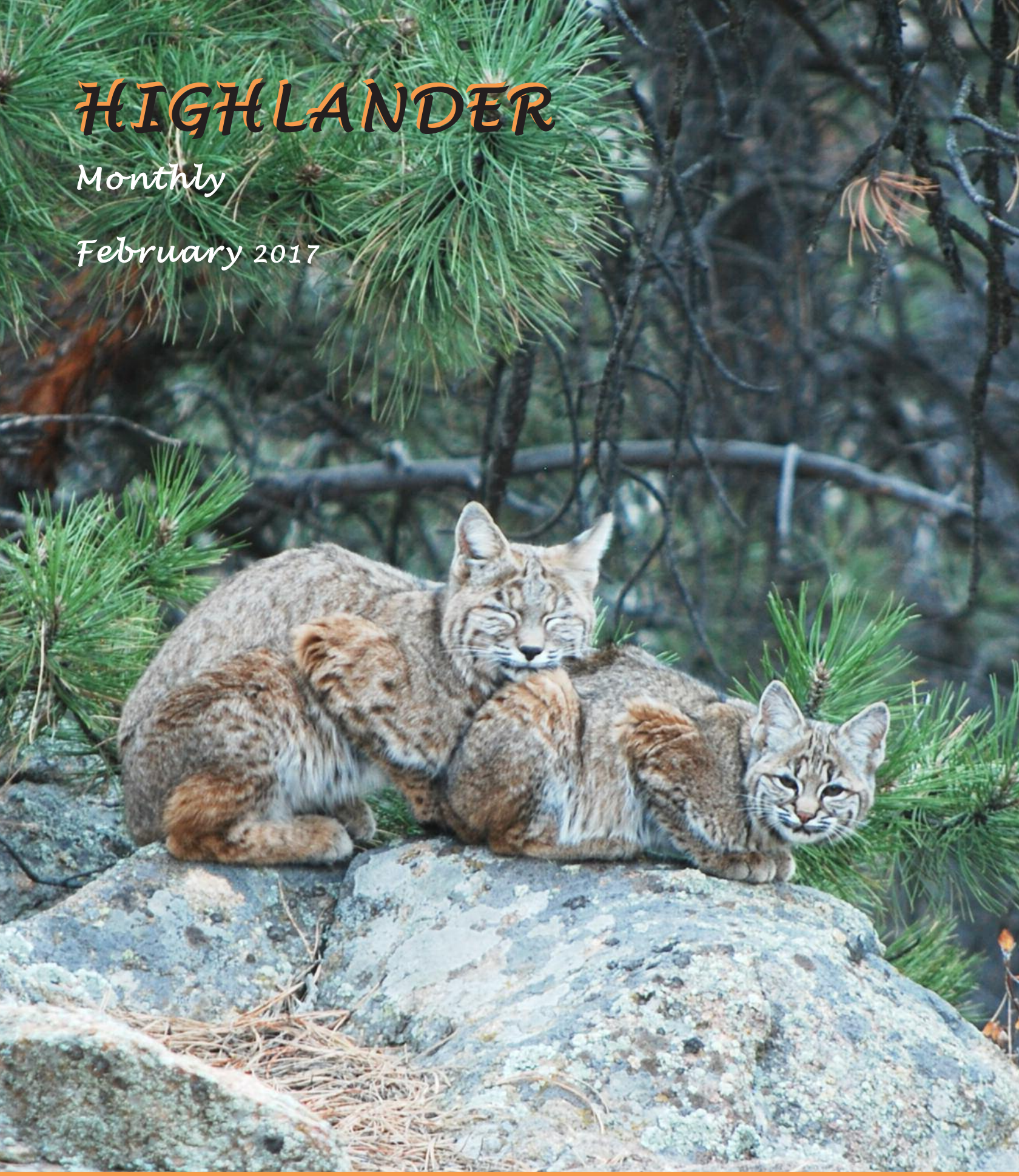
HIGHLANDER

Monthly

February 2017



PEAK to PEAK PROPANE

Accepting New Customers Call TODAY

- Propane Tank Rentals
- 24-Hour Emergency Service
- 30 Day Convenience Credit Accounts
- "Schedule Delivery" Service takes the guesswork out of ordering.
- "Budget Billing" Spread 12 months heating bills over 11 equal payments.
- Professional Home Heating Technicians. Installation, parts & service.

970.454.2789
Toll Free
1-877.888.4788

Peak to Peak Propane

P.O. Box 37
Lucerne, CO 80646

STEEL STRUCTURES AMERICA INC.

WOOD FRAME POLE BUILDINGS

We do custom outbuildings with

ANY ROOF & ANY SIDING Options

9518 E. I-25 Frontage Rd., Longmont CO 80504 1-800-833-9997

USE THIS AD FOR $500 OFF THE PURCHASE OF A BUILDING


38x56 Todd Creek, Brighton


30x66 Todd Creek, Brighton


30x40 Todd Creek, Brighton

30x30x10
$188.57/mo

50x80x16
$667.07/mo


30x40 Vinyl & Comp- Thornton


40x60x16 - Parker


24x32 Hardi-Plank Siding - Parker

Call
970-420-7100

Completely Engineered - We build to all Wind & Snowloads! Any Size 24x24, 24x30, 24x36, 30x30, 30x40, 36x40, 36x48, 40x60 & Others - ORDER A Building Today!

ZERO Down! 100% Financing OAC - See us on the web www.findssa.net

MEYER HARDWARE

Toro Snow Throwers
Ice Melt
Windshield Washer Fluid

Snow Shovels
Antifreeze
Snow Brushes

1103 Arapahoe St., Golden One block west of the Welcome Arch
303.279.3393 Open: Mon.-Sat. 8-6 Sun. 10-3

INDEPENDENCE
ROOFING & EXTERIORS

Where Honesty and Quality Come Together

Family Owned and Operated

All Roofing Systems
Repairs if possible
Re-Roof if needed
No Job Too Small
Liability & Workman's Comp
Gutter Cleaning
Roof Snow Removal
Ice Daming - Heat Cable Installs

BBB A+ HomeAdvisor℠

Bill Hutchison *Owner/President* *Office:* 720.399.0355 *Cell:* 720.352.9310
bill@independenceroof.com Call for a *FREE* Estimate

About the Cover:
Bobcat mother & kit.

Tinted by Graphics Galore.

PUBLISHER, EDITOR, ADVERTISING SALES,
COPY EDITOR, PRODUCTION & DESIGN
Anita M. Wilks
CONTRIBUTING WRITERS
Allen Best - High Country News
Buffalo Field Campaign
Tina Deines- Writers on the Range-HCN
Kevin Patrick McCarthy
Peter Friederici - HCN
Ginger Hervey - HCN
Kathy Milacek-Nat'l Bobcat Rescue
Jim Plane - State Farm Insurance
Julia Rosen - HCN
Michelle Pulich Steward - HCN
Jeff Thompson
Frosty Wooldridge
CONTRIBUTING PHOTOGRAPHERS/ARTISTS
Stephany Seay - Buffalo Field Campaign
Tom & Pat Leeson
Autumn Parry
Scotty Strachan
Linda Tanner/Flickr
Andrew Taylor
Miguel Vieira/CC Flickr
Anita Wilks

www.HighlanderMo.com

Dedicated to Positive News whenever possible!
Check the online issue to see the pictures in color!

CONTENTS

REGULAR FEATURES

Advertising Rates

Invoiced Quarterly or Monthly - Monthly RATES

Standard Business Card (3.625 x 2)	**$25**
Quarter Page (3.625 x 5)	**$44**
Half Page (7.5 x 5 or 10 x 3.625)	**$80**
Inside Full Page (7.5 x 10)	**$130**
Cover Half Page **$170** Quarter Page	**$90**
Cover Full Page (7.5 x 10)	**$290**

Ad Placement on WebHomepage add $20!

★Page 3 is available for $175/mo - 1/2 pg $90

Full Page Advertorial w/ ad w/ text $140-design is FREE.

★Classified Ads - $10 for 3 lines -
(not business please) ***$5 each additional line.***

Highlander distributed the first of the month.

★DEADLINE - EVERY MONTH THE 19th

FREE graphic design is available , please notify near the 15th to begin.

Make checks payable to Highlander & send to:

P.O. Box 7205, Golden, CO 80403

Phone • 303.642.0362

Email/Advertisers: ads@highlandermo.com

Email ~ news@highlandermo.com

YEARLY SUBSCRIPTIONS ARE only $25.

HANDY NUMBERS

COUNTY SERVICES

Fire & Ambulance	911
Jefferson County Sheriff	303-277-0211
Boulder County Sheriff	303-441-4444
Gilpin County Sheriff	303-582-5500
Crescent Branch P.O.	303-642-0119
Golden Post Office	303-445-8900
Golden PO Bulk Mail	303-278-9235
Pinecliffe Post Office	303-642-7358
Jeffco Animal Control	303-271-5070
Boulder Animal Control	303-441-4444

SCHOOLS

Coal Creek K-8	303-982-3409
Drake Middle School	303-982-1510
Ralston Valley Sr High	303-982-1078
Golden Senior High	303-982-4200
Nederland Elementary	303-258-7092
Nederland Jr & Sr High	303-258-3212
Gilpin County.	303-582-3444

CANYON ORGANIZATIONS

Gilpin Community Center	303-582-1453
The Environmental Group	TEGColorado.org
CCCWP	303-586-1491

Like Us on Facebook
Facebook.com/highlandermonthly

HIGHLANDER uses Sustainable Printing: Recycled paper, Sustainable Forestry, paper recovery, ultra low VOC, renewable printing plates, Green Certification.

We Need The Bobcat

By Kathy Milacek – Nat'l Bobcat Rescue & Research

Bobcats are sometimes larger than the typical domestic cat, but are much smaller than mountain lions. They are very common across the entire United States but are rarely seen in our cities because of their shy, solitary, reclusive nature. Bobcats belong to the lynx family, and are typically 20-30 lbs. Their coat tends to be a light brownish-blonde, with dark spots on the flanks, legs, and side. Other distinguishing features are their tufted, pointed ears with large, black spots on the backside, short bobbed tails (4-6 inches in length) and their rear legs being disproportionately longer than their front legs.

Photo by Linda Tanner/Flickr

Bobcats eat a variety of animal species, including mice, rats, squirrels, chickens, wild birds, feral cats, cottontail and rabbits. It's very unlikely, but possible, that free-roaming cats or small dogs left outside unattended might be taken as well. Many people accidentally, and unknowingly, encourage wild animals, including bobcats, to live near their homes by leaving pet food outside, not picking up fallen fruit from trees, leaving free-roaming pets outside, leaving overflowing bird seed on the ground to attract many rodents and mammals, and leaving wood piles and dense vegetation which harbor hiding places for wildlife.

Most urban wildlife are "opportunists" and many are "omnivores" meaning most urban wildlife will eat just about anything (animal or vegetable matter) and will take food that is easiest to get. If pet food is left outside, or inside the garage with a pet door entrance, this is easier to get every night than hunting down rodents.

Many ecology studies show that predatory wildlife, including bobcats, exist to preserve the balance of nature. They do help to keep rodent populations in check. As well, bobcats and other predators, eat dead wildlife in our urban areas – and so provide us with free waste removal services.

Bobcat attacks are virtually unknown, but no one should ever be attempting to touch or handle a wild bobcat or kittens. Bobcats weigh between 15-30 pounds, which makes them a small-to-medium sized carnivore. Coyotes weigh slightly more, but are often under 40 pounds in most mountain areas. Carnivore biology studies show that carnivores under 40 pounds take prey "much smaller" than themselves. It it illegal to trap, poison or hunt these small mammals, especially in subdivision/bedroom community habitats. Seasons to hunt are limited along with licenses.

In the U.S. there are approximately 3-5 million people attacked by domestic dogs every year, averaging 20 deaths per year. A child is much more likely to get hurt by a domestic dog than a bobcat – or a coyote. In fact, statistics prove that your family dog or your neighbor's dog is a hundred times more likely to kill someone than a coyote or bobcat.

Except for feeding birds and squirrels, deliberately feeding wildlife puts you, your pets, your neighbors, and even the wildlife at risk. Observing wildlife is a wonderful way to interact with nature, however, the experience can turn unpleasant or even dangerous when well-meaning people feed wildlife. Intentional feeding can make wildlife unnaturally bold, and this is the opposite of what we need to be doing with urban wildlife to avoid conflicts – keeping them fearful of humans. To create an unnatural situation in which wildlife become less fearful of humans, get habituated to a free handout, can spread disease to each other as they eat in close contact, can attract other predatory wildlife to the feeding activity location, and can cause conflict with neighbors who do not appreciate the nightly wildlife buffet line going through their yard. So, it is only a matter of time before feeding them does more harm than good.

Feeding wildlife is highly *(Continued next page.)*

discouraged, and illegal in most places. Wildlife can become too comfortable, and lose fear, of humans, if food is intentionally provided for them. Wildlife that lose their fear of humans can become dangerous to the feeder, and also to the surrounding residents. Often, this results in conflict that ends with the wildlife being trapped and euthanized because of the fear they represent to the community once they lose their fear of humans, or begin to feed in large numbers. **Also, feeding wildlife encourages them to reproduce to greater numbers than the habitat can normally support.** For all these reasons, and for the public and wildlife's long-term safety, no one should be intentionally feeding wildlife. If you have been feeding and need to stop, it's best to gradually reduce the amount of feeding over a period of a month. In this way, wildlife that have become accustomed to an unlimited, easy food source can gradually disperse and locate other food sources.

Bobcats are quiet, shy and reclusive – usually seen by themselves or a female with kittens. They are typically easy to persuade to leave. It is recommended to use deterrents and make adjustments around the exterior of your home (all endorsed by the Humane Society of the United States) for making your yard and home less inviting to wildlife. Try these tactics: Use noise and/or motion-activated deterrents to make a bobcat uncomfortable. Try an air horn, motion-activated sprinkler, bang pot lids together, or put a radio outside set to a news or talk channel. Clear any excess vegetation to remove secluded hiding spots. Do not leave pet food or water outside when your pet is indoors. Pick fruit from trees as soon as it ripens and pick up all fallen fruit.

If you feed the birds or squirrels, ensure there is no overflowing bird seed on the ground to attract rodents at night. Or, restrict feeding. Bobcats are attracted to many of the small animals that come to our yards. Do not leave small pets outdoors unattended or in a poorly-enclosed yard. If you have chickens or fowl, ensure they are put up at night.

Just as wildlife can be attracted to your yard by accidentally leaving pet food outside, or overflowing bird feeders – there are also ways to deter them from your yard. Changing the behavior of wildlife by using deterrents, scare tactics, exclusion methods, and other negative interactions with humans is one way to change their environment so they have to change their behavior in the way we want. These methods teach wildlife to avoid close contact with your home, reduces those factors that attract them to your yard, and keep wildlife "wild."

Wildlife that is fearful of humans is safer for us all in the long run. It is illegal to kill wildlife on your own, contact the Division of Wildlife regarding any issues with wildlife on your property and even adjacent private property. **ALWAYS REPORT TO LOCAL LAW ENFORCEMENT ANYONE TRYING TO HURT OR HUNT WILDLIFE ON PRIVATE PROPERTY.** Shooting with a camera is the only legal option.

DAPL - Most Important Action Step You Can Take

By Jeff Thompson

In the October issue of the Highlander, I asked the readers to seriously consider the possibility that the Government of the United States, with all its agencies and bureaucracies and the courts that back them up, is no longer legitimate and no longer exercises legitimate power over us. If that is so, the illegitimate government would include the State of North Dakota and the goon squads it employed to defend and prosecute the patently illegal plans of Dakota Access, LLC and the Army Corps of Engineers.

Specifically, Dakota Access and the Army Corps plan to ignore the most important environmental law, and I would say the most important law period, enacted by the Congress of the United States, the National Environmental Policy Act (NEPA), and build a 1,172-mile pipeline to connect the Bakken and Three Forks oil production areas in North Dakota to an existing crude oil market near Patoka, Illinois.

Please go back to my October article, "The DAPL In The Post-Constitutional ERA," and read it again. You can find the October issue in the archives at HighlanderMo.com. I can defend every word in that article. All I did is tell you what the law is, and how Dakota Access and the Army Corps of Engineers are flouting and mocking the law.

And I explained that, when the federal government teams up with big business billionaires to ignore the laws enacted by Congress and do whatever they want, even resort to inflicting serious bodily injury and potentially death on peaceful water protectors, it simply is no longer the government "we the people" consented to in the Constitution of the United States. It is just not legitimate government.

Things have gotten a lot worse since October. I'm writing this article in the wee morning hours of January 20. Today is the day the nightmare becomes official. Today is the day Donald Trump will be inaugurated. Today he will put his hand on the Holy Bible and swear that he "will faithfully execute the Office of the President of the United States" and he will to the best of his ability, "preserve, protect and defend the Constitution of the United States." You can find that oath in Article II, Section 1[8] of the United States Constitution.

If you want to know what it means when he swears to "faithfully execute the Office of the President of the United States," one place you should look is Article II, Section 3 of the United States Constitution. That section states that the President shall "take Care that the Laws be faithfully executed…" Donald Trump is actually going to put his hand on the Holy Bible and swear that he will take care that the Laws are faithfully executed.

In his campaign, Trump promised to resolve the issues around the Dakota Access Pipeline "very quickly." Under the Constitution and the laws, the President doesn't have the power to do that. Congress hasn't granted the President the power to resolve these issues, quickly or otherwise. Congress granted that power to the Army Corps of Engineers. And Congress bound the Army Corps of Engineers to the requirements of the National Environmental Policy Act and other statutes regardless of the wishes of the President.

If you look at his statements on energy policy and climate, and those of his cabinet appointments, it is clear that he intends to dictate to the *(Continued next page.)*

Army Corps to the effect that it must grant Dakota Access the necessary easement and permits regardless of the laws enacted by Congress. He's going to put his hand on the Holy Bible and swear that he will "take Care that the Laws be faithfully executed" when he clearly intends to do the exact opposite of that. He's going to grab power that he doesn't have under the Constitution or laws of the United States and dictate that Dakota Access gets what it wants.

On January 18, the Army Corps published a Notice of Intent to Prepare an Environmental Impact Statement. The notice "advises the public that the Department of the Army (Army), as lead agency, is gathering information necessary to prepare an environmental impact statement (EIS) in connection with Dakota Access, LLC's request to grant an easement to cross Lake Oahe, which is on the Missouri River and owned by the US Army Corps of Engineers (Corps). This notice opens the public scoping phase and invites interested parties to identify potential issues, concerns, and reasonable alternatives that should be considered in an EIS."

You can **find this notice on the Army Corps website** at **usace.army.mil**. The notice might lead one to think the Army Corps is finally going comply with the National Environmental Policy Act and prepare an Environmental Impact Statement. I can almost guarantee that Trump won't let that happen. I expect him to order the Army Corps to withdraw or cancel the notice within his first month in office. If he doesn't do that, the notice indicates that the Army Corps will effectively rig the impact statement in favor of an outcome acceptable to Dakota Access by severely narrowing the scope of the EIS and seeking input from the public on only a very narrow range of matters of concern to the Corps.

Public comments on the scope of the EIS are due by February 20, 2017. Email and regular mail addresses for submission of comments are provided in the notice and can be found at the website address above.

Your comments on the scope of the EIS for DAPL are the most important thing you will ever do because the battle over the scope of the EIS has now become the battle for the restoration of our United States Constitution and the government it created. The Army Corps would never have agreed to begin the EIS if thousands of brave souls hadn't put their bodies on the line and in grave danger at Standing Rock. Ultimately, regardless of whether Trump cancels the EIS, or the EIS is rigged and doesn't comply with the requirements of NEPA, it is the willingness of the people to put their bodies on the line and in grave danger that will determine whether Constitutional government will be restored. Our comments, however, are critical because they will provide us with the legal foundation for our actions. Our comments will show Trump, his cabinet, the Army Corps and the federal courts that we have a constitutional foundation for our actions, we know we are right and we won't give up no matter what they inflict upon us.

There are two critical and basic comments or groups of comments that should be made: First, the regulations implementing NEPA require that the EIS "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." The underlying need to which the Army Corps is responding is energy. Accordingly, the purpose of the proposed action is to make energy in the form of oil and refined products from oil available to a world market. The implementing regulations require that the EIS "rigorously explore and objectively evaluate all reasonable alternatives…" To comply with this requirement, the Army Corps must explore and evaluate alternative forms of energy, such as solar and wind, which can be made available to the world market with much less impact on the environment. The purpose of the implementing regulations is "to tell federal agencies what they must do to … achieve the goals of NEPA." The stated goals of NEPA are "productive and enjoyable harmony between man and his environment," prevention or elimination of "damage to the environment and biosphere" and stimulation of "the health and welfare of man." Therefore, if there are solar and wind alternatives which can be made available to the world market with much less impact on the environment, those alternatives must be the Army Corps' preferred alternatives.

Second, the regulations implementing NEPA state that, within the scope of the EIS, the Army Corps must consider impacts "which may be: (1) direct; (2) indirect and

(3) cumulative." Cumulative impact is defined as "impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." The implementing regulations state that "cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

When the Corps evaluates the alternative of making energy in the form of oil and refined products from oil available to a world market, the Corps must evaluate the past, present and reasonably foreseeable impacts: (1) of oil production in the Bakken and Three Forks production areas; (2) of transportation by pipeline from the Bakken and Three Forks areas all the way to the place where the oil is used for energy; (3) of refining operations and (4) of the actual use of the oil and oil products for energy.

The EIS should evaluate the social impacts on the oil production areas associated with "man camps," prostitution, assaults on women and heroin use and addiction as well as the health impacts of oil production and the physical impacts on the land and waters of the area. The EIS should state the catastrophic cumulative effects of greenhouse gas emissions resulting from both oil production activity and the use of oil and oil products.

There are many national and local environmental organizations active in our area. Commenters should be able to get help and information from those organizations that fits within the basic framework outlined above.

I usually include a short bio at the end of my Highlander Articles which acknowledges inspiration I've received from others. I decided to dispense with the bio for this article and simply express my gratitude for Joe Werne and Chris Garre and their efforts on behalf of Standing Rock.

The article "Standing Rock December 2016" in last month's Highlander was great reading. But more importantly, Trump's election shook me up a little. I found myself wondering if people would stick together and stick up for each other if things get out of hand. I'm very grateful to know that there are those two generous and stand-up guys around and probably many more of them.

I understand there should be some information about where we can send donations to support their work and I hope the donations really roll in for them.

HERE IS THE CORRECTION TO LAST MONTH'S DONATION LINK TO HELP THE PROTECTORS AT STANDING ROCK.

http://littletreeacoustic.appspot.com/StandingRock.html

Turnout Concept

By Kevin Patrick McCarthy

Anyone who chooses to live in rough and lonesome territory probably has a variety of social quirks, but these are seldom manifest in reckless driving. You either become proficient at tracking the pitch and yaw of the roads or you find yourself merging onto the ramp marked ETERNITY. And, well before reaching the big exit, edgy drivers tend to have a hard time in the winter getting neighbors to help them dig out their garages. So it's a good idea to strive for polite and efficient mountain driving. This generally requires a thorough understanding of the turnout concept.

In challenging topography, many roads are built in canyons, which provide nicely beveled slots of relatively navigable terrain. However, canyons are often too narrow in spots for even a single lane and some blasting is then required. There aren't many four-lane canyon roads because the extra blasting would be prohibitively expensive.

Fortunately, canyons tend to vary a good deal in width, so mountain road engineers make the most of the wide spots, creating nicely graded dirt overlooks and spacious shoulders called turnouts. These are massively useful for drivers needing to get the hell out of the way as necessary.

A mountain resident who is thoroughly familiar with a route and late for work or play might want to go just a scosh faster than a newbie who is having an epiphany in a road cut. Mountain drivers appreciate the epiphany part – we have them all the time ourselves. But we try to get the hell out of the way when we feel one coming on, or when we can plainly see that a neighbor is running late for an appendectomy.

My wife and I once missed a flight to Hawaii when a canyon embolism brought a jolly cruise to the airport to a screeching crawl. (Yes, we should've left earlier, but coordinating mountain caretakers warps time and space.) One bogey can generally be outmaneuvered, but add one or two OHGODICAN'TPASSINTHEMOUNTAINS wingmen and everybody's goin' down. Or not. Our self-appointed wagon master seemed happy to ensure that no one in our pathetic caravan would get anywhere soon.

When a vehicle looms in the rearview, it's generally a bad idea to slow down, move to the middle of the road, or otherwise behave in a smug, smarty-pants manner. If the tailgater is truly a maniac, you might as well let him go kill someone else. Far more often it's just Weird Frank who's scalded his tender regions with coffee again. Turnouts are the pressure relief valves of mountain roads. They preserve friendships.

I figure I get the hell out of the way about ten times as often as I ask anyone else to, so it all works out. If I'm hot

to trot, I try to make my intent known, then back off and wait for the mountain driver's friend, the turnout. If the nudgee turns out to be a sanctimonious blockhead, so be it. Years ago, I retired all impulsive gestures in favor of the universal friendly wave.

P.S. - Tolerances are understandably narrower in neighborhoods, so the best approach there is to cool your jets regardless of circumstance. Mountain people devise lots of creative ways to slow or stop anything that might endanger kids or animals. It's best not to discover what those are.

Editor's Note:

Thank you to Mr. McCarthy for putting into words and being willing to have it printed, what so many of us that live up here in the hills know and feel whenever we MUST be on the mountain roads at the same time as those who regularly drive at peak times.

When I first moved up into Coal Creek Canyon in 1976, I commuted from Pinecliffe to Broomfield for work daily and was terrified most of the wintertime since I had come from the flats of Kansas.

I quickly realized that our county plow truck drivers had nerves of steel and a mighty work ethic to do the job of clearing our mountain roads in the face of mother nature's worst conditions.

You see, we don't have a lot of margin for error when it comes to mountain roads when the drop off's are hundreds of feet down the side of cliffs that our roads cling to. We must use ulitmate caution and nearly new actual snowtires, not just universal treads. Learning to navigate carefully to stay alive is a daily chore if you commute to town.

In the idea of not suffering fools lightly, Mr. McCarthy has reminded us that the turnouts on our mountain roads are there for the purpose of keeping all of us safe. It is also illegal and hazardous to impair the flow of traffic, even in the worst of winter conditions.

If you see more than three cars behind you for more than a couple of miles, it is important that you use the next turnout you come to and pull over to let them go by. Many drivers in winter fear that they will get stuck in a turnout that has not been plowed or fail to keep up forward momentum if going uphill in icy and slick conditions. But this fear is only real if you have inadequate tires, lack of weight in the rear of a truckbed or slow down so much you come to a complete stop (which is unnecessary - crawl if you must, but keep moving even in the turnout).

Don't put yourself or other drivers in danger by having less than topnotch equipment: new(er) tires, four wheel drive, all wheel drive and front wheel drive vehicles. Don't wait to put on your snowtires until it snows, early and late snows are always the wet, slushy type and make for the worst driving conditions. Go early and come home early to avoid being in a hurry, be courteous - it could save your life or someone else's.

Ski Areas Add Warm Weather Options

By Allen Best -HCN

Forest Service has made it easier for resorts to include summer activities.

At Eagles' Nest in Colorado, atop a ridge above the town of Vail, visitors swooped down the mountain last summer on a brand-new alpine coaster, whose track loops like a loose ball of yarn through the conifer forests. And there were other attractions for the fun-seekers: a bungee trampoline, disc golf, climbing wall, ropes courses and zipline tours.

These new attractions opened last summer at Eagle County's Vail Mountain Resort thanks to a law passed by Congress five years ago, which expressly allows summer activities on the 122 U.S. ski areas that operate at least partly on federal lands.

The activity center at Vail, along with a similar

A family slides down a 550-foot-long tubing course at Vail Resorts. Photo courtesy Vail Resorts/AndrewTaylor.

development at Heavenly, a Lake Tahoe resort, represents the first application of this new authority. Colorado's Copper Mountain and Breckenridge recently got Forest Service approval to add summer attractions, and dozens of other ski companies across the West are also readying their plans.

The added features strengthen a resort's economic resilience, says Arthur De Jong, the mountain planning and environmental resource manager at Whistler Blackcomb in British Columbia, which has an alpine coaster, ziplines and a mountain bike park. U.S. ski areas, which often lose

money over the summer, are hoping to generate additional revenue to help cover year-round costs for everything from lifts to employee housing.

But that's not the only reason: Looming over the shoulder of many ski areas, particularly those in the Sierra Nevada and at lower elevations elsewhere, is the specter of a changing climate. Summer attractions may help resorts offset losses incurred as warmer temperatures nibble away at the ski season. "Climate change makes it all the more imperative," says De Jong.

In the East, where most ski areas operate on private or state lands, the push to create non-snow activities began some years ago. The payoff came last winter: At Christmas, many resorts were barren of snow, but New Hampshire's Cranmore Mountain Resort drew visitors by reopening its bungee trampoline and ropes course. At Mount Sunapee, people zipped down a canopy tour line.

But more than a hundred ski areas on Western national forests were governed by a 1986 law that authorized snow-related activities but provided no guidance for other uses. Forest Service managers made summer-use decisions on a cumbersome case-by-case basis. Seeking clarifying legislation, ski industry representatives argued that mountain operators could offer year-round outdoor recreation while controlling impacts to public lands.

In 2011, a bill sponsored by then-U.S. Sen. Mark Udall, a Colorado Democrat, greatly expanded what ski areas are authorized to do, as long as the new activities and facilities "encourage outdoor recreation and enjoyment of nature" and "harmonize with the natural environment." As the Ski Area Recreational Opportunity Enhancement Act was being drafted, some environmental groups fretted that ski resorts would be turned into Disneylands, says Doug Young, then an aide to Udall. So the bill prohibits water parks, swimming pools, golf courses, tennis courts and amusement parks, even as it clears the way for mountain bike parks, ziplines and ropes courses.

Vail Mountain and Heavenly were the guinea pigs as the ski industry and the Forest Service worked their way through the new process. The impact of summer activities will vary from ski area to ski area, says the Forest Service, but in all cases they will be assessed by the federal environmental review process. And the agency insists that nature education must always be a component of any summer activities. At Vail, The Nature Conservancy, a national nonprofit, and the local Walking Mountains Science Center collaborated on an innovative set of stations where visitors can see a rabbit from two miles away, as if through the eyes of a red-tailed hawk, or perceive sound the way a mule deer does.

Ski areas must pay extra fees for summer activities. While the Forest Service has offered *(Continued next page.)*

no estimates of how much additional revenue the activities will generate, it does project about 600,000 summertime visits to ski areas and almost $32 million in additional direct spending in neighboring communities, with a ripple effect of 500 annual, temporary or full-time jobs. Arapahoe Basin, another Colorado resort, expects to hire 21 positions related to planned summer activities in addition to the 60 current year-round employees.

For ski resorts and the communities that depend on them, the new attractions' biggest benefit will be the long-term one, as they help buffer resorts from unpredictable weather and, eventually, big shifts in climate.

Ski areas could lose as much as a third of their winter seasons by mid-century, according to a recent study from the University of Waterloo. "That's not anything anybody in the ski industry would like to see," says Aspen Skiing Co. spokesman Jeff Hanle, "but we have to be prepared for it."

An employee tests the 1,200-foot-long zipline, which opened summer 2016 for Vail Resorts' summer activities. Photo courtesy Vail Resorts/AndrewTaylor

A New Direction For Indoor Growers

By Ginger Hervey - HCN

Vertical farming rises to meet growing demand for local, organic food.

Nate Storey looked out his window in China at agricultural workers laboriously threshing grain by hand. "There has to be a better way to do this," he thought. It was 2001, and the Cheyenne, Wyoming, native was working in a Chinese orphanage, trying to decide what he wanted to do with his life. At that moment, his vision crystallized: He would make food production more efficient.

Back in the U.S., he enrolled in the agronomy program at the University of Wyoming. For his Ph.D. in 2012, he designed a structure that turned indoor farming on its head — literally — by growing plants vertically in towers. Storey is now CEO of Laramie-based Bright Agrotech, part of agriculture's larger vertical-farming trend. The stacked racks of plants use space more efficiently than traditional single-layer greenhouses. Raising crops indoors without soil requires less water than outdoor growing and removes the risk of early frosts, hailstorms and too much or too little rain. And being able to grow food year-round in otherwise unsuitable environments helps farmers produce high-quality greens, herbs and tomatoes that bring premium prices.

"It won't be the only kind of farming we have by any means, but our needs are changing," says Daniel Burrus, a technology forecaster who has studied vertical farming since its inception. He believes it will play an increasingly important role in the future, especially in Western areas with harsh growing conditions. "Vertical farming plays to all of the important trends," he adds, as consumers increasingly demand fresh produce, grown locally without pesticides and herbicides.

The term "vertical farming" goes back to 1999, when Columbia University professor Dickson Despommier tasked architecture students with designing futuristic skyscrapers that could grow plants on every floor, producing food for city-dwellers. The idea of growing in a controlled setting, close to consumers, was appealing, and farmers began trying to make it work.

Stacking flats of plants maximized indoor space but created ventilation problems and made it difficult for light to reach the plants evenly. Storey thought upright towers were a better option. Bright Agrotech's ZipGrow Towers are 3 or 5 feet tall and hollow, with a slit down one side where plants grow in a soil-less medium made from recycled water bottles. An overhead grid of pipes drips water and nutrients into their root systems. The towers are particularly suited to specialty crops high in water weight, like lettuce and herbs, because these crops don't transport well.

Storey hopes to "democratize production," taking some of the market away from commercial farmers and sharing it with local growers. Bright Agrotech offers videos, blog posts, consulting and classes to educate aspiring farmers on making the best decisions for their farm and market size. "If you don't have the market and you're just paying for the equipment, it doesn't make sense at all," Chris Michael, Bright Agrotech's chief marketing *(Continued next page.)*

officer, says.

Haydn Christensen, a Fort Collins farmer who was an early partner of Bright Agrotech and one of the first to adopt ZipGrow towers, says vertical farming has its drawbacks. Heating, cooling and lighting costs can erode profit margins below those of traditional outdoor farming. And the crops it's best suited for, such as arugula and chives, are a small portion of the average family's grocery list.

Nonetheless, the company has tripled in size in the last five years. Tens of thousands of towers have been installed since 2014 across the U.S. and in Europe, Southeast Asia and in China, where the idea first sprouted. Bright Agrotech also created downtown Laramie's "living wall," working with Altitude Chophouse and Brewery, which transformed an unused vertical space into a wall that produces cabbage, basil and mint. Making use of existing structures and abandoned lots saves farmers from having to build their own spaces, one of indoor farming's biggest expenses. In Jackson Hole, Wyoming, a sliver of vacant land next to a parking garage became a three-story hydroponic greenhouse, producing tomatoes, herbs and microgreens. Seattle's Farmbox Greens got its start in a two-car garage. A New Jersey company called AeroFarms recently converted an old steel mill in Newark into the world's largest commercial vertical farm. Vertical farms are still far from achieving Despommier's goal of supplying a large part of a city's food, says Stan Cox, research coordinator at The Land Institute, a nonprofit agricultural research organization. The cost of equipment, the energy required for artificial light and heating, and the limitations on what can be grown efficiently confine vertical farms to a relatively narrow slice of the market. "I think there's a pretty strict limit on how big it can get," he says.

As a winter storm blows outside, Haydn Christensen harvests basil for an order for Whole Foods Market. Photo courtesy Autumn Parry.

As the market for locally produced food grows, however, Bright Agrotech hopes the industry will too. "We're trying to help build a better food-distribution system," Michael says. "So we're empowering small farmers who are starting and running successful farms that bring better food to their communities."

Ginger Hervey is a freelance journalist who has reported stories from Wyoming, Texas, Missouri and Belgium.

Coal Creek Canyon
Fire Protection District

P.O. Box 7187 • Golden, CO 80403
303-642-3121

admin@coalcreekcanyonfd.org
www.coalcreekcanyonfd.org

Join the CCCFPD as a Volunteer Firefighter Or Wildland Team Member

The personal rewards and satisfaction received from the fire and rescue service are often beyond description. There is a tremendous sense of accomplishment after knocking down a structure fire or controlling a wildland fire, compassion for accident victims and those in need of emergency medical care, and a strong sense of pride knowing that you have helped your community.

Joining the Coal Creek Canyon Fire Protection District (CCCFPD) as a volunteer firefighter is a serious decision and involves a profound commitment.

In addition to a desire to help people, you also need courage, dedication, assertiveness, and a willingness to face new challenges.

Membership Requirements
Membership to the CCCFPD is open to anyone who meets the following qualifications:
Is between 18 and 60 years old
Resides within the Coal Creek Canyon Fire Protection District
Has a current, valid Colorado Driver's License
Has a high school diploma or equivalent
Is in good physical health (e.g., able to lift and carry up to 100 pounds at waist height)

Email: admin@coalcreekcanyonfd.org
for a complete CCCFPD Membership Application Packet.

For more information please visit
http://www.coalcreekcanyonfd.org/volunteer/

The application period begins January 1, 2017 ending February 15, 2017.

Left: Maxi, a Blue Healer - Australian Shepherd mix.

Right: Doug, a Standard Poodle.

Send in Your photos to news@highlandermo.com

Left: Tiny Daphne with her best friend Carter.

Right: Zoey, a Welsh Terrier.

Where Species Will Find Refuge

By Julia Rosen - HCN

Nooks and crannies offer safe harbor from a changing climate.

Connie Millar picks her way across a boulder field in California's Lee Vining Canyon. The ramparts of the High Sierra, which mark the east entrance of Yosemite National Park, claw at the western horizon. Across the valley, RVs grumble down the curves of Tioga Pass Road. But Millar is listening for something else on this autumn day: pika. American pikas are endearing, pocket-sized mammals with prodigious ears and a distinctive high-pitched call. But they can't tolerate heat — a trait that has made the pika into something of a climate change icon. Even President Obama has noted that warming has pushed the creatures uphill in search of cooler conditions.

But Millar, an athletic, strawberry-blonde ecologist with the Forest Service's Pacific Southwest Research Station, says there's more to the story. While some studies have reported problems for pikas in the Great Basin, Millar and others have found that many populations in the Sierra Nevada and Rocky Mountains have held their ground, a feat she attributes to the unique qualities of the talus fields they call home.

An American pika runs toward one of its winter food caches with a mouthful of plants. Pika don't tolerate heat very well, but are able to find cool places of refuge in the nooks and crannies of talus fields.
Photo by Tom & Pat Leeson

For the past 10 years, Millar and her colleagues have monitored temperatures in boulder piles like those in Lee Vining Canyon. At the hottest times of day, there can be a 12 degree Fahrenheit difference between the rocks' surface and the shaded chambers between them. Those chambers often retain ice and stay cooler than the average air temperature, the metric researchers usually use to predict future conditions.

These differences matter here, just as they do for people living in places like Phoenix. "If we were out on the tarmac, we would probably all die," Millar says. "But we have air-conditioned offices and buildings, so we just go inside." The chambers in talus offer pikas a similar option, and could help the critters survive climate change — at least for a while.

Places like talus fields, where local climate conditions defy regional trends, are called refugia, and they can be found in the nooks and crannies of almost every landscape.

But only in recent years have scientists and managers begun to recognize their importance for climate adaptation. For as long as these pockets remain sheltered, they could offer much-needed protection for threatened plants and animals — and a rare glimmer of hope for the people trying to save them.

Like many ecologists, Millar first came across the concept of refugia while trying to make sense of the sometimes-perplexing places species exist today. Why, for instance, do limber pines grow in the mountains of Nevada, far from the tree's Northern Rocky Mountain stronghold? And why does the Wyoming toad live only in the Laramie Basin, 500 miles south of its close relative, the Canadian toad?

The answer, researchers discovered, is that these populations are most likely leftovers from the last ice age, which ended roughly 12,000 years ago. As the planet warmed, many cold-adapted species retreated to higher latitudes and elevations — except in refugia, where local conditions allowed them to persist. Because these places remained colder or wetter or foggier than surrounding areas, they shielded species from what had become an inhospitable climate.

Scientists hope that refugia will play a similar role in the future, buying time while managers come up with long-term climate adaptation plans, or until greenhouse gas emissions drop. But first, researchers must figure out how refugia form and where they occur.

One of the most common mechanisms for producing refugia in mountainous terrain is cold-air pooling, which happens when cool, dense air flows downhill on calm nights and collects on valley floors. In 2008, Jessica Lundquist, a hydrologist at the University of Washington, developed a way to pick out which drainages might host cold-air pools. She and her students have applied the method to entire mountain ranges, including the Sierra Nevada, providing ecologists with a critical resource: maps of likely refugia.

In other cases, the ability to hold onto moisture is all it takes to create refugia. Researchers working in the Klamath-Siskiyou Mountains, an area of exceptional biodiversity on the California-Oregon border, have identified north-facing slopes, old-growth forests and river valleys as places that retain more water. In the Mojave Desert, climate models suggest that entire mountain ranges could serve as refugia because they squeeze more precipitation out of the dry air.

Complex landscapes produce a wide range of microclimates, but they exist everywhere — even in talus fields and frost pockets that occur in farmers' fields, Lundquist says. "You can look at almost any scale and see these setting up."

As scientists' understanding of refugia grows, land managers must decide how to use *(Continued next page.)*

them. The National Park Service and Bureau of Land Mgt now recognize refugia as important climate adaptation tools, but few management plans include concrete ways to use them, says Pat Comer, chief ecologist at the conservation nonprofit NatureServe.

One approach simply involves remembering they exist when planning for the future. For instance, managers have long flirted with the idea of reintroducing wolverines to the Sierras. But scientists worried that the scrappy carnivores, which were eradicated in the early 20th century, would not survive in a warmer future. Wolverines den in snowdrifts, and declining snowpacks could make it hard for them to breed.

Connie Millar, an ecologist with the Forest Service's Pacific Southwest Research Station, hangs thermometers in trees in the Sweetwater Mountains of California to monitor air temperature. The measure will be used to compare temperatures in pika taluses, and other micro-habitats, to the standard air temperature and determine if climate refugia exist in the area. Photo by Scotty Strachan.

So in 2011, Lundquist's team partnered with researchers at the U.S. Geological Survey to see how local climate processes, such as cold-air pooling, alter future snow forecasts, and thus, the outlook for wolverines. The results suggested that wolverines might be able to find more spring snow in previously unrecognized mid-elevation refugia. "They didn't need the whole mountain range to be that cold," Lundquist says. "They just needed a spot for their den."

Managers could also focus existing conservation efforts on refugia, says Toni Lyn Morelli, a research ecologist at the USGS's Northeast Climate Science Center in Amherst, Massachusetts, and lead author of a new study on managing refugia. Investing in places that naturally resist warming would allow managers to target some of the other stresses that organisms experience, Morelli says. For example, managers could help cold-adapted fish like bull trout by protecting slow-warming mountain streams on public lands that face threats from logging. Scientists working in the Klamath-Siskiyou region have made similar arguments for shielding vulnerable refugia from grazing and mining.

Those who manage protected areas could also make the most of their safe-harbor qualities. Devils Postpile National Monument, 20 miles south of Lee Vining Canyon, boasts a deep valley with subalpine meadows where frequent cold-air pooling and spring-fed creeks keep temperatures

low. "We are kind of like a poster child," says Deanna Dulen, the park's superintendent. Dulen sees an opportunity to protect valuable meadow habitat, which is under threat from climate change, by limiting visitor impacts and removing encroaching conifers.

Vulnerable species could even be relocated to healthy refugia like Devils Postpile. Artificial refugia could be developed, as well: Lundquist's group's recent research shows that small forest clearings, created as part of routine tree thinning, can boost snow cover. A hole in the forest canopy about 100 feet wide allows more snow to pile up, and the shade of the surrounding trees prevents it from melting. "You've just created a nice big snow trap," she says. Her team has found that in the Cascade Mountains, the snow in such clearings lasts between two weeks and two months longer, supplying soil moisture and stream flow through the spring and summer. It might seem like a small way to address the daunting problems of climate change, Lundquist says, but "this is something you can do at a scale you can control."

The Trinity Alps in northern California are part of the Klamath-Siskiyou mountain range where north-facing slopes and places that retain more water have been identified as climate refugia. Photo courtesy Miguel Vieira/CC Flickr.

After a few minutes of scrambling over the rubble, Millar hears a pika — a long squeak like the sound made by a squished dog toy. The call comes from the bottom of the talus field, where air circulation inside the rock pile creates the coolest conditions. A lush meadow that provides food for the pika sprawls below, fed by moisture trapped under the talus. The idyllic scene illustrates why Millar think the animals should be emblems of resilience — not vulnerability. But refugia alone can't save imperiled species. Habitat fragmentation makes it hard for many plants and animals to reach places that could meet their needs. And species will need so-called climate corridors, which allow migration to higher latitudes and elevations as temperatures rise, Comer says. Refugia also won't last forever. If warming continues unabated, these places will eventually grow too hot, or too dry. Michael Dettinger, a hydrologist with the USGS in Carson City, Nevada, sees three possibilities: Refugia will resist warming, they will reflect warming, or they will disappear altogether. Dettinger has studied long-term temperature records from two spots that experience cold-air pooling but have followed different trajectories in recent decades: the Lake Tahoe Basin and the nearby Truckee River drainage in California. Stubbornly resistant, Tahoe hasn't warmed at all, while the Truckee has heated up at about the same rate as its surroundings, reflecting the regional trend. For now, both places remain unusually cool for their elevation, but that could change. New weather patterns might disrupt the area's cold-air pooling, for example, by bringing more wind. "The nightmare scenario is that the microclimate that makes the refugia work could dissipate in a way that actually made it the fastest-warming thing in the area," Dettinger says. Still, Millar thinks focusing on refugia is better than doing nothing. Balanced on a jumble of jagged rocks, she surveys the valley — a place she has visited every summer for more than a decade and which she hopes will host pikas for at least a few decades more.

"We have to work with interim strategies," she says, "because what else can we do?"

Nearing Retirement?

From Jim Plane- State Farm Insurance

Most people have an ideal retirement age in their head. Perhaps you hope to retire early and travel the world, or stop working right at age 65 – for years, the traditional retirement age. Or maybe you're nearing your 60s, or even your 70s, with no desire to slow down.

Essentially, the decision when to retire is yours. And it's one you should consider carefully and base on a number of factors, such as your retirement savings, when you'll begin collecting Social Security, your plans for retirement, and your health.

Do I Have Enough Money?

Whether you've been stashing away money since the beginning of your career, or started a retirement fund a little later than you intended, you're likely wondering if you have enough savings to stop working. Financial experts estimate that you'll need between 70 and 90 percent of your pre-retirement income to maintain your standard of living. (http://www.dol.gov/ebsa/publications/10_ways_to_prepare.html) Yes, less than 100 percent, because hopefully you've paid off your mortgage and other installment loans, aren't carrying a heavy load of credit card debt, and no longer have costs associated with children, such as childcare or college tuition. Plus, you'll no longer be saving for retirement.

To determine your post-retirement income, you may want to start with a thorough examination of all the resources you're planning to use during retirement. These might include a combination of funds from Social Security, your pension, a 401(k), an IRA, mutual funds, stocks and bonds, annuities and savings accounts.

Be sure you know how much you can expect from Social Security. Knowing the amount of your benefits is essential if you're planning to rely on them during retirement. Remember: You can start receiving Social Security benefits at age 62, but you'll receive more money each month if you wait until your U.S. government-deemed full retirement age. Your benefits will continue to increase the longer you wait to file, up until age 70.

Am I On Track?

Now that you're aware of your resources, calculate your retirement income to see if you're on track. If you're unhappy with the results, you can try making some small changes to boost your retirement savings these last few years, such as increasing your savings as much as you can, making sure you're contributing enough to your employer-sponsored plan to receive the full match, and contributing the maximum to your IRA. Remember, you can make "catch-up" contributions if you're over 50, which are additional contributions to your IRA.

You may also consider tightening your budget to increase your savings. At the same time, to make your post-retirement budget lower, work to pay off credit card debt and your mortgage.

Should I Reevaluate My Investments?

Now may be a good time to conduct an asset allocation analysis to compare how your assets are invested in stocks, bonds, and cash. Since you're nearing retirement, you need to consider the risk of your portfolios. You may want to seek a combination of investments that are more conservative because you have a shorter time frame to compensate for the inevitable fluctuations of the market.

You also might consider investing part of your retirement savings into an annuity. Annuities are often offered by insurance companies, which make a series of payments to you in exchange for a single premium or series of premiums. These payments can continue for a defined length of time or an indefinite period, such as your lifetime. Deferred annuities begin at a set time in the future and help you accumulate money for future use.

Should I Readjust My Plan?

If you fear that the amount in your retirement fund won't be enough to get you through the rest of your life, you may want to adjust your timeline. Retiring a few years later will give you more time to save, and more time for your savings to grow.

Before investing, consider the funds' investment objectives, risks, charges and expenses. Contact State Farm VP Management Corp (1-800-447-4930) for a prospectus or summary prospectus containing this and other information. Read it carefully.

Securities, insurance, and annuity products are not FDIC insured, are not bank guaranteed, and are subject to investment risk, including possible loss of principal. Neither State Farm nor its agents provide tax, legal, or investment advice.

Diversification and asset allocation do not assure a profit or protect against loss. Bonds are subject to interest rate risk and may decline in value due to an increase in interest rates.

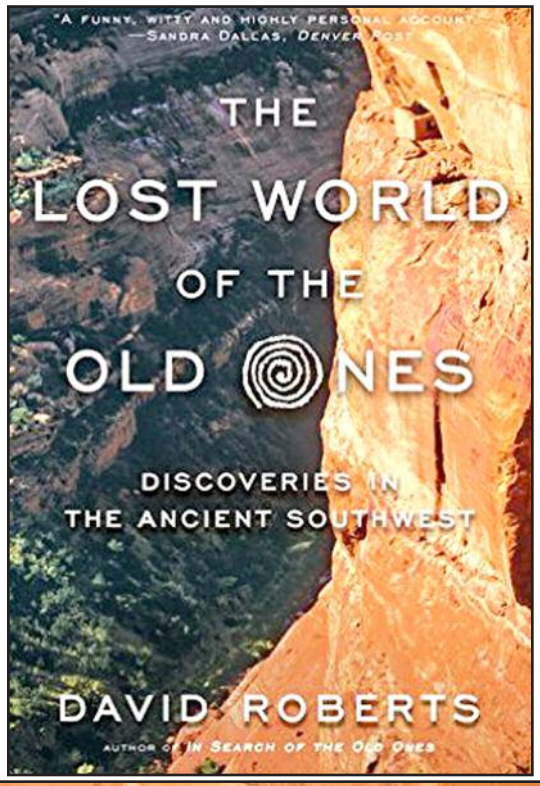
Past performance is no guarantee of future results. A 10 percent tax penalty may apply for withdrawals from tax-qualified products and/or non tax-qualified annuities before age 59?.

Prior to rolling over assets from an employer-sponsored retirement plan into an IRA, it's important that customers understand their options and do a full comparison on the differences in the guarantees and protections offered by each respective type of account as well as the differences in liquidity/loans, types of investments, fees, and any potential penalties.

Investment return and principal value will fluctuate and your investment, when redeemed, may be worth more or less than its original cost.

Seeking Ancient Lives In Harsh Lands

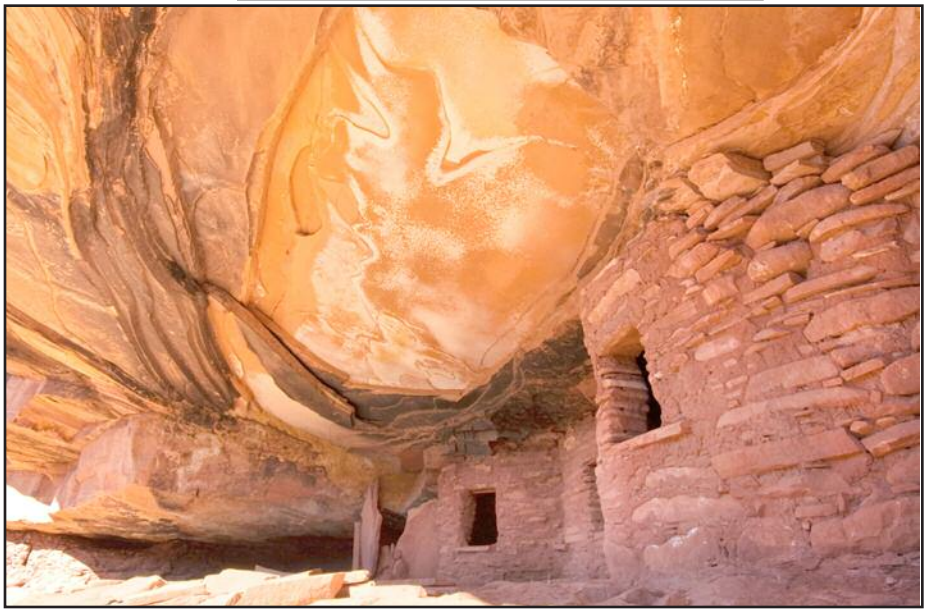
By Michelle Pulich Stewart - HCN



A review of ***The Lost World of the Old Ones***, a voyage through Southwestern archaeology.

In ***The Lost World of the Old Ones***, his 26th book, David Roberts merges his considerable experience of hiking in the desert Southwest with three decades of interest in the prehistoric peoples who lived there. His goal is to offer a general audience "the best and most provocative research conducted in the last 20 years by Southwestern archaeologists," and this engaging narrative weaves together his understanding of the science with his many backcountry expeditions.

This new book picks up where his 1996 classic, ***In Search of the Old Ones***, left off, further examining how the ancient ones created a civilization in this harsh landscape. Robert focuses on the Four Corners region, particularly southeastern Utah's Cedar Mesa, Kaiparowits Plateau and Desolation Canyon, and New Mexico's Chaco Canyon and Jemez Pueblo.



Several highlights stand out: On one hike, Roberts and anthropologist Matt Liebmann spot a red racer snake, and then, seconds later, discover an ancient, distinctively designed snake carved into basalt. On a marvelous backpacking adventure, he and a friend explore Kettle Country, the slickrock Diné landscape that Roberts describes as a "trackless labyrinth."

Memorable characters draw us into each part of the narrative. A cheerful eight-year-old girl keeps pace with ten adult hikers on a tough backpacking journey without complaint. Rancher Waldo Wilcox donates his privately held lands near Green River, Utah, to the public trust after years of stewarding the abundant prehistoric artifacts found there, resisting the temptation to turn them into cash.

"It's the way I was brought up," Waldo tells Roberts. "Mom and Dad always told me that just 'cause we owned the land didn't mean the Indian stuff belonged to us."

Roberts similarly hews to strong ethics in his travels. His code is clear: Respect sensitive locations and take nothing but photographs. Doing so not only honors the vital presence of ancient peoples, but also allows future adventurers to enjoy the jubilation of their own discoveries.

"What I'm in search of, season after season, is another clue to a great cultural mystery," he writes. "What I gain as a reward for my search is that elusive but inexhaustible blessing: wonderment."

The Lost World of the Old Ones: David Roberts, 337 pages, hardcover: $27.95. W.W. Norton & CO, 2015.
Photo Above: *Fallen Roof Ruin, an Anasazi pueblo on Cedar Mesa in Utah. Wikimedia Commons*

Hope In A Post-Nature Society

By Peter Friederici - HCN

What are we supposed to do with our knowledge that we live at the end of nature, that the driver of the Earth's powerful cycles has become us as much as it is the other thing? We have to grieve, of course. And celebrate. It would be a way of acknowledging a truth that we have tried to shirk. Too often when we use the word nature, we employ it as a sort of armor to protect ourselves from blame. Natural disasters come with no blame, no guilt. They just happen: because of the black-box workings of weather, geology, God. Studies have shown that people feel less panic and dismay about natural disasters than about human-caused ones. Somehow the lack of mindful causality behind a fire or flood removes all those difficult questions of guilt. Despite Job's travails, "Why me, God?" remains an easier question to deal with than "Why me, neighbor?" or, worse, "Why me?"

Nature has been an easy out. Let's say that previous droughts that slammed the American West — like that of the 1890s that killed millions of head of cattle and spelled the end of the open range, or that of the Dust Bowl — were natural events. Many of their effects on particular places were the result of particular, often unwise, land uses, but the raw fact of dryness itself, the aching failure of the sky to deliver moisture year after year, we might call natural. Calamitous, yes, but lacking an ethical edge.

The current drought that has caused so much of Lake Powell to vanish into clear air is in a different category. It is nature intertwined as thoroughly with human agency as the main stem of the Colorado River merged imperceptibly with its myriad tributaries as the reservoir filled, forming a single whole on which you could sometimes no longer tell just where the river had flowed. And so we have to wrestle with the knowledge that we are not only in a tough spot where practical action is needed, but that we have to understand our own complicity. We have fought against nature for so long, spent so much energy and ingenuity in trying to run the show as gods. Now we have succeeded, only to find that the job is so much less clear-cut than we'd thought, more a tangled web of Olympian intrigue than an easy monotheistic exercise in omnipotence.

But this mess is our new terrain. This is our new task. I do not wish to diminish the seriousness of the job before us in dealing with a drier West, or a melting Arctic, or eroding coastlines. I do not want to gloss over the innumerable and inevitable casualties that are going to accompany the too-fast changing conditions of our planet. But I do want to point out that much of what fueled the Powell Expedition's almost manic dash down through the canyons of the Colorado River was a mingled sense of mystery and destiny: the conviction that it was only by embracing a dangerous unknown that a fledgling country could grow into what it surely ought to be.

In any timeframe meaningful to people alive today, Glen Canyon will not house a mountain-fed stream running through a pristine canyon. Nor will it be managed purely by human intention, as the construction of Glen Canyon Dam was. Rather, the place that we have called Lake Powell is likely to be governed by a murky combination of human and natural factors, and to constitute a huge in-between zone in flux between water and land. Much of Glen Canyon is likely to be, for the foreseeable future, a place between: between flood and drought, water and land, human and natural. It will be a liminal place, *(Continued next page.)*

constantly in the process of becoming — whether what's being created is water or land. It will be a place of mud and sand and swept-away roots, a place where the scent of decay might just carry a waft of freshness about it, like a volcanic field that reminds us of the intricate ever-locking dance between destruction and creation.

That ambiguity will be hard for many of us — whether water managers, tourism advocates or rank visitors — to deal with. In purely practical terms, it's hard to manage a place that unpredictable: Where will the boat ramps go, and the campsites? Should visitors plan to boat, or to hike? How will they get through the mud flats? The canyon country has for a long time been one of the purest examples of the human-nature divide that characterizes much modern American understanding of our surroundings: the wild river subject only to itself, the tame reservoir locked up by engineers. Whether you believe that Glen Canyon Dam degraded or improved its setting, the two forces have almost always been viewed as distinctly twain. The result is the logjam we've seen in our political system, a grinding paralysis that has made it almost impossible to do anything meaningful about the climate change problem.

Maybe what we need instead is the ambiguity that is the new Lake Powell. Maybe the fact that so many places need to be reinvented will enable us to break out of the old forms and make a new start. The Hopi farmers who live on arid mesas not far from the Colorado say they have been experiencing the effects of climate change in striking parallel with the predictions of climate scientists. Less snow falls in winter to soak into the ground. The growing season is longer, the spring winds are worse. And when rain comes in summer, it is less likely than before to come softly. Instead, it comes in torrents that erode the fields and run away in the arroyos without nourishing the roots. The same amount of water might fall, on average, but still the farming is harder. This is known; this is seen. And the Hopi know why. Yes, they have heard what the scientists say about fossil fuel emissions and the greenhouse effect. But the real reason for climate change? It begins, not ends, with human behavior. The climate is changing, according to some Hopi people, because of a failure of prayer, of humility. That is the ultimate reason for the physical changes. And just as the river we see on the ground and the unseen river flowing upstream in the atmosphere above us form a single unbreakable whole, the torn bond that has sundered prayer from precipitation cannot be made whole again without a proper attitude.

Maybe what we need to do, then, is to embrace this new ambiguity, to accept that we are as gods but far from omnipotent, that we are rather co-creators, that we are as much nature as what we once labeled as nature because it seemed outside ourselves, but that with this new promotion comes new responsibility that might truly be labeled what has become one of the most clichéd words in American English: awesome. It cannot be downplayed that this acceptance of our new role will be at least as hard as the task that faces the water managers in the face of diminishment. It will be akin to the drawing back that young people face as they embrace adulthood, a recognition that the unbridled use of new powers without responsibility results only in disaster. Some people never manage that. And maybe some societies never manage that. But "never" is not an option anymore. Accepting our new role, and responsibility, will be a matter of finding poetry in a new mud flat where speedboats once raced — or in the muddy, debris-filled broth caught in the branches of drowned cottonwood trees after a wet winter. There will not be much easy majesty to our way of seeing. Maybe the light will be flat, the shorelines barren, the red rock stained white. Lake Powell has already been a good place to practice this sort of sight, with its innumerable rockbound coves that in the stark light of noon appear lifeless and abandoned, as if some calamity had already swept away most of life. We will have to gain a layered appreciation of complexity, and of flux. And of our own limitations.

I don't have a good recommendation for precisely how to do that, but I am fairly certain that getting out into the mud — into some mud, somewhere — is a necessary step.

Excerpt from ***A New Form of Beauty: Glen Canyon Beyond Climate Change*** (Univ. of AZ Press, Oct. 2016).

Peter Friederici is an award-winning environmental journalist who directs the Master of Arts in Sustainable Comm. Prog. at Northern AZ University.

Buffalo Field Campaign-buffalofieldcampaign.org

The country's last wild buffalo — America's newly designated National Mammal — are in grave danger. Yellowstone National Park has begun capture for slaughter operations and plans to kill hundreds of wild Yellowstone buffalo in the coming weeks, all to appease the interests of Montana's livestock lobby. Capture operations at Yellowstone's Stephens Creek bison trap began Saturday, January 7, 2017. BFC field patrols in the Gardiner Basin report that 84 wild buffalo are currently captive in the trap. Yellowstone and other bison "managers" plan to slaughter — or domesticate if a controversial quarantine plan is approved — upwards of 1300 of these sacred beings this winter, all in an effort to appease the intolerance and unfounded fears of the powerful Montana livestock industry. **Please call Yellowstone Superintendent Dan Wenk (307-344-2002) and tell him to release these buffalo and end further plans to capture the country's National Mammal!**

In addition to capture, wild buffalo face other fatal dangers if they migrate across Yellowstone's boundary into Montana. Like other migratory ungulates, buffalo must leave the park in order to survive the harsh winters. Less than a mile from Yellowstone's trap, just outside the boundary, hunters await to make their kills. As buffalo migrate into lower elevation habitat they are met with gunfire. Buffalo are never able to make it far before being shot or spooked by hunters, which causes them to flee back into Yellowstone and into the clutches of the trap.There is no safe place for wild buffalo in the Gardiner Basin.

Capture operations are going to interfere significantly with state and treaty hunting, which is currently in full swing. Wild buffalo are being hunted along Yellowstone's border by hunters who hold Montana tags, and by four Native tribes — the Confederated Salish & Kootenai, Nez Perce, Shoshone Bannock, and the Umatilla Confederacy — who hunt buffalo under treaty right. Hunters are extremely upset that Yellowstone has opened its trap doors so early, and most join BFC in being adamantly opposed to any capture of wild, migratory buffalo. While BFC does not agree with the way buffalo hunting is currently taking place, given the limited landscape, small buffalo population, and firing line-style hunts, we do hope that we will strengthen our common ground with hunters and be able to bolster solidarity efforts aimed at ending the trapping of wild buffalo for good. Unfortunately, the limited landscape where buffalo are allowed to roam facilitates highly unethical hunting practices which not only manifest in the gunning down of wild buffalo at Yellowstone's borders, but forces the buffalo to flee back into Yellowstone and become trapped by park officials. In the midst of such management madness, wild buffalo have nowhere to roam in the Gardiner Basin without being shot by hunters or captured for slaughter by Yellowstone.

Mark your calendars and please join us for our upcoming Week of Action, February 14 - 20, 2017. We are planning events in southwest Montana towns, and there will be a national event for everyone, everywhere to take part in. We welcome your ideas and we need your energy and participation! More details will be announced on our website (above) in the coming weeks. **For more details and exact times, please visit our events calendar.**

Planting A Garden In Your Mind

By Frosty Wooldridge

The words you use define your mental acuity. The thoughts you think plant seeds that grow in your mind. By engaging positive words and thriving thoughts—you propel your mind toward a bountiful harvest of daily living. Plant these ideas into your mind for a renewal of your life, your energy and your outcomes.

In America today, you notice an endless stream of teens, college kids and employees looking down into their Smart phones.

At bars, women line the dance floor with a white light shining up into their faces from their phones as they stare into cyberspace. Many people walk into the woods with ear buds stuffed into their heads to vanquish any notion of a singing cardinal, chirping black bird or rippling of the rapids from a cascading stream.

They use their thumbs to write messages to some other person looking down into his or her phone awaiting communication blurted in truncated words. One aspect they all share in common: they cut themselves off from interacting with fellow human beings, friends and their community.

Such addictions create solitude; ultimately they create spiritual disconnection from life and finally, loneliness from personal contact.

We humans arrived at this juncture in history via a tribe, clan and/or community. We raised our children in the cultural container founded on human interaction, face-to-face and eye-to-eye.

In order to function, we need heart connection to our surroundings.

We need emotional attachment to other human beings. We need to feel a belonging in order to function positively in the world.

For parents willing to plant vibrant seeds in the gardens of their children's minds, they must leave the Smart phone on the kitchen table. Play with their children at the park. Laugh while pushing them ever higher on the swing or race them down the slides or spin on the merry-go-round. While out there in the park or on a hike in the woods, take off your shoes and thrust your feet into the cool grass. Slip

out of your socks and plant your feet on a solid rock or into some moist sand. Reconnect your spirit with the vibrations of the universe. Enjoy a meaningful conversation with a friend while enjoying your connections to Mother Earth. Instead of living inside the pitiless confines of a Smart phone, engage a child, stranger or friend in face-to-face conversation.

If you ever notice a "seed catalog," the editors show you the results of the seeds via the bouquet of flowers. They invite you to see the results of what you plant in your garden.

The same applies with your mind. If you plant solitude via addiction to a Smart phone, you reap the coldness and lack of personal connection afforded by a face-to-face conversation.

You possess the power of decision. You infuse life with your love, empathy and creative energy. You may bring a message of empowerment by your personal interaction with others.

Therefore, choose what you plant in your mind.

Plant happiness in your mind's garden and express that flowering in your daily connection with others. A simple compliment to the grocery store cashier about her earrings brings a smile. A compliment to your neighbor about his beautiful wooded property ushers special vibrations of happiness.

• Plant joy in your mind's garden by celebrating a windy day by flying a kite in the local park. Share your Girl Scout Cookies with a homeless person on a street corner. Feed the ducks at the local pond or volunteer at the animal shelter.

• Spread good will in your home and community by your words and actions. Attend a city council meeting with ideas for improvements in the downtown area. Remember that you create the container of community whereby men, women and children flourish by flowers you plant in your mind.

When they flourish, your happiness, joy and good will spread to the four corners of the world.

Www.HowToLiveALifeOfAdventure.com
Www.frostywooldridge.com

Editor's Note: Random acts of kindness can be a regular practice for each day. Solitude can have its benefits and serve for an inner reflection/communion with your soul. Ignore and remove yourself from toxic/negative people.

Nix On The Nature Police

By Tina Deines

I've read a handful of opinion pieces recently by self-appointed nature experts who assert that other people are doing wilderness or the outdoors 'wrong.'

With the emergence of the video game ***Pokémon Go*** last summer, for example, many teens and young adults made their way for the first time into national parks, wildlife refuges and other natural areas to capture their virtual prizes. In turn, many older folks snorted that those young people were missing the point of nature.

I've noticed a similar sentiment regarding other ways in which the younger generation spends time in the outdoors. Critics complain that young people take too many selfies, do not engage in enough self-reflection, pack inappropriate and expensive gear, and talk too much.

But this is not just about a younger tech-connected generation versus an older, more traditionally inclined group of nature enthusiasts. There's also a growing divide among bikers, runners, horseback riders, car campers, backpackers and recreational hikers. The prevailing opinion among outdoor recreationists seems to be, 'I'm doing it right, and the rest of you are doing it wrong.'

Nowadays, it seems, everyone has an expert opinion about how nature 'should' be enjoyed.

To that, I say, hogwash. I have a friend who rarely goes outside. He is a self-professed 'nature hater,' tough as this is for many of us to imagine. But when he started playing ***Pokémon Go***, things changed. For the first time, he began spending long periods of time outdoors.

'There are a bunch of Pokémon nerds here at the City Park,' he once texted me. I, on the other hand, enjoy backpacking silently through some of the wildest parts of New Mexico. I loved slogging my way through every one of New Mexico's wilderness areas in 2014. My friend may not have been there, but at least he has now found a way to connect with the outdoor world - never mind that it's not my way.

Even as a wilderness trekker, I'm sure I'd bring scorn down upon myself if I encountered nature snobs out in the wild - the kind of people who would disapprove of my landscape selfies or my need to type random notes on my iPhone. (Nature inspires me to write, which I do using a lightweight device.) Does using my phone make me less valid as a hiker?

There is no one way to appreciate and enjoy nature, and I believe that as long as visitors are not harming the environment or ruining another person's experience, they should be allowed to interact with the wild in the way that best suits them, without being judged for it.

The U.S. Forest Service alone manages 193 million acres of trails, developed recreation sites, streams, ski areas, heritage sites, byways, recreation and scenic areas, wilderness, wild and scenic rivers and national monuments. They were designed to be diverse and deserve to be appreciated in equally diverse ways.

I recognize that there are complex issues involved in outdoor recreation. The battle over whether bikes should be allowed inside designated wilderness is a contentious one, which at its core questions the interpretation of the Wilderness Act itself. On one hand, it opens a Pandora's box: If mountain bikes are not considered motorized transportation, then what about other 'non-motorized' vehicles? Must one person's outdoor experience be sacrificed for another's? Besides, some bikers would argue that their chosen form of recreation causes fewer impacts than horseback riding.

Recreationists do cause impacts, and littering, altering or creating new trails, and disturbing wildlife are all crimes worthy of scorn from the outdoor police. But people who enjoy the outdoors in a way that suits them and does no harm? Not a problem.

So let's quit expecting others to imitate our own personal experiences and values and instead encourage them to just get outside. The West is home to hundreds of forests, along with national and state parks and monuments, and there are hundreds of ways to experience them. Whether folks are glamping (indulging in luxury camping), fishing, bird watching, hunting, hiking, adding flair to their Instagram feeds or searching for imaginary tech creatures, they are still outside, interacting with nature.

At a time when too many people are being told they don't belong in the United States, I hope the outdoor community will say there's still a place for everyone on America's public lands.

Tina Deines is a contributor to Writers on the Range, the opinion service of High Country News (hcn.org). She is an outdoor enthusiast and writer in Albuquerque, New Mexico.

Editor's Note: I completely agree with Ms. Deines and I hope more folks choose to enjoy nature in our open spaces and public lands. **Please use the policy of leaving only footprints and shooting only photos.** Respect wildlife and their homes, just as you would want others to respect your backyards or community parks.

Highlander Ad Index & Business Telephone Numbers

ADVERTISING
Graphics Galore pgs 15 303.642.0362
Highlander Monthly pgs 22,30,32 303.642.0362

ANIMAL CARE
Angels w/Paws-Cat Rescue pg 7 303.274.2264
Certified Communicator pg 5 303.447.0275
Cheshire Cat - Catios 303.642.0362
Hands, Hoofs & Paws pg 21 303.503.6068
Vet Tech Pet Sitting pg 18 303.642.0477

APPLIANCE
ProTech Appliance pg 23 303.642.7223

ART
The Silver Horse - pg 12 303.279.6313
The Rustic Moose - pg 12 303.258.3225

ATTORNEYS
JK & K, P.C. pg 12 720.943.1095

AUTOMOBILE
Carl's Corner pg 31 303.642.7144
Kysar's Place Inc. pg 25 303.582.3566
Mountain Muffler pg 6 303.278.2043

BUILDING/CONSTRUCTION
ACE Indian Peaks Hardware pg 20 303.258.3132
Arrow Drilling-pg 10 303.421.8766
Keating Pipeworks, Inc. pg 14 720.974.0023
Meyer Hardware pg 3 303.279.3393
Peter Palombo, Surveyor-pg 29 720.849.7509
RedPoint Construction pg 14 303.642.3691
Steel Structures America ins cov 970.420.7100

BUSINESS SERVICES
APT Accounting pg 16 303.642.1040
Graphics Galore pg 15 303.642.0362
Michelle Marciniak, CPA pg 8 303.642.7371
Wondervu Consulting Serv. pg 24 303.642.0433

CHIMNEY SWEEPS
MidTown Chimney pg 30 303.670.7785

CLOTHING
Mountain Man Store pg 28 303.258.3295
The Rustic Moose - pg 12 303.258.3225

COMPUTER SERVICE & REPAIR
Wondervu Consulting Serv. pg 24 303.642.0433

ELECTRIC
United Power - Inside back Cover 303.642.7921

ENTERTAINMENT
KGNU Radio pg 31 303.449.4885
Jaime Mezo Scuba Diving Cozumel, Q.Roo pg 23

ENVIRONMENTAL
The Environmental Group - tegcolorado.org

EXCAVATING
Silver Eagle Excavating pg 24 303.642.7464

FARRIER
Forbes Farrier Service pg 21 303.642.7437

FIREWOOD & FOREST MANAGEMENT
High Timber Mtn Tree Serv. pg 11 303.258.7942
Lumber Jacks - pg 26 720.212.1875

GIFTS
The Silver Horse - pg 12 303.279.6313
The Rustic Moose - pg 12 303.258.3225

GROCERIES
B & F Moutain Market pg 27 303.258.3105

GUNSMITH
Colo. Gun Rooms LLC pg 8 303.957.9964

HEALTH & FITNESS
Circle of Life pg 7 303.875.2012
Hands, Hoofs & Paws pg 21 303.503.6068
Nederdance pg 19 303.258.9427

HOME IMPROVEMENT
ACE Indian Peaks Hardware pg 20 303.258.3132
Colorado Water Wizard pg 22 303.447.0789
House Cleaning/Organizing pg 21 303.956.3532
Meyer Hardware pg 3 303.279.3393
Redpoint Construction pg 14 303.642.3691

HORSE BOARDING
Rudolph Ranch, Inc. pg 30 303.582.5230

INSURANCE
Jim Plane-State Farm- pg 25 720.890.5916

LIQUOR
Mid-County Liquors pg 27 3093.642.7686
Underground Liquor pg 15 303.582.6034

PLUMBING
Keating Pipeworks, Inc. pg 14 720.974.0023

PROPANE
Peak to Peak Propane ins cov 877.888.4788
Carl's Corner pg 31 303.642.7144

REAL ESTATE
Black Hawk-Jerry Baker pg 20 303.881.3953
Byers-Sellers Mtn Properties pg 13 303.642.7951
Mock Realty-Kathy Keating -Back cov 303.642.1133
Summit Up Property Mgt. pg 11 303.618.8266

RESTAURANTS
Ralston Road Cafe pg 16 303.420.6650
Roy's Last Shot pg 9 303.642.7870
Westfalen Hof - pg 11 303.642.3180

RETAIL
ACE Indian Peaks Hardware pg 20 303.258.3132
B & F Moutain Market pg 27 303.258.3105
Meyer Hardware pg 3 303.279.3393
Mountain Man Store pg 28 303.258.3295
The Silver Horse - pg 12 303.279.6313
The Rustic Moose - pg 12 303.258.3225

REVERSE MORTGAGES
Universal Lending Corp. pg 25 303.791.4786

RECRUITMENT
CCCFPD pg 17 303.642.3121

ROOFING
Independence Roofing pg 3 720.399.0355

STEEL STRUCTURES
Steel Structures America ins cov 970.420.7100

TAXES
APT Accounting pg 16 303.642.1040
Michelle Marciniak, CPA pg 8 303.642.7371

WATER & WELL
Arrow Drilling pg 10 303.421.8766
Colorado Water Wizard pg 22 303.447.0789
Doctor Water Well pg 6 303.438.6669

FEBRUARY
2017

POWER UPDATE

Meet the Candidates

For members who wish to hear from each candidate in person, United Power will hold a candidate forum. All United Power members are welcome to attend the Meet the Candidates forum to learn more about each director candidate, hear from your cooperative leadership and tell us how we're doing.

Meet the Candidates

Tuesday, March 28, 2017
7:30 a.m.
Coal Creek Canyon Community Center, CCCIA Hall
31528 Highway 72
Golden, CO 80403

The Meet the Candidates event is free and light refreshments will be served. RSVPs are not required.

TUESDAY
APRIL 18, 2017

4:30 p.m. Registration Opens
6:30 p.m. Balloting Closes & Meeting Begins

Adams County Regional Park & Fairgrounds
9755 Henderson Road, Brighton, CO 80601

COOPERATIVE OWNERSHIP

United Power is a not-for-profit cooperative owned and controlled by the customers it serves. When you became a United Power customer you automatically became an owner and voting member of United Power.

United Power's members elect directors to the board by secret ballot at the Annual Meeting of Members held each spring. United Power's board members are elected from specific geographic districts to serve three-year, staggered terms. They are elected by the members at-large.

ELECTION 2017

Four positions on United Power's eleven-member board are up for election at the 2017 Annual Meeting scheduled for **TUESDAY, April 18, 2017.** The meeting will be held at the Adams County Fairgrounds at 9755 Henderson Road in Brighton. One seat in each director district (South, East, West and Mountain) will be up for a three-year term.

For more information about United Power visit www.unitedpower.com.

UNITED POWER
Your Touchstone Energy® Cooperative

Treat Your Valentine to Breakfast!
CCCIA Sponsored Pancake Breakfast
Sat. Feb. 11th, 7 AM - 11 AM at the CCCIA Hall
31528 Hwy 72, Coal Creek Canyon

10211 Ura Lane #4-201
Sweet Condo in Super Location
2 BD/ 1 BA 813 sq.ft **$97,000**

8300 Spirit Horse
Bring Your Dreams, Solar.
11.43 Acres **$145,900**

11693 Hillcrest Road
Remodeled Raised Ranch on 1 Acre
3 BD/ 3 BA 2,088 sq ft **$379,000**

3491 Gross Dam Road
A Slice of Mountain Privacy
38.92 Acres **$189,000**

5883 Noble Court
Gorgeous Views - Gorgeous Home
4 BD/ 4 BA 4,648 sq.ft. **$605,000**

34060 Skyline Drive
Beautiful Mountain Home
3 BD/ 3 BA 2,863 sq.ft. **$499,000**

1055 Divide View
Fabulous Custom Home
4700 sq.ft. Home on 2 Acres

33966 Nadm Drive
City Lights Twinkle Below
1.08 Acres **$75,000**

0 Tiber Road - Land
Two Adjacent Lots
1.88 Acres **$68,000**

11662 Hillcrest Road
Great Updated Home
2 BD/ 1 BA 1,152 sq ft **$315,000**

2126 Apex Valley Road
Home on North Clear Creek
3 BD/ 2 BA 1,406 sq.ft. **$310,000**

118 Gap Road
Fantastic Mountain Retreat
5 BD/ 4 BA 2,670 sq.ft. **$610,000**

3174 Coal Creek Canyon Drive
Cozy Home next to S. Boulder Creek
2 BD/ 2 BA 1,770 sq.ft. **$189,000**

TBD Green Ranch Road
Beautiful Mountain Property
37.05 Acres **$375,000**

BUY OR SELL A HOME WITH Kathy Keating or Susan Peterson and use the moving truck for FREE

Kathy Keating,
CRS, ABR, GRI
EcoBroker,
Broker Associate
303.642.1133

For additional information and photos:
www.kathykeating.com
kathykeating@mockrealty.com
susanp@mockrealty.com

MOCK REALTY

Susan Peterson
Broker Associate
303.497.0641