

High Country News

For people who care about the West



When the Doctor is Out

As hospitals close and country doctors pack up their bags,
communities search for a new prescription to keep people — and towns — healthy



Connor Smith, 12, is examined by Charley Marshall, LVN, at the Dos Palos Memorial Rural Health Clinic in Dos Palos, California, where the hospital closed due to financial problems. MICHAEL MCCOLLUM

On the cover

A clinic employee enters an exam area at the Dos Palos Memorial Rural Health Clinic in Dos Palos, California. MICHAEL MCCOLLUM



Complete access to subscriber-only content

HCN's website
hcn.org

Digital edition
hcne.ws/digi-4815

Follow us



FEATURE

- 12 **A Rural Health Care Checkup**
 - 12 Lessons from the Central Valley By Elizabeth Zach
 - 14 A video cure for rural health care's challenges By Leah Todd
 - 16 The widening gaps By Paige Blankenbuehler
 - 16 Rural New Mexico hospitals pool resources to survive By J.R. Logan
 - 18 A fix for the 'catch-all' emergency room? By Leah Todd

CURRENTS

- 5 **Endangered species triage** Buried in petitions to list new species, the Fish and Wildlife Service proposes a system for prioritizing
- 5 **The Latest:** Self-bonding for coal mines
- 6 **Climate correspondent** Decades of recording weather in New Mexico
- 7 **More fires, fewer fighters** Alaska's emergency wildfire crews are burning out
- 7 **The Latest:** Four Corners hotspot and natural gas production
- 8 **A conversation with Stephen Jackson** Climate science director makes case for tolerating some invasive species

DEPARTMENTS

- 3 FROM OUR WEBSITE: HCN.ORG
- 4 LETTERS
- 9 THE HCN COMMUNITY Sustainers' Club
- 20 MARKETPLACE
- 24 WRITERS ON THE RANGE
 - An electric-power giant is poised to fall By Ed Marston
- 27 ESSAY Slaughter of the Innocents By Rita Clagett
- 28 HEARD AROUND THE WEST By Betsy Marston

Editor's note

It's all about access

The allure of endless skies, vast tracts of land and delicious solitude has drawn people to the American West since the days when covered wagons constituted innovative technology. Self-reliance and access to the outdoors remain entrenched in the ethos of rural Western life. Love thy neighbor, sure, but also cherish the ability to escape him, to vanish into the hills or fields when the spirit catches you. Seclusion is a perk.



Too often, however, the epic distances and luxurious privacy that make the rural West so appealing impede the provision of health care. People who could see a doctor immediately in a city find themselves driving hours for basic services. The need for emergency care necessitates life-saving helicopter flights that cost tens of thousands of dollars.

Rural counties struggle to attract top-notch doctors, nurses, physician assistants and other providers, and the grinding poverty that pervades many remote areas bankrupts hospitals and clinics — even as it contributes to more, and more serious, illnesses and injuries. Access to mental and behavioral healthcare is particularly lacking: According to the National Rural Health Association, men — and, increasingly, women — in rural areas suffer far higher suicide rates than their urban counterparts.

In New Mexico and Colorado, these interrelated challenges are particularly vexing. In 2015, America's Health Rankings rated New Mexico 37th in overall health nationwide — a four-spot downgrade from its 2014 performance. The data are especially troubling at a granular level: The state ranked 40th nationally in diabetes rates, 43rd in the percent of children living in poverty, and 49th in violent crime. Even worse, New Mexico has just one primary care provider for every 1,099 residents, far below the national average.

Over the past several months, *High Country News* has worked in collaboration with the Solutions Journalism Network and six news organizations to produce stories of change in rural communities in Colorado and New Mexico. In this issue, this "Small towns, big change" project tackles health care — both the challenges created by lack of access, and the people and institutions striving to bridge the gaps.

You'll read about hospital closures in California's Central Valley, as well as New Mexico's burgeoning "teletroke" program, a promising new approach that allows doctors to care for stroke patients in local hospitals rather than flying them to Albuquerque. You'll also read about a rural medical network in the state that is increasing the purchasing power of cash-strapped hospitals. You'll travel to Alamosa, Colorado, where a so-called "Crisis Living Room" is treating mental health patients without costly and counterproductive trips to the emergency room.

Explore the West's rural health challenges with "Small towns, big change," both in this issue and online at hcn.org. May you read them in good health.

—Ben Goldfarb, Project editor, Solutions Journalism Network/High Country News



The Blue Cut Fire races toward a camper and a pickup near Devore, California, in mid-August. Moments later, the vehicles were engulfed in flames. DAVID PARDO/THE VICTOR VALLEY DAILY PRESS VIA AP

The West's new wildfire normal

This summer has been a harbinger of the West's new reality: Wildfire season is longer and more volatile than ever, thanks to climate change. Wildfire seasons in the Northwest and Southwest now overlap, straining shared national wildfire resources and making fires more difficult to manage. This year, drought-ridden Southern California has suffered the worst. Fires had ripped through tens of thousands of acres in the state by the first week of June. Prolonged drought and the above-average rainfall during El Niño that dried up this summer have created a buildup of wildfire fuel. The most explosive fire so far has been the Blue Cut Fire in San Bernardino County, which burned at an unprecedented rate, destroying 37,000 acres and hundreds of structures, and forcing over 80,000 people to evacuate.

LYNDSEY GILPIN and TAY WILES

MORE: hcne.ws/west-wildfires and hcne.ws/cajon-pass

Trending

Biking in wilderness bill

For months, a pending bill that would open wilderness to mountain bikes has divided the outdoor recreation community. The bill, introduced by Utah Republican Sens. Orrin Hatch and Mike Lee, would give federal and local officials two years to determine which areas should remain bike-free. In an opinion piece, John Kelley writes that the timeline is unrealistic, given the necessary environmental reviews, and that advocates falsely "obfuscate any difference between walking and riding." He says the bill runs counter to the original Wilderness Act's promise to protect landscapes from "growing mechanization."

JOHN KELLEY

You say

GARY F. LEHR

"The wording of the Wilderness Act is pretty clear. No mechanical advantage."

PATRICK J. CUSICK

"The bike restrictions in the Wilderness Act hit us pretty hard in southwest Idaho last year, when a wilderness designation in the Boulder-White Clouds cut us out of an iconic mountain biking trail."

MICHELE JOHNSON

"Read the wilderness restrictions and know there are millions of equally beautiful miles of national forest where all manner of use is welcome. The wilderness areas are small in comparison. ... Protection is not discriminatory and vilifying other users is not the answer."

MORE: hcne.ws/smokescreen-wild and [Facebook.com/highcountrynews](https://www.facebook.com/highcountrynews)

Wildlife watch



90

number of wolves from Alaska's Yukon-Charley Rivers National Preserve killed by state wildlife officials since 2005.

13

number of those killed that were radio-collared and being monitored by the feds.

28

number of radio-collared "Judas" wolves used by the state to help locate and kill other wolves.

Documents made public in August revealed that the National Park Service ended its decades-long wolf study in Alaska's Yukon-Charley Rivers National Preserve because so many wolves had been killed by the state's Department of Fish and Game. Three wolf packs were eliminated, and five were reduced to a single wolf each. The state says it's limiting the predators to allow for healthy caribou and moose herds, which some Alaskans rely on for sustenance. Meanwhile, in Denali National Park, the famous East Fork wolf pack has disappeared.

ANNA V. SMITH MORE: hcne.ws/wolfstudy-end



"Consequently, the 2016 Conservation Strategy will remain in effect indefinitely ... to facilitate and assure continued successful management of the population and its habitat across multiple land ownerships and jurisdictions."

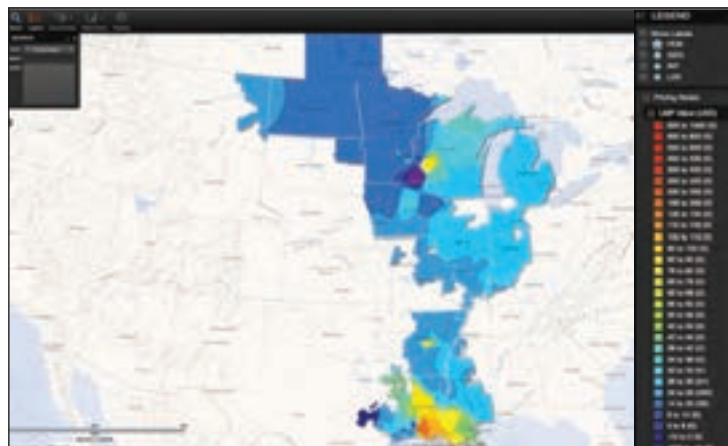
—The Interior Department, in its preliminary ruling on Yellowstone grizzly bears. In May, the Yellowstone states submitted a letter arguing that the ruling gives the feds too much power, and objecting in particular to the use of "indefinitely" or "in perpetuity." The letter states: "There are references to requirements that transcend the ESA's authority and are unduly prescriptive for management ... contrary to Congress' delineation between federal authority under the ESA and traditional state wildlife management authority."

GLORIA DICKIE MORE: hcne.ws/grizzlies-safeguard

A renewable-friendly grid?

In much of the country, energy traders rely on high-tech price monitoring and computerized markets (example at right). But in the West, the market is stuck in the 1980s. There's no central place to find prices and send electricity through the grid where it's needed; where other regions have cohesive grids, the West has 38 separate markets. An expanded Western grid could boost renewables by allowing trading across state lines and preventing waste. In July, a California wholesale energy entity released a study showing that an expansion could save the state as much as \$1.5 billion in electricity costs by 2030. The implications for the rest of the West are less clear.

MARK JAFFE MORE: hcne.ws/space4renewables



Real-time energy prices in the Midcontinent Independent System Operator footprint, as seen on their locational marginal pricing (LMP) contour map. Energy traders can watch for the purples and dark blues, which indicate lowest prices, while orange to red are higher. SCREENSHOT MISOENERGY.ORG

High Country News

EXECUTIVE DIRECTOR/PUBLISHER
Paul Larmer
MANAGING EDITOR
Brian Calvert
SENIOR EDITOR
Jodi Peterson
ART DIRECTOR
Cindy Wehling
DEPUTY EDITOR, DIGITAL
Tay Wiles
ASSISTANT EDITOR
Kate Schimel
D.C. CORRESPONDENT
Elizabeth Shogren
WRITERS ON THE RANGE
EDITOR Betsy Marston
ASSOCIATE DESIGNER
Brooke Warren
COPY EDITOR
Diane Sylvain
CONTRIBUTING EDITORS
Cally Carswell, Sarah
Gilman, Glenn Nelson,
Michelle Nijhuis,
Jonathan Thompson
CORRESPONDENTS
Ben Goldfarb, Krista
Langlois, Sarah Tory,
Joshua Zaffos
EDITORIAL FELLOWS
Paige Blankenbuehler
Lyndsey Gilpin
INTERN Anna V. Smith
DEVELOPMENT DIRECTOR
Laurie Milford
MAJOR GIFTS OFFICER
Alyssa Pinkerton
DEVELOPMENT ASSISTANT
Christine List
SUBSCRIPTIONS MARKETER
JoAnn Kalenak
WEB DEVELOPER Eric Strebel
DATABASE/IT ADMINISTRATOR
Alan Wells
DIRECTOR OF ENGAGEMENT
Gretchen King
FINANCE MANAGER
Beckie Avera
ACCOUNTS RECEIVABLE
Jan Hoffman
CIRCULATION MANAGER
Tammy York
CIRCULATION SYSTEMS ADMIN.
Kathy Martinez
CIRCULATION
Kati Johnson, Pam Peters,
Doris Teel
ADVERTISING DIRECTOR
David J. Anderson
AD SALES REPRESENTATIVE
Bob Wedemeyer
GRANTWRITER Janet Reasoner
editor@hcn.org
circulation@hcn.org
development@hcn.org
advertising@hcn.org
syndication@hcn.org
FOUNDER Tom Bell
BOARD OF DIRECTORS
John Belkin, Colo.
Chad Brown, Ore.
Beth Conover, Colo.
Jay Dean, Calif.
Bob Fulkerson, Nev.
Wayne Hare, Colo.
Laura Helmuth, Md.
John Heyneman, Wyo.
Osvel Hinojosa, Mexico
Samaria Jaffe, Calif.
Nicole Lampe, Ore.
Marla Painter, N.M.
Bryan Pollard, Ark.
Raynelle Rino, Calif.
Estee Rivera Murdock, D.C.
Dan Stonington, Wash.
Rick Tallman, Colo.
Luis Torres, N.M.
Andy Wiessner, Colo.
Florence Williams, D.C.

DANGERS OF
PRIVATIZING PARKS

What will areas administered by the National Park Service become (HCN, 8/22/16)? Will the enormous shortage of congressional appropriations undermine a century of relative stability? Fifty years ago, massive infrastructure improvements were made under a program called Mission 66, but no such program has existed since. Congress got in the habit of not fulfilling appropriations requests — there were wars to be fought — yet use of the parks expanded. Very quickly, the Park Service realized it could sort of get the work done with volunteers. As that program grew, Congress seems to have regarded the success of volunteerism as a substitute for appropriations. Into this vacuum of congressional support, corporate and private stewardship is stepping. Some years ago, a major motor vehicle manufacturer funded the restoration of Glacier National Park's red buses. Subaru is very visible in its support this centennial year. At Gettysburg National Military Park, each of the approximately 2.5 million people who enter the visitors center will pay a \$12.50 entry fee because the center is owned and operated by a private foundation. Is this the direction we want the management of “the best idea this country ever had” to go? Once the door is opened to privatization and there is money to be made, the national parks as we have known them will be but a memory.

Peter Thompson
Hobart, Washington

TRAINING GROUNDS
FOR CLIMATE SCIENTISTS

Thanks for a great profile of Patrick Gonzalez, National Park Service climate scientist (“Climate change scientist walks the walk,” HCN, 8/22/16). His story is a good walk all the way. Let me add that his Ph.D. was actually earned through the Energy and Resources Group at UC Berkeley, where a good number of climate scientists with an emphasis on ecology have been trained.

Richard B. Norgaard, Professor
Emeritus of Energy and Resources
University of California, Berkeley



GEOLOGY OF POWER

In Paige Blankenbuehler's article on Diablo Canyon in your Aug. 22 issue, I was surprised that there was no mention that this nuclear station is located near the San Andreas fault. A few decades ago, I was staunchly opposed to nuclear power. After becoming aware of the contribution of fossil fuel-burning power plants to climate change, my opinion began to shift. The French produce around 80 percent of their power with nuclear and have a stellar safety record. They even recycle and use spent fuel from other countries.

After the tsunami hit Japan, I was amazed to learn that they had such a huge nuclear station on islands that are part of the Pacific Ring of Fire. In any areas that are considered to be geologically stable, I now believe that nuclear power can be an excellent “bridge” to the future. Maybe we should consider the common sense of how our power needs to be produced based on location. I vote to sell Japan natural gas from Colorado, rather than have radioactive materials wash up on my favorite Oregon beaches. And, who decided to build the Diablo Canyon Nuclear Station near a major fault zone?

David Poling
Grand Junction, Colorado

BURNING QUESTIONS

I feel that Jane Braxton Little told a very incomplete story of how fire danger relates to beetle-killed trees (“Forest fatalities,” HCN, 8/8/16). Granted, after the needles have fallen off beetle-killed trees, they are less susceptible to forest fires than live trees, but the process of

needles falling off takes about four years. Then, about 20 years later, when dead branches and tops start falling out, the forest enters another very flammable period. So, yes, there is a period following beetle epidemics when forests are less flammable, but on either side of it there is a period of higher fire danger. Braxton Little accurately reported what a few scientists have to say about flammability of beetle-killed trees, while ignoring the

work of many others on this subject. I looked up what the Rocky Mountain Research Station of the U.S. Forest Service has to say: Dead needles have 10 times less moisture than green ones, ignite four times faster, and increase the risk of spotting ahead of the fire. There is a tendency among environmentalists to embrace the science that supports a “no harvest, no management” alternative. This seems to be that.

John Marshall
Wenatchee, Washington

REAPPORTIONMENT, HAWAIIAN STYLE

Your June 13 issue reminded me of my years on Hawaii, where, despite the good intentions of the Bishop Estate's huge land distribution, the powers that be created conditions similar to what you describe in the present Navajo system (“Disenfranchised in Utah,” HCN, 6/13/16).

Bishop lands were in trust, to be divided in half for each succeeding Native Hawaiian generation, provided that the recipient can trace his ancestry back and still has 51 percent Native blood. But given the wonderful “melting pot” cultures, stretching back to Asian cane-worker imports and subsequent interracial marriages, very few such “pure” lineages still exist. The sad result is that the administrators of trust lands are enriching themselves at the expense of the intentions of Mrs. Bishop's will, created for the sole purpose of helping impoverished, disenfranchised peoples regain control of what had been taken away from them by the white *haole* landowners in less than a century.

Robert (“Lopaka”) Cross
Former editor, California Life Magazine

High
Country
News



High Country News is a nonprofit 501(c)(3) independent media organization that covers the issues that define the American West. Its mission is to inform and inspire people to act on behalf of the region's diverse natural and human communities.

(ISSN/0191/5657) is published bi-weekly, 22 times a year, by High Country News, 119 Grand Ave., Paonia, CO 81428. Periodicals, postage paid at Paonia, CO, and other post offices. POSTMASTER: Send address changes to High Country News, Box 1090, Paonia, CO 81428. All rights to publication of articles in this issue are reserved. See hcn.org for submission guidelines. Subscriptions to HCN are \$37 a year, \$47 for institutions: 800-905-1155 | hcn.org

Printed on
recycled paper.

Endangered species triage

Buried in petitions to list new species, the Fish and Wildlife Service proposes a system for prioritizing

BY CALLY CARSWELL

Right now, in the Black River south of Carlsbad, New Mexico, rare Texas hornshell mussels are trying to multiply. It's a bizarre and complicated process: Male mussels spit sperm into the river, where the females catch it. After brooding fertilized eggs for about a month, they chuck the larvae into the water, too. There, the would-be mussels hope to be eaten by certain kinds of fish, attaching to their gills and forming parasitic cysts. Then they develop into juveniles before cutting loose from the fish and wriggling to the river bottom, where they can live for up to 20 years.

Texas hornshells are native to the Pecos and Rio Grande basins of southern New Mexico and Texas, where they help maintain water quality by filtering out sediment and other particulates. They're the only surviving species of New Mexico's eight native mussels, and the stretch of river near Carlsbad is one of their last strongholds.

Their troubles are nothing new, though. In 1989, the U.S. Fish and Wildlife Service classified the Texas hornshell as a candidate for the endangered species list, but it had too little information about them to support listing. In 2001, after studies showed that the mollusks were being harmed by low flows in rivers and water pollution, the agency decided protection was justified. But it still couldn't list them because too many other, higher-priority species also needed protection. Now, the mussel's time may have finally come: In August, the agency proposed listing it as endangered.

Most species that have landed on the endangered species list in recent years got there when they did as a result of litigation by green groups, and the Texas hornshell mussel is no exception. Almost no one is happy with this pattern, though. "(If) the Service is simply responding to lawsuits, it's not being very strategic," or necessarily focusing on the plants and animals in greatest need, says Ya-Wei Li, an endangered species expert with Defenders of Wildlife. So Fish and Wildlife



Texas hornshell mussels from the Black River in New Mexico.
JOEL LUSK/USFWS

is now working to reform its process for listing species.

It has proposed prohibiting so-called "mega-petitions," where environmental groups ask the agency to protect up to hundreds of species at a time, and it recently finalized a new five-tier system for prioritizing decisions on petitions. First in line are species that data clearly show are critically imperiled. Lower down are species for which states are already developing conservation plans, as well as species the agency lacks data on.

The agency simply can't keep up with all the petitions it gets to list species, says Fish and Wildlife spokesman Brian Hires. Environmentalists filed petitions on behalf of 1,230 species between 2007 and 2010, enough to almost double the number protected by the Endangered Species Act over the previous 30 years. The overwhelmed agency rarely meets its own deadlines for responding, and so environmentalists often sue in response.

The mussel is one of 757 species included in a 2011 legal settlement with the Center for Biological Diversity, in which the agency agreed to deadlines for clearing its considerable backlog. "The states have been frustrated, because we feel like litigation shouldn't drive conservation," says Nick Wiley, vice president of the Association of Fish and Wildlife Agencies. Wiley says states — the feds' main partners in endangered species work — are generally pleased with the planned reforms, which they hope will help them prioritize their own data collection and

conservation work.

Some environmental groups are also supportive. "This is a very good move for the Service to take control of its own destiny," says Li. But others argue that the reforms could consign at-risk wildlife to bureaucratic purgatory. "It creates excuses for ongoing delays in decisions on whether species should be protected," says Tierra Curry, senior scientist with the Center for Biological Diversity. She fears that lower-priority species will slip closer to extinction while they wait for conservation plans or studies that could bump them up in line.

The system also "biases decisions towards popular and well-studied species," she says, mainly birds and mammals. But some of the most imperiled groups are also the least studied — freshwater mollusks, for instance. The fact that we understand the outlines of the Texas hornshell's lifecycle makes it fairly unusual among mollusks, Curry notes: For many of the creatures, basic population data doesn't even exist.

Mussels, snails and insects may well get shortchanged under the new system, Li says. In a perfect world, Fish and Wildlife would be flush with funding, and wouldn't need to prioritize. "Nobody likes to make those judgment calls," he says. But relative to the number of species it's charged with saving, the agency's funding is *decreasing*, not increasing, he points out. One way or another, "there are going to be species that come out ahead, and some that fall behind." □

THE LATEST

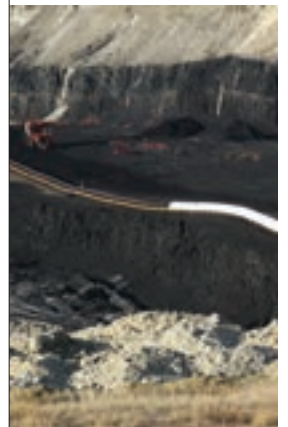
Backstory

Three of the nation's largest coal companies, Peabody Energy, Alpha Natural Resources and Arch Coal, filed for bankruptcy this year. All three are self-bonding, meaning that rather than posting cash or bonds up front to restore damaged land and water sources, they promised to pay after the mining was finished. Now they may lack the funds to cover their reclamation responsibilities, potentially leaving taxpayers stuck with billions of dollars in cleanup bills ("Coal company bankruptcies jeopardize reclamation," *HCN*, 1/25/16).

Followup

In early August, the **Office of Surface Mining Reclamation and Enforcement released its first-ever policy advisory, warning state regulators against letting more companies self-bond.** It also promised to tighten self-bonding rules to ensure that companies can cover the costs of reclaiming disturbed land. The agency says it plans to evaluate the energy market and a company's financial state before approving self-bonds, and may create incentives to encourage timely reclamation.

ANNA V. SMITH



GREG GOEBEL/CC FLICKR

Contributing editor Cally Carswell writes from Santa Fe, New Mexico. [@callycarswell](#)

Climate correspondent

Seven decades of recording the weather in New Mexico

BY BRYCE GRAY

Uncommon Westerner

Name

Anna Mae Wright

Age

89

Hometown

Redrock, New Mexico

Vocation Housewife, farmer, volunteer weather monitor for the National Weather Service

Most recent recognition for weather observations

In November 2012, she received the National Weather Service's Ruby Stuft Award, which is "presented to any observer attaining 70 years of service."

In many households, 6 p.m. means dinnertime. But for 89-year-old Anna Mae Wright and her family, that hour marks another daily routine, stretching back more than seven decades: "Weather-reading time."

Since the late 1940s, each evening Wright has faithfully documented the temperature, precipitation and other meteorological data outside her home near Redrock in southwestern New Mexico, using equipment installed by the National Weather Service. Over the years, the recording process has become a staple of daily life, fit in alongside tending the garden's tomato plants, crocheting and knitting, and sending her four kids to school — at first in Redrock, a tiny, unincorporated outpost on a remote stretch of the Gila River, and later, 30 miles away in Lordsburg, after the local school closed due to low enrollment.

Former HCN intern Bryce Gray covers energy and the environment at the *St. Louis Post-Dispatch* in Missouri. [@_BryceGray](#)

Wright began the ritual with her husband, Ralph, recording the 24-hour highs and lows and other readings on their 320-acre farm and mailing monthly reports to the National Weather Service. Since Ralph's death in 1997, she has carried on the tradition mostly alone, sometimes helped by her 60-year-old son, Bill Wright. She now ranks as the West's longest-serving member of the Weather Service's Cooperative Observer Program, a network of more than 9,000 volunteers nationwide.

"The rural folks, they're the most interested," says Frank Kielnecker, a Weather Service employee in the regional office that Wright reports to. "I've never had to call her and say, 'What's the deal? You're not reporting on time.'"

Although she has accumulated many awards honoring her decades of public service, Wright says she does not spend much time reflecting on her achievements. "I feel proud," she says. "It gives me a sense of self-worth, I guess." Her son takes pride in her dedication but sees it as entirely natural, since farmers and ranchers like them "tend to be interested

in the weather anyway."

Though their work remains largely anonymous, the cooperative observers are providing crucial information about global climate change. The crowd-sourced approach allows for precise data to be gathered from far-flung corners of the West, such as Redrock, and — in cases like Wright's — provides a continuous record for which there's no substitute.

"It's a long-term climate record at some very remote locations," says Kielnecker, making it especially valuable to researchers who typically consider even 30 years a suitable window to examine climate trends. The records collected by volunteers make a difference on a local level as well, forming the most comprehensive daily source of temperature and precipitation readings. Short-term forecasts and even warnings for severe weather are often based on observer data, which are uploaded to the National Climatic Data Center in Asheville, North Carolina, each month, and entered into a massive database that's available to the public.

Wright's routine has rarely varied over the years, although she no longer sends in written monthly reports. In 2006, she started submitting information by computer, after the Weather Service outfitted her with the appropriate equipment.

While her rhythm has remained constant, regional data show that the climate itself seems to be shifting on her watch. Average annual temperatures in the Weather Service's Southern Desert Climate District of New Mexico reflect a steady climb, with the five warmest years all occurring since 2000 — including the sweltering years of 2014 and 2015. Yearly averages over the last 15 years have regularly been higher than those observed from 1901 to 2000, often by at least two degrees.

Unfortunately, weather observers like Wright are becoming increasingly rare, says Kielnecker, as rural communities lose population and fewer people maintain a lasting attachment to the land. "People don't stick around anymore in a rural place as long as Ms. Wright has," Kielnecker says, noting that participation in the Cooperative Observer program has tapered off in southern New Mexico.

But the steady stream of data from Redrock shows no signs of slowing down. Wright is still making meticulous notes about everything she observes from her ranch house — rain, snow, sleet, lightning, hail. Her son, Bill, has taken over the family farm and says he'll also take over weather-recording duties whenever her career draws to a close.

That could be a while, yet. "I think I'll stay with it as long as they want me to, as long as I'm able to," says Wright. "I like it." □



Anna Mae Wright checks the weather each day, then records data like temperature, precipitation and snow depth. On Aug. 19, the high temperature was 92 degrees Fahrenheit and the low was 57, with no precipitation. JAY HEMPHILL



Members of the Fairbanks #1 crew fight the Tetlin River Fire in June. The crew worked four fires this season. SAM HARREL/ALASKA DNR

More fires, fewer fighters

Alaska's emergency wildfire crews are burning out

BY GLORIA DICKIE

Now machines tow caribou-hide toboggans across the Arctic landscape on a clear March morning. In the distance, sled dogs yelp in chorus, surrounded by shivering visitors from the Arctic Council, here to watch dogsledding, an Alaskan pastime. It's just 10 degrees out, but all Ed Alexander can talk about is how warm it's been. So warm, he says, that wildfires started in February.

Wildfire is part of life in Alaska's rural interior. During summer, it's not uncommon for more than 2,000 lightning strikes to touch down in a single day, igniting the dry, hot lowlands. Emergency Firefighter Type 2 crews, consisting primarily of local Alaskan Natives, typically serve as the first line of defense against conflagrations. "Most people here have fought wildfire in some form throughout their lives," says Alexander, who served eight years with the Denali Hotshots and is now the Yukon Flats Center coordinator at the University of Alaska.

Yet more and more would-be-firefighters are seeking economic opportunities elsewhere, leaving remote villages vulnerable to wildfires made more intense by climate change. Many wonder how much longer Native villagers can be protected from flames and smoke before they're forced to flee for good — a new wave of climate refugees.

Alexander is based out of Fort Yukon, an Alaska Native village, population 600, at the junction of the Yukon and Porcu-

pine rivers, about 145 miles northeast of Fairbanks. It epitomizes the challenges facing local communities.

Lately, lightning strikes have been starting in April, roughly two months ahead of time. Lightning ignites most fires here, and climate change has made the area increasingly flammable — since 1949, Alaska has warmed by about 3.5 degrees Fahrenheit. The fire season has grown by about four days per decade, and the state recently moved the official start date from May to April. Last year, more than 5.1 million acres burned, second only to 2004, when fires blackened 6.6 million acres in the Frontier State.

The fires have come perilously close to villages, where escape by road is often impossible. Bush pilots have spoken about the difficulties in getting people out in the wake of thick smoke, and last summer, residents of Nulato, downriver from Fort Yukon, had to evacuate by boat when fire threatened their community.

This remoteness makes first responders — the Type 2 EFF crews — even more essential. With close ties to the land and each other, Native crews are "a little bit more dialed in on everything from weather patterns to bear-proofing fire camps," says Matt Kilgriff, the Bureau of Land Management's Galena Zone EFF coordinator. Alaska's fuels and terrain are different from the Lower 48's, and that gives locals the upper hand over hotshots in unfamiliar territory. Moreover, the jobs are an economic boost for communities where unemployment can reach 90 percent.

"The economic benefits of EFF crews in these communities is huge," says Louis

Silas, wildland fire program manager for the Council of Athabaskan Tribal Governments. In a busy year, an EFF crew member can expect to take home roughly \$20,000 by the end of the season, enough to get a family through a long winter.

Despite the benefits, though, in the past decade crew numbers have fallen by about half in remote communities, says Kent Slaughter, a manager of the Alaska Fire Service. Three years ago, Upper Yukon had 10 emergency firefighting crews. Today, only four remain — two in Fort Yukon and two in Venetie. As Silas, a half-Athabaskan Native who fought fires for 17 years, explains, "There's just not enough people and not enough interest."

While some have left for energy jobs on the North Slope, others, Silas thinks, have been discouraged by the work's unpredictable nature. People are reluctant to fulfill the physically arduous training requirements if they're not going to get called out on assignment, especially if steadier work is available at local schools or state fish and game agencies. Moreover, many Alaska Natives are subsistence hunters, and all too often the fire season collides with fishing season. "If it's a choice between going out on assignment and going out and fishing for your family, it's very tough," says Kilgriff. "The fish don't last forever, but the fire season doesn't either."

Last year's overwhelming fires, Kilgriff says, kindled a slight uptick in interest at firefighting training sessions held across the interior this past May. "A lot of people came back with new fishing nets, new guns, and new snow machines. They got people interested in fire."

Still, if the fires continue to get bigger and burn longer, more firefighters may not be enough, and it's unclear just how long these remote villages will remain habitable. "It's not very forgiving country," says Kilgriff, "even in the summer." □

THE LATEST

Backstory

A methane "hot spot" over the Four Corners region has puzzled scientists for nearly a decade: Concentrations of the greenhouse gas were far higher than could be accounted for by official inventories from known contributors — an underground coal mine, landfills, and oil and gas infrastructure. So in 2015, **NASA scientists began an intensive examination of energy infrastructure, geologic methane seeps exacerbated by drilling and other potential sources** ("Unlocking the mystery of the Four Corners methane hot spot," *HCN*, 8/31/15).

Followup

In August, **NASA released a study saying that the hot spot is largely due to natural gas production**. An aerial survey detected 250 individual sources, including gas wells, storage tanks and pipelines, that together account for gas emissions at rates up to 11,000 pounds per hour. Of those, just 25 "super-emitters" accounted for a quarter of all methane spewing into the atmosphere. Industry representatives dispute the findings, though, saying NASA overlooked geologic seeps to focus on oil and gas.

PAIGE
BLANKENBUEHLER

Methane and heat emitting from a gas plant in Bloomfield, New Mexico. EARTHWORKS



Gloria Dickie is a freelance science and environmental journalist based in Boulder, Colorado.

Twitter: @GloriaDickie

A conversation with Stephen Jackson

Climate science director makes case for tolerating some invasive species

BY ZACK COLMAN

The more intensively we have to manage to maintain (historical) ecosystems in a museum-piece-like context, it's no longer a natural system.

Stephen Jackson, director of the U.S. Department of the Interior Southwest Climate Science Center, reviews plant materials under a microscope.

PAIGE SCHWAHN/
CRONKITE NEWS

Stephen Jackson has a radical idea for saving the Southwest's Sonoran Desert: In places where it's already infested with invasive species, it might be best to just leave it alone. Millions of acres of the Sonoran have been overrun by highly flammable South African buffelgrass, a fire-adapted perennial that burns readily and recovers quickly, crowding out native saguaro cactus and shrubs. Land managers can't restore all those acres, says Jackson, and they shouldn't even try; taking a triage approach would let them focus more effectively on high-priority areas.

While the idea of letting an invasive grass set parts of Arizona ablaze may inflame some conservation purists, Jackson's viewpoint is shared by a growing number of ecologists who believe that, in many cases, tolerating so-called "novel ecosystems" flush with invasive species is more realistic than trying to return changing environments to a pre-industrial condition.

Accepting the presence of some invasive species will undoubtedly cause some problems in the long term, says Jackson, director of the Department of the Interior's Southwest Climate Science Center, an arm of the U.S. Geological Survey. But he and his colleagues contend that trying to com-

Zack Colman is the deputy energy and environment editor at the *Christian Science Monitor*.

🐦 @zcolman

pletely eradicate many invasive species is not only prohibitively expensive, it's often not even possible.

HCN contributor Zack Colman recently caught up with Jackson. Below is an interview with Jackson, which has been condensed and edited for clarity.

High Country News Where did the concept of novel ecosystems come from?

Stephen Jackson The general perception that was widely held among conservationists was that the goal was to make things as if humans hadn't intervened or hadn't disturbed the system. (Then came) the realization that restoring to the pre-disturbance condition was often difficult to impossible — basically prohibitively expensive in a lot of ecosystems. And then when (you have) persistent invasive species, you can't always eradicate the invaders. Environmental change also makes it hard to return to previous conditions. The other direction came from paleoecology, my own field, where since the 1960s, we have been discussing and studying ecosystems of the past that have no modern counterpart on the landscape. Some analyses of climate projections for the late 21st century, particularly under scenarios of high greenhouse-gas emissions, show combinations of seasonal temperatures and precipitation that have no counterpart in the 20th century or any time in the past.

HCN How do those climate projections reinforce the idea of novel ecosystems?

SJ Climate change is certainly taking us into new realms, into new environmental realizations. We cannot control wildfires of the magnitude that we've been seeing. Our species and our society do not have the capacity to control nature on that kind of scale. As we go further into a world of climate change and altered environments, we're less and less in a position to be able to maintain historical ecosystems. They're more and more out of sync with the prevailing environment. And then the more intensively we have to manage to maintain those ecosystems in a museum-piece-like context, it's no longer a natural system; it's an intensively managed system that's aspiring to some putatively natural standard that has become an anachronism.

HCN Do you feel like you're fighting an uphill battle? It seems to collide with the

wilderness preservation mindset of a lot of the conservation community.

SJ I was and continue to be passionate about natural areas and natural processes. But I've also come to realize some of the limitations of that whole philosophy. The whole idea of ecological novelty forces us to confront our most deeply held assumptions and values concerning what we're trying to accomplish with restoration and conservation.

(Critics say that) if we accept novel ecosystems and work within that framework, then we are prematurely declaring surrender. A more extreme version of that view is a slippery slope argument: By yielding any ground to ecological novelty, we open the door to all kinds of bad things happening and the manipulation of the process by people who really don't have the best interests of biodiversity or ecosystem services or humanity in mind. I understand that concern and agree that there is a risk of that happening, but at the same time there are ways that we can manage those risks. The other perspective that's coming in here is a reluctance to re-examine or let go of the 20th century conservation paradigm, which is to maintain things in as natural and pristine a state as possible or to restore things to as natural a state as possible.

HCN Does whether we accept novel ecosystems come down to whether we have enough money to return the land to some kind of pristine state?

SJ There are certainly extreme cases where restoring to the pre-disturbance condition is impossible — no matter how much money is spent — because the soil is gone, the toxic metals are bubbling up to the surface. In those cases, we simply have to accept that, live with it, and figure out what we're going to do with it.

Perhaps it's true that in particular settings with enough money and with enough commitment in resources we could restore something to a pre-disturbance state, and maintain it there. But it would require continual and sometimes intensive intervention. A large number of managers and decision-makers working in the field have found the principle of novel ecosystems helpful and even liberating, because it allows them a way out of what seems to them to be an impossible situation.

HCN In the Sonoran Desert, what is invasive buffelgrass doing to the ecosystem?

SJ Buffelgrass was brought in partly for mined-land reclamation, partly for livestock grazing. It's perennial and it's highly flammable. And that's very unusual — most of the grasses of the lower Sonoran Desert are annual, and they're not very flammable. It's a very effective seed disperser, and it's very successful in the kind of climate that we have here. So it's been

Please see Jackson Q & A, page 23





Join the Sustainers' Club

POWER OF THE PEOPLE

History shows us time and again that the power and passion of individual people are what fuel change and make a difference in the world. Our Sustainers' Club members are individuals whose collective contributions provide reliable support to our journalists, and they hail from every corner of the country, including Port Townsend.

One powerful way to show how much you value the important work of *High Country News* is to become a Sustainers' Club member. When you sign up to give a monthly, tax-deductible donation (at \$12/mo. or more), we'll renew your subscription for free, send you an *HCN* travel mug and add you to the ranks of Diane, Rodger, Kathy and other members like them.



Port Townsend supporters, Diane, Rodger and Kathy give monthly to *HCN*. TOM PENDLEY

“I grew up in the West and was raised with an appreciation for this extraordinary country. *HCN* exposes the threats to these lands and highlights changes that we need to implement.”

— Diane Hurd

“I love *HCN* because it keeps me up to speed on news about public land issues throughout the West. I contribute as a sustainer because I want to see *HCN* succeed in its delivery of public land and water (and other) news in an enlightened and fair way. I can't find this with any other media source.”

— Rodger Schmitt

“Public lands and natural resources of the West are one of the most valuable assets of our country. I support *High Country News* because I want to read in-depth, well-researched reporting on issues that affect these lands and people who live in the West. *Nobody* does it better.”

— Kathy Darrow

Become a Sustainers' Club member today!

Since 1971, reader contributions to the Research Fund have made it possible for *HCN* to investigate and report on important issues that are unique to the American West. Your tax-deductible gift directly funds thought-provoking, independent journalism.

Thank you for supporting our hardworking journalists.

Anonymous (36)

In honor of *HCN*'s investigative journalists

In honor of the fine writers at *HCN*!

In honor of the journalists, interns, clerks & cleaning & maintenance staff at *HCN* for the excellent work that you do. And photographers!

In honor of Sarah Bartelt | Fargo, ND

In honor of Cameren, Aaron & Quentin

In honor of Olivia Chastaney | Vancouver, WA

In honor of Mayre Flowers | Kalispell, MT

In honor of Ray Haertel | Bend, OR

In honor of Christopher Ketcham | Ann Arbor, MI

In honor of James H. Kirkland | Washington, UT

In honor of Ashley Krest | Paonia, CO

In honor of Ben & Raynelle Kuckel | Colorado Springs, CO

In honor of Paul Larmer | Paonia, CO

In honor of Betty Mason | Yuma, AZ

In honor of Farley Maxwell | Ashland, OR

In honor of Peggy Lizette Olson | Greenehaven, AZ

In honor of Glen H. Phillips | Boulder, CO

In honor of Bob & Julie Phyliky | Rochester, MN

In honor of Alyssa Pinkerton | Paonia, CO

In honor of Jim Proctor | Bellingham, WA

In honor of Cate Ritchie | Mill Valley, CA

In honor of Emil Smith | Sisters, OR

In honor of Dan Stonington & Emily Stonington-Hibbard

In honor of Andrew Wise | Bellingham, WA

In memory of Ruth Barton

In memory of Thomas W. Barton | Reno, NV

In memory of Dorthey & Stephen Beaver | Westminster, CO

In memory of Frank Berger | Star Valley, AZ

In memory of Ralph Bidwell | Great Falls, MT

In memory of Keeley Bihr | Albuquerque, NM

In memory of Ignacio Bravo | Los Angeles, CA

In memory of Elton M. Britton

In memory of Dan Crawford

In memory of Laurel Dana | Jackson, WY

In memory of Judy Carr Easton | Glenwood Springs, CO

In memory of Neill A. Gebhart | Coeur d'Alene, ID

In memory of Rosemarie Goodbody | Corona del Mar, CA

In memory of Thomas Groarke | Yankee Hill, CA

☒ YES! I care about the West!

☐ \$25 Friend

☐ \$75 Patron

☐ \$150 Sponsor

☐ \$250 Benefactor

☐ \$500 Guarantor

☐ \$1,000 Steward

☐ \$2,500 Philanthropist

☐ \$5,000 Publisher's Circle

☐ \$10,000 & up Independent Media Guardian

Amount of gift \$ _____ ☐ Make this amount recurring

☐ Here's my check (or voided check/1st month's gift for recurring gifts)

☐ Charge my credit card \$12/month minimum

Card # _____ Exp. date _____

Name on card _____

Billing Address _____

City/State/ZIP _____

As a new Sustainers' Club member, send me a ☐ Black ☐ Grey travel mug.

High Country News | P.O. Box 1090 | Paonia, CO 81428 | 800-905-1155 | hcn.org

48:15



In memory of Eric Hare | Amherst, NH
In memory of Woody Hesselbarth | Fort Collins, CO
In memory of H. Lloyd Keith | Arlington, WA
In memory of Roy C. Langford | Manhattan, KS
In memory of Dave McKee
In memory of Bill Mitchell | Vashon, WA
In memory of MOKA, my beautiful Golden Girl
In memory of William E. Muckleroy
In memory of Howard Lewis Patterson
In memory of John & Edith Pierpont | Santa Fe, NM
In memory of Joan Reichard-Baxter
In memory of Mary Reynolds | Sandia Park, NM
In memory of my mom, Gladys Richter | Bozeman, MT
In memory of Rattana Ros | Quincy, CA
In memory of Wes Stewart | Abiquiu, NM
In memory of Norman & Mary Taylor | Missoula, MT
In memory of Kenneth Tegtmann | Coyote Hill, CO
In memory of Pete & Mike Turner | Tulsa, OK
In memory of Stewart Udall
In memory of Matilda Willis Weber | Colorado Springs, CO
In memory of Betty Wigington | Denver, CO
In memory of my father & mother, Ernest Wynne & Betty Bunn Tripp Boyden
Mark & Ann | Seward, AK
Russ & Larrine Abolt | Condon, MT
Linda Adams & John Newman | Kernville, CA
Annette & Robert Aguayo | Albuquerque, NM
Kelly Aldridge | Albuquerque, NM
Catherine Allen | Rico, CO
Joanne Allen | Albuquerque, NM
Franz Amador & Dorothy Neville | Seattle, WA
Bruce & JoAnn Amundson | Shoreline, WA
David & Kay Anderson | Colorado Springs, CO
Patrizia Antonicelli | Santa Fe, NM
David Armstrong & Susan Jessup | Loveland, CO
Gordon Ash | Sheridan, MT
Marian Ashe | Sacramento, CA
Dennis & Dana Austin | Hogansville, GA
Margaret & Carter Bacon | Cambridge, MA
John D. Bailey | Corvallis, OR
Jack & Dorothy Baker | Pinetop, AZ
John Baldauf | Sacramento, CA
Bennie H. Baldonado | Albuquerque, NM
Brad T. Barber | Salt Lake City, UT
Joyce & John Barnes | Salt Lake City, UT
Thomas Barnes | Yuba City, CA
Carol & Jim Barry | Colfax, CA
Thomas Beach & Barbara Peterson | Kensington, CA
Lee Beatty | Pfafftown, NC
Suzanne Beauchaine | Del Norte, CO
John & Melissa Belkin | Crested Butte, CO
Bob & Toni Bell | Shepherd, MT

Margaret E. Bell | Lyons, CO
Linda Bergstrom | Lead, SD
Dale L. Berry | Grants, NM
Ruth & Irving Bigio | Chestnut Hill, MA
Alex Blackmer | Loveland, CO
Dave & Sue Blake | Bellingham, WA
David A. Bloom | Cotati, CA
Kathryn Boehnke | Colorado Springs, CO
Sage & Elly Boerke | Rockport, WA
Patricia & Ben Boice | Idaho Falls, ID
Bob Bolin | Tempe, AZ
Linell Bollacker | Spring Creek, NV
Kathryn A. Bollhoefer | Denver, CO
Robert & Barbara Bonner | Northfield, MN
Ryan Botkins & Jenna Borovansky Botkins | Coeur d'Alene, ID
Dawn S. Bowen | Fredericksburg, VA
James & Donna Bowersox | Poway, CA
Maureen & John Bowman | Boring, OR
Reyn Bowman | Durham, NC
Stan & Glenda Bradshaw | Helena, MT
Bryan Brandel | Boise, ID
Raymond Bransfield | Ventura, CA
Richard Briesmeister | Cody, WY
Aaron Brockett & Cherry-Rose Anderson | Boulder, CO
Paul Brockmann | San Francisco, CA
Diane Brookshire | Denver, CO
Martin D. Brown | Littleton, CO
Todd Brown | Telluride, CO
Ruth Miles Bruns | Goldendale, WA
James Brunt & Mariel Campbell | Albuquerque, NM
Peter Brussard | Reno, NV
Harry G. Bubb | Newport Beach, CA
Caroline Byrd | Bozeman, MT
Deborah Byrd | Boulder, CO
Elnora Cameron | Albany, CA
Corky Capps | Florissant, CO
Harrison Carpenter | Longmont, CO
Duane & Arleta Carr | Grand Junction, CO
Christopher Carroll | Grand Canyon, AZ
David & Cheryl Carrothers | Juneau, AK
Andrew & Nancy Carson | Wilson, WY
Rodney & Renee Carswell | Santa Fe, NM
Jack Carter & Linda Gohl | Cupertino, CA
Kale & Laura Casey | Lake City, CO
Mark Chambers | Long Beach, CA
Paul Chuljian | Mill Valley, CA
Jim & Vicki Clark | Kuna, ID
Paul & Julie Cleary | Tulsa, OK
Julia Cole & Jonathan Overpeck | Tucson, AZ
Mark & Linda Colville | Golden, CO
Andrea Commaker | State College, PA
Sean Connell | Houston, TX
Gaywynn Cooper | Seattle, WA
Kenneth Cooper | Hendersonville, NC
Heather Copeland | Carlsbad, CA
Robert M. Copeland | Fort Collins, CO
Dave & Char Corkran | Portland, OR
John Cornely | Littleton, CO
Thomas & Gail Cornwall | Bellingham, WA
John W. & Darlene Cotton | Salt Lake City, UT
Bernetha Crawford | Mesa, AZ
Diane Cross | Nevada City, CA
Steve Cross | Omaha, NE

Tom & Katherine Cruse | Dayton, OH
J. H. Cryder | Plainfield, IL
Cal Cumin | Shepherd, MT
Jim Cummings | Santa Fe, NM
Hugh Curtis | Camp Meeker, CA
Douglas & Natalie Danforth | Bisbee, AZ
Tom Pendley & Kathy Darrow | Port Townsend, OR
Grey & Rebekah Davis | Dover, ID
William E. Davis | Walnut Creek, CA
Jan de Leeuw | Portland, OR
Betsy E. de Leiris | Bozeman, MT
Jay Dean & Stefani Bittner | Lafayette, CA
Edward DeFrancia | Moab, UT
Charles DeTar | Bozeman, MT
Jim & Kathy Dice | Borrego Springs, CA
Steve Dike | Montrose, CO
Karen L. Dingle | Duluth, MN
Jody & Nate Donovan | Fort Collins, CO
Michael Dotson | Ashland, OR
John E. Douglas | Spokane, WA
Frederick R. Dowsett | Lakewood, CO
Ellen Drew | Las Vegas, NM
Patricia Ducey | Joseph, OR
Robert Dye & Donna Koster | Kanab, UT
Richard A. Eastman | San Francisco, CA
Anne E. Egger | Ellensburg, WA
Tracy & Michael Ehlers | Boulder, CO
E. Bart Ekren | White Sulphur Springs, MT
Richard Engelmann | Boulder, CO
Pat Engrissei | Vashon, WA
Art Evans | Tucson, AZ
Gary & Paula Evershed | Salt Lake City, UT
Joan Falconer | Iowa City, IA
Mike & Mary Farrell | Surfside, CA
Walter J. Faust & Patricia Gerrodette | Huachuca City, AZ
Nancy A. Federspiel | Menlo Park, CA
Donald & Nancy Field | Middleton, WI
Jay & Kathy Finnell | Temecula, CA
Terry Fisk & Julia Fowler | Torrey, UT
Mark Flower | Longmont, CO
Karen & Dee Fogelquist | Montrose, CO
Lucien E. Forbes | Newport, RI
John & Robin Fortuna | Decatur, GA
Bernard Franklyn | Foster City, CA
Bob Fulkerson | Reno, NV
Hugh P. Furman | Boulder, CO
Carl Gable | Santa Fe, NM
Len Gallagher | Rockville, MD
Rosanne Garrett | Denver, CO
Steve Garvan | Sandpoint, ID
Marla M. Gault | Sandy, UT
Robert Gilliam | Colorado Springs, CO
Joe Godleski | Fort Collins, CO
Angus Goodbody & Joy Rothschild | Portland, OR
Jana & Bill Goodman | Kalispell, MT
Jayne Goodwin | Crescent, OR
Catherine Gorman & Philip Hedrick | Winkelman, AZ
Jim Grady & Suzanne Hoest | Grand Junction, CO
Kathy Grassel | Albuquerque, NM
Harry Greene | Ithaca, NY
Beth Grendahl | Kennewick, WA
Jim & Loma Griffith | Tucson, AZ
Bryan Grigsby & Anne Dougherty | Boulder, CO
Peter Groth | Lakewood, CO

S. & D. Gullette | On the Road, USA
Fred & Sue Gunkel | Albuquerque, NM
Karen & Tom Guter | Fort Collins, CO
David W. Hamilton | Las Vegas, NV
Richard & Alice Hammer | Port Angeles, WA
Linda H. Hanes | Santa Rosa, CA
Gary & Judy Hansen | Bountiful, UT
Karla Hansen | Willcox, AZ
Tom Hanton | Greeley, CO
David Harden & Pamela Blair | Sonora, CA
Diana Hartel | Phoenixia, NY
Gary W. Hawk | Missoula, MT
Alan G. Heath | Blacksburg, VA
Gary & Victoria Hefkin | Cedar Crest, NM
Michael Helling | Victor, MT
Bill Helwig | Albuquerque, NM
Jack Heneghan | Colorado Springs, CO
Bill & Cindy Henk | Livermore, CO
Renita Herrmann | San Francisco, CA
Susan Heyneman | Fishtail, MT
Woody Hickcox | Decatur, GA
Hickman family | Tacoma, WA
Bill & Wende Hill | Jacobsville, MI
Vernon H. Hill | Grand Junction, CO
Brad & Martha Hinman | Bend, OR
John & Kristen Hinman | Long Beach, CA
Jan Hodder & Mike Graybill | Coos Bay, OR
Martha Hodgkins & Brian Richter | Crozet, VA
John F. Holland | Albuquerque, NM
Jessica Horn | June Lake, CA
Lois Horst | Poughkeepsie, NY
Daniel Horton & Rita Kester | Rio Rico, AZ
Laurel Howe | Lakewood, CO
Virginia K. Howle | Lyman, WY
Laura Huenneke | Flagstaff, AZ
William Huggins | Las Vegas, NV
Walter & Sherry Hunner | Electric City, WA
Rita K. Hunter | Redondo Beach, CA
Diane Hurd | Port Townsend, WA
Cheryl Ingersoll | Paulina, OR
James Irving | Shelton, WA
Barbara Iverson | Sedona, AZ
Brantley Jackson | McCook, NE
Ken Jacobsen | Seattle, WA
Christopher Jannusch | Berkeley, CA
Lawrence Jansen & Lesley Wischmann | Holly Ridge, NC
Merrill L. Johns | Salt Lake City, UT
Gordan & Carol Johnson | Cottonwood, CA
Thomas J. Jones | Las Vegas, NV
William Joyce | La Verne, CA
Linda Kahan | Olympia, WA
Van Kane | Redmond, WA
Betsey & Brian Kanes | Olympia, WA
Mary Karner | Longmont, CO
Sheldon Katz | Scottsdale, AZ
David W. Kayser | Carlsbad, NM
Clint Kelley Jr. | Redwood Valley, CA
Susan Kenzle & Ken Lawrence | Austin, TX
Dale & Paula Keys | Tucson, AZ
Mina Kidd | Woodland Park, CO
Larry Kilborn | Evergreen, CO
Kent L. Kilburn | Porterville, CA
Timothy M. Kingston | Berkeley, CA
Judith & Edward Kinzie | Salida, CO
Vernon & Diane Kliewer | Tucson, AZ

Each one of you makes a difference for our coverage of the West.

Mary E. Kline | Jefferson Township, PA
Beaudry Kock | San Francisco, CA
Arthur & Angie Kolis | Cora, WY
Michael & Mary Kottke | Estes Park, CO
Yves W. Kraus | Mansfield Center, CT
Lynn Krause | Apache Junction, AZ
Bill & Beth Krumbein Jr. | Santa Rosa, CA
Paul Krusa & Elaine Curry | Longmont, CO
Susan Kusch | White Salmon, WA
Jeff & Mary Laird | Grand Junction, CO
Rudi Lambrechtse | Tucson, AZ
Nicole Lampe | Portland, OR
Rob Lang & Beverly Lynch | Salt Lake City, UT
R. L. Latterell | Shepherdstown, WV
Marlene Laws-Convery | Oroville, WA
John LeCavalier | Portland, OR
Craig Lee & Sandra Tassel | Bellingham, WA
Roy Lee | Spokane, WA
Gretchen Leland | Boulder, CO
Bonnie Lemons | El Granada, CA
Mike Lenaghen | Boise, ID
Theodor Lichtmann | Denver, CO
Susan Linner | Lakewood, CO
Lynn Lipscomb | Corona, CA
Jean Lown & Bryan Dixon | Logan, UT
Arthur Luna & Joanne Sharkey-Luna | Boise, ID
Margaret Lyons | El Centro, CA
Steve & Carol Maass | Ontongan, MI
Don Macalady | Golden, CO
Anna Mahorski | Boulder, CO
Caroline Malde | Boulder, CO
Richard Mangan | Missoula, MT
Mike Mansfield | Bozeman, MT
Sara Maples | Klamath Falls, OR
Don & Maureen Martin | Coeur d'Alene, ID
Paul W. Martin | Tonasket, WA
Steve Martinek | Tucson, AZ
Marian Martinez | Portland, OR
Mary Ann Matthews | Carmel Valley, CA
William L. Matthews | Gunnison, CO
Chuck & LeeAnn McAda | Clifton, CO
Virginia McAfee | Boulder, CO
Kevin McCabe & Janet Frigo | Santa Fe, NM
Norma McCallan | Santa Fe, NM
Marilyn McCord | Bayfield, CO
John McEldowney | Logan, UT
Douglas McIntosh | Fairbanks, AK
Jim & Kathleen McKenna | Leavenworth, WA
Gary A. McNaughton | Flagstaff, AZ
Errol E. Meidinger & Margaret A. Shannon | Buffalo, NY
Andrew & Debra Melnykovych | Louisville, KY
James Melton | Hood River, OR
Cheryl Hilliard Menzies | Lafayette, CO
Evan Metcalf | Denver, CO
Kent M. Micho | Arvada, CO
Richard M. Middleton | Salt Lake City, UT
John C. Miles | Arroyo Seco, NM
Aaron F. Miller | Bellingham, WA
Carolyn M. Miller | Breckenridge, CO
Harold Miller | Provo, UT
James & Marsha Miller | Denver, CO
Joan E. Miller | Seattle, WA
William Mohrman | Lone Tree, CO
Mia Monroe & Steve Meyer | Mill Valley, CA
Tom Moore & Karen Den Braven | Troy, ID

Douglas & Laura Moran | Denver, CO
Paul Moreno | Yuma, AZ
Cathy Morin | Alamosa, CO
Mary Lou & Angus Morrison | Casper, WY
Ray Mosser | Portland, OR
Thomas & Heidi Mottl | Prineville, OR
Michael Murphy | San Francisco, CA
Deborah Summer Muth | Red Lodge, MT
Lynn Nebus | San Diego, CA
Robert T. & Mary T. Neher | La Verne, CA
John T. Nelson | The Dalles, OR
Henry & Jay Newburgh | South Lake Tahoe, CA
Mike Newsham & Barbara Micheel | Ridgefield, WA
Jack Nicholl | Malibu, CA
Mitch Noonan | Santa Fe, NM
David & Kay Norris | Boulder, CO
Norman Norvelle | Farmington, NM
Stuart Nussbaum | Sacramento, CA
Gary M. Olson | Rawlins, WY
Robert Daniel Olson | Cottage Grove, WI
John N. Ong | Fairfield, IA
Molly O'Reilly & Steve Lockwood | Sandpoint, ID
John H. & Barbara Ormiston | Hamilton, MT
David & Vicki Page | Ridgway, CO
Calvin & Helen Pagel | Elizabeth, CO
Claire Palmer | Denver, CO
John J. Parodi & Elizabeth Mota | Sebastopol, CA
Jim Parys | Ouagadougou, Burkina Faso
Laura Patterson | Otis Orchards, WA
Hal W. Pattison | Falls Church, VA
Bev Paulan | Eau Claire, WI
William Peabody | Condon, MT
Ron & Dawn Pease | Aztec, NM
Elizabeth Penfield | Savannah, GA
Susan Pennington | Windsor, CO
Helen L. Perry | Colfax, WA
Roberta Perry | Boulder City, NV
Marsha Perry-Ellis | Pueblo, CO
Brian & Abbie Peters | Markleeville, CA
Oliver Peters | Laramie, WY
Laura Petersen | Spokane Valley, WA
Thomas Peterson | Fort Collins, CO
Carol Petrovsky | Boise, ID
Lou Petterchak | Denver, CO
Neill Piland | Pocatello, ID
John T. Pitlak | Santa Fe, NM
Cathryn & Martin Pokorny | Socorro, NM
George Ponte | Prineville, OR
Joan Poor | Edmonds, WA
Jim Porter & Sarah Palmer | Tucson, AZ
Thomas M. Power | Missoula, MT
Tom Pratum | McKinleyville, CA
Dennis Price | Ehrenberg, AZ
Helen Price | Tucson, AZ
Peter Prince | Santa Fe, NM
Carolyn Prinster | Glenwood Springs, CO
Peter B. Pruett | Hotchkiss, CO
Rebecca Quintana | Taos, NM
Rod Reckard | Sheridan, WY
Jack Reed | Paonia, CO
Steven D. Reese | Salida, CO
Paula Reitz | Red Lodge, MT
Dot Rhodes | Elgin, AZ
Malcolm F. Rice | Fresno, CA
Douglas A. Richardson | Albuquerque, NM

Laura & Paul Ricks | Ouray, CO
Joan Ridder | Tucson, AZ
Bruce M. Riley | Garberville, CA
Judy Roach | Arvada, CO
Lynda Roberts | Sausalito, CA
David Robertson | Huntingdon Valley, PA
Thomas Rogers & Betsy Nelson | Ocean Park, WA
Hans Rohner & Mary Jo Brodzik | Nederland, CO
Donald Ross | Dolores, CO
Stan Rovira | Hartsel, CO
Fred Royce | Helena, MT
Scott & Kathy Rudge | Boulder, CO
John Ruffner | San Luis Obispo, CA
Katrina Running | Pocatello, ID
Tom Ruppenthal & Jenna Marvin | Fish Haven, ID
Terrance & Mary Lynn Ryan | Madison, SD
Joyce Ryba | Port Angeles, WA
Mary Jo Sage | Cincinnati, OH
Buck Sanford | Flagstaff, AZ
Mary Sari | Sterling Forest, NE
Dave Saylor | Albuquerque, NM
Cheryl Scannell | St. Petersburg, FL
Rodger Schmitt | Port Townsend, WA
Frances Schneider Liau | Pasadena, CA
Lucy & John Schott | McCall, ID
Jeff Sconyers & Debra Godfrey | Seattle, WA
John Scott | Lexington, KY
Robert Scott | Corvallis, OR
Robert Sehl | Albany, NY
Richard & Judith Sellars | Santa Fe, NM
Barbara & Bud Shark | Lyons, CO
Karin P. Sheldon & James Thurber | Lafayette, CO
Jeri D. Shepherd | Greeley, CO
Leila Shepherd | Twin Falls, ID
W. Kenneth Sherk | Salt Lake City, UT
Doris & Bob Sherrick | Peculiar, MO
Christine & Mike Siddoway | Colorado Springs, CO
Valerie & Scott Simon | Twentynine Palms, CA
Jack & Joanne Sites | Orem, UT
Daniel Slater & Ann Wiemert | Grand Junction, CO
Robert L. Slatten | Sumas, WA
Larry & Margie Smith | Johnstown, CO
Robert B. Smith | Idyllwild, CA
Florian & Lou Smoczynski | Madison, WI
Mary Lou Socia | Portland, OR
Sam H. Sperry & Joyce Beckes | Helena, MT
Alicia Springer & Christopher P. Thomas | Chico, CA
Sherman Stephens & Martha Taylor | Flagstaff, AZ
Darlene Marie Steward | Boulder, CO
Jim & Peggy Stewart | Ferndale, WA
James Stickman | Seattle, WA
Rick & Lynne Stinchfield | Pagosa Springs, CO
Marilyn Stone | Paonia, CO
Daniel Stonington | Seattle, WA
David & Miriam Stout | Salida, CO
Louis E. Strausbaugh | Colorado Springs, CO
Bill Strawbridge & Meg Wallhagen | Mill Valley, CA
Laura Stuntz | Fort Collins, CO
Andrea Suhaka | Centennial, CO
Donald Sullivan | Denver, CO
Liz Taintor | Steamboat Springs, CO

Sherrion Taylor & Sid Lewis | Paonia, CO
Theodore Taylor & Denise Stone | La Grande, OR
Alice Thomassen | Belfair, WA
Pierre Thompson | Aztec, NM
Russell B. Toal | Santa Fe, NM
Mike Todd | Phoenix, AZ
Janet & Greg Torline | Harrison, ID
Constance L. Trecartin | Tucson, AZ
Dale & RuthAnn Turnipseed | Twin Falls, ID
Jessica Turnley | Albuquerque, NM
William Tweed | Bend, OR
Chuck Twichell & Mary K. Stroh-Twichell | Santa Rosa, CA
R.T. Twiddy | Mesquite, NV
Bruce Van Haveren | Evergreen, CO
William Vancil | Eloy, AZ
MaryBeth & Mark Vellequette | Boulder, CO
Eve Vogel | Amherst, MA
Chrilo Von Gontard | Bainbridge Island, WA
Kirk & Kris Vyvberg | Sacramento, CA
James & Michelle Wade | Colorado Springs, CO
Ellen R. Walker | Florissant, CO
Kody Wallace & Gary W. Donaldson | Salt Lake City, UT
Fred Walls | Lafayette, CO
Eric Waltari | Brooklyn, NY
Beth Walukas | Lummi Island, WA
Robin Waples & Paula Jenson | Seattle, WA
Vicki Warner-Huggins | Ridgway, CO
John & Paula Warren | Garden City, ID
Cathy & Norman Weeden | Bozeman, MT
Stephen C. Weeg & Nancy Greco | Pocatello, ID
N.C. Weil | Denver, CO
Mary Weisberg | San Mateo, CA
Michael T. Weiss | Longmont, CO
Robert & Jill Welborn | Prineville, OR
Toby Welborn | Carson City, NV
David Wells | Twin Falls, ID
David L. Wells | Grizzly Flats, CA
Miriam Wells | Loveland, CO
Richard & Barbara Wells | Moscow, ID
Peggy & Robert Wenrick | Tucson, AZ
Gordon West | Silver City, NM
Bruce Weydemeyer & Charlotte Kinney | Santa Fe, NM
George Whatley | Spokane, WA
Marilyn Whittaker | Lafayette, CO
James Willett | Kalispell, MT
Byron Williams | Saguache, CO
Steve Williams | Denver, CO
Bill Wilson | Seattle, WA
George Winters | Darrington, WA
Grant & Barbara Winther | Bainbridge Island, WA
Janet Wise & Paul Michalec | Lakewood, CO
John Wise | Hidden Valley Lake, CA
Liz Wise | Vernon, AZ
Sheldon Wood | Centerville, UT
Greg Woodall | Hurricane, UT
Jack L. Wright | Bremerton, WA
Thomas C. Wylie | Centennial, CO
Ronald Yankey | Boise, ID
Chris Yoder | Baltimore, MD
Dave Yokel & Kathy Taylor Yokel | Fairbanks, AK
Larry Young | Salt Lake City, UT
Marianna Young | Monte Vista, CO
Paul Zarn | Petaluma, CA

A RURAL HEALTH

Lessons from the Central Valley

For rural California, hospital closures mean more than a gap in health care BY ELIZABETH ZACH

Health care in the rural West has always been challenging, largely because of the distances separating people from the hospitals they need. Some areas have struggled even more than others with this particular difficulty, especially those still suffering in the wake of the 2008 financial crisis.

AS FIRE CHIEF IN Kingsburg, a small town in California's Central Valley, Tim Ray has done more than battle blazes in the past few years. Actual fires here are relatively few, in fact. These days, Ray, a trim 52-year-old with clipped moustache and gentle eyes, oversees a kind of volunteer medical transportation service, hustling patients from this idyllic town — settled by Swedish immigrants in the 1870s and still bedecked with "Välkommen" welcome signs — as far as 20 miles away, to a hospital in Fresno.

Kingsburg's hospital closed in 2010, so while some residents can seek treatment in nearby Selma, just five miles away, more complicated ailments, like strokes or heart attacks, require a trip to Fresno. That's still within the so-called "golden hour," when saving a life is most possible, Ray told me, as we sat one morning at the local firehouse. "But we've also had situations where we're transporting a patient, and I get a call from a hospital letting me know there are no beds at a hospital where we're about to take a patient."

Kingsburg may be quaint, but the lack of a hospital is making life difficult for many of the 11,000 residents. All that remains of the Kingsburg Medical Center, opened half a century ago, is a mental health clinic that is ill-suited to provide emergency services or other kinds of medical care. Despite the proximity of Selma or Fresno, many residents are referred to the Tulare Regional Medical Center, 36 miles away. That distance is more than an inconvenience; on occasion, it can be life-threatening.

The lack of a hospital can also erode a community's sense of security and affect its economy. Potential job-creators are more inclined to set up shop closer to hospitals, especially in urban areas, where doctors are more likely to set up practice.

"People here still talk about" Kingsburg Medical, Ray said. "They can still remember what it was like to have the hospital here."

The fate of Kingsburg Medical is not an

isolated tale of woe. It was one of more than 70 rural hospitals that have closed nationwide since 2010, about one per month.

According to the U.S. Department of Health and Human Services' Office of Inspector General, rural closures are caused by a range of factors: the failure of communities to recover from the 2008 financial collapse; hospital mergers and other market trends; states' refusal to expand Medicaid; and reduced demand for inpatient services. The Affordable Care Act and similar programs that provide Americans with medical insurance may have created an additional, unintended strain on rural health care.

"There are over 600 rural hospitals at financial risk" nationwide, Maggie Elehwany, vice president of government affairs at the nonpartisan nonprofit National Rural Healthcare Association, said. "Over 200 of these rural hospitals are extremely vulnerable to (closure) and are at high financial risk. Since 2010, the number of rural hospital closures has escalated each year. On this current trajectory, more than one-quarter of all rural hospitals (over 500) will close in less than 10 years."

California's Central Valley has seen three hospitals close since 2010, underscoring the national problem and serving, perhaps, as a wake-up call to other parts of the West, which has lost eight rural hospitals in the last six years. Some of the Central Valley's eight counties now have as few as two hospitals to serve their populations.

Kingsburg Medical's closure coincided with a steep decline in the growth of the town, which had grown rapidly from 2,310 people in 1950 to 11,382 in 2010 — a rate of between 24 and 54 percent every decade. But the estimated population for 2015 was just 11,824, a growth rate of only 3.9 percent from 2010.

The housing crisis and recession hit the Central Valley particularly hard in 2007. Unemployment climbed. The semi-rural suburban landscape was soon

pockmarked by hollowed-out homes and neighborhoods.

Kingsburg Medical, which was already struggling before 2008, could not sustain itself in that environment. Kingsburg's city manager, Alex Henderson, points to changes in the health-care industry, namely the move away from rural facilities to more regionalized hospitals, as a main factor. This led to the loss of revenue for Kingsburg Medical, and it drove doctors to larger facilities, where compensation is generally better.

In the end, Kingsburg Medical was unable to afford the equipment and infrastructure upgrades it needed to remain a viable hospital. "It's like with everything else these days," Ray, the fire chief, said. "The market determines everything, but somehow it seems to ignore this one need. I still have a dream that a large regional hospital will get built here, someday."

THE LACK OF A HOSPITAL or major health center can create a domino effect: Doctors don't move in, hospitals are short-staffed and underfunded, and potential residents and businesses are discouraged from relocating by the lack of nearby health care. All of this affects the local economy. "Hospitals are large demanders of labor," said Cristina Miller, an economist with the U.S. Department of Agriculture's Economic Research Service, who has studied rural health care. "They offer local jobs, both for high- and low-skilled workers, everything from the obvious, like nursing, to janitorial to maintenance. An employee buys a house in the area, brings their family with them and demands public goods. Their kids will go to school there, they'll buy gas and food there, money circulates. The idea is that there is spillover."

Even if the hospitals in the Central Valley were to reopen, or a regional hospital was built to serve the area, attracting and retaining doctors would be difficult. There is more money to be earned in urban areas, and some doctors perceive small towns as offering a

CARE CHECKUP



constricted social life.

Marie-Elizabeth Ramas was one of those who gave it a try. Until April, when she announced she was leaving, she was the medical director at the Mercy Community Rural Health Clinic, which focuses on uninsured, low-income families around Mount Shasta, a small town of 3,300 in Northern California.

Ramas is a soft-spoken African-American woman, who graduated from medical school in 2008 and went on to receive a National Health Service Corps scholarship for her commitment to primary care in underserved communities. She initially imagined that being a rural physician would give her more time to spend with her family. Instead, she felt stretched thin. “I was essentially on call 24/7, because of inefficiencies in the electronic record-keeping system, often spending 10

*Please see **Lessons**, page 15*



After Dos Palos Memorial Hospital failed financially and closed in 2006, Kathy Ebner, above, became nursing director at Dos Palos Memorial Rural Health Clinic. At left, the sleepy streets of Dos Palos, “as destitute as you can imagine,” says Ebner.

MICHAEL MCCOLLUM

A video cure for rural health care's challenges

*A program to connect urban specialists with rural doctors
saves time and money on stroke treatment* **BY LEAH TODD**

Some of the most dangerous health conditions can become life-threatening when adequate care is far away. But recent technological fixes can help shore up the gaps between patients and hospitals, saving time, money and sometimes lives.

EVERY MINUTE COUNTS during a stroke. Blood-thinning drugs and surgery can prevent traumatic brain injury, but doctors must act fast: A life-saving procedure called a clot retrieval, for instance, is only effective within about eight hours of a stroke's onset.

A drug called tPA, which dissolves stroke-inducing blood clots, must start acting within about four hours. Moreover, a wrong move can be deadly when treating a stroke patient. Few rural emergency room doctors are trained to confidently make such high-stakes calls. As a result, only a tiny fraction of rural stroke victims eligible for the life-saving blood-thinner actually get it, said Howard Yonas, a neurosurgeon at the University of New Mexico.

Instead, many rural doctors opt to fly patients by helicopter to the state's only Level 1 trauma center in Albuquerque, a costly and sometimes unnecessary measure that consumes precious hours. Now, Yonas and other New Mexico doctors are turning to the power of remote medicine to help stroke patients avoid expensive life-flights and receive timely procedures.

The strategy is to loop Albuquerque specialists into rural emergency rooms by video and immediately share brain scans before deciding to transfer the patient. The program, called Access to Critical

Cerebral Support Services, or ACCESS, started in 2014 with a \$15.1 million grant from the U.S. Centers for Medicare and Medicaid Services. In the two years since, one hospital in Roswell has gone from shipping about half its brain trauma victims to Albuquerque to transferring just 6 percent.

Another hospital in Santa Rosa has more than doubled how often it gives tPA. Nine hospitals statewide use the system, and five more will join soon. Yonas hasn't studied individual patient outcomes yet, so there's no hard evidence showing whether people receiving care in rural settings here survive strokes at the same rate and with similar physical outcomes as those transferred to Albuquerque. However, studies of other telemedicine programs have shown outcomes that are nearly identical, and doctors and nurses using the program in New Mexico say their patients are doing at least as well as they were before ACCESS began.

Stroke is the fifth-leading cause of death in New Mexico, and a leading cause of adult disability. In 2014 alone, 822 New Mexicans died from a stroke — more than those who died from drug overdoses and homicides combined. ACCESS started with a simple observation. Yonas noticed something peculiar about patients who arrived on a stretcher at his Alberquerque

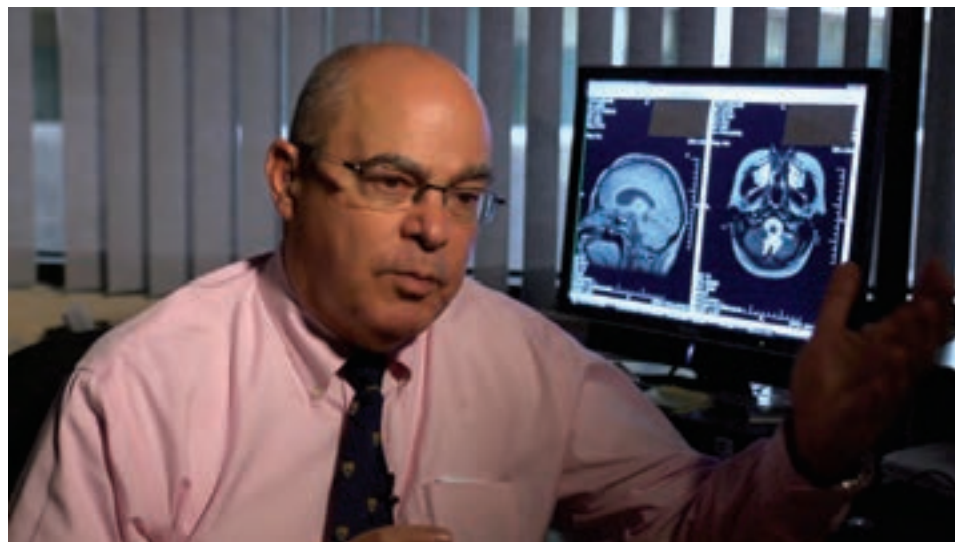
medical center: About one in four, he estimated, didn't actually need to be there. Their strokes and other brain injuries weren't as bad as doctors initially believed, and their brain scans showed nothing significant. If rural doctors had better information, Yonas said, patients could be treated in their home hospitals, sparing tens of thousands of dollars for a life-flight and several hours' drive for concerned family members. Yonas conducted a study to test his theory.

For a year, he tracked head trauma patients at seven rural New Mexico hospitals. He discovered that after hospitals began sharing brain scan images and consulting with Albuquerque doctors, they cut the number of life-flights nearly in half, treating twice as many patients locally. Yonas' finding led to a massive three-year federal grant to launch the ACCESS program at a handful of hospitals across the state. The program bought new computers and cameras to live-stream video from rural emergency rooms, paid for doctors' consulting time, and created a web-based system for quickly transferring brain scans between hospitals.

Local ER doctors now have the ability to consult one of eight UNM neurosurgeons, like Yonas, who in turn decide how best to handle brain trauma patients: to life-flight or not? Is the stroke patient a candidate for tPA, or is this a different type of stroke? "You can talk to the patient, you can see the patient, you can ask the patient to do certain tests," Yonas said. "All of that can happen within about 30 minutes of the time they come (into the ER)."

National research suggests telemedicine can increase how often stroke patients who need tPA actually get the drug. A study of the University of Pittsburgh's telestroke network, for instance, showed that the rate of stroke patients who received tPA more than doubled after starting a telemedicine program.

One early adopter was Eastern New Mexico Medical Center in Roswell, a city of 48,000 about 200 miles southeast of Albuquerque. In 2015, emergency room doctors there consulted with UNM specialists on 354 brain trauma patients — victims of everything from strokes to headaches to gunshot wounds to the head. Prior to the ACCESS program,



Howard Yonas, chairman of the University of New Mexico Department of Neurosurgery, uses video conferencing to help rural doctors make life-saving decisions from his office in Albuquerque. JOHN ARNOLD/UNM



roughly half those patients would have been transferred to Albuquerque's trauma center, said Rod Schumacher, the hospital's CEO.

Last year, however, the hospital transferred just 12.7 percent of those brain trauma patients. In 2016, the hospital has transferred only 6 percent.

Adding a consultation with a neurosurgeon — even through a computer screen — creates a more sophisticated system of care, Schumacher said.

"The ER doctors will tell you, there's great comfort in having the neurosurgical consult before we (treat)," he said.

Using technology to connect patients with a doctor far away — a field broadly known as telemedicine, or telehealth — is not new, and ACCESS is just one of several such projects in the state. The nationally recognized Project ECHO, for example, has trained rural doctors in New Mexico via teleconferencing for the past decade, and has expanded across more than 10 states, as well as India and Northern Ireland. Nationwide, more than half of all states have some sort of telestroke program, though most are less than a decade old.

While telemedicine isn't yet the norm in rural health care, it's a growing trend, said Dale Alverson, who runs UNM's Center for Telehealth. One reason is the growth of cheaper technology. In the late 1990s, a telemedicine setup cost about \$100,000 to install, Alverson said. Today, a comparable outfit costs less than \$10,000.

Another reason is consumer demand. In the past two years, two wrongful death malpractice lawsuits against rural New Mexico hospitals claimed a patient would have lived if a doctor had used telemedicine, Alverson said. Both cases were settled out of court, setting no precedent.

But for Alverson, the suits raise an interesting question: When will telemedicine become an expectation for health-care providers, rather than an exception?

"It's going to put pressure on rural hospitals who want to avoid expensive lawsuits to use telemedicine," he said.

For rural doctors, however, the incentive is more than just avoiding lawsuits — it's about providing better care in their community.

"There's this idea of keeping the right patients in the community, if you can," said Yonas, the UNM neurosurgeon.

"That's good for the family, it's good for the patients, it's good for the hospital." Rural hospitals lose revenue each time they transfer a patient — money many hospitals need to remain viable, Yonas said.

In Santa Rosa, a town of 3,000 people about 100 miles from Albuquerque, Guadalupe County Hospital now treats some patients who would previously have been transferred, said Antonia Lucero, a nurse who runs the hospital's telehealth program. Before ACCESS, years would go by without the hospital administering tPA, she said. So far in 2016, she and her staff have already given the drug three times — each time with advice from a neurosurgeon in Albuquerque.

"We give it with more confidence now," Lucero said.

Because ACCESS hasn't yet been subject to comprehensive study, the best evidence about the program's patient outcomes is anecdotal. But so far, Lucero said, not a single head trauma patient treated through telemedicine at her hospital has died. ■

This story is part of the "Small towns, big change" project through the Solutions Journalism Network.

University of New Mexico's Department of Neurosurgery's Drs. Laila Mohammad, left, and Huy Tran, right, consult with Dr. Branko Huisa-Garate, center, in computer monitor, in a test of the video feed technology that helps diagnose and treat stroke and brain injury patients in rural areas.

UNM HEALTH SCIENCES CENTER

Lessons, continued from page 13

hours per weekend just catching up and making sure patients were safe," she said. "I think that if the model doesn't change, there just won't be a health system in Mount Shasta, and that would devastate the community."

In fact, there are few models that seem to work. The old ideal of the country doctor who carries a little black bag from house to house was buried under the fear of malpractice suits and insurance restrictions. And telemedicine, another potential solution, is not a cure-all.

THESE DAYS, THE CENTRAL VALLEY'S communities have become more reliant on the good will of neighbors and organizations to get the health care they need.

Dos Palos, a town of fewer than 5,000 people in the San Joaquin Valley, lost its hospital in 2006. As with other agricultural Central Valley communities, the closure reflected the region's overall economic decline: There are two diners and a Subway, a small market and a Dollar General store, but most of the buildings here are boarded up. The median home price is just above \$100,000, and the unemployment rate is more than 14 percent.

The town still has a clinic, which is owned by a Los Banos physician and overseen by Kathy Ebner, who is also the nursing director. Ebner, a single mother with two grown children and a reputation for patience and energy, moved here in 1999.

"It is almost like the town has given up on any hopes of ever having something in this community to attract more families to locate here. It is as if it is just OK where things are at," she said. "But it is as destitute as you can imagine."

As in Kingsburg, it fell to the Dos Palos fire department to "patch and transport" residents needing medical attention. The nearest hospitals are between 18 and 35 miles away.

And then there was a shortage of staffing over time, a more serious problem, according to Ebner. "Being in a rural area, which brings little desire for families to locate here, made it very difficult to provide registered nurses," she said, adding that the clinic at one point recruited doctors from as far away as San Jose, an hour's drive.

Despite all the difficulties, Ebner said she's unlikely to leave.

"I have had many offers over the years to relocate, but I just can't walk away," Ebner said. "The residents, the staff, they become part of your family. We have all at some point helped each other to raise children or bury a loved one. You just don't walk away from that." ■

Elizabeth Zach is a staff writer at the Rural Community Assistance Corporation. This article was produced as a project for the USC Center for Health Journalism's California Health Journalism Fellowship.

The rural West is faced with a particular paradox: Not only does it have a high number of elderly people, who have extra health-care needs, it also has a low number of doctors and hospitals to treat them. That creates a higher demand for services, and a need for more innovative solutions and partnerships.

The widening gaps

Across the region, changing demographics put more pressure on health care systems

LAST YEAR, PEGGY CLEMENTS slipped on the wood floor of her home and broke her leg. Alone at the time, she waited in agony until her daughter came home and drove her to the hospital, nearly an hour away through rural Delta County, in western Colorado. Clements, who turned 102 last March, was comparatively lucky: Had she suffered a heart attack or a stroke, the delay could have been fatal. When the local medical clinic closes down at the end of August in Paonia, where Clements lives and where *High Country News* is based, that kind of risk will be even higher.

For Clements and a growing population of the most vulnerable — the elderly, disabled and uninsured — access to health care is becoming an increasingly urgent issue. The West's rural areas, as data from the American Medical Association and U.S. Census Bureau show, are simultaneously experiencing a higher demand for services and a decrease in the number of doctors and others qualified to provide those services.

Delta County exemplifies the problem. Since 2010, the number of residents 65 years and older here has jumped 19 percent, yet the patient-to-doctor ratio is more than 1,300 to one.

In the most extreme examples, some Western counties have seen their elderly populations increase by nearly 60 percent. According to census projections, by 2030, more than 31 million Americans will be older than 75, the largest such population in the country's history. Nearly 17 million of them will live in the West, comprising 22 percent of the region's projected population.

The number of doctors, meanwhile, is not keeping pace, data from the American Medical Association and U.S. Department of Health and Human Services show. Torrance County, New Mexico, for example, has a patient-to-doctor ratio of more than 15,000 to one. That's more than four times the threshold for consideration as a "health professional shortage area."

People who live far from health care are most vulnerable during emergencies, such as heart attacks, severe lacerations, strokes or asthma attacks. Without a nearby clinic, the delays in response become a serious problem. In Paonia, the ambulance services are run by volunteers, and the

average response time is 15 minutes. Come September, the nearest clinic will be another 15 minutes away, in a neighboring town, with the nearest hospital about 30 miles from that. "That is a very long time to wait if you're badly hurt," says Jean Ceriani, a member of the Delta County Memorial Hospital board. "Someone could die."

As Clements gets older, her daughter, Karen Budinger, worries about her safety. "Right now, my mom has me to drive her, but what if something happened to me?" Budinger, who is 77, asks. In the moment of quiet that follows, Clements catches her daughter's gaze. "I don't know what I would do," she says. **PAIGE BLANKENBUEHLER**



Rural New Mexico hospitals pool resources to

GUADALUPE COUNTY HOSPITAL in Santa Rosa is home to the only emergency room between Albuquerque and Tucumcari — a 173-mile stretch of Interstate 40 that spans the lonely eastern half of New Mexico. The small city is home to fewer than 3,000 people, making it the largest town in a county with fewer than 5,000 residents. More than a quarter of the population lives below the poverty line.

For Guadalupe County's isolated and scattered populace, the hospital plays a critical role.

"If this hospital closes, my kids have nowhere to go," says Christina Campos, the hospital's CEO. "My neighbors have nowhere to go. My employees have nowhere to go." In New Mexico, a remote hospital struggling to serve a poor community is a common scenario. According to federal data, one-third of the state's population lived in "Health Professional Shortage Areas" in 2010 (*see map above*). Thirty-one of New Mexico's 33 counties

faced shortages.

Like most rural hospitals in the state, Guadalupe County has had to fight to get by. Many of its patients rely on government health insurance, which often doesn't cover the hospital's costs, let alone provide a profit. That situation is only expected to get worse as the state faces a \$417 million Medicaid shortfall.

At the same time, the needs are overwhelming: New Mexico often finds itself near the bottom of nationwide lists related to health and well-being. America's Health Rankings, for instance, placed it 37th in 2015, partly due to high rates of diabetes, drug deaths and children living in poverty.

To better cope with those challenges, Guadalupe County Hospital is teaming up with other small hospitals to share information, hire experts and offer advice on how to navigate an increasingly uncertain industry. "We're all facing the same thing," Campos says.

In 2014, Santa Rosa and five other hospitals founded the New Mexico Rural Hospital Network, an initiative intended to improve cooperation — and, with it, fiscal health — among small hospitals scattered across the state. The network now contains 10 members, including Holy Cross Hospital in Taos.

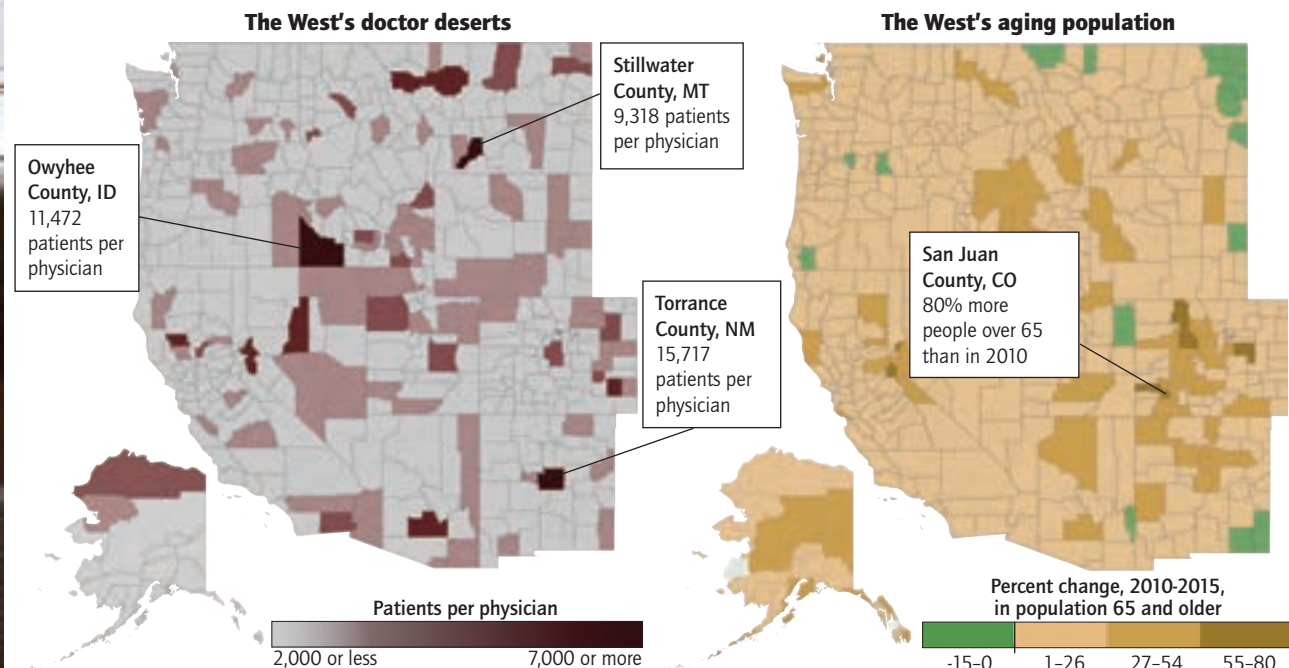
"All of our hospitals are the only hospital in their town, sometimes even in their whole county or beyond," Stephen Stoddard, the network's executive director, says.

The group's creation was aided by the U.S. Department of Health and Human Services, which regularly funds rural hospital networks to improve efficiency, expand access and improve quality of care. In its most recent round of funding two years ago, the agency awarded a total of \$11.6 million to 39 networks nationwide, from Alaska to Maine. The New Mexico network received a \$300,000 grant.

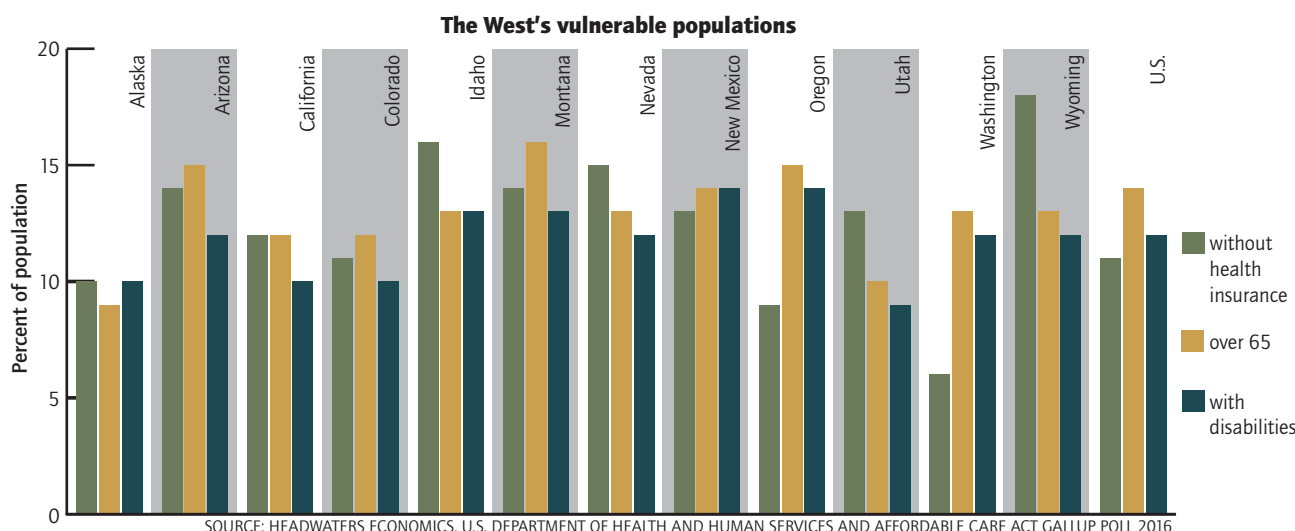
"Generally, the purpose of these hospi-



Peggy Clements, 102, is led out of her house by senior community van driver Al Early. Each Tuesday and Thursday, Clements does activities with other seniors through the Program of All-Inclusive Care for the Elderly, which also has a nurse check on her every morning. Both help address her loneliness, which she says is the hardest part about getting older. BROOKE WARREN



SOURCES: LEFT, AMERICAN MEDICAL, THE UNIVERSITY OF WISCONSIN POPULATION HEALTH INSTITUTE. ABOVE, U.S. CENSUS BUREAU, 2010 AND 2015



survive BY J.R. LOGAN/TAOS NEWS

tal networks is to focus on helping them thrive," Stoddard says. "But in the case of New Mexico, it's to survive."

In some cases, that means creating economies of scale: New Mexico's member hospitals have entered into group purchasing agreements, for example, lowering prices on bulk purchases for necessities like bandages and bedpans. Guadalupe County Hospital has already cut its annual supply costs by nearly one-third, from \$100,000 to \$70,000.

Before the network's creation, says Campos, the CEO at Guadalupe County, "If you were a medical records office manager, you were the only one you knew. Now you have nine others that you can call on."

That might sound simple. And obvious. But Stoddard explains that the staff of a small rural hospital is more likely to suffer from professional isolation that can hurt performance and stifle innovation. And without a formal network, conversations that inspire learning and creativity

— and, in turn, lead to cost savings — usually don't happen.

That was true for Leslie Sanchez, who oversees medical records at Guadalupe County Hospital and has been part of the network's committee meetings for about a year. "It was just nice to be able to hear their experiences and their problems and realize, 'Wow, I'm not the only one going crazy,'" Sanchez says.

Sanchez learned, for example, that another records clerk in Lovington had experienced a problem she was dealing with: doctors who failed to do paperwork. That clerk had developed a series of emails to prompt doctors to complete it. It was a simple approach, but it was more structured, Sanchez says. And it works much better than her strategy of gentle nagging.

The network has also hired its own specialist to analyze contracts with insurance companies to ensure that terms are fair and comparable to other hospitals — expertise that would be hard for any one

of these hospitals to afford on their own.

Furthermore, the network is working with the University of New Mexico to draw more medical students to do rotations in rural hospitals. Studies have found that attracting medical students to small hospitals makes it easier to hire them later, when they finish school. So the network gives these small facilities more to offer them, Stoddard says.

For all the group's accomplishments, its success remains tenuous. It's not clear whether cooperation and bulk purchasing will be enough to keep small hospitals viable. But network members say it can't hurt. If the network can prove its worth to its members, they might be willing to shell out more money or find funding elsewhere — and face these challenges as a group, rather than going it alone. ■

"Generally, the purpose of these hospital networks is to focus on helping (hospitals) thrive. But in the case of New Mexico, it's to survive."

— Stephen Stoddard, executive director, New Mexico Rural Hospital Network

This story is part of the "Small towns, big change" project through the Solutions Journalism Network.

A fix for the ‘catch-all’ emergency room?

In Colorado, a new movement aims to provide an alternative for people experiencing mental health crises BY LEAH TODD

Even in communities where hospitals have stayed open, a lack of services for other conditions, including mental illness, can strain emergency rooms and other systems. Solutions might require new health-care models, and with adequate funding not always available, it's time to explore new ways of thinking about care.

STEVEN LEDWON WOKE with his arms strapped to a hospital bed.

Police had picked up Ledwon, 55, in late April from a local shelter in Alamosa, Colorado, where he was hallucinating and speaking garbled Spanish. Likely triggered by a change in medication, Ledwon's psychotic episode was compounded by crippling anxiety. Police dropped him off in the emergency room — a common destination for mental health patients, but one that may cause as much harm as good.

According to the Centers for Disease Control and Prevention, mental disorders like Ledwon's caused 5.3 million visits to emergency departments nationwide in 2011, 4 percent of all trips. All too often, however, ERs are ill-equipped to handle patients whose illnesses are mental or emotional rather than physical. Not only are ER visits expensive — one industry analysis pegged the median cost at \$1,200 — they take time and beds from patients who require physical care. The chaotic ER environment, too, is hardly conducive to mental health. During every hospital visit, Ledwon said, the needles, harsh lights and restraining straps made him feel even more anxious than when he walked in.

Despite the many drawbacks to ER visits, law enforcement often has nowhere else to house people who are clearly experiencing mental health crises but are not a danger to themselves or others. The emergency room, said Alamosa County Sheriff Robert Jackson, is “our catch-all.” Police here have few other options. The county jail is overcrowded, and just two officers in Alamosa have been trained in crisis intervention, which teaches officers to de-escalate situations involving people in mental health crisis. Alamosa, a town of 10,000 people that serves as a hub for those seeking social services throughout Colorado's isolated San Luis Valley, has just nine beds in its ER.

Reducing unnecessary and counter-productive ER visits is one mission of Mi Esperanza, a small wellness center run by a behavioral health group in Alamosa. The goal is to give people in crisis everything they need, including breathing exercises to calm anxiety, talk therapy to handle tough emotions and case managers to help with life logistics.

Just as important is what you won't find at Mi Esperanza: No needles, no harsh lights, no armed police officers.



Rick Esquibel, case manager for Mi Esperanza Wellness Center in Alamosa, Colorado. Also known as the crisis living room, the walk-in wellness center in Colorado's San Luis Valley provides an alternative environment for people experiencing mental health crises.

RICK SCIBELLI JR./SOLUTIONS JOURNALISM NETWORK

“The idea is you could come in here and no matter how you're feeling, we have something for you ... that will help soothe,” said Rick Esquibel, a certified addiction counselor who works at the center.

You might walk right past the unremarkable concrete building that houses Mi Esperanza a few blocks off Alamosa's main drag. Couches line the big living room inside. The name, “Mi Esperanza,” is Spanish for “my hope.”

In one therapy room, a waist-high pile of pillows fills an entire corner. The words “I want to be happy and safe” are scrawled in a child's handwriting on a nearby chalkboard. A simple blue-ink drawing of a hot rod, made by a middle-aged man, lies on a table. Coloring helps even the toughest adults calm down and express their feelings, said Esquibel, the addiction counselor. Five mental health clinicians and two case managers staff the center. A former Marine works security, but wears civilian clothes.

The facility, which opened late in 2014, is attracting a growing clientele. This

May, Mi Esperanza served 28 visitors — 20 more than it hosted in May 2015. Some stay for 30 minutes; others linger for hours. So far this year, the staff has referred three patients to the ER, deciding they needed regular medical care.

Mi Esperanza and other so-called “crisis living rooms” are part of an emerging movement to decrease the inappropriate use of ERs. In 2015, Colorado Springs' mobile crisis response team brought 564 people experiencing mental health or substance abuse-related problems to that city's crisis living room. In the past two years, similar facilities have opened in Denver, Boulder, Fort Collins, Pueblo and Grand Junction.

Some mental health crises could be better addressed by providing support and resources, exactly as crisis living rooms seek to do, said Barbara Harris, a DePaul University nursing professor who has studied living-room programs. In a recent study of one facility near Chicago, Harris spoke with a patient who equated hospitals' heavy-handed treatment of mental health conditions to using a nuclear weapon to kill a small animal. Sometimes people don't need emergency medical care; they just need to talk to a counselor.

Some ERs are creating special sections for people with mental health conditions, away from sights and sounds that might further upset them, Harris said. But living-room advocates want to keep those people out of the ER in the first place.

Although crisis living rooms are catching on, they may not always be the right tool for the job. Some mental health crises, such as suicide attempts, require medical treatment, Harris said. And it's hard to put a finger on how well facilities like Mi Esperanza are working. The number of people turning to Alamosa's ER for mental health complaints has actually increased since Mi Esperanza opened, according to data from the San Luis Valley Regional Medical Center. In 2014, the ER handled 242 visits where patients complained of anxiety, suicidal thoughts, substance abuse withdrawal or other situational crises. In 2015, that number grew to 276.

Even Harris, the DePaul researcher, said data comparing the outcomes of living-room clients to those who received emergency medical care are lacking nationally. Instead, she and others point



to anecdotal evidence. Most people in Harris' study, for example, said they preferred the living-room environment to the ER when they were undergoing a mental health crisis. Many were repeat customers, returning to the living room when they felt stressed. For Harris, that's a good sign.

One metric suggests Mi Esperanza may be helping, said Julie Ramstetter, who manages the Medical Center's trauma program. Fewer chronic users — people visiting the ER two to three times per week — show up in Alamosa's ER today than six months ago.

Yet Mi Esperanza's hours may prevent it from reaching those who need its services most. Many people with mental health disorders end up in the ER in evenings or on weekends, Ramstetter said. Mi Esperanza is only open weekdays, from 8 a.m. to 5 p.m. When a man showed up to the ER with no physical injuries at 4:30 p.m. on a weekday earlier this year, Ramstetter thought he'd be a good fit for Mi Esperanza. You can wait here for two hours until a doctor can see you, she

recalled telling him, or you can try this other facility. The man left. A few hours later, he was back in the ER.

Steven Ledwon first visited the Living Room after the incident that landed him in the hospital earlier this year. A mental health worker brought him there after doctors decided he was stable enough on his medications and released him.

On a recent morning, Ledwon walked into a small, dark room, sparsely outfitted with one recliner and chair. Colored lights twinkled on the ceiling. Ledwon calls this the "Star Room," where staff puts on calming music. For Ledwon, that means Pearl Jam or Pink Floyd.

"This is the most magical room for me," said Ledwon, a former UPS worker with a weathered face and a gravelly voice. "It works miracles in here. You can go in there a train wreck, and five minutes later you're breathing normal, thinking clear, and able to go home instead of a hospital."

At first, Ledwon, a recovering alcoholic, visited Mi Esperanza every day — sometimes twice. He now lives in an

apartment run by the San Luis Valley Behavioral Health Group, which also operates Mi Esperanza using operational funds and a state grant, and stops by about once a week. The staff bought him a cellphone and helps him see a doctor regularly. Ledwon hasn't been back to the ER since.

Recently, Ledwon became agitated when he thought his prescription medications had not been filled properly. He knew the signs: tight chest, shallow breath, talking to himself. He headed straight for Mi Esperanza.

"People were shying away from me on the street, and I thought, 'I better go in here before I get thrown in jail,'" Ledwon said.

He sat on a couch with Esquibel, who played a Pearl Jam song. Ledwon remembered a technique he learned at another recovery center long ago: When you're thinking of something bad, try to focus on something good, like fishing. He closed his eyes.

Ten minutes later, Ledwon felt good enough to walk home. ■

Steven Ledwon relaxes in Mi Esperanza's "comfort room" while listening to his favorite band, Pearl Jam. Ledwon, a recovering alcoholic who used to frequent the local emergency room, comes to what he calls the "Star Room" at the wellness center weekly, and says, "I wish I had this room at home. I would use it all the time."

RICK SCIBELLI JR./SOLUTIONS JOURNALISM NETWORK

This story is part of the "Small towns, big change" project through the Solutions Journalism Network.

Notice to our advertisers: You can place classified ads with our online classified system. Visit <http://classifieds.hcn.org>. Sept. 5 is the deadline to place your print ad in the Sept. 19 issue. Call 800-311-5852, or e-mail advertising@hcn.org for help or information. For current rates and display ad options, visit hcn.org/advertising.

BUSINESS OPPORTUNITIES

Conservationist? Irrigable land? Stellar seed-saving NGO is available to serious partner. Package must include financial support. Details: <http://seeds.ojaidigital.net>.

Highly profitable outfitting business and canoe livery for sale in Montana. Offering fully guided trips as well as operating a very busy canoe and kayak livery in a national monument. The leading outfitter since 1965. Three-bedroom home, 40-foot-by-60-foot warehouse, fleet of vans, trucks, trailers, over 70 canoes and kayaks. Turnkey. 1-877-538-4890.

EMPLOYMENT

Executive Director – We are looking for an Executive Director. Please visit missouribreaks.org/blog for more info.

Staff attorney in Salt Lake City – Western Resource Advocates is looking for a staff attorney to focus on protecting Utah and the Intermountain West's land, air and water. Info: www.westernresourceadvocates.org.

High Country News – Assistant Editor Paonia, Colo. Award-winning, nonprofit newsmagazine of the American West seeks a new member for its editorial team. The Assistant Editor works as a key member of the digital team, as well as the print magazine. The Assistant Editor works with in-house writers and freelancers to produce short stories for the website and magazine, and performs myriad editing duties as assigned. This is a great position at a mission-driven magazine with a long history, whose online presence and deep influence continue to grow. Candidates must know HCN, have an intimate knowledge of the West's communities, environment and current events, and have a passion for the craft of writing, editing and magazine-style journalism. The position is based in Paonia, Colo., and offers room for job growth. HCN is an EOE and committed to a diverse workplace. Email cover letter, résumé and samples of your work to jobs@hcn.org. View full job description at www.hcn.org/about/jobs.



Development Director, Whatcom Land Trust – Description and application at www.whatcomlandtrust.org.

Executive Director – Western Watersheds Project, a West-wide nonprofit conservation advocacy organization, is seeking a qualified and committed Executive Director. The ED will oversee a dozen staff and contract employees in multiple field offices; ensure the financial health of the organization; review, commit to and be comfortable with litigation, both strategically and procedurally; be the face of the organization in the media; and interact with agencies and policymakers on a range of conservation issues. Salary commensurate with experience. Information: www.westernwatersheds.org/jobs/.

High Country News – Associate Editor Telecommute. Dream job. Award-winning, nonprofit newsmagazine of the American West seeks a new senior member for its editorial team. The Associate Editor works as a frontline writer for major stories for the magazine, as well as contributing to the overall editorial strategy. The Associate Editor also leads collaborative projects with the editorial team, files for the website, and occasionally edits stories as assigned. This is a telecommutable position, so long as the candidate lives in any state west of the 100th meridian, excluding Hawaii. Candidates must know HCN, have an intimate knowledge of the West's communities, environment and current events, and have a passion for the craft of writing, editing and magazine-style journalism. HCN is an EOE and is committed to a diverse workplace. Email cover letter, résumé and samples of your work to jobs@hcn.org. View full job description at www.hcn.org/about/jobs.



Ranch business manager – Pine Cliff Ranch, a responsibly run grass-fed beef ranch in Sedalia, Colo., is seeking an entrepreneurial Ranch Business Manager to manage daily operations, grow the grass-fed beef business, as well as launch additional businesses on the ranch. The Ranch Business Manager will split duties between growing the Pine Cliff businesses and daily ranch operations (hands-on). <http://www.pinecliff ranch.org>.

Director of Development with Western Resources Advocates to lead development team to secure financial resources to support WRA's conservation goals. Info: www.WesternResourceAdvocates.org.

Advocates for the West seeks Director of Strategic Partnerships – Nonprofit environmental law firm seeks fundraising professional to join our senior staff team. For more info: www.advocateswest.org/news/hiring.

California Program Director Location: San Francisco or other city with airport access. Please visit our website or click <http://conservationlands.org/clf-job-announcement-california-program-director> for full job description.

Executive Director – Grand Staircase Escalante Partners is seeking experienced fundraiser and supervisor. E.D. can work in home office but must frequently travel to Kanab and Escalante, Utah. Salary negotiable DOE. More info at www.gsenm.org.

Representative, Rockies and Plains Program – Defenders of Wildlife, a national nonprofit membership organization, seeks a Representative to develop, oversee and implement strategic plan objectives and strategies for the Rockies and Plains Program, with a focus on efforts to promote restoration of wolves to the Rocky Mountains of western Colorado. Go to www.defenders.org to see position description. Defenders of Wildlife is EOE.

Corporate Counsel – Western Rivers Conservancy protects outstanding river ecosystems in the Western United States through land acquisition. The Corporate Counsel is responsible for supporting WRC's project staff in all aspects of real property transactions and other legal matters related to Western Rivers Conservancy's mission. The Corporate Counsel will be involved in the legal aspects of land conservation transactions from acquisition to disposition, as well as corporate legal affairs. This position is based in WRC's Portland, Ore., office and must have membership in the Oregon State Bar. To see the complete job announcement and application instructions, please go to: westernrivers.org/about/jobs.

HOME AND GARDEN

AGGRAND Natural Liquid Fertilizers Chemical dependent? Grow responsibly, naturally, easily with proven AGGRAND. 877-486-7645, www.natural-fertilizers.com.

Aquabot High-Pressure Water Bottles Mist, shower and jet. Clean off, cool off, hydrate and have fun. www.lunaticgear.com.

PROFESSIONAL SERVICES

Expert land steward – Available now for site conservator, property manager. View résumé at: <http://skills.ojaidigital.net>.

Nonprofit organizational development We work with small- to medium-sized NPOs on board structure, mission and vision, strategic planning and fundraising. May we help you? www.firstcreekpartners.com.

Wildland Fire Services – Planning, Reviews, Litigation, www.blackbull-wildfire.com.

Environmental law/science research and writing – Experienced JD, LLM, Ph.D. Providing general overview to detailed analysis (but not legal advice). Holly hvcampbellresearch@gmail.com. 541-740-9716.



REAL ESTATE FOR SALE

Solar off-grid — 3,960-square-foot log-sided home for sale overlooking Idaho's wild and scenic Salmon River on 13.42 irrigated acres, 40 miles downstream of Salmon, Idaho, with 1,344-square-foot barn on horse-friendly property and abundant wildlife viewing. Visit www.offgrididahorealestate.com. Contact Esther: 208-756-7019.

Orchard and vineyard — Certified organic vineyard and orchard, Hotchkiss, Colo. Turnkey operation includes machinery, equipment and winery. \$895,000. Shaffer Real Estate Company, 970-835-9350.

www.GreenHomesForSale.com — The premium venue for buying and selling green and energy-efficient homes since 2004.

Western Colorado — 25 acres, irrigation, views! Private, adobe-style, three bedrooms/two-bath, Grand Mesa recreation. \$490,000, #719856, john@rmwrealestate.com, 970-856-3300.

Casa Solaris — green living at its best Passive/active solar home with views, 2,800 square feet, 20 minutes to Sedona. 928-301-3536. Tim.

Riverfront mountain retreat — 3.25 acres with a home at the headwaters of the Gila River. \$170,000. jabesnow@gmail.com.

Lot near Bryce Canyon, dream cabin or camping! .52 acre in Bryce Woodlands on Paunsaugunt Plateau, famed permit-only hunting grounds. Electricity to corner of lot. 435-592-2507. TammyVogt.UT@gmail.com.

Self-sufficient riverfront home on the Salmon River in the Idaho Wilderness 980-square-foot off-grid solar-powered log home with 250 feet of Salmon River frontage. Rare property on the "River of No Return" with a garage/shop and well. 520-907-3967, emarue@msn.com.

Arboles, Colo., 70-acre ranch — \$450,000. Abundant irrigation water. Productive hay pasture ground, perennial stream, trees, good access. Also 10 irrigated acres and pond with 1,000-square-foot house. \$250,000. 970-946-7147. wsa508@yahoo.com.

Two-acre home and farm site with water and animal rights in rural Enterprise — Off the grid or access power. Horse and farm neighborhood, best \$/acre in area. Great investment! 453-592-2507. TammyVogt.UT@gmail.com.

Desert beauty in the country — This custom 4,300-square-foot home is located 12 miles north of Las Cruces, N.M., on nearly 2 acres of land. \$449,000. desertamieg@gmail.com

Conservation land in Idaho — 180 acres of rolling sage and wetland. One building site. Full view of the Tetons. Close to Targhee. Kent at 208-709-4470.

Twenty-nine-acre self-sustaining home surrounded by national park and BLM, 360-degree views, year-round home or retreat. Solar, generator, well with 1,500-gallon cistern, propane and woodstove heat, fenced; hunting and ranching. Twenty minutes from Cedar City. Additional 20 acres and water available. 435-592-2507. TammyVogt.UT@gmail.com.

Horse and farm acreage with views, possible to subdivide — 9.55 acres with eight acre-feet of water rights and animal rights in rural paradise of Enoch, Utah. Utilities close by, sewer on property. Hilltop with 360-degree views! Investment opportunity! 435-592-2507. TammyVogt.UT@gmail.com.

TOURS AND TRAVEL

EXPERIENCE COPPER CANYON, MEXICO 10-day package from Los Mochis Airport. Four nights hotel, five nights camping/hiking with burro support. From \$2,000 per person. www.coppercanyontrails.org, 520-324-0209

Skagit Guided Adventures Explore northwest Washington. Small-group nature tours with renowned naturalist. skagitguidedadventures.com.

Learning adventures on the Colorado Plateau — Small-group, active, adult seminars with guest experts, plus private custom trip options for your family, tour or board group. Canyonlands Field Institute, Moab, Utah. www.cfmoab.org. 435-259-7750.

What will you discover? Southwest tours led by archaeologists and American Indian scholars. Archaeology digs in Mesa Verde Country. Crow Canyon Archaeological Center. www.crowcanyon.org. 800-422-8975.

Coming to Tucson? Popular vacation house, everything furnished. Rent by day, week, month. Two-bedroom, one bath. Large enclosed yards. Dog-friendly. Contact Lee at cloler@cox.net or 520-791-9246.

UNIVERSITIES AND SCHOOLS

Become a certified public manager! A leadership and professional development program for individuals in the public and nonprofit sectors. Offered by the top-ranked CU Denver School of Public Affairs, the CPM program helps develop and improve management and leadership skills. Courses offered year-round; start anytime! bit.ly/CPMColo.

Calling all activists. Don't miss this once-in-a-lifetime opportunity to meet and collaborate with these top leaders of the environmental movement. Make your voice be heard! We need your talent. Join us at the Deep Ecology Collaboratory!!



Dave Foreman
activist, author, and co-founder of Earth First! and The Wildlands Project

Kelly Sorenson
Executive Director of Ventana Wildlife Society

William Ryerson
founder and President of the Population Media Center

Joe Bish
Director of Issue Advocacy at Population Media Center

Eileen Crist
educator, author of Images of Animals, and editor of Gaia in Turmoil

Stephanie Mills
lecturer, activist, and author of In Service of the Wild, & Tough Little Beauties

Matt Ritter
author, editor, and professor of botany at Cal Poly, SLO

Jerry Mander
Program Director at the Foundation for Deep Ecology

Derrick Jensen
author of Deep Green Resistance: Strategy to Save the Planet

Robert Gifford
professor at University of Victoria, BC, environmental psychology

Oct 21-23, 2016 San Luis Obispo, CA info@ecologistics.org, (805) 548-0597, www.ecologistics.org

Sponsored by



NATURAL
INVESTMENTS

Casson
Family
Trust

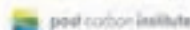


www.wildlife.com



BIODIVERSITY FIRST!

protecting those who have no voice



FOUNDATION FOR
DEEP ECOLOGY

In Partnership with



SIERRA
CLUB

SLO-350.org



CENTRAL COAST
BIOREGION

Our winning writer, and so long to a good friend

As summer fades, we're wrapping up our annual photo contest, in which we solicited images of the West's national parks. While it's too late to submit a picture, you can still vote for your favorite until Sept. 15 at hcn.org/photos16.



Gene Lorig
in 1982.
COURTESY
MARGO LORIG

Meanwhile, we've been busy catching up with visitors. **Dave Morris**, who works at the Wild Rockies Field Institute in Missoula, Montana, stopped by. He has been a subscriber for many years and always wanted to see *HCN* headquarters, where we hatch some of our best ideas (and squash some of the worst). As a teacher in Gothic, Colorado, Dave used *HCN* articles in some of his classes.

Paula Peterson came by on the way to a concert by Tim O'Brien at Pickin' in the Park, a weekly concert series that runs every August. Paula, the recreation manager for Eagle-Holy Cross Ranger

District in Glenwood Springs, Colorado, has worked for the Forest Service for 26 years and is a *HCN* fan.

We've also had reason to celebrate: Our Paonia-based correspondent, **Sarah Tory**, was awarded a reporting fellowship and residency from the Carey Institute for Global Good Nonfiction Program, which supports writers working on environmental, human rights and justice topics. Sarah will focus on a California town that has come to rely on private prisons to support its once-agricultural economy. Congratulations, Sarah.

We were saddened by news of the death of longtime *HCN* subscriber, lawyer and activist **Gene Lorig**, who spent his last years in Paonia. Gene and his wife of 58 years, **Margo**, spearheaded a successful grassroots effort in the 1980s and 1990s to prevent Adam's Rib, a proposed major ski resort, from being built in the narrow valley of East Brush Creek, 15 miles south of Eagle.

Gene's life spanned the old West and the new. He was born in 1927 in Telluride, where his parents owned a store that sold clothes to miners' families. At 16, Gene began working in the mill at

Telluride's mine. He graduated from Western State College and Denver's Westminster Law School, then served a term as district attorney before settling in for a career as a general practice lawyer.

An avid hiker, camper and Nordic skier, Gene climbed numerous 14,000-foot peaks, and, according to his daughter, **Dorothy**, rarely encountered a jeep road he couldn't tackle with the family's 1965 Toyota Land Cruiser.

Some corrections to the Aug. 22 issue: In "A Backup in the National Parks Jobs Pipeline," a sidebar indicated that Port Chicago Naval Magazine National Monument is in Illinois. It's located near Concord, California. Contributing Editor Glenn Nelson was misidentified as a member of Green 2.0. He is not. In the review of *Harnessing the Wind*, the photo collection should have been credited to the Center for Art + Environment Archive Collections, Nevada Museum of Art. We also incorrectly described the goal of Bryan Burke, a recent visitor to our office, who is "running" the entire Colorado River system. Bryan is river-running, as in on a boat, not on foot.

—Paige Blankenbuehler, for the staff

Experience Beautiful Silver City, New Mexico
from the Heart of Historic Downtown

MURRAY HOTEL

Art Deco Elegance with Modern Comfort

- Newly renovated guestrooms and suites
- In the midst of MainStreet and Arts & Cultural District
- Enjoy galleries, specialty shops, museums, an eclectic variety of fine dining, nature trails and more - all within walking distance




THE MURRAY HOTEL
SILVER CITY, NM

200 W Broadway Street
Corner of Texas and Broadway

575.956.9400
www.murray-hotel.com



Get High Country News for your class!

Instructors can receive FREE copies of *High Country News* for their students, connecting them to the important issues and stories that define the American West.

Find out more & sign up to get this great resource at hcn.org/edu.



Jackson Q & A continued from page 8

able to establish itself pretty broadly in many parts of the Sonoran Desert, including in the mountains around Tucson. It's in Saguaro National Park, it's in the Coronado National Forest, it's in some of the (Bureau of Land Management) lands.

One of the threats with buffelgrass is that it is potentially an ecosystem transformer species. The buffelgrass survives fire, most everything else doesn't survive, and then the buffelgrass comes back even more aggressively because the competition is gone.

HCN Are we just going to have to cede the Sonoran Desert to buffelgrass?

SJ The novel ecosystem that buffelgrass has created in some parts of the Sonoran Desert is an undesirable ecosystem from my point of view. I don't really see any value in it. Nothing that I or most other people value about the natural world is there in a buffelgrass-dominated ecosystem compared to the beautiful and diverse Sonoran Desert ecosystem. This is a novel ecosystem that in my view should not be embraced.

That said, buffelgrass can be eradicated locally, but it's a very intensive process. You can dig it up, and as long as you get

the underground material, it's gone. There are campaigns in various places of just going out there and digging it out. That's actually been very effective within Tucson and some of the urbanized areas. But the labor is immense, and just hauling the bags of buffelgrass out is a huge logistical problem, especially in the backcountry. It can also be controlled with herbicides, but they're effective only in the brief period of buffelgrass green-up. You have to get your ground crews mobilized and helicopters in the air on very short notice, and cover a lot of territory in a narrow time window. It may be impossible to completely eradicate it. But what we can do instead is maintain vigilance and manage it.

HCN For any novel ecosystem, is there a sort of Ten Commandments for proper management?

SJ Ecological management and ecological restoration is highly situationally dependent. All management decisions in the real world require a series of trade-offs, and all of them entail direct costs, and all of them entail opportunity costs.

For some parts of the Sonoran Desert, such as Saguaro National Park, that seems to be a fairly easy and straightforward decision: We like Saguaro because it's this extensive area of beautiful native vegetation



that imparts aesthetic values, it imparts ethical values, it imparts cultural values, it imparts economic values through tourism and hiking. To prevent the park from converting over to a mono-specific buffelgrass meadow, resource managers and others have made the decision that it is worth the investment to control buffelgrass. In other cases, the decision calculus may come out to be different if the invasive species is less likely to have such a transformational effect on the ecosystem. It would be a wonderful world if we had enough resources to go around and do everything we want, but as optimistic as I was in the 1970s after Earth Day, I haven't lived long enough to see that day yet. And I'm not sure it's going to come any time soon. In the meantime, we have to use the resources we have as wisely as we can, not letting the perfect interfere with the good. □

Piles of dug-up buffelgrass wait to be disposed of after an eradication day in Tucson, Arizona. The Friends of Urban Wildlife filled 79 bags with the invasive species. ERIN SOL/3RINSVIEW.COM

High Country News IN SAN FRANCISCO

The Fate of Our Public Lands



The West's public lands face several major challenges: an extremist push for local control, a changing climate, and the potential loss of support from an increasingly diverse population.

What role will these issues play in the future of our public lands? Join *High Country News'* writers and editors for a lively discussion on the fate of the West's wide-open spaces.

**Saturday • Sept. 24
6:30 – 7:30 p.m.**
Reception following (includes food and drink)
David Brower Center, Goldman Theater,
2150 Allston Way, Berkeley, CA

Advanced tickets:
\$25 (\$30 at the door)
\$15 for university students
hcn.org/sf-event

Photo by Andy Nelson/The Register-Guard

We appreciate our terrific sponsors:



An electric-power giant is poised to fall



OPINION BY
ED MARSTON

David battling Goliath is a cliché. But how else to describe the struggle between a rural electric co-op and its powerful supplier of electricity?

"David," in this case, is the Delta-Montrose Electric Association, a medium-sized co-op in west-central Colorado. It serves 71,000 customers across two counties and 3,400 square miles with roughly 100 employees.

"Goliath" is Tri-State Generation and Transmission Association, which sells electricity to 43 co-ops across Colorado, New Mexico, Wyoming and Nebraska. It has 1,500 employees, strip mines, power plants and 1 million customers over its four states and 200,000 square miles.

Like the biblical David, Delta-Montrose has sunk a stone deep into Tri-State's forehead. The missile was provided by the Federal Energy Regulatory Commission, which ordered Delta-Montrose to buy any reasonably priced renewable energy on offer. The order cut the heart out of power-purchase contracts that Tri-State has with Delta-

Montrose and its 42 other co-ops. Those contracts require the co-ops to buy at least 95 percent of their power from Tri-State until mid-century.

Standing on the bedrock of those contracts, Tri-State has borrowed \$3.4 billion to build power plants and transmission lines. The commission's order throws a bombshell into that mountain

**It wanted to avoid spending
40 years paying for a plant
it believed would be obsolete
long before 2050.**

of debt and the power plants it finances. If, over time, enough co-ops substitute local renewable power for Tri-State's power, Tri-State could go bankrupt.

You would not guess Tri-State's peril from its sunny 2015 annual report. Even the fine print in its audit statement doesn't mention the commission's

decision. But in Docket EL16-39, on the website of the Federal Energy Regulatory Commission, Tri-State's lawyers warn that the agency's 2015 decision could jeopardize "Tri-State's well-being and existence."

The lawyers are not exaggerating.

The electric co-ops describe themselves, accurately, as a close-knit family. Why, then, did Delta-Montrose, a typical co-op in a rural area, create this crisis?

The story starts in 2004, when Tri-State asked its co-ops to extend their contracts from 2040 to 2050. Tri-State needed the extension to build a new multibillion-dollar coal plant in western Kansas. Lenders would not finance a plant that could run out of customers before the plant's debt was paid off.

The other 42 co-ops extended their contracts. But the board of Delta-Montrose refused. It wanted to avoid spending 40 years paying for a plant it believed would be obsolete long before 2050. The co-op's alternative strategy was to gradually generate more and

WEB EXTRA

To see all the current Writers on the Range columns, and archives, visit hcn.org

High Country News



books & authors

For people who care about the West

Join us for this very special issue and reach:

- Affluent, highly educated, environmentally and socially conscious voracious book, music and video consumers.
- 120,000 readers with our print issue.
- 390,000 additional people through our website and eNewsletter.

Books & Authors Ad Opportunities:

- Print, eNewsletter and Web advertising.
- Print & digital packages, and à la carte options available.

Issue Cover Date: November 14, 2016

Space Reservation Deadline: October 24, 2016

Ad Art Deadline: October 31, 2016

Visit hcn.org/BNA or contact David Anderson: 800-311-5852 or davida@hcn.org

more power at home. It hoped that other co-ops would follow its lead, and that as Tri-State's aging plants were shut, the power generated by local co-ops would provide a smooth transition. But Tri-State and the other co-ops never took Delta-Montrose's approach seriously. It ran counter to the traditional business model.

Federally directed and financed electrification, working through small locally controlled co-ops, rescued rural America from literal darkness and deep poverty in the 1930s and 1940s. It is a glorious history. But with time, the co-ops' focus on local economies was replaced by loyalty to the ever more centralized and large-scale system that kept those lights on. Cheap, reliable electricity, generated in huge power plants — with the host communities getting all the jobs and property taxes — ultimately became the system's business model.

But solar and especially wind are now competitive with central-station power. The Delta-Montrose co-op's area is rich in sunlight, falling water and large flows of methane out of its underground coal mines. Thanks to a visionary former general manager named Dan McClendon, the co-op board came to see rural electrification as a path to a rejuvenated local economy. It successfully resisted extend-



The South Canal Hydroelectric Project is one of Delta-Montrose Electric Association's local renewable energy projects, and is the largest local member hydroelectric project within the Tri-State membership. DMEA

ing its contract with Tri-State.

But even without an extension, the contract was good through 2040, and it still blocked Delta-Montrose from expanding its area's jobs and tax base. Then came freedom: The commission's 2015 order allowing Delta-Montrose to use local renewable power.

Delta-Montrose also hopes that cheap local renewables will fend off the same threat the commission's order poses to Tri-State. Just as Tri-State fears losing its 43 co-ops, Delta-Montrose fears losing its own customers to rooftop solar and cheaper batteries.

Meanwhile, Tri-State, rather than adapting to a new reality, is appealing the commission's decision for the second time. Because the decision applies to all of the nation's 840 co-ops and 65 power suppliers, this dispute — begun by a small co-op — could engage the entire system and end up before Congress.

Ed Marston is the former publisher of High Country News and served on the Delta-Montrose Electric Association board of directors for 18 years.

Writers on the Range is a syndicated service of High Country News, providing three opinion columns each week to more than 200 media outlets around the West. For more information, contact Betsy Marston, betsym@hcn.org, 970-527-4898.

High Country News Photo Contest

In honor of the 100th birthday of the National Park Service, we're dedicating this year's photo contest to the parks you love. See what our readers

treasure about your favorite park(s), located in one of the 11 Western states or Alaska.

Winning images will be published online and may be printed in the magazine.

Winners are eligible for prizes from MindShift Gear.



www.hcn.org/photos16

Vote for your favorites: Sept. 1-15

SPONSORED BY



Grand Teton National Park 2013
by Gord McKenna

2016 High Country News Bell Prize for young essayists

Honoring the spirit of our founder, Tom Bell, we want to hear from aspiring writers and essayists, ages 18 to 25, on conservation topics frequently covered by *High Country News*. The winning essay will receive \$1,000 and be awarded the Bell Prize.

Essays should be no longer than 800 words. Consider the conservation topics you're familiar with and why they're important to you: water, energy & industry, wildlife, public lands, climate, communities, sustainability, justice, politics — you decide.

Deadline Oct. 14

Email essays to: student.essay@hcn.org

Visit hcn.org/bellprize for more details and competition rules

SPONSORED BY



Photo of Tom Bell by Mark Harvey



A pumpkin beer with an unexpected twist? Yep, Pumpkick.
Brewed with all the right spices and a hearty helping
of cranberries, it will kick you right in the glass.

Find the beer and learn more at NewBelgium.com



Pumpkick, New Belgium and the bicycle logo are trademarks of New Belgium Brewing Co.

ENJOY NEW BELGIUM RESPONSIBLY

©2016 NEW BELGIUM BREWING CO.



Slaughter of the Innocents

Two years ago, some neighbors asked me to participate in the extermination of a prairie dog colony that covered parts of our adjoining four fields. They assured me the rodents wouldn't suffer when their burrows were gassed and backfilled. One of them compared the process to me killing the grasshoppers in my garden, but added, "If you don't do it, it's no big deal."

I'm a practicing Buddhist: I find killing abhorrent even when necessary. I couldn't see how exterminating a colony of hundreds of sentient beings was necessary.

Yet I understood my neighbors' desire to eliminate these rodents. Their burrows can break the legs of livestock and damage tractors, and their fleas carry bubonic plague. When a colony's movements are limited by geography, it can denude a field quickly. Our parcels were once part of a single ranch, and they had few if any prairie dogs when we bought them eight years earlier. Now, there were hundreds of burrows, and possibly thousands of prairie dogs.

Prairie dogs are an ecologically important species, however. In their native grasslands, they create unique habitat used by creatures ranging from burrowing owls to badgers, many of which die when a burrow network is gassed. They're prey for predators from hawks to weasels.

After a month of deliberation, I heard a radio interview with author Terry Tempest Williams, in which she recounted Navajo elders' objections to government-sponsored prairie dog extermination in the 1950s: "If you kill all the prairie dogs, there will be no one to cry for the rain." Officials ignored the warning; hardpan, erosion and flash-flooding ensued. I told the neighbors no.

My refusal, it turned out, was a big deal. One neighbor quit speaking to me altogether. This year, a new neighbor offered to pay the entire cost of gassing my field, now the prairie dog epicenter of the neighborhood. She cited an injured gelding and her own auto-immune disease, saying, "I simply can't afford to get the plague from them!"

Under pressure this spring, I revisited the question and sought advice from various people, starting with an email to Terry Tempest Williams. "Please do not kill the prairie dogs on your land," she replied. She suggested that I instead educate my human neighbors about the importance of this keystone species.

I asked environmental philosopher Donald Maier, who responded with more questions than answers — something, he pointed out, one might expect when asking a philosopher a ques-

tion. Were people always justified in clearing away the things — including living things — that stood in the way of their human projects, he asked? No! I thought. But then again, are they never?

Ranchers I've spoken with have tried various methods from flooding to shooting to truck exhaust. A retired farmer in my yoga class told me he used cyanide pellets; when the holes are stuffed with newspaper and backfilled, the pellets react with moisture underground and turn to gas, killing the animals within two minutes. Quick and painless, he said. Then he looked at his watch and added, "But two minutes holding a yoga pose. ..." Sometimes that can seem like an hour.

Finally, my friend Dawn, an environmental consultant, pointed out that the field had never been part of the prairie dogs' natural range: Before it was cleared for agriculture, it was a juniper forest. I would be removing the animals from an artificially created environment, not a habitat they had occupied for millennia.

Prairie dogs can't live on irrigated land. One year, we got only three weeks of irrigation water, and that is likely when they became established on the north end of my field and contiguous fields. After that, the tenant chose not to water that end, providing ideal conditions for the colony to expand.

Dawn's second argument concerned proper stewardship. If everyone involved keeps their land thoroughly irrigated when we have sufficient water, she said, we should never face this dilemma again.

Her final point brought it home. "Remember," she said, "when someone planted your whole yard with invasive grass seed, and you can't get rid of it 20 years later? You're still really unhappy about that." My heart sank. I had allowed an unwanted species to spread over my neighbors' land, causing them to feel a constant, impotent anger that I know too well.

I felt a sudden shame for sticking to my emotional guns for two years, without determining and facing the specific ecological truth of this particular patch of land. The next day, I confirmed that the pest control company uses cyanide; they affirmed that it's quick and painless. I told them to go ahead. Now, I need a tenant who will water the whole field, or I need to irrigate it myself. Or I need to sell the land. Above all, I need to never do this again. □

Rita Clagett lives and writes in western Colorado.

A prairie dog calls an alarm. GARY YANKECH/
CC FLICKR



HEARD AROUND THE WEST | BY BETSY MARSTON

MONTANA

Are state fairs going to the dogs? No; at least in Montana, they're going to the rabbits. During Billings' annual MontanaFair, 22 kids from Yellowstone County participated in its first-ever rabbit-hopping exposition. Their animals, each harnessed and on a leash, competed on a "bunny-agility" course featuring five jumps. The winner, named Squeakers, completed the race in what his handler, 9-year-old Dawson Harms, described as the "relatively slow time" of 32 seconds, explaining that "sometimes he finishes in five seconds." The kids were not allowed to assist their rabbits by lifting them by the harness or discreetly booting them over the barriers, though they could tickle their tails to encourage a leap. Many tried to do just that because "bunny after bunny balked at the first jump," reports the *Billings Gazette*. As a 4-H leader explained, rabbits are more like cats: "They have their own way of doing things." The 271 hoppers outnumbered the other types of junior livestock, but there were plenty of traditional animals competing, including 89 steers and 78 lamb or goats, plus 42 dogs entered in obedience trials, not to mention chickens, turkeys, llamas, alpacas and sundry other creatures, for a grand total of 2,720. Rabbit-hopping contests began in Sweden during the 1970s and have since spread along the U.S. East Coast. In 2013, the American Rabbit Hopping Association was formed to help the new sport make even bigger leaps.

COLORADO

When properly latched, well-engineered bear-proof dumpsters defy animals able to wrestle most other containers to the ground. Unfortunately, they're not proof against human forgetfulness. A bear break-in problem has emerged in Mount Crested Butte, Colorado, because residents keep forgetting to lock the top after they throw in their garbage. It takes just a New York minute for the sweet smell of rotting food to attract bear families, and the steel boxes are no match for the clever cubs. They crawl up, fall in, and then root around for the free food inside. Recently, the town police were called after an agitated mama bear and cub were seen outside a dump-



CALIFORNIA And that's why it's so hard to find a date on Saturday nights. CAROLYN ROSNER

ster. "Mama was not happy," police soon realized, because her second cub was trapped inside. Once it was able to climb out, though, the family left. It was a slightly different story at a condo complex, where a resident unloaded trash into a dumpster, yet somehow failed to notice there were three cubs trapped inside. As the *Crested Butte News* put it, "The next person tossing their trash certainly did (notice)!" Once the bear cubs were freed, all wandered off with mom.

NEVADA

This summer, Brittany Bronson, a college English teacher, took a job delivering cocktails at a Las Vegas hotel-casino. She was pleasantly surprised to learn that her job came with union membership, providing benefits and health care that, as she told *The New York Times*, "hotel workers in other states can only dream of." Women make up the majority of the 57,000 members of Culinary Union Local 226, she discovered, and "at the top of our cocktailing matriarchy was a woman who had joined the union in 1973." And though Nevada defines sex appeal as a legal requirement for some jobs, the state

also boasts one of the smallest gender pay gaps in the country. That narrow pay gap correlates with higher numbers of women in state politics: Nevada is currently ranked sixth in the country, with women making up a third of elected state officials. The worst state for pay equity is Wyoming, which also has the smallest number of women holding political office. The next time you're in Las Vegas, said Bronson, "ask your cocktail server whether unionization makes an enormous difference in women's lives."

WYOMING

Do not, repeat, do not splash while soaking in Kelly Warm Spring in Grand Teton National Park: "A parasitic amoeba that causes deadly brain infections" has turned up there, and "it travels through your nose," reports the *Jackson Hole News&Guide*. The parasite was also found in two off-limits springs along the John D. Rockefeller Jr. Memorial Parkway between Grand Teton and Yellowstone national parks. The Park Service hasn't closed Kelly Spring, but it suggests another reason for staying away: "The warm spring also had elevated levels of *E. coli* bacteria."

MONTANA

Print journalism is far from dead, at least on the local level. In Kalispell, Montana, a free weekly newspaper launched in 2007 now averages 64 pages per edition with a press run of 25,000. It certainly helped that the *Flathead Beacon* was started by journalists with deep pockets: Maury Povich, a syndicated talk show host, and his wife, TV reporter Connie Chung. They fund five and a half full-time positions, reports the *Columbia Journalism Review*, and have a cool website, flatheadbeacon.com, that lets you turn virtual pages.

WEB EXTRA For more from Heard around the West, see hcn.org.

Tips and photos of Western oddities are appreciated and often shared in this column. Write betsym@hcn.org or tag photos #heardaroundthewest on Instagram.



High
Country
News

For people who care about the West.

High Country News covers the important issues and stories that are unique to the American West with a magazine, a weekly column service, books and a website, hcn.org. For editorial comments or questions, write *High Country News*, P.O. Box 1090, Paonia, CO 81428 or editor@hcn.org, or call 970-527-4898.

“There is power in cute. But the real issue is about all animals having a right to exist. Why would we casually throw any species away?”

Tanya Henderson, in her essay, "Consider the vole, endangered and adorable," from *Writers on the Range*, hcn.org/wotr