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TOIYABE JANUARY - FEBRUARY - MARCH 2020 TRAILS

WINTER OUTINGS Issue

ENVIRONMENTAL NEWS OF NEVADA AND THE EASTERN SIERRA FROM THE TOIYABE CHAPTER OF THE SIERRA CLUB

From the Chair

Nevada moving fast on climate leadership

BY ANNE MACQUARIE
(ANNEMACQUARIE@GMAIL.COM)

ON NOVEMBER 22, 2019, AT Reno's 4th St Transit Center, with a Washoe RTC electric bus as a backdrop, Nevada Governor Steve Sisolak signed an executive order that will make the state a leader in fighting climate disruption.



Nevada's Governor Sisolak. PHOTO: Cameron Dyer.

Last March, in one of his opening climate moves as governor, Sisolak announced plans to join Nevada in the US Climate Alliance, making the state the 23rd state to join the organization — which now

includes states representing over half the US population and GDP.

[This was followed by a successful legislative session for climate and clean energy (reported in July-September 2019 Trails), in which one of the important climate bills was Senate Bill 254, introduced and championed by Senator Chris Brooks. Sisolak's executive order implements the SB 254 requirement of an annual report from the State Department of Conservation & Natural Resources on greenhouse gas

Please see NV's CLIMATE LEADERSHIP, page 5.



This 1970 Earth Day gathering photo first appeared in an interesting article which can be found at <https://michigantoday.umich.edu/2015/03/16/teach-in-50/>. The image is in the public domain and is courtesy of University of Michigan's Bentley Historical Library. It can also be found at <https://www.flickr.com/photos/snre/34605145761>.

50 years of Earth Day

BY TAJ AINLAY, S. NEVADA GROUP CHAIR

April 22, 2020 will mark the 50th anniversary of Earth Day, and big plans are underway to commemorate this important environmental milestone.

The original day of global education and activism was created by the Environmental Teach-In, inspired and organized by Wisconsin Senator Gaylord Nelson after he witnessed Santa Barbara's massive oil spill in 1969.

The first Earth Day in 1970 saw millions of people protest the harsh impacts of 150 years of industrial development, such as deadly smog, pollution linked to developmental delays in children, and pesticides causing a decline in biodiversity.

As a direct result of Earth Day 1, the modern environmental movement was born. In July of that year, the US Congress and President Nixon established the Environmental Protection Agency, followed by the Clean Water Act and the Endangered Species Act, among other environmental laws.

Thereafter, the Earth Day Network

Toiyabe Chapter election

Don't forget to VOTE!

BY ELECTION COMMITTEE 2019

YOU SHOULD HAVE RECEIVED a postcard in the mail describing how to vote in the Toiyabe Chapter election. Election closes at midnight, December 31. If you have not voted and it's not too late, please pick it up and follow the directions to cast your vote. If you already have voted, we thank you.

was formed, with a mission "to diversify, educate and activate the environmental movement worldwide." Today, over 50,000 partners in 192 countries are involved in building environmental democracy, with the Sierra Club among Network leaders.

Locally, the Toiyabe Chapter will play a pivotal role in promoting "Earth Day 50," a collection of events and activities to reclaim the educational and activist roots of this special occasion, from outings and clean-ups to electric vehicle test drives and more.

As one example, the Southern Nevada Group is sponsoring an "Earth Day 50 Art & Essay Contest" for youth and adults in Clark County. With \$2020 in prizes offered, the theme is "What Earth Day Means to Me." Winners will be featured in the Las Vegas Sun and honored at an Earth Day 50 Gala on April 22. For details, visit: www.sierraclub.org/toiyabe/southern-nevada.

Additionally, 10 non-profits have signed on to promote Earth Day 50: Nevada Conservation League, Friends of Nevada Wilderness, Great Basin Water Network, Protectors of Tule Springs, Friends of Red Rock Canyon, Save Red Rock, Citizens Climate Lobby, Bird & Hike, Las Vegas ICO, and Southern Nevada Conservancy.

What you can do! To become an Earth Day 50 volunteer and learn how to help celebrate this singular event, email: earthday50@toiyabe.sierraclub.org.

Toiyabe Chapter ExCom Meeting

Saturday, 9a-5p
February 8, 2020
Las Vegas, NV

For details, contact the Chair,

ANNE MACQUARIE

chair@toiyabe.sierraclub.org

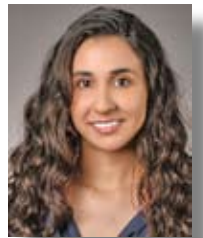
Details forthcoming for this in-person meeting. Email the chair for firm date and time. All members may attend ExCom meetings, in person or via Zoom meeting for e-meetings. (telecons are evening meetings by teleconference, often third Thursday of month, start at 7 pm and end by 8:30 pm). Please contact Chapter Chair for information on how to join the meeting by phone or computer and also how to arrange participation. You can call Anne at (775-303-2562) or email her (see email address above). Members are also encouraged to contact the Chair or any ExCom members with requests to bring certain matters before the ExCom.

Meet our new Clean Transportation for All organizer

BY ANNE MACQUARIE

DID YOU KNOW that the transportation sector is now the largest greenhouse-gas contributor in Nevada — and nationwide?

That's why we hired Jasmine Vazin to organize the Chapter's advocacy strategy for a low-carbon, sustainable transportation sector in Nevada. She'll be working in Las Vegas, initially focusing on electrifying school buses, improving Nevada's



Please see CLEAN TRANSPORT, page 2.

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Great Basin Gatherings

Great Basin Group

Group News

BY KATY CHRISTENSON, GREAT BASIN GROUP CHAIR

HAPPY NEW YEAR to all our friends in the Great Basin! The Great Basin Group will continue to host monthly program meetings during 2020 at the Bartley Ranch Regional Park Western Heritage Interpretive Center on the 2nd Thursday of each month. Social hour begins at 6:30pm; Conservation Update at 6:50pm; and the program at 7pm.

Holiday Party. The 2019 Great Basin Group annual holiday party held on Saturday, Dec. 7, 2019 was a wonderful success! Over 75 members attended and enjoyed ample delicious foods and the awesome slide show of 2019 outings prepared by Roleigh Martin. **The Get Kids Outdoors giving tree fundraiser raised \$420 to support future field trips for low income youth.** A great time enjoyed by all!



Over 75 friends braved wet, blustery weather to eat, drink, and be merry — and donate over \$400 at our Giving Tree for “Get Kids Outdoors”. PHOTO: Lori Bellis.

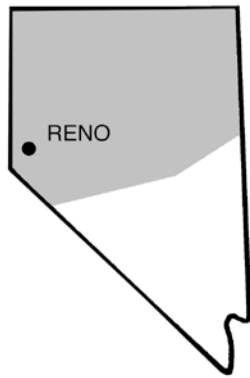
Program Meetings. January 9, 2020: Tahoe Myth Busting. Join Sarah Hockensmith from the Tahoe Institute for Natural Science (TINS) as she uncovers the truth behind Lake Tahoe’s popular myths and legends! Sarah will debunk some common misconceptions, while also exploring the basin’s unique history, geology, flora, and fauna. We hope you can join us for this exciting night.

February 13, 2020: Beyond Plastic Campaign. Join Cathy Schmidt, Toiyabe Chapter ExCom Member, and others for a provoking film presentation and lively discussion on single use plastic and on life without plastic.

March 12, 2020: Africa Photo Journey. Join nature photographers Carol Grenier and Patrick Pevey as they share their adventures in Africa through the artistry of photography.

Tin Cup Award. The 2019 annual Tin Cup Award was presented to **Lurana Cancilla** at the December 7, 2019 Great Basin Group annual members holiday party. Lurana was honored in appreciation for her outstanding service as outings leader in the Great Basin Group outings program. Lurana has been an active participant in the group’s outings program, serving as leader and co-leader on many hikes. In 2018 and 2019, she logged over 800 hiking miles each year and nearly completed the Tahoe Rim Trail in 2017. Thank you Lurana!

Great Basin Group Outings. The GBG motto is “We Get YOU Outdoors!” GBG adventures meet all abilities and interests. Join us by checking these websites: www.meetup.com/Sierra-Club-Hiking-Reno and www.sierraclub.org/toiyabe/great-basin.



MUSIC SHELF

CD: “Of Time and Place”
Composer: Monica Houghton
 Navona Records
 (www.navonarecords.com)

MONICA (NIKI) HOUGHTON is a member of the Toiyabe Chapter. Her family has a rich outdoor legacy, including the naming of Mount Houghton, next to Mt. Rose, near Reno, Nevada, for her brother, John Houghton (see headline story in Oct-Nov-Dec 2014 issue of *Toiyabe Trails*).

Both Monica’s father, Sam, and brother, John, were once Toiyabe Chapter Chairs. Niki has composed chamber and solo instrumental music most of her adult life and returned to live in Reno in 2011, where she continues her compositional career.

Of Time and Place consists of eight compositions performed by one to four instrumentalists and, in one case, a vocalist. Those of us who explore and enjoy the Great Basin will hear modern themes which echo the austere and serene beauty of this landscape. Three choices of Nevada wilderness (Jarbidge, Mt. Charleston, and High Rock Canyon) evoke the tranquil sounds and sublime sights found there. Some of the haunting music on this album will surely take you to your favorite wild place in Nevada or otherwise.

— submitted by David von Seggern

GREAT BASIN GROUP OFFICERS

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CLEAN TRANSPORT . . .

continued from page 1

low- and zero-emissions standards, and building a powerful volunteer transportation team.

Jasmine says, “I am so excited to be able to contribute to this effort, and I look forward to meeting many of you . . . having just graduated with a master’s degree in environmental science and management, working to ensure the future sustainability in our society is both my passion and dream career path. I appreciate this opportunity and can’t wait to begin!”

hoe, protecting Washoe Meadows State Park from golf course development, and resisting the proposed large Martis Valley West development near Northstar Ski Resort off of Highway 267.

We continued hiking into late November this year, because the ground was free from snow until right before Thanksgiving. If you’d like to join us for hiking, kayaking, backpacking, snowshoeing, cross-country skiing, and other outings in the Tahoe area, check out our Tahoe outings on *Meetup* at <https://www.meetup.com/Tahoe-Area-Group-Sierra-Club/>.

For more information or if you have questions, contact Dan Cobb, Tahoe Area Group Outings Chair, at dmc2763@gmail.com.

Tahoe Area Group news

BY JO ANN S. COBB

The Tahoe Area Group covers the greater Lake Tahoe Basin, including the Nevada and California communities along the Lake Tahoe shoreline and Truckee, Tahoe Donner, and Donner Summit. We are working on a number of issues that affect Lake Tahoe and the mountains and welcome new volunteers to help protect and restore Tahoe’s native ecosystem.

Our website, <https://www.sierraclub.org/mother-lode/tahoe>, has the latest information on the following issues: Tahoe Keys aquatic weeds infestation in South Lake Ta-



November 15th hike along the Tahoe Rim Trail to South Camp Peak

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Toiyabe Trails

SERVING NEVADA
 & CALIFORNIA’S E. SIERRA



Toiyabe Trails is published four times each year by the Toiyabe Chapter of the Sierra Club, P.O. Box 8096, Reno, NV 89507, to help keep our members well-informed and better able to protect the environment—for our families, for our future.

Editor – Lynne Foster (805-239-3829); LFoster@schat.net.)

Deadlines – Contributions are due by the 1st of the month for publication in the following month’s issue: December 1 for January-February-March; March 1 for April-May-June; June 1 for July-August-September; September 1 for October-November-December.

Submissions – Call or e-mail editor before deadline for late submissions. Submit news, story ideas, photos, and letters-to-the-editor to the editor (contact info above). Please include your name, phone, e-mail address, and group with all contributions. Please send your contributions by e-mail. If you don’t have a computer, please ask a friend to help you. For photo return, please include a stamped, self-addressed envelope. The *Toiyabe Trails* reserves the right to edit all contributions for reasons of space, clarity, slander, or libel.

Subscriptions – *Toiyabe Trails* is free to all Toiyabe Chapter members. Subscription cost for non-members is \$12 per year. To subscribe, send check for \$12, payable to “Toiyabe Chapter,” to *Toiyabe Trails* Subscriptions, Sierra Club, Toiyabe Chapter, c/o Treasurer. (See Chapter address in first paragraph, above.)

Change of address – Postmaster & Members, please send address changes to Sierra Club, Change of Address, P. O. Box 52968, Boulder, CO 80322-2968 or address.changes@sierraclub.org.

Membership information – There is a membership coupon in each issue of *Toiyabe Trails*. You can also call a Group Membership Chair (see directories on pages 4, 8, and 10) or the Sierra Club office in San Francisco (415-977-5663).

Other Sierra Club information. Call the Toiyabe Chapter Chair or Conservation Chair (see Chapter Directory online at <http://toiyabe.sierraclub.org>) or the Sierra Club Information Center in San Francisco (415-977-5653). Also, see group pages for website addresses of groups.



Great Basin Peak Section News

Exploring Mt. Charleston Wilderness Area

BY SHARON MARIE WILCOX



In 2013, the lightning-caused Carpenter 1 Fire consumed 28,000 acres of forest in the Spring Mountain Recreation Area. This caused the closure of the affected trails, enabling crews to gradually repair fire and erosion damage. Over the past few years, trails in this area have gradually been repaired and reopened.

We learned the Griffith Peak trailhead via Harris Springs Road was completed to Harris Saddle so headed south to hike up Harris Peak (10,013 ft). This peak is on the Great Basin Peaks list and we had been eagerly waiting for this trail to reopen.

Harris Springs Road is well-maintained until it branches out of the canyon. The last 6 miles up consists of rocky switchbacks until dead-ending at the trailhead. Road signs to the trail haven't yet been replaced.

Our trailhead camp surrounded us with a skeleton forest, the sad remains of the fire's damage. Though our camp was perched in the mountain wilderness, the glow of Las Vegas lights shared our night sky.

We endured a windy, freezing night, so postponed our early hike plans until 10:30 am. The temperature had then warmed to 26 degrees and the wind had died down so we bundled up and hit the trail.



A new wooden sign near the trailhead marks the Mt. Charleston Wilderness Area. The trail into the wilderness area contours along the south flank of Harris Peak above Lovell Canyon. This trail continues to Griffith Peak. However, we cut east, off-trail, at Harris Saddle and headed cross country along the ridge to the summit.

We meandered along the ridge happy to reach aspen, mahogany, and pine that missed the ravages of the fire. After skirting two knobs along the ridge we began the final climb to the summit. A peak register and benchmark were easily found.

Summit weather was pleasant enough to enjoy lunch and amazing views. Views included Griffith, Charleston, Mummy Mountain, Sheep Range, La Madre Range, and Las Vegas.

Just another Great Day in the Great Basin!

Truckee Meadows Trails

BY LORI BELLIS

2019 was a busy year for non-motorized trail planning in the Truckee Meadows. The Truckee Meadows Trails (TMT) group is a mix of motivated representatives from mountain biking, hiking, parks and government organizations who have spent the year inventorying trails, getting public input through surveys and workshops, determining where trails are needed and putting all that information together.

The next steps are to develop a draft trail plan and to obtain a grant to hire a person to coordinate activities and act as a liaison to agencies and organizations.

[Momentum for the plan is picking up as the project is presented to City and County Parks and Planning Commissions. The goal is to create a network of trails in and around the Truckee Meadows, with multiple access points, and to have an interactive map website with trails information. This project came into being through the vision of Mike Kazmier-ski, President and CEO of Economic Development Authority of Western Nevada (EDAWN), with support from the Truckee Meadows Regional Planning Agency.]

The Sierra Club Great Basin Group



contributed nearly 150 trailhead and trail inventories to the project, helped with the public workshops and is continuing to be an active participant in the planning process. Thank you to all the members who completed trail surveys and participated in the public workshops!

The Sierra Club Great Basin Group has also adopted a section of the Tahoe-Pyramid Trail (TPT), which follows the Truckee River from Lake Tahoe to Pyramid Lake. The Sierra Club section is between Verdi and Farad near Fleish Bridge in the Truckee River Canyon.

Signs are installed and Fall clean-up completed. Spring maintenance will be posted on the Meetup site. Participation is welcome and appreciated!

The TPT achieved a huge milestone this year with the completion of the Flo-

Thanks for sharing your passion!

BY SUE JACOX (SUEJACOX@NVBELL.NET)

Thanks to all our Sierra Club friends who share their passion for the outdoors by supporting our "Get Kids Outdoors" fund. You are making a difference! You give local students from very low-income families the chance to embody our Sierra Club motto to "Explore, Enjoy, and Protect the Planet".

Throughout the school year, classes get off the pavement and into the forest and kids get excited about the outdoors and how they can protect the planet. In the winter they snowshoe and learn about winter safety, winter adaptations, and snow science. In spring and fall they hike and do fun activities to learn astronomy, geology, and forest, wildlife,



Students love science camp at Tahoe and show their appreciation.

and water ecology, and they volunteer on stewardship projects.



To "Keep Tahoe Blue" students spread chips to reduce erosion from bare ground.

To finish the sentence "The most interesting thing I learned about myself is", fifth graders attending multi-day science camps on the shore of Lake Tahoe in September wrote that:

"I like to go on long walks.
" I can do anything and I should never give up.
"I care about the environment.
"I really like learning about trees and plants.
"I can go outside and learn more.
"I like science even more."

Your GKO donations helped open these doors for appreciative kids.

Children in two classes from Sparks can't wait to return to Tahoe to snowshoe for their first time this coming January. Most of them hiked in the forest for the first time last school year with help from our GKO fund, and their teachers are eager to build on that positive learning experience.



Fifth graders learn outdoors in small study groups.

What you can do. Please support the Great Basin Group's "Get Kids Outdoors" initiative with your contribution at a program meeting, our summer picnic, our holiday Giving Tree, or a check sent to Great Basin Group, Sierra Club, PO Box 8096, Reno, NV 89507 with "GKO" in the memo line. Thank you!

BAHSAHWABEE . . .

continued from page 4

Great Basin woodlands, is dependent on groundwater now targeted to support

riston to Hirschdale section, which finished the trail from Lake Tahoe through Reno to the east end of Sparks at Vista. A few areas of trail are still incomplete between Sparks and Nixon.

Hike the TPT. Raleigh Martin and other Great Basin Group Outings Leaders regularly lead hikes along sections of the TPT trail. Check out trail info at <https://tahoepyramidtrail.org/> and hikes at <https://www.meetup.com/Sierra-Club-Hiking-Reno/>.

growth and development hundreds of miles away. This means it can get lost in the administrative and legal world of briefings, expert testimony, speculative mitigation plans, hydrological models, and contradictory interpretations of Nevada Water Law.

Dozens of conservationists and residents from rural and urban Nevada and Utah, and tribal people from two states, jammed into the small courtroom in Ely, standing or sitting side-by-side, listening to the legal arguments and the courtroom drama. All are now awaiting Judge Estes's decision as the fate of Bahsahwahbee. The future of eastern Nevada and western Utah hang in the balance.

CONSERVATION ROUNDUP

Nevada water wars swirl around a sacred place called Bahsahwahbee

BY ROSE STRICKLAND

SINCE 1989, THE SIERRA CLUB has been a part of the widespread opposition to the proposed water grab of the Southern Nevada Water Authority (SNWA) in eastern Nevada. Once again, as a part of the Great Basin Water Network, Toiyabe Chapter activists joined tribal and other allies in Ely to attend a two-day court hearing in Ely to ask District Court Judge Robert Estes to affirm his 2013 decision and uphold the State Engineer's 2018 denial of all water rights applications for SNWA's massive pipeline project.

Note: Since 1989, SNWA has proposed pumping groundwater in targeted Spring, Cave, Dry Lake and Delamar Valleys and piping billions of gallons of water every year to southern Nevada, nearly 300 miles away.

While many oral arguments focused on the availability of water and mitigation of pumping impacts, for tribal attorneys the focus was on protecting a forest of swamp cedars, a place of peace and spirituality for tribal people for millennia. These Rocky Mountain juniper trees arrived during wetter climatic times and thrived in Spring Valley because their shallow roots could access the high water table. However, Nevada



Tribal people with their attorneys (GBWN attorneys in the far background). PHOTO: Dennis Ghiglieri.

law allows pumping to "reasonably" lower the water table and water losses may also be exacerbated by increasing global warming.

Judge Estes had already ruled in 2013 that the Nevada State Engineer had made arbitrary and capricious decisions to grant SNWA water applications at unsustainable levels. This is called groundwater mining and clearly violates Nevada water law. The judge remanded the case back to the State Engineer to recalculate sustainable water levels. But, instead, the State Engineer denied SNWA permits. But he did approve 3M Plans (monitoring, management, and management) submitted by SNWA, just in case the judge changed his mind and the State Engi-

neer could approve pumping at unsustainable levels. The State Engineer's ruling was appealed by all parties and the Ely hearing was set by the judge to hear the attorneys argue their cases.

Tribal attorneys supported the State Engineer's denial of denial of SNWA's water applications and strenuously objected to his approval of the 3M plans, reiterating that neither the federal government nor the State Engineer nor SNWA ever consulted with the tribes on the development of the 3M plan and that federal agency involvement was a necessity. If implemented as written, the tribes argue that the 3M plan would permit the obliteration of the swamp cedars sacred site.

Bah-sah-wah-bee is the name for this important place, where hundreds of tribal ancestors died in massacres in 1859, 1863, and 1897. Rupert Steele, chairman of the Confederated Tribes of the Goshute Reservation, said in an interview with the *Reno Gazette Journal* that Spring Valley along Hwy 50 is "a place to slow down and sing the songs Shoshone people have passed person-to-person across generations from time immemorial.

Bahsahwahbee, a spiritual place in
Please see *BAHSAWAHBEE*, page 3.

Winter Travel/Recreation Plan for Tahoe Basin

BY DAVID VON SEGGERN
(VONSEG1@SBCGLOBAL.NET)

AS A STRONG LATE-FALL STORM brings significant snowfall to the Sierra Nevada and, unfortunately, disruption of Thanksgiving travel, we begin to think about winter recreation in our favorite places in the mountains. For many Sierra Club members in the Reno/Sparks/Carson City corridor, this means the Lake Tahoe Basin and adjacent areas.

A special unit of the US Forest Service (USFS), called the Lake Tahoe Basin Management Unit (LTBMU), manages nearly half of the basin's area. This year they have embarked on what will likely be a multi-year effort to define winter travel by over-the-snow vehicles (OSVs; aka, snowmobiles). Starting in 2015, USFS was required to define areas open to OSVs and designate them on a map, starting from the baseline that everything is closed.

This analysis has already been done in five surrounding Sierra Nevada national forests: Lassen, Plumas, Tahoe, Eldorado, and Stanislaus. Winter travel plans in all these cases were ultimately decided after an EIS process.

LTBMU issued a Proposed Action in September 2019. After analyzing public comments, a Finding of No Significant Impact (FONSI) could be decided upon and the Proposed Action adopted.

Toiyabe Chapter strongly opposes the Proposed Action and quite reasonably favors an EIS to guide the decision, just as for the surrounding national forests. Our requests are mainly:

- (1) a total closure to OSVs of the quadrant from Kings Beach through Tahoe Meadows down to US 50
- (2) continued closure of the area west and south of SR28 where it joins US 50 (Spoooner area)

The Chapter submitted comments in early December 2019 along with partner Snowlands. We emphasized the importance of having large areas managed for non-motorized recreation.

For example, the area around SR431 just west of the Mt. Rose Summit pass and the area surrounding Tahoe Meadows (already closed to OSVs) should also become non-motorized.

What you can do

So, what is a consumer trying to cut down on plastic going to landfills – or, worse, to the rivers and lakes and oceans – to do? Yup, buy a non-plastic container for water that you can fill from the tap and use that. Keep one in your car, your pack, and for your bike. Cutting out plastic water bottles makes both environmental and economic sense.

Also, check out PBS's "The Plastic Problem", at <https://tinyurl.com/sf8eghk>.

- 1 <https://www.headstuff.org/topical/science/plastic-bottle-oceans/>
- 2 <https://www.latimes.com/environment/story/2019-08-26/lake-tahoe-microplastic-pollution-detected>

Quitting the bottled water habit

BY DENNIS GHIGLIERI

PLASTIC WATER-FILLED BOTTLES are everywhere. They line grocery and convenience store aisles and wait for you at checkout stands. From ski hills to ocean beaches to executive board rooms, people haul around their no-calorie elixir wrapped in plastic.



Shelves of water in plastic bottles for sale PHOTO: D. Ghiglieri.

According to a recent analysis in Consumer Reports (CR; <https://www.consumerreports.org>), water bottled in plastic containers is the #1 consumer beverage – 42 gallons per average American a year -- or 336 16-ounce bottles – at an annual consumer cost of \$31 billion and growing.

Why would the average American spend hundreds of dollars for water when it is available at the tap for just pennies? Many people say it is convenience, but 40% of Americans believe that water bottled in plastic is "safer than tap" according to CR. Some of

that concern comes from the nationally reported lead-contamination in Flint, Michigan in 2014. Flint, however, is an extreme exception and not the rule. About 90% of Americans get their water from municipal suppliers who provide their customers with exceptionally high quality water mandated by drinking water standards set by Federal and state laws. Those municipal suppliers (like TMWA and the Las Vegas Valley Water District) "have no reported health-based quality violations" according to the EPA as reported by CR.

Did you know . . .

1. About 64% of the water sold in plastic containers comes from municipal water systems across the country! Why not drink from the tap instead of paying some company to bottle the water for you? Drinking your 8 glasses of clean water a day needn't include creating plastic waste.

2. The US Food and Drug Administration does inspect bottling facilities and requires quality testing by the company selling water in plastic containers. However, the water in plastic *doesn't* have water quality standards in federal law and the FDA isn't required to conduct its own water quality tests. And, there are concerns about the plastic con-

tainer itself potentially contaminating the water – either prior to sale or after consumer purchase.

3. Unlike an aluminum can that can be recycled indefinitely into another can, plastic water bottles *cannot* be recycled into more plastic water bottles. Rather, recycled plastic bottles are mostly used for some other "down-cycle" product – like a plastic bag or pen!

Waste, waste, waste ...

What happens to all those plastic bottles emptied of their water? Inevitably, nearly all plastic ends up in a landfill or finds its way into a water body near you. Why?

Because plastic gradually breaks down into pieces that get smaller and smaller, forming micro plastics that can be ingested by fish and other wildlife (humans too!). You won't be surprised to know that micro plastic has been found in Lake Tahoe.



Plastic pieces found in ocean. PHOTO: UC Santa Barbara.

Sagebrush seed ravioli: A new way to conserve the sagebrush ecosystem

BY ROSE STRICKLAND

THE SAGEBRUSH ECOSYSTEM in the Great Basin Desert is in serious trouble. For many years, poorly managed livestock grazing and federal resource management projects, such as removing sagebrush to plant fields of crested wheatgrass and chaining pinyon-juniper woodlands, have been converting the resource rich sagebrush ecosystem into a landscape dominated by cheatgrass and other alien weeds.

Most recently, the small yearly wildfires have morphed into major catastrophic wildfires burning hundreds of thousands of acres, accelerating sagebrush ecosystem destruction. This massive loss of habitat is also imperiling some of the 350 species which depend on sagebrush for their survival, including the iconic sage-grouse.

Volunteer efforts. Sierra Club volunteers have heeded the calls of state and federal agencies to gather sagebrush seeds in the fall, plant native plant seeds or sagebrush seedlings as part of fire rehabilitation projects, and remove tree seedlings from sagebrush restoration areas -- all laborious projects, usually in bad weather. Are these restoration projects effective, as we hear rumors that most projects do not meet restoration goals? We can't help but wonder if the seeds germinate and grow? And how many sagebrush seedlings out of hundreds or thousands planted survive to produce seeds?

Ravioli breakthrough. Here's where sagebrush seed ravioli comes into this story. Just recently, we learned of a sagebrush science breakthrough with soil pasta. Scientists at the Nature Conservancy, USDA and Oregon State were looking for a better way to restore sagebrush and came up with a pasta maker. From different mixtures of seeds, soils, and additives, a "dough" is made by a pasta machine. The dough coats tiny sagebrush seeds, providing protection and optimal germination conditions. The pellets have a 70% better chance of survival than scattered seeds and can be

easily spread across large landscapes, according to TNC scientists.

More seed coatings. From a presentation at a mining conference, we learned of a partnership between Lithium Nevada CEO, Alexi Zawadzki, and the University of Nevada, Reno, professor Tamzen Stringham, to form the Great Basin Sagebrush Restoration Fund. Its mission is to improve sagebrush habitat reclamation through seed enhancement technologies and spatial mapping tools for soils and vegetation as well as to increase knowledge of the role of the seed source to the success of germination and establishment. Its successes include coating seeds for improved plant survival with field trials as part of the enormous Martin Fire reclamation. A primary finding was that fall seeds had a 142% increase in germination compared to winter seedings.

USFS & the sagebrush biome. How are our federal resource managers responding to the increasingly urgent need for ecosystem restoration on public lands? The US Forest Service has published a 237--page document called "Science Framework for conservation and restoration of the sagebrush biome: Linking the Department of Interior's Integrated Rangeland Fire Management Strategy to long-term strategic conservation actions. Part 2. Management applications". (For details, see <https://www.fs.usda.gov/treesearch/pubs/57911>.)

The document's mission is to inform about emerging strategies to conserve sagebrush ecosystems, sagebrush dependent species, and human uses of the sagebrush system, as well as to assist managers in prioritizing and planning on-the-ground restoration and mitigation actions across the sagebrush biome. We still don't know how new restoration technologies are being implemented over the vast Great Basin landscapes or how successful these projects are, but we do know that many efforts are still being made every day.

A path forward for Nevada's wild horses

BY TINA NAPPE

ON OCTOBER 23, THE TOIYABE Chapter participated in a forum "Horse Rich and Dirt Poor: the challenge to healthy Nevada Lands, wildlife and wild horses. The film, Horse Rich & Dirt Poor <https://wildlife.org/horse-rich-dirt-poor/> was shown. A panel responded to questions on wild horse expanding populations, management issues, research on horse impact on the environment, and a recent proposal for wild horse management for the audience to consider.



A starving horse.

Of the 88,000 horses on BLM land, the majority (43,000) roam Nevada. Because a mare comes into estrus shortly after she gives birth and produces a foal 11 months later, Nevada's horse population is reported as expanding at 20% per year. Other than BLM roundups, horses are subject only to minimal predation or starvation.

In addition to BLM horses, there are an estimated 3000 horses on state lands, mostly along the Virginia Range, 2000 horses on Forest Service lands, about 500 on Nellis Air Force base (after a gather of over a 1000 horses), and another 2000 on tribal lands many of which are forced to migrate onto adjoining public lands for food.

Over the last few years, studies of horse impact on plants, wildlife, and water sources document negative impacts with too many horses or too long a time at a site. [Many species, including plants, depend upon Nevada's limited water sources.] Too many horses or cows can reduce or eliminate a water source or pollute it, destroying species living in the water. [Grazing can also

destroy riparian plants; horses may also limit access to water by other wildlife species.]

In April, the Humane Society joined by other humane organizations and ranchers, etc., released an agreement to reduce the number of horses while sustaining their populations within Herd Management Areas. The proposal entails liberal use of PZP which will/may postpone fertilization in a mare for a year, expanded roundups, and permanent off-site pastures. <https://blog.humanesociety.org/wp-content/uploads/2019/04/Wild-Horse-Proposal-FAQ-April-2019.pdf>

As part of its responsibility to Healthy Landscapes, the Toiyabe Chapter has an opportunity to consider this proposal at the Chapter's February Excom meeting.

NEVADA'S CLIMATE LEADERSHIP . . .

continued from page 1

emissions in Nevada.]

But Sisolak's executive order went further than that. Flanked by Senator Brooks and other legislators; the heads of the Governor's Office of Energy and the Department of Conservation & Natural Resources; and tribal, community, and conservation leaders from throughout the state, Sisolak announced a suite of initiatives to advance Nevada's climate goals.

Sisolak said, "With increasing droughts, floods, wildfires and two of the fastest-warming cities in the country being Las Vegas and Reno, our great state cannot delay for a second longer in recognizing the impacts of climate change and taking decisive action."

The executive order requires that a State Climate Strategy is to be delivered to the governor by December 1, 2020, including specific policy and budget recommendations to reduce greenhouse gas emissions and mitigate the effects of climate change.

In a comprehensive approach to addressing climate change and its effects, the executive order directs the state administration to identify and evaluate policies to achieve greenhouse gas reductions and to build resiliency. The Sierra Club's Toiyabe Chapter looks forward to doing our part to make our state a leader in fighting climate change.

DEADLINE!
MARCH 1
FOR APR-MAY-JUNE ISSUE

We urge you reading this to send in protest comments on these upcoming lease sales to Kemba Anderson at the Reno BLM offices (1340 Financial Boulevard Reno, Nevada 89502-7147).

If you would like help drafting comments please feel free to reach out to Our Wild America Organizer Christian Gerlach at Christian.Gerlach@gmail.com or at (702) 271-6485.

Nevada makes great progress on clean energy

BY CHRISTIAN GERLACH, ORGANIZING REPRESENTATIVE, SIERRA CLUB'S OUR WILD AMERICA CAMPAIGN

NEVADA'S PROGRESS ON IMPLEMENTING statewide clean energy initiatives are now at risk. Trump's Bureau of Land Management (BLM) is offering hundreds of thousands of acres in Nevada for oil and gas leasing. Much of the land is just over the Clark County/Lincoln County Border.

For example, on Nov. 12th, Dec. 17, Feb. 11, and March 24, the BLM has and will offer for speculative fossil fuel destruction lands where waters flow through Meadow Valley Wash, Muddy River, and Virgin River. All of these waterways empty into Lake Mead where 2 million plus Southern Nevadans get water.

Fortunately we had some great success thanks to local government officials speaking up on the November oil lease sale, along with a court victory regarding the sage grouse. As a result of local grass roots efforts -- top leaders and volunteers like yourself

-- most of November's parcels encompassing 574,075 acres were removed. November's lease sale was reduced to only 111,420 acres, of which only a total acreage of 3,974 sold for the minimum bid of \$2.00 an acre.

Serious advocacy was done by Our Wild America volunteers with the

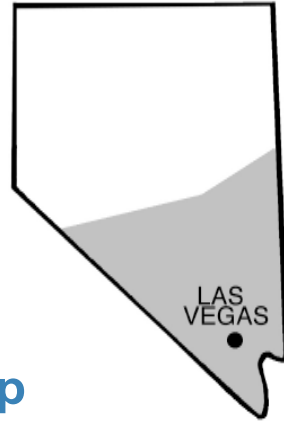


Public Lands Day Science Survey, September 28, 2019. L to R: Christian Gerlach, Justin McAfee, Maurice Friedman, Shirley Barrett, Jim Boone, James Katzen, and Jessica Barrett.

Mayor of Mesquite, Al Litman, The Virgin Valley Water District, residents from Mesquite and Southern Nevada, Mayor Debra March of Henderson, and the Moapa Band of Paiutes. All of these people speaking up got Clark County Commission Chairwoman Marilyn Kirkpatrick, Senator Cortez Masto, Congressman Steven Horsford, and Governor Steve Sisolak to send in letters to the BLM. The Sierra Club's sincerest and deepest thank yous go out to these government representatives. Without their letters we could have lost great Desert Bighorn Habitat in the East Mormon Mountains, vital springs for local wildlife, and amazing historical, mining, and archeological sites.

What you can do. It's time to make public lands part of the solution to climate change and give them their due recognition as carbon sinks. We muuse all of our power to push back against the lease sales.

The Mojave Monitor



Southern Nevada Group

Group News

\$2020 in prizes for artists & essayists

It's time to start thinking about your entry in the *Earth Day 50 Art & Essay Contest*. Under the theme, "What Earth Day Means to Me," this is an opportunity to demonstrate your creativity, while celebrating the 50th anniversary of the event that launched the modern environmental movement. The contest is open to all residents of Clark County, NV, both youth and adults.

Entries will be accepted from February 2 through March 19, and the Grand Prize of \$500 for the Best Entry will be awarded to the winner on April 22, 2020, at a gala being hosted by the Southern Nevada Group at the Main Theater of the Clark County Library. Additional prizes of \$300



for winners and \$80 for runners-up will be given in four categories. Full details on the contest and the event can be accessed on the SNG website (www.sierraclub.org/toiyabe/southern-nevada), or send an email to earthday50@toiyabe.sierraclub.org to request a copy of the entry form and contest rules.

Meetings & events

ExCom meetings. Open to all members, the monthly meetings of our Executive Committee (ExCom) are typically held on the first Wednesday of each month, unless otherwise noted. We meet from 5:30-8pm at the Sierra Club Office, 3828 Meadows Lane, Las Vegas 89107. Please join us on *January 2 (Thursday), February 5, or March 4.*

Meet & greet. Among other events scheduled at the office during the first quarter, there's a Toiyabe Leaders Meet & Greet on *Friday, February 7 from 6pm.* It's an opportunity to meet Chapter leadership from throughout Nevada and Eastern California, when they arrive for their first

Executive Committee meeting of the year on Saturday.

As in the past, this is a potluck event, so please bring along a dish of food and your favorite beverages to share. No charge for participation; children welcome.

ICO IN RED ROCK CANYON...
continued from page 7

when they had free time exploring and climbing in the rocks.

The Thorns and Roses comments were the usual: "I loved it all!", "I liked learning new things," and then from a first-time hiker with us, "I never knew I could jump from so high!"

What you can do. To learn more about Las Vegas ICO, contact us at lasvegasico702@gmail.com.

SOUTHERN NEVADA GROUP

OFFICERS

Chair	Taj Ainlay*	702-576-6815	tajainlay@aol.com
Vice-Chair	Janet Carter*		
Secretary	Jane Feldman*		
Treasurer	Bobby Mahendra*		
Coal Power Plants	Jane Feldman*		
Conservation	Jane Feldman*		
Endangered Species & Wildlife	Jane Feldman*		
Energy	Jane Feldman*		
Global Warming	Eric Young		
Las Vegas ICO	Janet Carter		lasvegasico702@gmail.com
Membership	Taj Ainlay*	702-576-6815	tajainlay@aol.com
Outings	Open		
Green Burials	Dennis Raatz		
Political	Open		
Programs	Taj Ainlay*	702-576-6815	tajainlay@aol.com
Recycling	Mhansi Pandhi		
Transportation	Jasmine Vazin		jasmine.vazin@sierraclub.org
Webmaster	Taj Ainlay*	702-576-6815	tajainlay@aol.com

* ExCom member

Southern Nevada Group Calendar

All phone numbers are 702 unless otherwise noted.

All hikes and service projects are led by certified outings leaders.

(Please use email when leaders state that they prefer email, especially if you have a long distance telephone number.)

ALL EVENTS INCLUDE CONSERVATION EDUCATION ACTIVITIES

Nevada Tour Operator – Registration Information, Nevada Tour Operator Ref. No. 2008-0041.

A full calendar of our outdoor activities can be found online at www.sierraclub.org/toiyabe/southern-nevada. You can also visit us on Facebook at www.facebook.com/sierraclub.sng, and please "like" our page.

JANUARY 1 (WEDNESDAY)

Hangover Hike – Valley of Pillars in Rainbow Gardens. Start New Year right by joining your fellow hikers on scenic hike in Rainbow Gardens on E side of town. This uncrowded trail has spectacular desert scenery with rugged sandstone buttes and volcanic mountains. How do you recognize volcanic rock? Less than 200 ft gain, 4 mi total. Two steep hills. Contact leader: geologist Nick Saines (702-896-4049, greatunc@aol.com).

JANUARY 4 (SATURDAY)

Floyd Lamb Park Bird Walk. Covers 5 mi; flat, slow pace. Many birds winter in park. I will try to identify most of them. Bring binoculars. Contact leader: David Morrow (702-702-9486, david.brenda.morrow@gmail.com).

JANUARY 18 (SATURDAY)

Valley of Fire State Park, Pinnacles. Colorful place of many formations. About 7 mi RT with some exploring and little gain. This hike will take us to gallery of interesting sandstone formations. What factors make erosive changes in a desert environment? Contact leader: Sasson Jahan (702-499-9218, sasson702@gmail.com)

JANUARY 18 (SATURDAY)

Red Stone Area of Lake Mead NRA. An easy-going, dog-friendly hike through

very colorful formations that may include fossils and petroglyphs. This area is much like Red Rock without crowds. Some easy rock scrambling. Was this area formed at same time as Red Rock and Valley of Fire? About 5-6 mi with 300-500 ft gain. Level 3-4. Contact leader: Bill Marr (702-433-0743, wrmarrwilliam@aol.com).

JANUARY 25 (SATURDAY)

The Muffins, Red Rock Canyon NCA. Composed of Triassic conglomerate, Muffins are found on N end of Blue Diamond Ridge. They represent channels cut into the exposed sea bed 250 million years ago. We reach Muffins on gentle switchback trail. From Muffins go E to fabulous overlook of Las Vegas, then back down Skull Canyon Trail. What is the environment in which conglomerate is deposited? About 4 mi, 1000 ft gain. Contact leader: geologist Nick Saines (702-896-4049, greatunc@aol.com).

JANUARY 30 (THURSDAY)

White Owl Canyon. A relatively short, 2.5 mi hike in Lake Mead National Recreation Area. Hike through close-in cozy canyon with some interesting scenery. Total gain about 600 ft. Lunch preceded by short silent/guided meditation. White Owls nest in canyon in spring months. Level 1. Con-

Please see SN CALENDAR, page 7.

Sierra Club honors Toiyabe Chapter member Jim Boone

BY TAJ AINLAY

ON SEPTEMBER 14 IN OAKLAND, CA, the Sierra Club bestowed its 2019 Special Achievement Award on Toiyabe Chapter member Jim Boone. The award honors Sierra Club members for a single act of



Jim receiving the Special Achievement Award in Oakland.

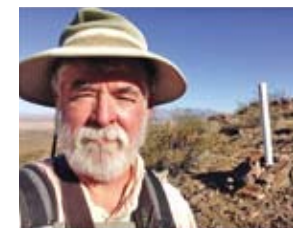
particular importance dedicated to conservation or the Club. Jim was nominated for this award for his work in removing illegal mining markers on public lands.

Mining claim markers that use open pipes are a deadly threat to birds, lizards and other wildlife. The smooth walls of the pipes prevent wildlife from climbing out, leading to dehydration, starvation, and death. Since 1993, a Nevada state law has prohibited the installation

of uncapped pipes for marking mining claim boundaries, but with some 1.1 million mining claims registered in Nevada, enforcement is problematic.

Jim has been a Sierra Club member since 1988. As a retired ecologist and avid hiker, once he learned about the mining marker issue, he began removing pipes during his hikes. Jim has also encouraged others to do the same, and to date he has been responsible for the removal of well over 1000 of these death traps from public lands.

The Sierra Club's Volunteer Award Program recognizes people within the Club and outside the Club who have made outstanding contributions to protecting the environment. Awards are



In his element. Jim with a mining marker in the background.

given in a variety of areas, including conservation, outings, administration, photography, journalism, and working with youth. The deadline for nominations is June 1 each year.

S. Nevada Group CALENDAR

continued from page 6

tact leader: Vern Quever (715-587-4341, vrqprbuf@hotmail.com).

FEBRUARY 1 (SATURDAY)

Valley of Fire, 3-Petroglyph Hike. Cover 4 mi, 300 ft gain, at moderate pace. This hike is N of white dome area and visits three petroglyph sites (not including Mouse's Tank). One is a new one to us (I think) I call it 3-Man site. Contact the leader: David Morrow (702-702-9486, david.brenda.morrow@gmail.com).

FEBRUARY 4-6 (TUESDAY-THURSDAY)

Winter Beach Break in Laguna Beach, CA. Leave desert for beach break on beautiful California coast. Long walks on wave-swept beach and in gorgeous Heisler Park; meals at ocean-side restaurants. We will visit art museum, and intertidal Marine Preserve. How does tide impact ecology? We leave Tuesday morning, return Thursday evening. Stay two nights in hotel in Laguna Beach, if affordable. If not, in Irvine. Moderately strenuous hiking. Elevation zero. Gain close to zero. Contact leader: geologist Nick Saines (702-896-4049, greatunc@aol.com); Co-leader: Edwina LaBreque (702-255-8515, buffo@yahoo.com).

FEBRUARY 7 (FRIDAY)

Toiyabe Leaders Meet & Greet. We are hosting the first Toiyabe Chapter Meeting of the year at our office this weekend, so please join Sierra Club representatives from all over Nevada and Eastern California at this potluck social event. We'll enjoy great food and fellowship with our best and brightest. There's plenty of parking in front of the office for easy access. Potluck items are welcome and appreciated. Bring along your favorite dishes and drinks to share. Family and friends welcome, too! Time: 6-9pm. Info: tajainlay@aol.com.

FEBRUARY 8 (SATURDAY)

Eldorado Valley Overlook, Black Mountain, McCullough Range. Think of this as an endurance hike, as it is a long cross-country hike of 9 mi with about 1000 ft gain. We'll go across the breadth of the mountain range, with a chance of observing bighorn sheep, desert tortoise and other inhabitants of the area. How do mammals of city land margins sustain themselves? A dog friendly hike. Contact leader: Sasson Jahan (702-499-9218, sasson702@gmail.com).

FEBRUARY 15 (SATURDAY)

Ash Meadows National Wildlife Refuge. About 1.5 hrs W of Las Vegas in Amargosa Valley lies an oasis in the middle of the desert -- a refuge for migratory birds and a place for its famous, unique puff fish. This place is a registered Ramsar site of important international wetlands. Enjoy a day of short hikes and visit springs, Devil's Hole, reservoir, and visitor center (to view a short film and other educational material). On way back, if time permits, we'll stop at French Bakery in Pahrump for a coffee break and treats. Why are waters of these springs warm and where do they come from? A dog friendly outing. Contact leader: Sasson Jahan (702-499-9218, sasson702@gmail.com)

FEBRUARY 15 (SATURDAY)

Las Vegas Bay to Owl Canyon. This will be another easy-going, dog friendly hike that starts on a trail along the waters of Lake Mead and passes through a great little slot canyon and beyond. About 4-6 mi with gradual 1000 ft gain. What wildlife lives in these different ecosystems? Level 3-4. Contact leader: Bill Marr (702-433-0743, wrmarrwilliam@aol.com).

FEBRUARY 22 (SATURDAY)

Black Mountain Peak Loop, McCullough Range. If you're looking for good conditioning hike, this one is for you. An 8-mi hike with 2000 ft gain to summit of Black Mountain, with 360-degree view of Las Vegas and Eldorado Valley. What is making this mountain range? A dog friendly hike. Contact leader: Sasson Jahan (702-499-9218, sasson702@gmail.com)

FEBRUARY 27 (THURSDAY)

Liberty Bell Arch & Colorado River Overlook, AZ. Hike starts at parking area at Mile Marker 4 in Arizona on US 93. We'll view arch that looks like the Liberty Bell, then continue on to an overlook that is 1000 ft above Colorado River for short guided/silent meditation and lunch before we head back. Total of 5.8 mi, 1000 ft gain. Contact leader: Vern Quever (715-587-4341, vrqprbuf@hotmail.com).

FEBRUARY 29 (SATURDAY)

China Ranch, Tecopa, CA. About 1.5 hrs W of Las Vegas along Old Spanish Trail Hwy sits a date farm not far from the waters of Amargosa River. There will be fun day with a 6-mi RT hike along river, a visit to a slot canyon, and a final stop at the farm for date shakes. Where does headwater of this river come from? A dog friendly hike. Contact leader: Sasson Jahan (702-499-9218, sasson702@gmail.com)

MARCH 1 (SUNDAY)

Prospect Trail, Valley of Fire SP. Valley of Fire is Nature's gift to hikers of Las Vegas. Hike through strange and colorful landforms and along a fault in places. How do you recognize a fault? Car shuttle. About 5 mi, less than 300 ft gain. Contact leader: geologist Nick Saines (702-896-4049, greatunc@aol.com).

MARCH 7 (SATURDAY)

Falling Man & 21 Goats Petroglyph Site. Located in Gold Butte Area, 90 mi drive, 3.5 mi hiking 200 ft gain, with some scrambling, to see petroglyphs. This is the greatest concentration of rock art I know of in southern NV. Contact leader: David Morrow (702-702-9486, david.brenda.morrow@gmail.com).

MARCH 26 (THURSDAY)

Blue Diamond Hills Trails. About 6 mi loop with 900 ft gain. Starts and ends in village of Blue Diamond. Learn about Old Spanish trail. Views of Red Rock and Mount Potosi. Lunch will be preceded by short guided/silent meditation. Contact leader: Vern Quever (715-587-4341, vrqprbuf@hotmail.com).

MARCH 28 (SATURDAY)

Earth Hour 2020. Don't forget to turn out the lights for one hour from 8:30pm PST in support of this annual worldwide event, focusing attention on energy conservation, sustainability, environmentally-friendly laws, and protecting wildlife and their habitats. More information at earthhour.org.

MARCH 28 - APRIL 4

(SATURDAY-SATURDAY)

Big Bend Ranch State Park Service Project, TX. Join us for a service trip to Big Bend Ranch State Park, by far the largest State Park in Texas. This remote park features rugged mountains, steep canyons, amazing views, unparalleled night skies, and solitude, all in a high desert setting. The park stretches along Rio Grande in far W Texas, on U.S.-Mexico border. Some parts of park are only accessible by high clearance, 4WD vehicles. Bunkhouse for 23 volunteers. Park Service provides all tools and safety

Las Vegas ICO : Inspiring Connections Outdoors

Las Vegas ICO & city kids need your help

BY JANET CARTER

Las Vegas's Inspiring Connections Outdoors (ICO) had a very successful fundraiser in October thanks to Sierra Club friends like you who know the health and environmental benefits of getting urban youth into the outdoors. Now, though, we need an additional form of help. We need you to volunteer to train to be one of our awesome outings leaders.

Since our founding in 2012, Las Vegas ICO has grown. But also -- every year -- it has unfulfilled potential to provide exciting outdoor activities for even more urban youth in our valley. We are limited only by the number of available leaders.

Leaders needed. Remember, each ICO outing must have at least two adult leaders, and we prefer to take three. We provide all necessary training for outings leaders at no charge to our volunteers. That includes CPR and First Aid certification. Leaders begin by serving as co-leaders, (assisting the main leader) and then "graduate" to being fully certified leaders when they are ready. Our certified leaders work with our agency partners to choose the trip locations and plan the itineraries.

The reward. What could be better than the opportunity to help young people discover the beauty and healing power of nature?! You need not be a power hiker to participate, but you should be able to walk several miles and have the energy to keep up with excited children! Once trained, our leaders are asked to commit to participate in at least

three outings a year, although many volunteer for a lot more.

Enjoy our video. To preview the joy of our outings, check out the video and pictures from LVICO outings at <https://www.lasvegasinspiringconnectionsoutdoors.org/gallery>.

How to get started. There are no stringent requirements to begin training to be an ICO outings leader, other than you must pass a background check (again, paid for by ICO) and be a member of the Sierra Club. Of course, a love of nature and children is a given.

Try us out! If you are interested and would like to learn more about our outings, you are welcome to come with us as a volunteer on one of our scheduled outings. Las Vegas ICO welcomes volunteers age 16 and older from all ethnic backgrounds. If you are interested, or know someone who might be, please contact Janet Carter at jkumar167@aol.com or 775-772-9970.

A great New Year's resolution. Wouldn't you love to be in an ICO outings' group picture? Make it your New Year's Resolution to get outdoors with Las Vegas ICO!

Fall welcomes ICO youngsters to Red Rock Canyon

BY BARBARA GERHARDT

THE WEATHER COULD not have been better on November 2nd for five girls and two boys aged 9-11, from Pearson Community Center, who explored Ash Canyon in Red Rock NCA under blue skies with temperatures in the low 70s. There was just enough of a breeze to keep them comfortable when they exerted themselves on the uphill parts of the trail.

A visit to Red Rock is not complete without talking about the native people who seasonally lived in the area. Our first stop was to one of the many agave-roasting pits to be found in Red Rock NCA. We talked about how the pit was used for ceremonial gatherings as well as part of the process of preparing food for winter storage.

The fact that the Red Rock area was essentially the "Walmart" for native people

came as a surprise to all. They began to understand that when native people inhabited the area there were no stores and that everything they needed to survive came from their environment. Their food, clothing, shelter, and medicine were all obtained from their surroundings.

As always on an LVICO outing, leaders talk about the geology and plants of the area. Identifying the two dominant rock types (sandstone and limestone) in the Ash Canyon area was well understood by the end of the outing, especially after seeing the fault line that separates the two rock formations.

The fact that native people used the hollow stem of the desert trumpet plant as a straw to suck insects and lizards out of cracks in the rock for food was a bit too much for these young folks as comments of, "Oh yuck, gross, disgusting," went through the group.



As always, climbing rocks was the favorite activity of the day, especially

Please see *ICO IN RED ROCK CANYON*, page 6.

equipment. Park admission and bunkhouse fees will be comped. Contact leader: Stan Peyton (nevadacle@gmail.com).

Range of Light Reflections

Range of Light Group



Group News

Fighting climate change in the Eastern Sierra: ROLG Renewable Energy Team Report

BY LYNN BOULTON, RANGE OF LIGHT GROUP CHAIR (CHAIRROLG@GMAIL.COM)

CALIFORNIA HAS A GOAL to be sourced by 100% renewable energy by 2045. For the last two years, the Range of Light Group's renewable energy team has been researching what sources of renewable energy are available and what it would take to switch to them. It is one thing to have a goal of 100% renewable energy, but a completely different thing to get there.

Moving whole communities to renewable energy. This means getting involved in local government.

For example, we need to:

- get emergency and essential community services onto microgrids that can island off the grid
- incentivize owners of older homes, apartments, and office buildings to retrofit their buildings to conserve energy
- electrify our transportation systems: county fleets, school buses, city buses, taxis, etc.

Options. The ROLG's renewable energy team has considered wind, geothermal, and solar energy sources. The most viable and practical option is solar, but solar panels on roofs are tricky to clear after a snowstorm and there isn't much space to have panels on the ground. The town has property at the airport that is large enough to locate a 1-2 MW solar array. However, with SCE,

a solar array can only tie into one meter and that meter would be in town.

Another solution is to have off-site solar arrays that can supply power to multiple meters. To do that Mammoth Lakes would need to join a Community Choice Aggregate (CCA). A CCA purchases power from various renewable energy sources (from utilities or companies like Ormat) and sells it to the community just like SCE does now — that is, distributes it to multiple meters.

With a CCA you don't need everyone to solar power their own homes and businesses. Mono County and/or the Town of Mammoth Lakes could join the Lancaster Choice Energy CCA or the Los Angeles Community Choice Energy/Clean Power Alliance.

What you can do. If you are worried about the worsening impacts of climate change and would like to do more, you can. There are several groups working in the Eastern Sierra to reduce our carbon footprint: the Range of Light Group's Renewable Energy — Mammoth/Mono County team, the 350Mono team, the Inyo350 team, and the High Sierra Energy Foundation.

There is much work to be done. Get involved! This effort requires a community effort and we can't afford to let another 10 years slip by.

What fresh snow reveals!

BY LYNN BOULTON

Winter's here! The Mono Basin is carpeted in fresh snow. Walking along a road covered in new-fallen snow I saw tracks everywhere crisscrossing it. Amazing.

Animals adapt to winter by either leaving like deer and many birds; or they stay, but sleep most of the time like marmots and chipmunks; or they are active and running about looking for food. Most often I see the tracks of deer mice, kangaroo rats, voles, jackrabbits, cottontails, pygmy rabbits, weasels, pine martens, chickories, coyotes and the occasional wing impression of a raptor that spotted a rodent out in the open and dove for it.

One of the loveliest ways to see tracks is on cross-country skis or snowshoes. The Range of Light Group has restored the historic Blue Diamond cross-country ski routes at Obsidian Dome, the Inyo Craters, and Earthquake Dome. These are ungroomed routes that allow



Who is going which way here?

you to better see the winter world. Just grab a map at the USFS Visitor Center in Mammoth Lakes and follow the big turquoise diamonds on the trees! It will feel like a treasure hunt and you're sure to see some treasures of the natural world out there!

Looking for gold in the Bodie Hills . . . yet again

BY LYNN BOULTON

In July, Radius Gold, a Canadian company, submitted a pre-application to Mono County and to the State Lands Commission requesting to do exploratory drilling for gold in the Bodie Hills on the northern edge of the Dry Lakes Plateau. The outcrop that interests them is on private land. However, the State of California owns the mineral rights below the surface.

Friends of the Inyo is heading up a coalition of environmental groups, including the Range of Light Group, to stop the exploratory drilling at the **Dry Lakes Plateau**. The coalition is researching the potential impacts to the biological and cultural resources and to the environment. This will go through the CEQA process, allowing for public comments.

There are three other gold prospecting projects in Nevada in the Humboldt-Toiyabe NF. Two are on the east side of the Bodie Hills at **Bald Peak (by Radius Gold)** and **Spring Peak (by Oceana Gold)**. The third is on the southern flank of the **Excelsior Mountains in Hunt-oon Valley (by Great Western Mining Corporation)**. Scoping comments were due in September for the Spring Peak and Hunt-oon Valley exploratory drilling

projects. An environmental report and notice of decision/notice of proposed action may be released in December 2019 (soon) for these projects.

Gold prices have been steadily rising since 2002, reaching a high of \$1889.70 in 2011. Cougar Gold started opening claims in 2010 at the Paramount Mine in the Bodie Hills. Prices then dropped to the \$1200-1300 range in 2013 and have remained there. That is still high enough to stimulate interest in prospecting. In 2015, the USGS published an assessment of gold prospects in the Bodie Hills and has a section on the Paramount-Bald Peak Alteration Zone that Radius Gold wants to explore. (Google "USGS Gold Bodie".) This alteration zone contains cinnabar, a mercury sulfide mineral (HgS).

Energy company wants Eastern Sierra water: Is there any to spare?

BY LYNN BOULTON

A California company called Premium Energy (related to Power-Tech Engineers) has submitted **four requests for pumped storage projects** in the west to the Federal Energy Regulatory Commission (FERC): one at **Haiwee** south of the Owens Lake, one at **Pyramid Lake on the reservation**, one at **Walker Lake near Hawthorne**, and one in Utah.

Toiyabe Chapter is following the three in California and Nevada, but did not comment at this stage. The deadline to submit comments or request to be an intervenor closed Nov. 24.

Key to each of these projects is water. Pyramid Lake levels have been dropping, increasing the salt content of the lake and threatening the survival of the endangered Lahontan Cutthroat

Trout (LTC) and cui-ui sucker fish. Fluctuating lake levels or water losses would jeopardize efforts to restore these species.

Similarly, Walker Lake levels have dropped, threatening the endangered LCT there too. Premium Energy has suggested they would buy water and not impact lake levels. However, all water rights have been spoken for.

Premium Energy's plan at Haiwee is to use water from the LA Aqueduct. LADWP didn't comment on the proposed project but asked to be an intervenor.

It is now up to FERC to decide to deny or accept the preliminary application or issue a letter of deficiency if more information is required stemming from the comments submitted by others.



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