from All Terrain Vehicles (ATVs) to dirt bikes. However, they are permitted to be driven on the highway if a tag is purchased at the Arizona Department of Transportation.

Here are a few common issues involved with irresponsible use of these vehicles, along with possible solutions.

Noise impact: The amount of noise that comes from an OHV can be particularly harmful for a number of reasons. Noise can drive wildlife away from a given area and have a negative impact on residents. Some members of the community have suggested having decibel checkpoints, where the noise from an OHV is measured. In order to proceed on the route, the vehicle must not be capable of generating noise over a certain decibel limit. Unfortunately, the State of Arizona punishes localities that impose noise limitations stricter than state standards by withholding state transportation funding.

Dust and vegetation impact: The dust and impact OHVs have on the soil cannot be understated. While many people are respectful of the laws and established trails, others take it upon themselves to blaze new trails. There are reasons that trails are established in the first place. Driving over vegetation causes damage to the existing vegetation and topsoil. If there are no plants left in a ravaged area, it will take many years for any vegetation to grow back at all. Additionally, OHVs can cause major damage to root systems, putting some of Sedona's older, beautiful trees at risk. Generating dust can also be problematic because not only is it difficult to breathe-in for wildlife, but dust also covers vegetation and damages their ability to photosynthesize. Dust is often generated when drivers perform "donut" maneuvers, resulting in kicking up increasing amounts

Imagine Nature's Quiet
Instead of YOUR
HOV'S DEAFENING NOISE
((()))

of dust and sediment, in addition to creating potholes and speeding-up erosion.

Wildfire potential: When going off-trail and destroying vegetation, there can also be a hazard that is more serious and potentially lethal than dust or damage to the vegetation. The high heat and sparks that can be generated can potentially ignite wildfires. Most OHVs are required by federal law to have a spark arrestor, or a device that can catch sparks coming from the exhaust. However, due to a sheer lack of manpower, the Forest Service does not have the ability to check every vehicle. The responsibility falls on individuals and OHV rental companies to make sure vehicles are safe.

Trash accumulation: Not a problem unique to OHVs is the trash, litter, and even human waste that is left behind when uncaring people venture into the wilderness. Food waste and containers are the most common. Everything from empty water bottles to diapers are all items found by KSB litter-lifters or left behind for other residents and concerned citizens of the community to pick up. The good news is that trash and litter are easily avoided. When you need something and the wrapper is disposable, plan ahead and bring a trash bag as a means of collecting what is often left behind!

All in all, there is both good and bad news on the issues Sedona faces with increased use of OHVs. The bad news is that most of these wounds are self-inflicted; the good news is that we CAN prevent most damage to the environment and residential areas if we wake up and recognize the harm we're doing. In a nutshell, responsible use of OHVs would prompt drivers to know the risks and operate the vehicle accordingly. Additionally, drivers should STAY on designated trails, FOLLOW traffic laws and COOPERATE with law enforcement to ensure that we all can enjoy Sedona's beautiful wilderness.

UPDATE ON OHV USE

Supervisor Michaels gets involved: Since little to no progress has been made on control of OHV traffic on Forest Service Rd. 152C, two residents from the area contacted Yavapai County Supervisor Donna Michaels for assistance in dealing with the illegal camping and destructive OHV traffic in that area. Of concern, too, are the illegal campfires that burn and the trash that has been accumulating since the outbreak of COVID. Supervisor Michaels has scheduled tri-weekly Zoom meetings for fact-finding and brainstorming for solutions with local residents and invited various stakeholders, including the County Sheriff's Department, District Ranger Amy Tinderholt and various representatives from the City of Sedona and the Chamber, as well as other government officials and entities and those involved with OHV rentals and use.

Red Rock News raises awareness of the issues: The Red Rock News recently published a two-part series of articles on the camping and OHV use along several Forest Service roads. If you haven't had the chance to read them or if you missed them, read them here:

- UTVs conflict with other forest users west of Sedona
- UTV impacts outside Sedona are rough terrain for mitigation

Congressman O'Halleran gets involved: U.S. Congressman Tom O'Halleran attended a meeting early in May of 2021 to learn firsthand of the adverse effects on the environment by the camping and OHV use on Forest Service roads, especially FS Rd. 152C. After the meeting, he scheduled a field trip to the area.

Back in January of 2021, a group that includes some of the

individuals mentioned here approached the Congressman about asking Congress for a special appropriation of monies for the U.S. Forest Service for law enforcement for these public lands. At that early May meeting, Congressman O'Halleran indicated that he had submitted a request for increased funding for Law Enforcement for the National Forests and another request for increased funding for Non-wildfire Staffing to draw Congress' attention to the issue of insufficient operating funds for our public lands.

The Red Rock Ranger District (RRRD) gets involved: The RRRD is working on a new management plan for the area that will no longer offer dispersed camping but camping only in designated areas and no camping at all on FS Rd. 525C. The plan might become effective in a year or longer, pending financial resources. But in the meantime, the Forest Service and the County Sheriff's department have allocated more patrols to enforce existing camping rules.

The District is also working on a long-term solution for OHV traffic in general that may include some or all of the following: speed limits, trails designated for OHVs or motor vehicles, law enforcement on those roads, staying on-road and on-trail, dust control by setting low speed limits, reporting accidents to relevant authorities, fines for illegal driving, making OHV rental companies responsible for illegal driving by the renters of their vehicles, and a permit system that takes into consideration regulation and accountability.

Bottomline: There is some progress that's been made regarding irresponsible camping and OHV use on Forest Service roads. While it will take time, we do have momentum, which is always a good sign.

SEDONA RED ROCK TRAIL FUND

Ever wonder how our beautiful Red Rock Trails get maintained and enhanced? Every year millions of people flock to Sedona, many of whom are in search of an ultimate hiking experience. Our trails take a beating—show signs of wear and tear—need upgrading or new signage. Sometimes the work extends to establishing new trails. The <u>Sedona Red Rock Trail Fund</u> (SRRTF) takes great pride in keeping our trails in top shape. Thank you, SRRTF trail crews!

The group is volunteer-based, and members are hikers, bikers, equestrians and outdoor enthusiasts that believe the trails connect people to adventure, and they recognize that the sheer beauty of the Red Rocks is worth caring for. They have one goal that drives their work: to sustain and enhance the Red Rock trail system within the Red Rock Ranger District.

The number of trails this group maintains is fairly significant. To give you an idea of some of their recent work, here's a rundown of areas of work and improvements made from December 2020 through April 2021:

- Chicken Point Trail: new signs
- Little Horse & Broken Arrow: general maintenance
- Doe Mountain & Boynton Trail: new rock stairs
- Big Park Loop: new drains
- East of Courthouse Butte: new trails (Rabbit Ears & Little Rock)

If you are interested in donating to this fund, to help with projects and improvements to the fine Red Rock trails here in Sedona and the Village of Oak Creek, <u>click here</u>. All proceeds are used to support the partnership they share with the U.S. Forest Service.





KSB's Guide to Responsible Travel

Three million tourists seek out the natural beauty of Sedona, but unfortunately not everyone respects the land. Keep Sedona Beautiful has identified a dozen things tourists and residents can do to keep Sedona beautiful.



CAMPFIRES

It only takes one spark ... Campfires are prohibited most months of the year



BIKES

Yield to hikers on trails ... Always



DOGS

Leash and pick up after your pooch ... It's the law



WATER

Conserve because very drop matters ... Sedona is in a mega-drought



PARKING / DRIVING

Stay safe ... Be courteous when parking. No driving under the influence



OHV

Enjoy but don't destroy ...
Stay on the road, protect vegetation from excessive dust, consider residents when "revving up"



LITTER

Pack it in, pack it out ... Leave trails as clean as you found them



PLASTICS

Reuse or refuse them ... Plastic takes decades or centuries to decompose



GRAFFITI

Never – ever! ... Visit for the beauty – don't destroy it



RUINS

Treat them like your home; it was theirs! ... Respect the sanctity of these sites



SHORT-TERM RENTALS

Be a good neighbor ...
Residents appreciate your
noise-free, litter-free living in
their neighborhoods



HIKE SMART

Be prepared ... Hiking without proper planning and supplies is dangerous

KISS THE GROUND DOCUMENTARY

Soil. We walk on it every day. Most days, we don't give it a second thought. But soil is a significant part of the way our planet operates and manages atmospheric carbon. "Kiss the Ground" is a Netflix documentary that seeks to explore this issue and bring to light why biodiversity, nutrients and climate change are all related.

This documentary details how our care of the soil gives us an opportunity to store much of the carbon in the soil—in an equilibrium designed by nature itself. Midway through the documentary, Dr. Kristine Nichols, an expert in soil microbiology, throws out a very interesting fact: "The soil environment can hold more carbon than the atmosphere and plants living on the surface combined."

The former (2012-2017) French Minister of Agriculture, Stephane Le Foll, puts it brilliantly: "*The primary tool in farming is the soil.*"

And while this documentary specifically targets farmers in its messaging, this is important perspective for the consumers among us as we use our purchasing power to communicate our values to the market.

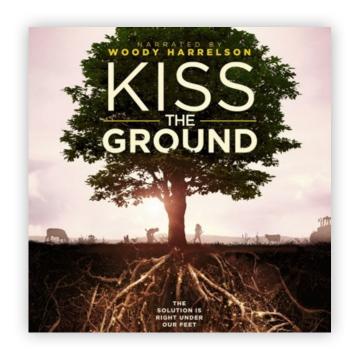
One of the more interesting facts that the documentary touches on is the impact and history of herbicides and pesticides. They were developed in World War I as a way to allow food to grow faster and cheaper. Fritz Haber, the man who developed the first pesticides, was also the same person who developed the chemicals used in the Nazi gas chambers during the Holocaust. After the war, these chemicals were brought to America, where they were used on crops in the Midwest and now target pests. These chemicals ruin soil biodiversity, inadvertently killing all the beneficial microorganisms that do humanity a favor and store our carbon emissions.

Another concept brought forth in the documentary is desertification. The United Nations' official definition for desertification is land degradation in typically dry areas resulting from various factors, including climatic variations and human activities. According to NASA, a prime example of desertification can be found in the dust bowls of the 1930s. Back then, the degradation and erosion of topsoil resulted in mass hunger and destitution—all results of farming practices that sought to sidestep biodiversity rather than embrace it.

But a new wave of desertification is happening today all over the world. The documentary explains how a staggering two-thirds of the world is undergoing some kind of desertification—through commercial agriculture, deforestation and man-made climate change (e.g., mass droughts), and it doesn't just have an impact on an environment separate from humans. Desertification leads to poorer people, less stable food sources and intolerable living conditions—resulting in mass immigration to areas that have not yet suffered the same fate.

Narrator Woody Harrelson explains the concept of "legacy load" of atmospheric carbon as follows: "We've pumped about 1,000 billion tons, also known as gigatons, of carbon into the atmosphere. It's called our legacy load of carbon."

It basically means that simply reducing all future carbon emissions to zero is not enough to cure what ails the planet because there is



so much carbon already in the atmosphere that it will continue to warm the planet. This is why, as Harrelson explains, the situation is bleak. The Earth will not and cannot reverse this dynamic alone; it's why productive human participation is vital.

Esteemed singer / songwriter, Jason Mraz, makes an appearance in the documentary. He is a regeneration farmer, which contrasts with commercialized, industrial agriculture because it is aimed at promoting an interdependent ecosystem to build biodiversity, robust soil and resilient farms. It begins with "no till farming" that does what the name implies and does not rely on tilling the soil and releasing stored carbon into the atmosphere. There are several benefits to this, chief among them that soil erosion is mitigated and soil retains its ability to absorb moisture—keeping our precious water where it's needed most. It also stores much more carbon from the atmosphere because of the utilization of cover crops, which keeps vegetation on the soil year-round.

Does this farming approach apply to the greater Verde Valley and its farmers? Absolutely! Desertification is occurring in the Sedona area just as it is happening in other countries around the world. And these issues need to be tackled in our backyard before we make a stand anywhere else. Water use and desertification are particularly applicable because of Arizona's dry climate. We all need healthy soil that will yield high quality produce and do its part to manage atmospheric carbon.

How can you get involved? Organizations like the <u>Verde Valley Community Supported Agriculture</u> (CSA) and the <u>Sedona farmers' market</u> are practicing finding alternative and organic farming methods. Support our local farmers! And if other farmers around the area are able to stay informed and conscious of the environmental challenges we face, we might just make a difference in our community.

Resources / Further Reading:

Meet the people behind the documentary
Get involved / find your path

Learn more about farming through another Netflix documentary, <u>Biggest Little Farm</u>

THE BEST OPTION FOR FOOD SCRAPS

When comparing the global warming impact of food scrap disposal, which option is best for the environment? According to the producers of the Kiss the Ground documentary featured in this issue of KSB's newsletter, there are an estimated 60 billion pounds of mineral rich food material that goes into landfills each year in the U.S. Turns out, what we do with this material is significant to the environment and may even help to reverse climate change ... that is, if we diverted this material from the landfill and instead composted the material to yield life-filled, nutrient available organic matter that can be used to grow nutrient rich food and increase the soil's water holding capacity.

So, do we toss food scraps into the garbage or put them in the garbage disposal or compost them? The worst thing we can do is put them into the garbage, where they'll ultimately end up in a landfill—only to release significant amounts of methane gas (a potent greenhouse gas) into the air as they decompose. The best thing we can do is compost food scraps because the process takes more carbon out of the atmosphere and functions as a soil carbon pump that cycles on and on to continue building nutrient rich soil for growing food. Think of compost as a probiotic for the ground beneath our feet.

Methane gas has a far more powerful effect (86 times) on the climate than carbon dioxide over a 20-year period, and methane is responsible for 40% of climate warming since the Industrial Revolution. Methane gas also contributes to respiratory and heart disease, and it can damage airways and lung tissue.

A recent study from the University of Washington in Seattle looked at the ways in which we process food waste and identified an option that is more friendly to the environment. The study used a model to calculate how much methane gas is produced over time in landfills as discarded food decays vs. composting it. Overwhelmingly, the author found support in composting food waste rather than letting it decompose in landfills.

But some may ask if sending food down the garbage disposal is better. Well, yes and no. It's better than sending it to a landfill, but a garbage disposal is not necessarily the most environmentally friendly way to deal with food scraps—there's precious water that is needed to run the disposal, it uses energy, and it's sent to the wastewater treatment facility to be processed. During processing, the heavier debris is often sent to a landfill (yep, the landfill), so it can ultimately end up in a place that is far less environmentally friendly than a compost bin.

You have options. If composting at home might be your thing and you're curious how it, learn the basics of at-home, small space composting, through this link from the Kiss the Ground website, which offers lots and lots of valuable, free resources. There's also an informative video on the site that tells The Compost Story.

Let's keep organic food materials out of the landfills!

GETTING RID OF WEEDS, THE SAFE WAY

Whether it be farming or residential uses, people need a way to get rid of invasive weeds. But using conventional methods might not be the best way. For many years, companies have been using formulas that may be linked to certain disorders, diseases and birth defects.

This news has led concerned citizens in Sedona to find a different solution to the problem. An alternative that uses natural oils and substances led former KSB President and now volunteer Bill Pumphrey to head an effort to change the way we think about weeds and the toxic chemicals we use to control them.

When talking about commonly used and potentially harmful herbicides, Pumphrey explained why people are switching from conventional to non-toxic herbicides. "These mainstream herbicides get lots of use. One popular herbicide, in particular, is very effective. It kills everything that it's selected to do. But there's evidence out there that concerns me. There's evidence that it poisons other things," Bill said.

This isn't new to him. Bill Pumphrey had been mixing his own personal treatments for five years when the alternative herbicide program came to fruition. The ingredients include a number of non-toxic oils and substances.

"So, I had personally been mixing my own for about five years," Pumphrey said. "It's a non-toxic herbicide for killing weeds that is made out of orange oil, vinegar, green soap and distilled water," Pumphrey explained. "It was effective, and I wanted to offer it to others, so I researched what other non-toxic, commercially available herbicides were out there and found two options. One option, Natural Armor, actually proved very effective and that's what I decided to use as a test in KSB's volunteer, non-toxic herbicide program."

Getting Rid of Weeds cont. on page 14

Getting Rid of Weeds cont. from page 13

"We decided to move forward. We wondered how to get this alternative product, Natural Armor, into peoples' hands. So, we bought some. We bought gallons of it and the first goal was to get 20 people to try it. We offered it to KSB members. We invited them to take before and after pictures of the areas they were spraying for weeds so we could see the results," Pumphrey said.

Of those KSB members who tried the product, we received the following positive comments on their experience:

- I like this organic weed killer. Doesn't smell bad. Works within 27 hours. It beats pulling weeds by hand! I think it's very effective, especially on young weeds. I give it a 5. I definitely recommend it ... it's so much better than putting poisonous products on your property, especially if you have pets.
- 1. This product was very effective; 2. Amazed that this nice smelling product worked the way the directions said it would; 3. My prior method of weed removal was shovel; 4. On a 1-5 scale, I'd say 6 since I am not wielding a shovel; 5. Would recommend to all. I was disappointed in my picture taking, but not the product.
- Pros: Easy to use. Effective on grasses and broad leaf weeds. Cons: A strong and distinctive odor that lasts for a while. Chemically strong, requires wearing gloves and washing hands after (which you should with any product). I would buy and use this product again. I often try to pull the weeds up by the roots. This product is great on the finer-bladed grasses that seem to arise in groups.

Overall, the results have shown the product is effective, but it is not a panacea. Many residents have said that Bill's product has worked well. Results compiled by Jan Wind of KSB have revealed that residents generally feel favorable about the effectiveness of the product and appreciate its nontoxicity, especially those who own pets.

One of the program's ultimate goals was to get local businesses involved. Bill explains that he has had little success in getting resorts and other businesses interested in the alternative herbicide.

"It was a little difficult to get volunteers for the evaluation ... we wanted some of the resorts to get involved but it gets complicated because they have master groundskeepers that might have corporate influences and direction," Pumphrey said.

Pumphrey also expressed an interest in exploring how local hardware stores could stock the product. "We'd like to convince some retailers like hardware stores and other distributors to carry it," Pumphrey said. "There's a couple of different brands. So, that's one of our initiatives ... get at least one option out there on the shelves ... encourage people to ask for it," he added.

All in all, things are looking hopeful for Bill Pumphrey's alternative herbicide program. KSB may consider rolling out a phase II of this pilot program, to a larger test group. If positive feedback continues and some businesses are convinced of the harmful effects of conventional sprays, it will be possible to bring some attention to Bill's program.

This pilot program offered by KSB is actually one tactic that is part of Sedona's Sustainable Tourism Plan. Next on Bill's agenda and another tactic in Sedona's Plan? Non-toxic insecticides. Yes, there are options out there. Stay tuned.

Before application:



After application:





KSB DECK GETS A FACE LIFT

The Keep Sedona Beautiful offices off Brewer Rd. in Sedona have a refurbished deck! The effort was headed by Ernie Demillo and David Murrill, who led volunteers to repair and repaint the deck and outside seating area. "A thousand thanks for the fantastic work on the KSB deck," said Craig Swanson, KSB's President. "You turned an eyesore into an inviting place to spend time."

Here's how the deck looks now ... fitting place to spend some time enjoying the beautiful weather and gearing up for gatherings as we get closer to in-person meetings and begin planning for events around KSB's 50th year celebration.







How to Protect Your Home or Business FROM WILDFIRES

In the West, summer means wildfires. And with climate change and the mega-drought much of the area is experiencing, the risk for wildfires increases.

If you've seen pictures of or watched the <u>documentary about</u> Paradise, you might be shocked to see swathes of homes burnt to the ground surrounded by green trees. It's ironic that many of our manmade structures burn better than trees! You don't need to be within the immediate fire zone either. Many people don't realize that it's typically not the main fire that sets buildings ablaze. It's embers, carried by the wind, which can sneak into attic vents or ignite plants just outside.

Here in Sedona, we sometimes have conditions that are similar to those described above. And with wildfire season approaching, it's good to know what you can do ... now ... to protect your property and your family.

Here are three things you should do today:

- 1. Know your risk. The State of Arizona has a threat assessment map that shows how vulnerable your neighborhood is. The USDA has a great site that shows how vulnerable your neighborhood is.
- 2. Harden your house. There are many things you can do to protect your home ... low cost actions like clearing brush, protecting vents and treating any exposed wood; and more expensive actions like replacing windows and roofs with



fire resistant options.

3. Plan your escape. Make a list of things to grab in priority order. Create a "go-bag" that you can grab on the way out the door. Make sure your phone is subscribed to emergency alerts. And discuss how to find one another. Check out the Red Cross templates.

Protect From Wildfires cont. on page 16

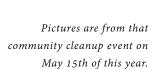
Protect From Wildfires cont. from page 15

There are several additional resources to become aware of:

- 1. The NOAA Radar Live Pro app is used by professionals and can be extremely helpful when travelling. This app is valuable in alerting the public to extreme weather dangers, including wildfire risk and activity, as well as flash floods and heavy snow.
- 2. The <u>Incident Information System</u> website provides up-to-date fire information, regardless of wildfire or prescribed burn. You can load the link and just remember to refresh the page occasionally to remain informed.
- 3. Yavapai County residents who wish to sign up for alerts through their Emergency Notification System can sign up here. Messages through the Yavapai County system will be based on the "Ready, Set, Go" protocol.
- 4. Coconino County residents can sign up here.

PARTNERING TO KEEP SEDONA CLEAN

The City of Sedona partnered with Northern Arizona Interfaith Council, Sustainability Alliance, and Oak Creek Watershed Council, to host a community cleanup event at the Sedona Community Center in May. This event was in response to concerns raised by residents in the immigrant community about bulk trash and litter accumulating in the neighborhood. Together, teams removed about 5 tons of bulk trash from the neighborhood and cleaned up 58 pounds of litter from the stormwater drainages. Oak Creek Watershed Council provided education about stormwater pollution and watershed health to all participants.













TOOL LENDING LIBRARY ADDRESSES Overconsumption in the Verde Valley

If I had a hammer ... and so did my neighbor, and my neighbor's neighbor, and their neighbor, and so on, one might wonder if we all needed a hammer or just access to one? What about those that can't afford tools but have the drive and need to tackle gardening and other household projects on their own? How would they access common and not so common tools? If we don't all really need to own each tool but need to have access to different tools, could we borrow them? What if we don't know how to use certain tools? Could we develop a platform to learn to use them?

That's where the Northern AZ Climate Change Alliance (NAZCCA) and NAU environmental science student, Kylee Musslewhite, came into the picture. Together, they contemplated overconsumption for the greater



Sedona area and set to work thinking outside the box. That thinking led to the start of a lending library for tools, or Sedona's Tools Empowering People (STEP).

Once the idea took hold, a location needed to be secured. Libraries loan out books, right? If libraries also provide for education on a variety of topics, why not provide tools and education on how to use them for gardening and home improvement projects? Enter the Sedona Public Library.

During her internship with the Alliance (www.nazcca.org), Kylee secured a location for the lending library with the Sedona Public Library. Next on her "to do" list was to solicit contributions. Residents began to offer up tools and, with that, the need to understand how to use them became apparent. Right now, there are tools for gardening and other household projects that have been donated. Soon, the Library will be open for business and it may expand to offer crafting tools as well. STEP is still working out how long tools will be available for loan, but that will likely be based on need. When a borrower is done using what they've checked out, they simply return it ... just like a library book that's been read.

"The idea is geared to promote a community of sharing vs. having the same tools in multiple homes. It's aimed at combatting overconsumption," said Kylee. "Overconsumption is a big issue; we don't all need to own everything. Instead, we can share tools and experiences with those tools. The goal is to make sure that people from all socioeconomic levels have access to tools they need."

COVID has presented challenges with getting STEP off and running, but initial response has been positive, after promoting the idea through community flyers and presentations. "A big part of STEP is having it evolve into something the community wants," said Kylee. "We aim to promote sustainability in how we live … let's say in gardening and in composting and in how we promote community … in the way of sharing and educating. We want people from across the Verde Valley to participate and benefit."

Readers that are interested in providing input into the concept can access a survey that aims to define the Library by <u>CLICKING HERE</u>.

Read more about the Library by <u>CLICKING HERE</u>.

Resources:

toolsinaction.com/power-tool-information/women-and-power-tools extremehowto.com/girl-power





JOIN/RENEW

Keep Sedona Beautiful Environmental Stewards Since 1972

Keep Sedona Beautiful, Inc. is a 501(c)(3) organization.

Contributions are tax deductible within the limits of the law.

To donate to KSB, or become a member, <u>click here</u>, or print this page and mail it, along with a check for your membership dues to: Keep Sedona Beautiful

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() Conserver	\$250	() Sustainer	\$5000

(KSB is an environmental organization. To conserve paper, ink and other natural resources, and to reduce our carbon footprint, we communicate electronically whenever possible.)

____ I prefer to remain anonymous in public membership lists

____ I am interested in volunteering. Please contact me.

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