



A silhouette of a park ranger who reported being raped while working in Grand Canyon National Park. While her case was investigated, it never went to trial. This and other images in the feature story are photo composites of actual women who reported experiencing some form of sexual harassment or abuse in the Park Service, with images of the park where they worked at the time. LAURA CAMDEN, STUART SEEGAR; PHOTO ILLUSTRATION: BROOKE WARREN

On the cover

A female park ranger and scenes from Death Valley National Park, California.

LAURA CAMDEN, RONDA CHURCHILL; PHOTO ILLUSTRATION: BROOKE WARREN

FEATURE

10 How the Park Service is Failing Women

For decades, the agency tasked with safeguarding our greatest public lands has neglected to protect its workers from discrimination and abuse By Lyndsey Gilpin

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Editor's note

Our parks' dark corners

When new editorial intern Lyndsey Gilpin, a graduate of the Medill School of Journalism at Northwestern University, walked into our office last January, she had no idea that her first assignment would last 11 months. We asked



her to look into a government report that revealed long-term patterns of sexual discrimination and harassment at Grand Canyon National Park. This year was the 100th anniversary of the National Park Service, and the timing, I suppose, was not great for the agency. Still, the public lands, and the parks especially, are a key part of the West's grandeur, and the women who dedicate their lives to protecting these landscapes deserve protection as well.

Over the ensuing months, Lyndsey discovered that the problem of harassment and gender discrimination goes well beyond the Grand Canyon, to other national parks and federal agencies. We set up a tip form for our readers and received so many emails that we had to create a spreadsheet. Lyndsey spent countless hours speaking to women who had experienced some form of abuse. Many of them, she learned, felt they had no recourse; they could either complain and face likely retaliation, be silent, or, as many have chosen to do, leave the agency altogether.

Later, in April, National Park Service Director Jonathan Jarvis expanded an investigation into his agency, saying then that he hoped the Grand Canyon was an anomaly. It was not. In fact, further scrutiny showed that the agency had widely failed, over many years, to protect women from hostile work environments, harassment, abuse and assault.

Lyndsey traveled to meet some of the victims and understand the systemic problems they faced, from Death Valley, California, to Montana, to Washington, D.C. Through dogged reporting, she has put together a clear picture of harassment and other abuses within the Park Service. This issue's cover story does more than describe the abuses, however. It examines why they continue to occur, and offers suggestions on what the agency can do to improve its response. At a time when good journalism is in short supply, this is the kind of unflinching reporting we all could use more of. I'm proud to have it in our pages.

As for the Park Service, I hope the agency takes this reporting as it was intended, as a means to shine some light on a problem that has remained in the dark too long. Jarvis has announced a thorough investigation and pledged to make reporting harassment easier. We hope he can keep that promise — and more. The women of the National Park Service, and the workers who stand up for them, deserve it.

-Brian Calvert, managing editor



Training at Solar Energy International's Paonia, Colorado, campus, just downvalley from several recently shuttered coal mines. COURTESY SOLAR ENERGY INTERNATIONAL

A path for solar energy in fossil fuel-reliant towns

As stricter environmental regulations and low natural gas prices make it difficult for coal companies to stay in business, a local program on Colorado's Western Slope has helped spur economic development through renewable energy. A local energy cooperative, Delta Montrose Electric Association, is collaborating with Solar Energy International, a renewable energy lab and school, to train local people - some of them former coal, oil and gas workers - to install rooftop solar and off-grid systems. SEI programs have also helped veterans, women and high school students pursue careers in the solar industry, creating jobs while keeping money generated through energy projects in the county. Other Western states, too, have paved the way for local renewables. In New Mexico, one rural cooperative is building solar fields to attract new businesses looking to power themselves with renewable energy.

Borrowed dollars Hobbs spent on more

housing, beefing up its police force,

LYNDSEY GILPIN

recreation center.

MORE: hcne.ws/solar-strategy

and its part in the new \$63.5 million





A new face for anonymous extinction

Researchers in Sequoia National Park, California, recently discovered an unknown species of millipede, just three-quarters of an inch long and less than a millimeter wide. The find is a reminder of the organisms yet to be found, even in well-studied national parks. The 414-legged millipede is also a testament to the threat of anonymous extinction, when a species dies out before scientists ever discover it. ANNA V. SMITH

MORE: hcne.ws/millipede-marvel

30 Percent saved, of each dollar earned, by Hobbs, New Mexico, in its quest to diversify its economy from the boom-bust cycles of oil and gas.

A new dawn for boom-bust New Mexico

After a market crash in the mid-1980s, a northern New Mexico community started saving for a rainy day. Lea County, known for its energy production, rebranded itself as "The EnergyPlex," and started recruiting nuclear, solar and wind energy firms. Without borrowing a dime, the city invested in housing, doubled its police force and pooled resources with five other public and

private entities to build a recreation center. Lea County's strategic and sustained approach seems to be working. Today, the county boasts above-average salaries and — unique for an oil town — low income volatility, compared to other communities its size.

LEAH TODD, SOLUTIONS JOURNALISM MORE: hcne.ws/After-the-bust

AUDIO

"There are courageous scientists in the federal government who will stand up and do great work and they will speak out about their results. ... There will be a president who wants to deny climate change with this science coming out that's exactly in contradiction with him."

—Elizabeth Shogren, *High Country News* D.C. correspondent, speaking in the *HCN* podcast "West Obsessed." In this episode, we discuss the inherent paradoxes of the president-elect's campaign promises.

LISTEN: hcne.ws/Trump-on-energy

PHOTOGRAPHS

Californians cope with drought

Autumn rains may have eased concerns about water scarcity in Northern California, but the rest of the state, including many predominantly Hispanic and low-income communities in the Central Valley, remains in a historic drought that has persisted for five years. See a gallery from Zoë Meyers and Sarah Craig's multimedia project about severe water shortages by. LYNDSEY GILPIN MORE: hcne.ws/families-of-drought



Trending

DAPL's review

Archaeologists serve an important role in documenting historic properties, but they tend to view the world through the lens of science and history and could miss culturally sensitive artifacts and landmarks. In assessing Standing Rock's most precious lands, the archaeologists on the Dakota Access Pipeline project may have done just that, says Tim Mentz Sr., a former archaeology professor. In a piece for The Conversation, an HCN publishing partner, Mentz says: Surveyors "rarely have the expertise and knowledge to identify traditional cultural properties, which are grounded in identity, culture, spirituality and the land's living memory." **CHIP COLWELL**

You say

RAYMOND L. MORAD
"I worked as a field archaeologist for seven
years. ... I thought he
brought up some very
valid points about
how guys like me
could have, and probably did, miss things
because they are
culturally specific."

JONATHAN SCOLL "Sacred sites are just that: sacred. Those who know of them, e.g., elders, may be reluctant to talk about or even disclose them to non-Native outsiders. The very concept of (National Historic Preservation Act) 'consultation' has limitations."

MICHAEL STIEHL "It seems that the Sioux weren't interested in giving feedback then. Why are they saying that they weren't consulted now? You go to the meetings and state your concerns, as soon and as often as possible."

MORE: hcne.ws/ misguided-review and Facebook.com/ highcountrynews

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AURORA REVISITED

I am pleased to have read this interview with Kim Stanley Robinson ("Science fiction's climate visionary," HCN, 11/14/16) as I just put his novel Aurora into my donation box, unfinished, because I couldn't grasp where it was going. When Robinson said he "pushed that button on purpose," the light went on. I realized that part of the story was to scold those who reach for the stars — or grasp at straws. I see the book in a new way and

Ken Jackson Hillsboro, Oregon

SPINNING YARNS ABOUT BEARS EARS

view our bio-challenges more urgently.

This interview has altered my point of

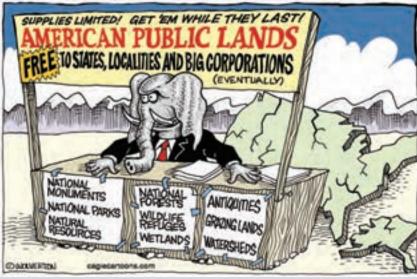
view, changed my opinion, and inspired

renewed environmental activism.

Nathan Nielson's opinion piece ("Leviathan in the desert," HCN, 10/31/16) is made from whole cloth. The yarns Nielson spins are of "federal absorption"; vandalism run amok; neglect and economic crisis; future limitations placed on the gathering of wood, herbs and piñon nuts; a lack of support for a Bears Ears National Monument; and a coming massive restriction of livestock grazing as at the nearby Grand Staircase-Escalante National Monument.

They are all myths. National monuments can be designated only on federal lands already owned by all Americans the federal government is not "absorbing" any land. Nielson falsely reports all 1,400 cases of visitor contact with law enforcement in 2015 at Grand Staircase-Escalante as cases of "rock defacement" with no factual basis. Far from a crisis, economies have grown around Grand Staircase, and business and tax receipts are on the rise. The Escalante Chamber of Commerce, on its website, touts all the tourist accommodations and recreational opportunities and brags in gold letters on the masthead: "HEART OF THE GRAND STAIRCASE-ESCALANTE MONUMENT.

Nielson states, too, that roads cannot be graded, vegetation cannot be maintained, and springs cannot be cleaned in national monuments, but these activities occur regularly at our national monuments. Wood will be gathered, herbs collected, and ceremonies performed at



MONTE WOLVERTON, CAGLECARTOONS.COM

Bears Ears, all protected in the monument proclamation as they have been in all recent monuments designated by President Obama. Some 220,000 people have signed petitions in support of a Bears Ears National Monument; the Salt Lake Tribune, New York Times, Los Angeles Times, and other papers have editorialized for it; and its protection holds the support of more than 300 sovereign Native American Tribes.

The author laments a 31 percent reduction in grazing at Grand Staircase a nonexistent "fact." The Bureau of Land Management says that permitted animal unit months (one AUM is one cow/calf pair or five sheep for one month) were 77,200 when the Grand Staircase was designated. 76,900 are available today, even after thousands of AUMs were willingly sold by ranchers. This means livestock grazing has actually increased in eligible parts of the monument, despite a decade of crippling drought.

Nielson is wildly misleading in his faith in Utah Congressman Rob Bishop's Public Lands Initiative (PLI). It absolutely will not pass in the few legislative days remaining in the 114th Congress. He flagrantly mischaracterizes it. Nielson writes that PLI is "a locally driven process designed to balance the interests of ranchers, energy developers, environmentalists, hikers and tribes." But documented history shows that the last three groups were denied seats at the table in crafting the PLI. The legislative effort was dominated by the mineral interests and ranchers. Bears Ears would be ruined forever if the extraction-heavy PLI were to pass.

The true promise of Bears Ears National Monument lies in protecting forever this wondrous red-rock landscape. It is coupled with the profound gift offered by the five tribes of the

Bears Ears Inter-Tribal Coalition, the Hopi, Navajo, Uintah and Ouray Ute, Ute Mountain Ute, and Zuni; their vision and participation will ensure that Native American traditional knowledge is shared, and that Indigenous people reclaim their rightful authority to help manage their ancestral lands. Bears Ears, which will become one of the most compelling and distinctive of our monuments or parks,

has inestimable worth. Protect it now, or it will be a main target of the Trump administration.

Charles Wilkinson Moses Lasky Professor of Law, University of Colorado Boulder, Colorado

THE 21ST CENTURY CCC

On behalf of the Student Conservation Association, I would like to thank Gundars Rudzitis for recognizing the miraculous accomplishments of the original Civilian Conservation Corps ("We need a new Civilian Conservation Corps," HCN, 10/31/16). I would point out, however, that a new CCC already exists! The 21st century Conservation Corps is composed of over 130 organizations, such as the Student Conservation Association, California Conservation Corps, Rocky Mountain Youth Corps, Montana Conservation Corps, Northwest Youth Corps, and more. This network of organizations is already engaging thousands of young people in the stewardship of America's public lands — making us fully capable to undertake any project thrown our way by the Park Service, Forest Service, Bureau of Land Management, Fish and Wildlife, and any other agency managing lands for conservation purposes.

What is needed, as Mr. Rudzitis notes, is increased dedicated federal funding. As nonprofits, we can operate more efficiently and at lower cost than any new federal program or agency. Plus, this network fosters the all-important goal of publicprivate partnerships — and partnerships are the trail to the future.

Jay Thomas Watson Vice president, Western United States Student Conservation Association Oakland, California





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Presidential powers

Can Trump eviscerate Obama's environmental policies?

BY CALLY CARSWELL

ne week after the presidential election, on a summery November day, I phoned Denver-based climate activist Jeremy Nichols. Nichols has pressured the government to keep its fossil fuel reserves in the ground, with some success. In January, the Obama administration put a moratorium on federal coal leasing, something unimaginable during the heady drilling years of Bush and Cheney. I called to ask what Nichols expected from the next president. He remarked on the unseasonably warm weather, then lamented, "I'm going to yearn for the George W. Bush days."

Environmentalists have good reason to worry about President-elect Donald Trump. In 2012, Trump tweeted that climate change was a "concept" ginned up by the Chinese. Now, he's appointed a prominent critic of climate science and policy to oversee the Environmental Protection Agency's transition. On his new website, greatagain.gov, Trump promises to grease the permitting skids for fossil fuel production, end the "war on coal," support renewable energy and scrap the Clean Power Plan. At the same time, he professes a commitment to "our wonderful natural resources"

The energy industry is delighted. "I think what we're looking for right off the bat is simply having an administration that is not openly hostile to us," says Kathleen Sgamma, president of the Western Energy Alliance. Meanwhile, conservationists expect to spend the next four years defending their Obama-era gains. But Obama's environmental achievements are considerable, and Trump can't vanquish them with a snap of his fingers.

Contributing editor Cally Carswell writes from Santa Fe, New Mexico. @callycarswell

Many power plants have already taken steps to rein in toxic mercury emissions and pollutants that cloud parks and wilderness with brown haze. Obama's clean car rules have already stood up in court. So far, Obama has designated 24 national monuments — more than any other president — and the new president has no clear legal authority to erase those protections.

Still, the carbon-cutting Clean Power Plan, one of the president's most significant accomplishments, is in peril. And the rarely used Congressional Review Act allows Congress to weigh in on any rule finalized after May 30 of this year, according to a Congressional Research Service estimate, by giving it 60 days in session to pass something called a "joint resolution of disapproval." If the president signs the resolution, the rule is nullified, and agencies are forbidden to issue similar rules.

Here we highlight some of the Obama administration's achievements and Trump's position on them, if known, and explain how Trump could attempt to undo them.

FEDERAL COAL LEASING MORATORIUM

What Obama did In January, Interior Secretary Sally Jewell issued a "secretarial order" directing the department to stop leasing federal coal reserves, pending a review of the program. Environmentalists like Nichols had pushed for this, arguing that leasing federal coal was inconsistent with Obama's climate goals, and that the program didn't deliver fair returns to taxpayers.

Trump's take One of the few specific promises Trump has made is to lift the moratorium.

Trump's options Trump's administration can scrap the moratorium with the stroke of a pen — the same way the Obama administration created it.

CURRENTS

BLM AND EPA METHANE RULES

What Obama did Both the EPA and Bureau of Land Management finalized rules this year to limit the amount of methane, a potent greenhouse gas, vented or flared by oil and gas drilling. The rules would limit those emissions at both new and existing facilities and funnel additional royalties to taxpayers, who don't currently earn revenue on methane that's burned as waste.

Trump's take We don't know. However, Trump has positioned himself as a staunch ally of the industry, which vigorously opposes the rules. The BLM's rule, finalized on Nov. 15, was met immediately with an industry lawsuit. Oklahoma Republican Sen. Jim Inhofe, who chairs the Environment and Public Works Committee, released a statement saying he looks forward to helping the new administration rescind the rules.

Trump's options Congress could use the Congressional Review Act to ask Trump to nix the rules, or include language in appropriations bills temporarily prohibiting the agencies from using funds for implementation or enforcement. Whatever happens, Erik Schlenker-Goodrich of the Western Environmental Law Center notes that waste prevention is a core principle of federal oil and gas law, and says his group will continue to ensure that BLM fulfills its legal obligations.

OIL AND GAS LEASING REFORMS

What Obama did In the early days of the George W. Bush administration, The Wilderness Society's Nada Culver says, you had to visit BLM field offices in person to keep tabs on oil and gas lease sales. Coordinates for parcels up for auction were posted, but you had to map them yourself and protest within a short window. As public-land drilling intensified, encroaching on places like Dinosaur National Monument, environmentalists protested more and filed more lawsuits. The result, says Culver, frustrated everyone: Environmentalists felt that the BLM put too little thought into leasing, and some offices had multi-year backlogs, a burden for industry.

Interior Secretary Ken Salazar sought to break the gridlock by increasing public participation and including more upfront planning. Public comment periods now precede lease sales, and the BLM is starting to give citizens more insight into its thinking before it drafts management plans. Master leasing plans, which try to resolve conflicts between industry and others ahead of leasing, are another product of Salazar's reforms.

Trump's take We don't know. Trump has promised to "lift restrictions" on energy development on public lands, but the Western Energy Alliance says it's hard to know exactly what that means. Litigation still bogs down leasing and protests continue,

■ Workers observe as excess methane gas is burned in the oil fields near Williston, North Dakota. New Obama administration rules limit flaring and other emissions from oil and gas operations. ANDREW BURTON / GETTY IMAGES

"I think what we're looking for right off the bat is simply having an administration that is not openly hostile to us."

– Kathleen Sgamma, Western Energy Alliance Sgamma says, pointing to a WildEarth Guardians lawsuit challenging all leases sold in Utah, Colorado and Wyoming since the start of 2015. She hopes for changes that speed up leasing and permitting.

Trump's options The reforms were created through memoranda issued by Salazar, and they could be changed in the same fashion. But whether the new administration will do so is anyone's guess. Culver notes that the reforms have been incorporated into the BLM's management handbooks, and that reducing public involvement could be politically tricky. "It's going to be hard to say, 'Never mind, don't pay attention to that man behind the curtain making all of the oil and gas decisions.' "Culver contends that there aren't that many restrictions on development anyway; the market is the primary limiting factor.

Nichols expects some change: "I think we will see Interior move to limit BLM's discretion to reject leases," he says.

WATERS OF THE U.S. RULE

What Obama did: This supremely wonky rule clarified the feds' authority to regulate pollution in small and intermittent wetlands and streams under the Clean Water Act.

Trump's take Trump has promised to eliminate what he calls a "highly invasive" rule, opposed by energy companies, agriculture groups, the U.S. Chamber of Commerce and many Republicans, who say it represents an egregious expansion of federal regulatory power.

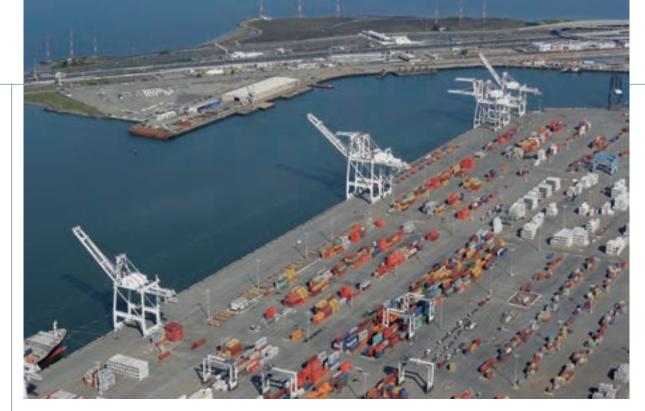
Trump's options Since the rule is currently tied up in court, Trump could let the legal system decide its fate. It's likely to end up in the Supreme Court, which may soon tilt in the GOP's favor. He could also ask the court to send the rule back to the EPA for revision. However, that process would be open to public comment and ultimately to more litigation.

OFFSHORE OIL LEASING

What Obama did On Nov. 19, the Obama administration finalized its five-year plan for offshore oil leasing, which determines where leases will be offered through 2022. It canceled proposed lease sales in the Arctic Ocean and put the Atlantic and Pacific coasts off-limits to new leasing.

Trump's take We don't know, but industry groups and Alaska Republicans aren't happy, and an "infuriated" Sen. Lisa Murkowski, R, has promised to fight the decision.

Trump's options The new administration could write a new plan, but probably not quickly. Obama's plan was developed over two years, and industry interest in Arctic drilling has cooled amid low oil prices. Shell abandoned its exploratory efforts in the Chukchi Sea in 2015, citing disappointing results. □



Coal export plans falter

U.S. coal companies look to Asia, but face challenges from West Coast communities

BY SARAH TORY

▲ The former Oakland Army Base pier at the Port of Oakland in Oakland, California, where the plans for a bulk shipping terminal for coal and other commodities have stalled.

ERIC RISBERG/ THE ASSOCIATED PRESS Rev. Ken Chambers has lived in West Oakland for all of his 50 years and grappled with air pollution the entire time. The neighborhood, on the eastern shore of San Francisco Bay, is surrounded by three major highways, an active railroad, and the fifth-busiest port in the country. Chambers' four children showed symptoms of asthma, he says, a common condition among their neighbors. And although air quality has improved since then — thanks to new laws regulating emissions — the neighborhood's mostly black, lowincome residents still suffer from asthma rates up to three times higher than other parts of Oakland.

Last April, Chambers and his neighbors caught wind of a plan to redevelop the old Oakland Army Base, located along the waterfront in West Oakland, including a major new terminal for shipping coal to Asia. Proponents said that it would bolster the neighborhood's struggling economy, and that coal exports were a necessary component, because they would provide revenue to operate the terminal. Critics, however, including Chambers, argued that fugitive coal dust blowing from trains headed for the port would further deteriorate West Oakland's air quality, and that burning the coal overseas would exacerbate climate change.

And then, in late July, opponents scored a major victory when the Oakland City Council voted to ban shipments of coal from the city, citing the "false choice"

Correspondent Sarah Tory writes from Paonia, Colorado, covering Utah, environmental justice and water issues.

@tory sarah

between jobs and the environment — and halting the multimillion-dollar coal export proposal in its tracks.

The decision, which came after more than a year of feisty debate, placed Oakland at the center of a growing battle over the fate of the coal industry. Domestic demand for coal has collapsed in recent years, displaced by cheap natural gas, along with wind and solar power. As U.S. coal companies look to overseas markets for salvation, plans for the necessary West Coast export terminals have been blocked by local communities and environmental groups worried about climate change and human health and safety. Taken together, says Sierra Club attorney Jessica Loarie, the long-term market forces and growing public opposition "do not bode well for the coal industry."

N one of this bodes well, either, for places like Carbon County, Utah, which got its name from its vast seams of coal. This rugged landscape southeast of Salt Lake City was already heavily mined by the late 1880s. It entered Old West history in 1897, when legendary bank robber Butch Cassidy and his partner, William Ellsworth "Elzy" Lay, stole the Pleasant Valley Coal Company's \$8,000 payroll. Later, nearly 400 miners died in two underground explosions, in 1900 and 1924.

Despite that early tumult, Carbon County grew to depend on coal. For most of the last century, coal supplied the vast majority of Utah's energy needs and attracted the attention of other states as well. In the early 1980s, a Southern California electrical utility cooperative helped

persuade the state to build a massive power plant, the Intermountain Power Project, in western Utah, promising to buy its coal-generated electricity.

But things changed as utilities increasingly switched to cheaper natural gas and renewables. In 2013, Los Angeles, which had a contract with IPP, voted to end its reliance on coal-fired electricity by 2025, in favor of natural gas. The decision stunned Carbon County, 75 to 80 percent of whose jobs depend on coal mining and power generation. Hundreds of locals have lost their jobs as coal-fired power plants have closed and mines have shuttered. "It put us into a tailspin," says County Commissioner Jae Potter. "What do you do?"

That trend has rippled across the Interior West, from Colorado to Montana, amid plummeting U.S. demand for coal. After declaring bankruptcy, major firms like Arch Coal and Peabody Energy are downsizing — cutting jobs, closing unprofitable mines, and taking on less debt.

In the early days of coal's decline, however, the industry still looked profitable to the private equity industry, which buys up troubled businesses, restructures them and sells them at a profit. Although the U.S. market was collapsing, Asia's demand for coal appeared insatiable. Private equity firms, such as Salt Lake City-based Lighthouse Resources, bought mines in Montana and Wyoming and began pushing export projects in Washington and Oregon. And in 2013, Galena Asset Management invested over \$104 million in Bowie Resources, a Kentucky-based coal company, to create Bowie Resource Partners. Backed by more than \$800 million in private equity money, Bowie went on a spending spree, buying three Utah mines owned by Arch Coal. The company later bought three more mines two in New Mexico and one in Colorado from Peabody Energy, another coal giant on the verge of bankruptcy. In a press release, Galena CEO Jeremy Weir heralded the Bowie partnership's opportunity to "reshape the Western U.S. coal paradigm."

In its financial documents, Bowie outlined plans to export its landlocked coal through West Coast ports. But it glossed over a major problem: The existing marine terminals in California and other West Coast states were too small to export the millions of tons of coal that its Utah mines could produce. A new larger terminal planned for West Oakland, however, could provide the opportunity Bowie needed.

When the marine terminal proposal for West Oakland first surfaced in 2013, coal was not mentioned. Instead, the developer said the terminal would ship bulk goods like iron ore, corn, wind turbines and auto parts. Chambers, like many of his neighbors, supported the project, which would help replace some of the 7,000 blue-collar jobs lost when Oakland Army Base closed in 1999.

Then, last April, a local Utah paper, the *Richfield Reaper*, broke a story that the developer had tried to keep under wraps: Four counties in Utah, where Bowie's coal mines were located, intended to invest in the proposed Oakland terminal, with the intent of shipping their coal out of it.

The city's vote against coal stalled the plan, and other blows soon followed, including new legislation banning state funding for bulk-coal terminals. In the signing letter, Gov. Jerry Brown highlighted California's recent moves to replace coal with cleaner energy sources. "That's a positive trend we need to build on," he said, calling Oakland's ban an important step that other localities — and the state — should follow.

By the end of August, things were

Proposed coal export terminals on the U.S. West Coast The number of proposals for coal export terminals along the West Coast peaked in 2011, with seven projects that could have shipped, cumulatively, more than 108 million tons of coal a year from the Interior West to Asia. Shelved coal export terminal projects Project still under consideration at press time Bellingham (Cherry Point) Gray's Harbor Millennium/Longview-Port of St. Helens -Port of Morrow Coos Bay Oakland •

looking even worse for the terminal: The four Utah counties where Bowie owns mines withdrew their application for the \$53 million state loan to invest in the project, and Bowie canceled its IPO, citing poor market conditions.

In early November, construction began on the first phase of the Army base redevelopment, but whether or not the bulk terminal will still be part of the project remains uncertain. The developer, California Capital & Investment Group, and its terminal operator, Terminal Logistics Solutions, declined to be interviewed for this story.

One thing, however, is certain: The long-term economics of big export projects no longer appear as promising as they once did. Transporting coal by rail 1,500 miles from Utah to the West Coast is expensive, says Anna Zubets-Anderson, a senior analyst at Moody's Investor Service. Add the cost of shipping it to Asia, and it's tough for U.S. producers to compete with countries like India and Indonesia, which have much lower labor and transportation costs.

International coal prices have spiked recently, but Zubets-Anderson says the uptick is temporary, largely due to the Chinese government's attempt to cut its own coal production and consumption. Heavy rain and flooding in other parts of Asia have also disrupted coal supplies. "When those issues are resolved, prices will go back down — likely by the middle of 2017."

Elsewhere in the West, other export projects are facing a similar fate. Since 2007, the six coal terminal proposals slated for the Pacific Coast have dwindled to just one — the Millennium Bulk Terminal in Longview, Washington — after Lighthouse announced it was no longer supporting the Morrow Pacific Project in Oregon. In November, the project was terminated.

The proposed Millennium terminal in Washington is on similarly unsteady ground. After declaring bankruptcy last January, Arch Coal, a major investor in Millennium, sold its \$57 million stake in the project, leaving Lighthouse as the sole backer. Meanwhile, hundreds of residents from across the Pacific Northwest testified against the project during the last round of public hearings in October, echoing the concerns expressed by other West Coast communities and Indigenous groups, such as Washington's Cowlitz Tribe, who argue that coal export projects threaten cultural and economic resources like salmon, violating their treaty rights.

Other West Coast cities are also following Oakland's lead. On Nov. 16, the Portland City Council voted 3-0 in favor of a resolution that would halt new fossil fuel infrastructure, such as export terminals, and expansions to existing facilities. A final vote is scheduled for Dec. 8.

For the industry, this combination of grassroots resistance and political opposition is creating financial risks — like a "one-two punch," says Clark Williams-Derry, an energy expert at the Sightline Institute, an environmental think tank. And the uncertainty makes big projects harder and harder to justify.

Even President-elect Donald Trump's campaign pledge to revive the ailing U.S. coal industry and put miners back to work is unlikely to turn things around. Increasing anti-coal activism and cheaper natural gas are discouraging utilities from investing in coal, says Zubets-Anderson — not just in the U.S., but around the world. "I don't foresee the new administration being able to change that," she says.

Though Chambers applauded Oakland's decision to ban coal exports, he feels badly for places like Carbon County that hitched themselves to a single commodity. "They're struggling, too," he says. West Oakland can empathize. Like Carbon County, it needs jobs — but not, Chambers believes, at the expense of human health.



A forest road winds through dying trees in California's Sierra National Forest.

USDA FOREST SERVICE

THE LATEST

Backstory

As California's historic

drought entered its

fifth year in early 2016. **66 million** trees were declared dead, killed by bark beetles, disease and dehydration. Forest-management agencies plan to log over 6 million acres. citing increased wildfire risk. But many scientists say that hot, dry, windy weather, not dead trees, drives fire, and that dead trees provide vital wildlife habitat. The magnitude of the dieoff has caused land managers to rethink forest-management strategies ("California plans to log its drought-killed trees," HCN, 8/8/16).

Followup

In mid-November, a U.S. Forest Service aerial survey revealed that drought has killed an additional 36 million trees since May 2016, bringing the total to 102 million since 2010. Most have been in the central and southern Sierra Nevada, but increasing numbers are in Northern California. The state had a record-setting wildfire season this year, adding urgency to the debate over what to do about all the dead trees.

LYNDSEY GILPIN

THE LATEST

Backstory

A loophole in the 2012 Colorado roadless rule, which protects undeveloped areas in the state's national forests, allows coal mines to expand operations on 20,000 acres in western Colorado. Environmental groups sued to block expansion of the West Elk Mine near Paonia, Colorado, because the federal government refused to assess the social cost of the greenhouse gases that the mining would produce. A court ordered it to make that assessment and removed the coal mining exemption ("The campaign against coal," HCN, 11/9/15).

Followup

In November, the **Forest Service** proposed reinstating the exemption even though its analysis shows that mining the coal could create 433 million tons of greenhouse gas emissions and cost society billions of dollars. Robert Bonnie, undersecretary of Agriculture for natural resources and environment. justified the decision: No one is under the belief that we're going to immediately change the energy mix starting today. There's going to be some level of coal for some time to come.

ELIZABETH SHOGREN



The West Elk Mine, with the Sunset Roadless Area in the distance.



Can a video game render a culture more visible?

Never Alone preserves knowledge of Alaska's Inupiat

BY MICHAEL ENGELHARD

S ince its launch in 2014, Never Alone, the first video game drawing on Indigenous culture, has been a runaway seller. Called Kisima Ingitchuna in the Inupiaq language, it earned rave reviews in U.S. publications like Wired and in European gamer magazines. This summer, a mobile version was released. Never Alone's quick success — reaching nearly 3 million players so far, in 16 languages — comes despite the difficulties involved in producing a game that is not only educational and fun, but an unlikely method for revitalizing an Indigenous heritage.

The game was developed by E-Line Media, a New York-based firm hired by Cook Inlet Tribal Council (CITC), a Native nonprofit organization that provides educational and employment services to the region's Indigenous residents. "It is a game done with people, not just about people, connecting them in a deeper way," says Amy Freeden, CITC's Inupiaq executive director. And it's fun, she adds. Otherwise, so many people would not have bought it.

The game's success comes amid heightened concerns about the extinction of Alaska Native languages. According to the University of Alaska Fairbanks' Alaska Native Language Center, only about 2,000 of almost 16,000 Inupiat are fluent in their Native language. Especially in the cities, Native youth often lack the support networks linking them to their culture. Yet some Alaska Natives regard the new, "fast" technology as an opportunity to transmit their traditions and values. In

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2012, CITC established Upper One Games — the first of its kind owned by an Indigenous group — expressly to help create the game alongside E-Line.

Never Alone follows the adventure of Nuna, whose name means "land" in Inupiaq, and an Arctic fox companion, who in typical Eskimo fashion remains unnamed. Nuna must track down the source of the terrible blizzards that plague her people. It is a puzzle game in which Nuna and the fox have to travel through an ethereal landscape-labyrinth and defeat villains from Inupiaq folklore. Among these is the dreaded Manslayer, a murderous, ogrelike creature that throws fire and terrorizes the two protagonists.

Players can switch between the girl and the fox to cross treacherous ice floes, frozen tundra and undersea caverns. While Nuna is handy with the bola — a traditional Inupiaq throwing weapon, used in hunting — the fox brings speed and agility to their partnership. Working together along the way, they find help from spirits and nonhuman beings, reinforcing Inupiaq ideas and values. Players are encouraged through in-game features to take breaks and learn from Inupiag interviews about Native customs and traditions. Nearly 40 North Slope elders contributed to Never Alone's design. Only the cultural insight videos are in English; the game's dialogue is in Inupiag.

The story-world is visually distinct. The dark background and green tint suggest Arctic winter twilight. Soft focus creates scenes that appear as if viewed through frosted eyelashes. The style of some special effects is a homage to Pacific

In Anchorage, a video game player follows the adventures of Nuna and her Arctic fox companion in *Never Alone*, based on Inupiaq legend. BILL ROTH/ALASKA DISPATCH NEWS

Northwest Coast and other Indigenous art. While Nuna's quest largely unfolds through low-key jumps and obstacles, threats pop up out of nowhere, congruent with the unpredictable nature of what some call "the barrenlands."

The story of Nuna and the "eternal blizzards" comes from Inupiaq culture, from an oral tradition that extends back centuries. Minnie (Aliitchak) Gray, from the Kobuk River village of Shungnak, inherited the tale from her father, Robert Nasruk Cleveland, who got it from the 19th century shaman Maniilaq, who foretold the newfangled trappings of the soon-to-arrive Anglo culture, including "boats that fly" — airplanes. The events on which Never Alone and the original story are based likely reflect the cold spells of the Little Ice Age, which Maniilaq's people endured.

Freeden says the game is meant to spark curiosity about the culture in Inupiat and other youth, by easing dialogue between ethnic groups and between generations, and to perhaps foster youth engagement in tribal village activities.

"Values come out of the past," says Ronald (Aniqsuaq) Brower Sr., who grew up listening to Nuna's story and contributed traditional knowledge and voiceovers to the game. Such values include perseverance, compassion, sharing, conflict avoidance, respect for humans and nonhumans, and adaptability in the face of a fickle environment. Kids nowadays see so many movies about killing, Brower says. "We want to see something about living. The past is very much alive."

Piggy-backing on the game's popularity, materials related to its story and the culture it describes have been incorporated in school curricula, most notably in Alaska Studies Program courses. Non-Natives also benefit, as the game challenges typical stereotypes.

The game's success speaks to a younger generation of Alaskan Natives' desire to learn about their past and to keep their culture alive, as well as to the strong interest of non-Native Americans in all things Alaska. It has also inspired other, forthcoming games in which Native peoples, such as Annishinabe and Cree, represent themselves.

"The joy of the feast of wisdom lingers," Ishmael (Angaluuk) Hope, a Tlingit-Inupiaq storyteller and collaborator, says on a webpage that promotes *Never Alone*. "Though it would require more deep investigation than one video game to fully understand ... this video game offers a tasty morsel, enough to know and to remember what we've been hungering for this whole time." □

The promise of vertical farming

Indoor growing could supply fresh local greens to Westerners

BY GINGER HERVEY

N ate Storey looked out his window in China at agricultural workers laboriously threshing grain by hand.

"There has to be a better way to do this," he thought.

It was 2001, and the Cheyenne, Wyoming, native was working in a Chinese orphanage, trying to decide what he wanted to do with his life. At that moment, his vision crystallized: He would make food production more efficient.

Back in the U.S., he enrolled in the agronomy program at the University of Wyoming. For his Ph.D. in 2012, he designed a structure that turned indoor farming on its head — literally — by growing plants vertically in towers.

Storey is now CEO of Laramie-based Bright Agrotech, part of agriculture's larger vertical-farming trend. The stacked racks of plants use space more efficiently than traditional single-layer greenhouses. Raising crops indoors without soil requires less water than outdoor growing and removes the risk of early frosts, hailstorms and too much or too little rain. And being able to grow food year-round in otherwise unsuitable environments helps farmers produce high-quality greens, herbs and tomatoes that bring premium prices.

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

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

Stacking flats of plants maximized indoor space but created ventilation problems and made it difficult for light to reach the plants evenly. Storey thought upright towers were a better option. Bright Agrotech's ZipGrow Towers are 3 or 5 feet tall

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and hollow, with a slit down one side where plants grow in a soil-less medium made from recycled water bottles. An overhead grid of pipes drips water and nutrients into their root systems. The towers are particularly suited to specialty crops high in water weight, like lettuce and herbs, because these crops don't transport well.

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

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

Nonetheless, the company has tripled in size in the last five years. Tens of thousands of towers have been installed since 2014 across the U.S. and in Europe, Southeast Asia and in China, where the idea first sprouted.

Bright Agrotech also created downtown Laramie's "living wall," working with Altitude Chophouse and Brewery, which transformed an unused vertical space into a wall that produces cabbage, basil and mint. Making use of existing structures and abandoned lots saves farmers from having to build their own spaces, one of indoor farming's biggest expenses. In Jackson Hole, Wyoming, a sliver of vacant land next to a parking garage became a three-story hydroponic greenhouse, producing tomatoes, herbs and microgreens. Seattle's Farmbox Greens got its start in a two-car garage. A New Jersey company called AeroFarms recently converted an old steel mill in Newark into the world's largest commercial vertical farm.

Vertical farms are still far from achieving Despommier's goal of supplying a large part of a city's food, says Stan Cox, research coordinator at The Land Institute, a nonprofit agricultural research organization. The cost of equipment, the energy required for artificial light and heating, and the limitations on what can be grown efficiently confine vertical farms



to a relatively narrow slice of the market. "I think there's a pretty strict limit on how big it can get," he says.

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

Basil grows vertically, top, out of ZipGrow towers at Haydn Christensen's farm in Fort Collins, Colorado. Above, as a winter storm blows outside, Christensen harvests basil for an order for Whole Foods Market.

How the Park Service



hen she was growing up in the Midwest, Olivia* and her family vacationed at national parks every year. They piled into the car and drove hundreds of miles to parks and monuments and historic sites great and small — from Badlands, South Dakota, to Carlsbad Caverns, New Mexico, and from California's Sequoia to Acadia in Maine. Each time she discovered a new park, particularly the remote, low-key ones everyone else seemed to forget, Olivia would exclaim, "This is it! This is the park I'm going to work at."

In 2010, at 20 years old, she landed her dream job through the Student Conservation Association: an internship at Death Valley National Park in Southern California. A sharp-tongued, witty young woman with cascading brown hair, Olivia packed up and drove 2,200 miles from home to one of the nation's driest and most desolate national parks. One evening, about three weeks in, she asked her 21-year-old housemate, who also worked for the National Park Service, for a ride to a coworker's house several miles up the desert road, where she was housesitting for the weekend. When they arrived, rather than just dropping her off, the young man invited himself in.

Uncomfortable being alone with him, she said she was sleepy and feigned a yawn. He didn't take the hint. He moved towards her, attempting to flirt, she thought, and suddenly started tickling her. She tried to wriggle free, pushing him several times, but he grabbed her and wouldn't let go. Then, to her horror, he shoved her to the floor and pinned her down.

Olivia yelled, kicked, screamed, but his knees pushed down harder and his tight grip held her wrists above her head. Tears in her eyes, Olivia pleaded with the man. "You're hurting me," she said.

OLIVIA TELLS ME ABOUT THE INCIDENT AS WE SIT at the kitchen table in her roomy Death Valley apartment, a mile from her old dorm as the crow flies. It's a 120-degree evening in July, and three fans blow full-blast, scattering notes and magazines. Olivia, who just got off work, is still wearing her Park Service uniform. The year after the incident, she returned to Death Valley to work as a ranger. As the sunset turns the desert a hazy pink, Olivia takes a deep breath. Six years later, the memory of the assault still makes her shudder.

"I didn't know to call it sexual assault then," Olivia tells me.

Olivia and scenes from Death Valley National Park, where she says she was sexually assaulted. This and other images in the story are photo composites of actual women who reported experiencing some form of sexual harassment or abuse in the Park Service, showing the park where they worked at the time. RONDA CHURCHILL; PHOTO ILLUSTRATION: BROOKE WARREN

is Failing Women

For decades, the agency tasked with safeguarding our greatest public lands has neglected to protect its workers from discrimination and abuse

FEATURE BY LYNDSEY GILPIN

"It took me a long time to start dealing with it, even though I worked at the park. I'd close my eyes and see him there."

I've heard many such stories over the last 11 months. In January 2016, the Department of the Interior released a report revealing that female employees of the River District of the Grand Canyon had been sexually harassed for years, and that park and regional administrators had known and failed to stop it. Since then, women working in parks, monuments and historic sites across the country have come forward alleging on-the-job sexual harassment, assault and gender discrimination. Many of them, like Olivia, are worried about retaliation and have asked to remain anonymous.

This year, over 60 current and former Park Service employees contacted *High Country News*, describing their experiences. I have interviewed many of them and others, in total at least 50 people — from park rangers and scientists, to superintendents and a former Park Service director — ranging in age from 23 to 70. Their testimony reveals an agency that has failed to protect its workers from sexual misconduct. Several factors contribute to this: a murky internal process for reporting and investigating complaints; a longstanding culture of machismo that dates to the agency's foundation; and a history of retaliation against those who speak out.

OLIVIA'S ASSAILANT SAT ON TOP OF HER FOR ABOUT 20 MINUTES.

When he finally stood up, she moved to the couch. He followed, trying to kiss her and pull her on top of him. She was sure he would rape her, but eventually, after more struggle, he left. The moment the door banged shut, Olivia fell to the floor, sobbing. She walked to the bathroom and stared in the mirror, brushed her teeth harder than she ever had, as if to erase something. The next morning, Olivia took a long drive through the park's sand dunes and salt flats with a friend, who convinced her to tell park administrators what happened. She went to the park's chief ranger and described the incident in detail. He jotted down notes and told her that she had a choice: She could either press charges, or let the park handle it internally.

Unaware that there was a formal complaint process, Olivia said that the park could handle it, and left. Two days later, her supervisor, her alleged assailant's supervisor and the park's chief of interpretation — another high-level employee — asked her to recount the incident for the third time. Afterwards, the chief of interpretation told her they had talked to her alleged assailant. It was all just a "misunderstanding," he said, and he would not move forward with her case.

The park did agree to transfer the man to another dorm, but it took nearly a week for supervisors to act, and on the day he was supposed to leave, she found him in the dorm kitchen, eating cereal. She thought she would collapse. When he finally did move, it was to the dorm across the parking lot.

Days later, according to documents obtained through a Freedom of Information request, Olivia's supervisor emailed the chief of interpretation to tell him another intern had concerns about the same young man. He responded: "Thanks for ... trying to keep the rumors from really taking off. I'm glad to hear (Olivia) is getting back into a better frame of mind, but I hope (she) is not creating an uncomfortable environment for (him) if it is not warranted. Something to watch out for."

The chief of interpretation encouraged her to keep quiet about the incident. Feeling ashamed, she did. She finished her internship, graduated from college and started working in other parks. She returned to Death Valley as a seasonal employee the next year and has worked there ever since. But the experience taught her to mistrust the system.

"They really have no reporting mechanism," she says. "They say, "Talk to your supervisor.' What if your supervisor fails you? That's it; you hit a brick wall, the first person you tell. It rests solely on those individuals as to whether or not they will further your cause."

The problem may be systemic, but it impacts real people — both women and men, people who love national parks and believe that they have a vocation to protect them. They are confronted with horrible choices: Report incidents and risk retaliation; keep silent and carry on; or leave the Park Service altogether. And while the agency has promised reform time and again, dozens of interviews, incident data and documents show that it has an incredible amount of work ahead.

THE LEGAL PROCESSES FOR HANDLING WORKPLACE SEXUAL

harassment in federal agencies are complex and relatively new. Sex discrimination became a legally defensible charge in 1964, when it was incorporated into the Civil Rights Act. In the late 1970s, the term "sexual harassment" came into use to describe unwanted sexual advances in the workplace. In 1991, Congress amended the law to include the right for jury trials and to allow plaintiffs to sue for emotional and physical suffering. The number of claims jumped from 6,883 to over 10,000 within a year.

The most common charge today is "hostile work environment," which refers to regular or severe unwanted sexual advances, or sexually charged language or conduct. The behavior in question can range from physical touching to repeatedly asking a coworker for a date. Harassment and discrimination laws are enforced by an independent federal agency, the Equal Employment Opportunity Commission, or EEOC, based in Washington, D.C. It's a presidentially appointed committee that will soon be under the Donald Trump administration.

They really have no reporting mechanism. They say, 'Talk to your supervisor.' What if your supervisor fails you? That's it; you hit a brick wall.

-Olivia, who was faced with an inadequate reporting system when she reported her sexual assault in Death Valley National Park

*The victim's name has been changed to protect her identity. In the private sector, the EEO process for sexual harassment complaints is relatively simple, says Rick Rossein, an employment lawyer and professor who litigated landmark sexual harassment cases in the 1970s and 1980s. Once a charge is filed, the EEOC has 180 days to investigate, after which the complainant can sue in federal district court.

But in federal agencies, it's much more complicated, making system failures more likely. An employee who wants to file a complaint must first contact an EEO counselor. This is typically a Park Service employee who volunteers, in addition to his or her primary job, to walk employees through the complaint process. The counselor talks to both the accuser and accused and tries to resolve the issue. If the complainant wants to move forward with an informal complaint, the parties go through more mediation. If the complainant is not satisfied with the outcome and decides to file a formal complaint, the Park Service conducts an investigation. If the Department of Interior director of the Office of Civil Rights decides that the investigation reveals discrimination, the agency can take disciplinary action against the accused, like demotion or firing - but it is not required. Afterward, the complainant is entitled to a hearing with the EEOC, adjudicated by an administrated law judge, or can sue the Interior Department in federal court.

Cases tend to break down at several points. The EEOC has a reporting deadline of 45 days after an incident, but victims of sexual harassment, assault or rape commonly wait months or years to report their experiences. The women who do come forward are just the tip of the iceberg, Rossein said. "Below the

In 2000, an employee survey found that over half of female rangers and three-quarters of female park police had experienced sexual harassment on the job. sea, the ice represents a large group of women that for whatever reason — usually because of retaliation, or fear for upending their careers, or these lengthy processes — a lot of people who have probably good claims aren't filing them."

Second, victims who do want to report incidents may not know how. Many lower-level employees, interns and contractors are not aware of agency procedure or sexual harassment law, and not all seasonal employees and interns receive sexual harassment training. Fifteen women who contacted *HCN* — a quarter of those who did — said they had not heard of the EEO process or ever learned how to report sexual harassment.

Third, EEO counselors sometimes lack adequate training, and they face tight deadlines to resolve complaints. There are only 47 counselors nationwide to assist the Park Service's 23,000 employees. And Park Service employees who conduct investigations can be inexperienced in dealing with harassment. EEO Commissioner Chai Feldblum notes that investigations can be hampered by interference, bias and haste, with investigators rushing through cases. "If we get reports saying this is a systemic problem, the EEOC has the authority to do an on-site visit and look at their overall process."

Finally, a victim who decides to sue in federal court must face the Department of the Interior in U.S. district court and be prepared to rehash her story repeatedly, travel long distances for hearings, and sit through numerous proceedings, a process that usually takes over a year. In some cases, plaintiffs are then placed under non-disclosure agreements. If all else fails, a victim can contact the Office of Inspector General at the Interior Department, but the OIG investigates the incident, files a report and turns it over to the Park Service.

Even if a plaintiff eventually receives a settlement, the agency is not required to discipline the accused or to hold them accountable. In testimony before Congress in June, Park Service Director Jonathan B. Jarvis told the House Oversight and Government Reform Committee that it is "very difficult" to fire a federal employee.

Instead, the Park Service has allowed alleged perpetrators to retire, resign or be transferred to other parks. In 1998,

Yellowstone Chief Ranger Dan Sholly was accused of sexual misconduct and transferred to a Florida park. This year, the superintendent of Canaveral National Seashore in Florida, who was in charge while employees were sexually harassed for years by a chief ranger, was put on a detail for the Southeast Regional Office and allowed to work from home. Grand Canyon Superintendent Dave Uberuaga was asked to leave the park in January; when offered another job in Washington, D.C., he chose retirement. The superintendent of Yosemite, Don Neubacher, was accused in September of gender discrimination and of creating a hostile work environment; he was offered a job as special assistant to the deputy director before he decided to retire.

There are few satisfying outcomes for victims, and perpetrators are rarely punished. The system itself acts as a deterrent for reporting, leaving many victims frustrated and silent for years — sometimes for their entire careers.

ABOUT AN HOUR EAST OF BILLINGS, MONTANA, between steep canyons and the prairie grass plains of the Crow Agency Reservation, is Little Bighorn Battlefield National Monument. The tiny park, managed by the National Park Service, is a memorial to the site where thousands of Lakota and Cheyenne fought Lt. Col. George Custer's 7th Cavalry in 1876. In August, I traveled there to speak with several current and former Little Bighorn employees who reported sexual harassment, hostile work environment and retaliation.

One of them, Zoe*, met me on a Thursday night at a crowded restaurant in downtown Billings, where we sat at the bar. She was reluctant to come, she said; nearly four years after her time at the monument, she found it difficult to forget her experience. Born and raised in Billings, Zoe is a single mother of two kids. She left her well-paying job at the Park Service in 2013 because of a hostile work environment. "I still have a sour taste in my mouth about the NPS," she told me. "They didn't take care of me."

In 2013, Zoe took a job as a natural resource specialist under one of the monument's chief supervisors. Throughout the hiring process, she said, the chief texted her to ask her out for drinks, to parties, or to talk about her recent divorce. She repeatedly turned him down or made excuses to avoid meeting him.

The advances continued after she began work, making her feel uncomfortable. Zoe told the park superintendent, Denice Swanke, about it, but she suspects that the chief immediately found out. "After that discussion, the work environment has gotten substantially worse," she wrote in an EEO complaint two months later. "He is very aggressive towards me."

At the same time, Zoe's coworker, Eric Clanton, reported his own problems with the chief, who was also his supervisor. In an interview at a coffee shop in downtown Billings, Clanton told me that the chief asked him to narrow down female intern applicants based on their Facebook pictures, something Clanton was not willing to do. Clanton also said that in 2013, when he was picking up a new intern at the airport, the chief texted him, asking if she was "hot like she was in her picture." "He kept asking questions about her," Clanton said.

After they reported the incidents to the park superintendent and called the human resources department and EEO counselors at the Denver regional office, Clanton and Zoe each filed hostile work environment EEO complaints. About two months later, a contracted investigator contacted them to discuss the issue but as far as they know, he never visited the park. Zoe offered to show him text messages, emails, notes and employee evaluations as evidence, but says he declined to take them. Discouraged, they both left the Park Service for other jobs by the end of that year. "I was disheartened talking to HR," Clanton said. "I hung in as long as I could."

Zoe told me she kept the emails, text messages and negative evaluations until January this year, but erased them shortly before I made contact with her. Shaking her head, she said she had held out hope until then that someone from the Park Service would contact her about the case. But no one ever did.

A year later, in 2014, another Little Bighorn employee, Kristine Brunsman, then 25, reported to the Intermountain Region



EEO counselor that the same chief supervisor was creating a hostile work environment for her and several female employees and interns. The EEO counselor told her she lacked enough evidence to file a harassment complaint and advised her to talk to her superintendent first. Brunsman told Swanke she was considering filing an EEO complaint. Brunsman remembers her saying, "Do you really want it to go this far? Because, you know, sometimes people say things and they don't think about the consequences."

I spoke to Swanke at the park administrative office in late August and asked her about Zoe, Clanton and Brunsman's experiences. Swanke said that only one employee had ever spoken to her about sexual harassment or a hostile work environment. In an email in November, she said that the park followed protocol for "investigations and followup actions" regarding allegations against the chief. Today, Swanke is deputy superintendent of Denali National Park in Alaska. The chief was transferred to Shenendoah National Park in Virginia after the 2015 investigation

However, Brunsman told me that when the chief found out about her complaint, he gave her a poor evaluation and began requiring her to notify him whenever she left the park on weekends. After she made repeated calls to the regional office, alleging a hostile work environment, in mid-February 2015, the Park Service dispatched an investigator to interview employees. The interns who had been having trouble with the chief had already left the park, however, and returned to school. Brunsman and two other former employees said they never heard from the investigator after that visit. "It was very isolating," Brunsman told me while we talked outside Park Service headquarters in Washington, D.C., where she now works. "And at some point you start to question, am I making things up? Is this not real?"

These cases show how challenging it is for employees to prove they are being mistreated. For most, it's much easier to leave — which is partly why the agency still struggles with recruiting and retaining female employees. Before the system can change, the agency will have to confront its own macho culture, something that is embedded in its very foundation.

THE NATIONAL PARK SERVICE WAS CREATED IN 1916. For 100

years, the agency has struggled to move beyond the male-dominated, somewhat militaristic culture established in its early days, a leftover from the late 19th century, when the U.S. Army was enlisted to protect Yellowstone, the first national park, from rampant poaching. For decades, women were involved only in a limited capacity — mostly as secretaries, tour guides and assistants to their husbands. When the Civil Rights Act forbade sex discrimination in 1964, the agency was forced to allow women to receive training and become park rangers. But even then, they were called ranger-historians or ranger-naturalists. Only in 1971 were female employees allowed to have law enforcement training, carry guns and be considered "real" park rangers.

Since then, the Park Service has come a long way in recruiting and promoting women. Today, it's easy to find women in supervisory positions in every region and almost every park. About 44 percent of supervisors and 37 percent of superintendents are women. But only two agency directors have been women, and out of 23,000 employees today, only 8,700 are female.

The male-dominated culture extends beyond this gender ratio. While women are no longer prohibited from applying for positions, they are often made to feel unwelcome in other ways, according to internal documents and dozens of interviews with former and current Park Service employees.

In 2000, an employee survey found that over half of female rangers and three-quarters of female park police had experienced sexual harassment on the job. Almost three-quarters said they experienced discrimination, and over half described the Park Service as "poor" at enforcing no-retaliation policies. In response, the Park Service created a task force that planned to implement a hotline for victims, expand harassment training, and work with individual parks to improve the agency's culture. But these plans never came to fruition, and the task force was dismantled in 2002.

Despite these findings, top administrators expressed shock when the news of harassment at the Grand Canyon broke. Some insisted it was an anomaly. It was not.

In 2014, 13 employees sent a letter to Interior Secretary

Continued on page 16

Kristine Brunsman, who reported experiencing a hostile work environment at Little Bighorn Battlefield National Monument in Montana, only to face retaliation: She received a poor evaluation and her office was moved away from her coworkers. RAIZA VEGA, BRETT WHALEY/ CC FLICKR; PHOTO ILLUSTRATION: BROOKE WARREN

What does a Trump administration mean for the West?







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a light dusting has fallen in Paonia, Colorado, where our magazine is headquartered, the mountains

Finally, snow!

is headquartered, the mountains around us are blanketed in white, so it's finally beginning to look like winter here.

After an unusually warm, dry No-

vember, we finally got some snow

on the Western Slope. Though only

High Country News has been doing quite a bit of outreach to our readers, media partners and local networks. In mid-November, Managing Editor **Brian Calvert** gave the keynote address at a quarterly U.S. Forest Service meeting in nearby Basalt, Colorado, for the Aspen-Sopris Ranger District, local conservation groups and other stakeholders. He discussed Donald Trump's presidential campaign and how it has changed the way the magazine covers

Western issues.

Late last month, our philanthropy advisor, Alyssa Pinkerton, who recently relocated to Colorado's Front Range, organized several meet-and-greets with readers and some of *HCN*'s contributors. There were three coffeehouse gatherings in Denver, Boulder and Fort Collins, where we got a lot of good story ideas and comments. If you couldn't make it, don't worry: We'll take any feedback you want to give us, whether online, by email or snail mail.

We're excited to announce that HCN stories will now go further than ever, thanks to our inclusion in a national collaborative effort called Climate Desk. Climate Desk allows media partners to share their climate change coverage, which lets us bring readers even more information on the issue, while helping explain to a national audience just how climate change is affecting the West. Other Climate Desk partners include The Atlantic, Mother Jones and Wired. We couldn't do it without all the support we get from our readers, so this is a proud moment for us all.

Lastly, one clarification: In "A Weird and Perfect Wilderness" (*HCN* 11/28/16), we stated that the borders of the Kalmiopsis Wilderness may shift. While that potential exists, it would not be due to a mineral withdrawal proposed by some advocacy groups. Although the mineral withdrawal would not affect the extent of the wilderness, it would protect intact roadless land around its edges.

—Lyndsey Gilpin for the staff

Continued from page 13

Sally Jewell, alleging sexual harassment, gender discrimination and retaliation by male boatmen and supervisors in the Grand Canyon's River District. An Office of Inspector General investigation found a "long-term pattern of sexual harassment and hostile work environment," corroborated by 22 witnesses. The report also noted that Superintendent Dave Uberuaga and Intermountain Region Director Sue Masica were aware of the hostility female employees faced, and that Uberuaga had not taken immediate disciplinary action when he learned of the problem.

In June this year, another OIG report said a chief ranger repeatedly sexually harassed female employees in Florida's Canaveral National Seashore. In September, at least 18 women in Yosemite accused Superintendent Don Neubacher of gender discrimination, bullying and public humiliation. That same week, a whistleblower reported that supervisors at Yellowstone National Park were sexually exploiting female employees. In October, an Interior Department investigation found that a supervisor at Chattahoochee River National Recreation Area, in Georgia, inappropriately touched two female colleagues several times in 2014 and 2016. When the women reported this to the superintendent, he did not investigate or report the claims to the EEOC.

Publicly, agency leaders seemed surprised each time a new report was released. They should not have been. Many employees have spent decades, even entire careers, fighting discrimination and harassment.

ON A WARM AUGUST AFTERNOON, JOAN ANZELMO took me on a whirlwind tour of Wyoming's Grand Teton National Park. Anzelmo retired from the agency six years ago after 35 years of service, but she still wears her responsibility to the agency heavily. Her car was littered with maps, but she had memorized nearly every inch of the park. Now 62, she lives in Jackson, within a short cross-country ski of the park. She walks with a cane because of aggressive arthritis in her ankles, but still moves quickly, taking hikes and bike rides near her old cabin

in Moose. She talks even more rapidly, unworried by others' opinions and yet always filtered, trained by a career in public relations. "Looking back at my career, I feel so grateful," she told me as she stopped the car to watch a herd of bison. "I like to acknowledge the good, but also understand the history all of this has its foundations in."

Originally from Washington, D.C., Anzelmo began her career working in the national visitor center. In 1980, two years after women were allowed to wear official ranger uniforms instead of skirts and scarves, she headed West for the first time, belting out "Home on the Range" in her new Mustang hatchback. Like most young park employees, she envisioned a lifelong career of protecting public lands. "I moved in just when women were starting to be heard about being treated more equally, respectfully," she said. "I really worked hard to earn respect for my work."

When she began working as Yellowstone's public information officer, she soon noticed the culture's engrained machismo: the crude jokes and comments, vulgar words written on the walls. But she never experienced any harassment that she felt obligated to report, she said, and she feels lucky to have had supportive male bosses.

By the time she was 41, working as chief of public affairs at Grand Teton, Anzelmo's perspective had shifted. She began paying more attention to her EEO training courses, making sure she understood how harassment, discrimination and retaliation were manifested. When she saw comments on the walls, she asked employees to remove them, or did it herself. When she heard catcalls in the field, she called people out.

But tackling harassment was hard. "You'd like to think if you become aware of harassment, if employees come in and say, "This person is saying these things, following me down the hall, commenting on my appearance,' and you feel those complaints are valid, it can be cleaned up pretty quickly," she said. "That's your hope, right?"

The system wasn't as effective as it should have been. In 2007, Anzelmo was promoted to superintendent of Colorado



National Park Service rangers at Walnut Canyon National Monument in 1962, above. Marion J. Riggs, center, is wearing a small arrowhead patch and pin in lieu of badge, and was later selected to model and introduce the new women's park uniforms throughout the country in 1970, including at the Southwest Regional Office in Santa Fe, New Mexico, above right. The uniforms, which got mixed reactions from the women, were not suited for the field, and were only useful for desk and interpretive ranger jobs, right. By 1979, women finally had the right to wear all the same uniforms and accessories as male park rangers.

COURTESY NATIONAL PARK SERVICE, NPS HISTORY COLLECTION







National Monument. By then, she finally understood why it was so difficult to fire employees. Procedurally, the process took nearly as much time outside of work as all of her other duties combined. "You have to commit yourself to go the extra mile," she said, which is why so many people in the agency don't push it. Enforcing a disciplinary action can take the equivalent of several weeks' worth of work, and the process can last from a few months to a year. It requires a review with the employee, an improvement plan, gradual withdrawal of certain duties, and, simultaneously, calls and emails to the employee relations office.

The year she arrived at Colorado National Monument, a male employee took a woman to a remote location in the park after hours and assaulted her. After Anzelmo learned of it, she made many calls and sent emails, even exchanged "fighting words" with the Intermountain Regional Office in Denver to speed up the process. Although the act was egregious and the accused had been previously reported for his behavior, the process took four months. The man resigned the day he was supposed to be fired, she says.

As we hiked a short trail to the 7,720-foot summit of Signal Mountain, Anzelmo stopped, gathered her breath, and thought carefully. Her belief in the Park Service's mission never waned, but as she moved up the ranks, she began to consider the agency more critically. "I think if there is more of a reflection of this agency — of why, at 100 years, are we acknowledging this now — is it in the culture? Has this culture been allowed to proliferate? It has to be the wake-up call."

ALONG WITH A COMPLICATED SYSTEM AND A CULTURE of

machismo, one of the greatest deterrents to reporting harassment or discrimination is the fear of retaliation. According to the EEOC, this is the most common complaint in the federal sector. Retaliation can occur as a response to someone rejecting sexual advances, cooperating with investigators, filing a complaint or being an official witness to one. Of the 61 current and former Park Service employees who contacted HCN, 21 said they were retaliated against for reporting misconduct. Twenty others said they were afraid to report for fear of retaliation.

A recent nationwide EEOC report found that about 85 percent of people who experienced workplace harassment —

First-hand accounts

Since February 2016, 87 people — 61 of them former or current National Park Service employees and the other 26 employed by other federal agencies, such as the BLM and Forest Service — have contacted HCN, alleging on-the-job sexual harassment, assault or gender discrimination. A few of their reports are included here, in the employees' own words, edited for length and clarity. HCN verified each of these incidents with official documents or interviews with witnesses. Some employees have requested anonymity.

Yvette Ruan, 1984 Grand Canyon National Park, Arizona

"Shortly after introducing himself, (a supervisory ranger) told me he read my application and I had to be lying because 'there's no way a woman could have done all that.' Another ranger told me that I took his job, and I only got it because I was a woman and a minority. I was reluctant to file a complaint. I knew the burden would be on me to prove discrimination."

Anonymous, 2002 Grand Canyon National Park, Arizona

"A male coworker asked me when I thought we would hook up. ... Later, he yelled at me and snapped his fingers in my face. He backed me up against a hill, was towering over me, and I felt trapped. I squirmed away and started running back down to our quarters as he yelled after me, 'Get back here!' I was sobbing, and I remember feeling very afraid that he was going to hurt me. I tried reporting it twice. I was told to be nicer and to smile more. I wrote an email to (the regional office) and received this: 'I'm so sorry to hear about your experience at the Grand Canyon. I really appreciate you informing me about this incident. We are currently looking into the trail crew and other divisions at the Grand Canyon.'"

Autumn Ela, 2005 Jewel Cave National Monument, South Dakota

"I was asked to train a male employee 30 years my senior. He repeatedly commented on my appearance and body. He asked me to go on a date with him. I said no and walked away. Later that evening, I looked out the window to see him pacing back and forth in front of my apartment, watching me. My park superintendent informed me that since I hadn't been physically assaulted and there were no witnesses to the encounter, there wasn't anything to do."

Anonymous, 2010 Arches National Park, Utah

"I received this email to my personal email address from this older coworker, who I did not know at all: 'I missed seeing you before you left Friday: (You were undoubtedly trying to get away, and I didn't start until 11:30 that day. ... I left you a phone message offering to help you pack, etc. But after I left the message it occurred (to me) that you might (be) dressed more comfortably. That might mean only wearing undies, or maybe only panties, or nothing:) After I left the message, I realized that I was also ... wearing only my hot pink Calvin Klein's:) If I don't hear from you, I will try to call your cellphone.' I did not report it, because I was scared. I did not know I could file an EEO complaint."

Zephyr McConnell, 2010 Sequoia National Park, California

"One Sunday morning, I was cooking my breakfast in a shared kitchen when a man on one of the other crews came up quietly behind me, took his penis out of his pants and put it on my lower back. I turned around when I felt him and saw what he was doing and yelled at him to get off me. When I yelled, he called me a bitch and Continued on page 19

sexual or otherwise — never file a legal claim, and nearly 70 percent don't even tell their own supervisor. "They're afraid," said the EEOC's Feldblum, who co-wrote the report with EEO Commissioner Victoria Lipnic. "And that fear is often well-justified."

"It's hard to believe there isn't an awareness of (retaliation)," JT Reynolds, a former deputy superintendent of Grand Canyon, told me. In a phone interview in August, Reynolds said he either saw or experienced retaliation throughout his "entire career." He received multiple complaints from women about the gender wage gap, unfair treatment by supervisors, sexual harassment and the lack of opportunities for promotion. Reynolds helped several female law enforcement rangers at the Grand Canyon file EEO reports, and in 2000 he called for an investigation of the park. When the regional office found out about it, Reynolds told me, the investigators and regional office ostracized him. "There are plenty of us who will stand up for what's right, but we have no power," he told me.

In 2002, Reynolds wrote a scathing response to the Intermountain Region's 2000 investigation of Grand Canyon, criticizing the fact that it was done internally, rather than by an independent contractor. "Amazingly, the investigation was



Joan Anzelmo, who worked at Yellowstone and Grand Teton National Parks and Colorado National Monument as superintendent, hikes near the Teton Mountains. She made an effort to respond to cases of sexual harassment during her time with the NPS, but the process to take action was clumsy and ineffective. handled with such bias and so incompetently by regional staff and with such a pre-disposition to exonerate alleged violators and gloss over actual events," he wrote. He said he never received a reply. Reynolds wasn't alone in his concerns about the investigation; J.R. Tomasovic, the acting chief ranger at the time, told me earlier this year that he was given only 90 days to look into personnel concerns — including gender discrimination — at the park, even though it needed "long-term intervention," because "management didn't listen to (women) or take their concerns seriously."

While working as chief ranger for the Intermountain Region and North Atlantic Region (later consolidated into the Northeast Region), Reynolds said he saw many examples of regional directors punishing the victims and witnesses rather than the men accused. For instance, he said, one woman told him her superintendent was sexually harassing her. He helped investigate the claims by talking to witnesses and building a case to get the accused fired, but the regional director decided to deal with it "administratively" instead, and transferred the man to another park. Reynolds said he received a poor evaluation from his supervisor for taking action.

Dozens of employees told me that retaliation remains an overwhelming fear in the agency. Dan Hall, a river guide in the Grand Canyon, claims he was a target for retaliation after he stood up against the misogyny. "In the words of the investigators, I was 'blacklisted,' " he said. He was taken off river-guiding duty, even though he was often first on the list prior to his involvement in the investigation. According to the OIG report from the Grand Canyon investigation, male boatmen wouldn't train women who reported them, and even withheld food on river trips. Brunsman, who worked at Little Bighorn, said she was moved to an office away from her colleagues as retaliation for filing her EEO complaint.

Reynolds, who retired from the Park Service in 2009 and is now a fourth-grade teacher in Henderson, Nevada, still gets fired up about these issues. "Not many people want to go through that, so they remain silent," he said, his voice rising. "It's up to superintendents, and the regional directors and the NPS director to have the integrity to not allow employees to feel as if someone's going to get them, or lose an opportunity."

SINCE THE PROBLEM OF GENDER DISCRIMINATION and sexual harassment in the National Park Service hit the national spotlight with this year's Grand Canyon investigation, the agency has started to address it. The Park Service repeatedly declined to comment on this story, but Director Jarvis promised a new direct hotline for victims to report incidents — though it's unclear when it will be implemented. The agency-wide survey he announced last February may help clarify the breadth of the problem, though it won't reach some of the most vulnerable employees, such as seasonal employees or interns. Jeffrey Olson, public affairs officer for the Park Service, said that the survey will begin in January 2017.

Andrew Munoz, the Pacific West Freedom of Information Act (FOIA) manager and public information officer, told HCN that in recent months there has been more pressure on EEO specialists to follow up on harassment reports so that fewer of them slip through the cracks. Currently, there is a lack of solid data on sexual harassment in the agency. The same goes for sexual assault: Only formal complaints or investigations are tracked. In documents HCN acquired through a FOIA request, reports aren't broken down by gender, and there is no way to know if the complaint involves discrimination or sexual harassment. From 2002 to 2016, for example, 110 formal EEO complaints in the Park Service had the word "sex" in their description.

But there are several immediate steps the Park Service could take to improve the system.

The Park Service has begun "providing greater clarity to managers and employees about existing reporting and investigation options," Olson said. "We are working with the field to continue developing consistency in reporting and accountability." He also said the agency is hiring three new EEO staff in the Washington, D.C., office to handle complaints.

An experienced, dedicated anti-harassment task force within the Park Service would be ideal, but that depends on the agency's budget, according to EEO Commissioner Feldblum. For its part, she said, the EEOC's responsibility is to make sure the Park Service is doing thorough investigations and that its investigators are adequately trained and able to act independently.

The Park Service could also improve sexual harassment training for employees and managers. Currently, the training consists of a 30-minute click-through video on EEOC regulations — something multiple people told *HCN* was "a joke." Meanwhile, managers lack training on the more subtle forms of sexual harassment and discrimination.

The truth is that Park Service officials have had many years to address these flaws, and have simply failed to do so. But culture and policies can be changed. Thousands of employees, including Olivia, believe in the agency and would gladly work to improve the system.

JUST A WEEK BEFORE WE MET IN JULY, Olivia had a chance to face Director Jarvis. She was attending a training workshop in the Grand Canyon, surrounded by dozens of Park Service employ-

RUGILE KALADYTE



ees, and Jarvis was in his Washington, D.C., office, hosting a videoconference on sexual harassment. Olivia had planned this moment in her head for days, writing her thoughts on a scrap of notebook paper. Jarvis asked if there were any questions, and Olivia was the first to raise her hand.

"We had a voluntary session about the sexual harassment issue," she began. "I want you to know this is important. It is prevalent. And people are depending on a better environment for the future." She asked about the survey and what he hoped to accomplish. Then, choking up, she added: "As you can see, this is a personal issue for me."

Jarvis promised that he was taking the issue and the survey seriously, but said it would be a long process. He may have been trying to manage expectations, but Olivia found it a tepid response at best. She stood a moment longer, facing the video monitor and the director. She wanted him to know her face, remember her. After six years of silence, of second-guessing herself and feeling alone, Olivia was speaking out — not just for herself, but also the many women who have had similar, or worse, experiences. When she sat down, a wave of emotion rushed over her. The women in the class — some older, others her peers — patted her on the back and told her that she had done a great job. Some, still afraid to speak openly, shared their stories with her. Olivia had added her voice to the growing ranks of Park Service employees who want their agency, entrusted with protecting America's greatest treasures, to finally confront its dark legacy.

And, like so many others, she refuses to give up hope. "All the people who are disgusted by this, who want to effect change, we're speaking up and moving up the ranks," she said. "Maybe now, the tide is going to turn."



WEB EXTRA This story is part of our coverage of sexual harassment in public lands agencies. For more, visit **hcne.ws/legacy-of-harassment**.

Lyndsey Gilpin is an *HCN* editorial fellow.

• @lyndseygilpin

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Continued from page 17 started yelling at me. I left the kitchen in tears and hid in my camper. I told my supervisor and to my knowledge, nothing happened. He never told me (about the EEO process)."

Anonymous, 2012 Grand Canyon National Park, Arizona

"I was raped by a co-worker/neighbor in my employee residence. I was not conscious for the majority of the event. I reported the rape the following morning, and an investigation was conducted. The case was eventually declined because of jury bias, the he-said/she-said nature of the case and because of delayed reporting. I feel that the evidence was insufficiently investigated; for example, the bloody sheet on which the rape occurred was never examined. He wasn't disciplined, and I endured workplace encounters with him for two years."

Anonymous, 2012 Gates of the Arctic National Park, Alaska

"My chief law enforcement ranger came up from behind me, grabbed my ponytail, restrained me by the hair while he reprimanded me for wearing it in a particular fashion, and then pulled my ponytail when I reacted at him by reaching back. I filed (EEO complaints) twice; there was an internal investigation and OIG investigation. I had to FOIA for the results."

Anonymous, 2012-2016 Yosemite National Park, California

A high-level supervisor "treated (certain women) poorly. We were routinely required to redo work multiple times, jump through extra, and often unnecessary, hoops, and be subject to humiliating and belittling remarks when presenting at meetings. He subjected us to overly critical and harsh feedback in public forums and was consistently condescending in his reminders about how we were failing him and the National Park Service, insinuating that our actions or inability to do our jobs were going to get him fired."

Rachel Brady, 2013-2014 Grand Canyon National Park, Arizona

"On a river training trip with two male coworkers, one yelled at me within the first mile of the 226-mile trip. I spent the rest of the time on the other coworker's boat. He sexually harassed me, gave me a back rub and then proceeded to my lower back/upper buttocks. He patted my rear twice. I felt trapped. I filed my first EEO complaint in 2014. After retaliation, I had to file another EEO complaint in 2015. I settled my EEO claims in April 2016. Had I not settled, it would have lasted at least another six months."

Anonymous, 2016 Glacier National Park, Montana

"(At the fitness center), the first squat I performed (a male coworker) told me I was 'sticking my ass out too far' and that I needed to 'drop it like it's hot.' He then recorded me squatting on his phone. While I am in the middle of a benchpress rep with the barbell in my hands, he puts his hands on my inner thighs and spreads my legs out wider and says, 'Your stance needs to be wider.' I froze; I felt violated and powerless with him touching me in my inner thighs and spreading my legs in a very sexualized manner. I don't feel like I can tell my supervisor because ... it occurred only my third week into the position, and I fear I will gain a reputation as a 'troublemaker.' "

Anonymous, 2016 NPS Denver Service Center, Colorado

"During and while on maternity leave, I was left out of critical planning meetings on the program I managed, and had responsibilities taken from me. Upon my return, one senior colleague suggested the job was 'too much of a burden' on me because I had kids, and that I should hand over key responsibilities. I considered filing an EEO complaint, but there was a fear of retaliation. I eventually confronted supervisors and am now more involved in tasks, but I don't feel valued or secure in my position. I don't trust them, and I'm actively seeking other jobs."

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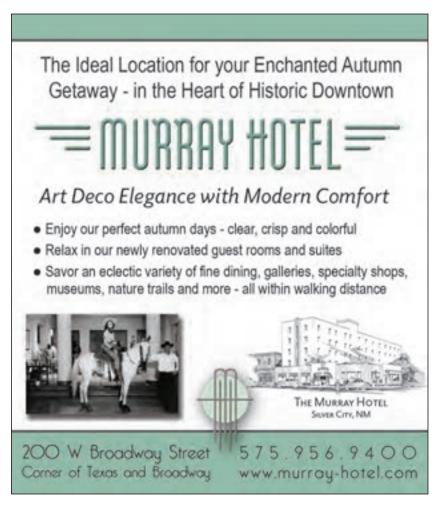
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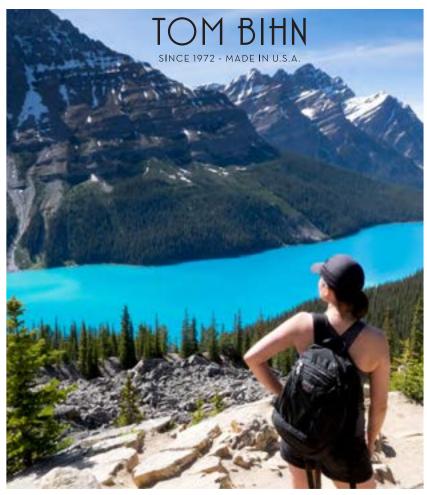
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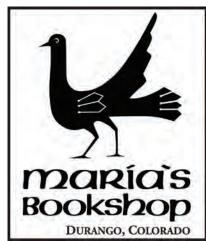
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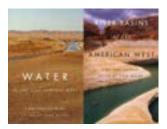


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The twisted economics of the Dakota Access



NEWS ANALYSIS BY JONATHAN THOMPSON

s the weather gets colder, the fight over the Dakota Access Pipeline is heating up, in rather ugly ways. Just days before Thanksgiving, law enforcement officers tried to blast the protesters away, using water cannons in 25-degree weather as well as other "less than lethal," though still harmful, dispersal methods. One protester may lose her arm as a result of the injuries she suffered. And to top it off, next week the Army Corps of Engineers plans to close one of the camps of the "water protectors" who are trying to stop or reroute the project - an action that may encourage police to take an even more forceful approach.

High Country News has reported what's at stake for the Standing Rock Sioux tribal members and their allies: Tribal sovereignty, water, environmental justice, holy lands, treaty rights and antiquities. Add the prospect of more carbon spewing into the atmosphere, and one can see why activists are risking so much to stand in the pipeline's way.

Less clear is what the \$3.78 billion, 1,172-mile-long crude oil pipeline offers in return, if and when construction is completed and it goes into operation. Energy Transfer Partners, the project's main proponent, says that the pipeline will offer jobs and economic relief to a struggling region, and that, by spurring production of North Dakota crude, it will take the U.S. closer to the lofty ideal of energy independence.

Construction is about 85 percent complete and it has, indeed, put people to work. Yet it is not clear how many new jobs have been created, since those jobs are spread out over 1,000 miles. Rural towns along the pipeline's corridor have reported a boost in hotel and campground occupancy rates as the contractors move through. That, in turn, generates sales and lodging tax revenues for the local governments. The boost, however, won't last. In a few months, when (and if) construction is complete, the workers and their money will depart. The finished pipeline will require just 40 permanent maintenance and operational jobs along its entire stretch.

Once oil is flowing, property tax revenues — an estimated total of \$55 million annually — will kick in. While that's a big chunk of change, the impacts will be diffused, shared by four states. North and South Dakota are expected to receive about \$13 million each, divided between several counties, a drop in the budget bucket. (Colorado generates nearly \$20 million per month from taxes and fees on marijuana.) That said, it might be enough to buy the county sheriffs some more military gear from the Pentagon to help squelch the next pipeline protest. It will not, however, cover the costs of such squelching: The current

law enforcement effort has reportedly cost \$15 million so far.

The fact is, pipelines, like transmission lines, don't have a major economic impact except when they're being built. They otherwise go mostly unnoticed — unless they spill, burst or explode.

The bigger-picture impact, whether on climate change or energy independence, is more difficult to figure out. Both proponents and opponents seem to be working on the "build-it-and-they'll-fill-it" premise. That is, if you expand pipeline capacity for North Dakota crude, it will encourage more oil drilling and thus more oil production. If more domestic oil is produced, the logic

It's not about energy independence or even climate change. It's all about profit.

goes, then we will have less need to import foreign oil and achieve greater energy independence. The flip side to that is that the more oil we drill, the more we consume, resulting in greater carbon emissions. It's summed up in this nifty formula:

More Pipeline Capacity —> More Oil Production —> More Energy Independence and Carbon Emissions

This formula, however, holds true only if lack of pipeline capacity is a major hindrance to oil development. It's not. We can move crude oil not only through pipelines, but also with trucks, trains and tankers. Oil's mobility (along with its relative fungibility) helps make it a global commodity in a way that natural gas, for example, is not. The lack of pipeline capacity is not a major limiting factor in oil development and production; when the North Dakota boom was on, no one opted out of drilling because of lack of transportation options. In fact, prices were so high, no one opted out of drilling at all.

Just as the biggest driver of oil development is a high oil price, the biggest hindrance, particularly for expensive-to-drill North Dakota crude, is a low oil price. That relationship has been on display in North Dakota, and across the West, for the last decade: Oil prices went up, thanks to burgeoning demand in China and the developing world, so drilling intensified and production went bananas. Oil prices crashed as China's economic growth slowed, the drill rigs were stored away and production has decreased.

Very few wells have been "shut-in" or plugged up. Most of the already-drilled wells continue to produce, but at lower and lower rates, a phenomenon known as the "decline curve." Wells that produced 220 barrels per day when they were drilled in 2005, for example, now only produce about 20 barrels per day.

When these critical factors — global supply vs. demand and price — are plugged into the aforementioned formula, the outcome becomes far murkier. No longer does greater pipeline capacity directly lead to increased production; it must first either raise the price of oil, or create new demand. The latter's not going to happen. A pipeline across the upper Midwest will not inspire the Chinese masses to buy cars and drive them all over the country. It will not affect global demand.

So how about price? The Dakota Access Pipeline is expected to carry a half-million barrels of oil per day to refineries and market hubs in Illinois. Moving a barrel of oil on the pipeline is expected to cost about \$8, compared to approximately \$15 for shipping it via rail. That means that a producer that would have received \$34 per barrel for rail-shipped oil will get \$41 per barrel for pipeline-shipped oil.

This \$7-per-barrel bonus could add up to hundreds of thousands of dollars in additional revenue for the producer over the well's lifetime, and could certainly keep wells from being shut-in. Yet it's doubtful that it's enough to push the producer to dust off the rigs and start drilling again. It costs anywhere from \$5 million to \$15 million to drill a well in North Dakota's Bakken formation. After the last bust, producers and their investors are unlikely to fork out that kind of cash until oil prices go up considerably and stay there, which will happen only if Saudi Arabia commits to a long-term slash in its production. Unless new wells are drilled in North Dakota at a furious rate, production will continue to decrease, thanks to the decline curve.

There is one other way the pipeline could impact oil prices, at least for the oil flowing through the line. Some oil customers reportedly entered into contracts with producers prior to construction to buy DAPL oil at or near 2014 prices. If those contracts remain in place despite the protest-caused construction delay, it could, theoretically, push producers to drill a few more wells to produce enough oil to fetch the higher price. But probably not. It's more likely that those producers will simply divert oil now shipped by rail to the pipeline, thus increasing profit without increasing production.

If, somehow, the pipeline were able to increase oil production, then we'd still have another variable to plug into our equation. I'll call it the T. Greg Merrion factor, for the New Mexico oil executive who told me about it: "Nothing helps low prices like low prices, and nothing hurts high prices like

Pipeline

high prices." That is, the increased supply delivered by the pipeline (without a consequent increase in demand) would increase the amount of oil supply in a market where demand can't keep up with supply. The glut grows. Prices slide further downward. There's even less drilling. Production slides. The cycle continues.

- The Dakota Access Pipeline, on its own, is not likely to result in increased production of North Dakota Crude, because More Pipeline Capacity ≠ More Demand;
- Therefore the pipeline will not create more oilfield jobs or result in higher severance tax revenues to North Dakota;
- If there is any uptick in production thanks to the pipeline, it won't be enough to put a dent in the 5.2 million barrels of oil the U.S. continues to import *each and every day;*
- Since the pipeline won't push more production, it also will not result in more consumption. Therefore, it will not directly lead to a significant increase in carbon emissions.

Which is to say, the pipeline will be neither the economic boon, nor the climate bane, it's been made out to be. Nor



will it get the U.S. any closer to energy independence.

Why, then, is Energy Transfer Partners so intent on building this thing? The equation that answers that one is far simpler. If the pipeline indeed carries 470,000 barrels per day, at a rate of \$8 per barrel, the company should gross about \$1.37 billion per year. Operating costs are low (remember, there are just 40 employees running this thing), so it shouldn't take long to recoup the capital costs. That leaves a lot for the investors, like Energy Transfer Partners' billionaire CEO Kelcy Warren, or reputed billionaire

and President-elect Donald Trump.

Yes, Trump is invested in the companies behind the pipeline, though the amount of his stake decreased substantially between 2015 and 2016. Meanwhile, Warren donated more than \$100,000 to Trump's campaign, clearly hoping he would remove federal obstacles to the pipeline.

These numbers are worth considering when you see the images of the "water protectors" getting pummeled with water cannons, rubber bullets and tear gas. They're not being attacked in the name of jobs, the economy or energy independence. They're being attacked in the name of profit. \square

Jonathan Thompson is a contributing editor at High Country News. He is currently writing a book about the Gold King Mine disaster.

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y @jonnypeace



Gentlemen in

in Boise Ĉity,

Idaho, c. 1866.

Photographed by

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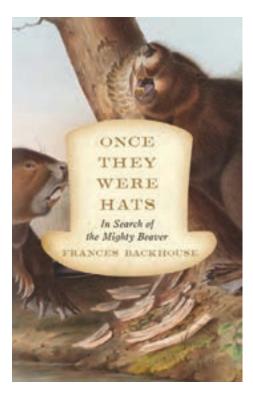
beaver top hats

The North American beaver, reclassified

With up to 23,000 hairs packed into each square centimeter of fur, it's no wonder that beaver pelts make the finest felted hats. And it's not surprising that pieces of wood gnawed by prehistoric beaver have been mistaken for human-made artifacts. But it does seem odd that medieval church authorities actually considered the beaver's tail as a kind of fish that could be served as acceptable Lenten fare. And it's equally strange to recall that in the 1940s, the state of Idaho relocated nuisance beavers by packing them into boxes, loading them onto planes and dropping them by parachute — yes, parachute to beaver-less places, where they helped to prevent erosion by damming wild streams above farms.

Our relationship with North America's largest rodent is so complex that we can no longer classify beavers as simply as Horace T. Martin did in *Castorologia*,





Once They Were Hats: In Search of the Mighty Beaver Frances Backhouse 261 pages: \$16.95. ECW Press, 2015.

an 1892 zoological monograph written when beavers hovered on the brink of extinction. Frances Backhouse — formerly a seabird and grizzly biologist, now a University of Victoria-based writer/teacher — takes a new look at this landscape-changing critter in her book, Once They Were Hats: In Search of the Mighty Beaver. The book was a finalist for the Lane Anderson award for the best Canadian science book of 2015.

In Backhouse's book, "search" is an operative word. The evolutionary scope of her saga may be its greatest strength: She takes us from the beaver's origins. 24 million years ago, to its relevance today, deftly putting the earth-changing feats of *Castor canadensis* on par with those of *Homo sapiens*. At one moment Backhouse is with paleobiologist Natalia Rybczynski at the Canadian Museum of Nature, pondering angled dental impressions in a petrified stick. At another she is bound for the "Beaver Capital of Canada" to ground-truth a Google Earth lead from Jean Thie, an Ottawa-based consultant who uses the latest geospatial technologies to study changes like permafrost melt and forest cover. And beaver dams. Indeed, "cruising virtually over the continent in search of beaver dams is his private obsession."

Backhouse is a perceptive observer and listener, ever alert to the subtle ways the beaver's story entwines with individual people. She has the knack of a documentary filmmaker, especially in her extended conversation with Ida Calmegane, an 88-year-old Tlingit for whose clan, the beaver — $s'ig\dot{e}di$ — is the crest animal.

In stories like Calmegane's, we see that beavers literally helped name this continent; every American state (except Hawaii) and Canadian province bears at least one beaver toponym, more than 2,000 in all. So many that "you can't swing a beaver on this continent — if you could even manage to heft one by its flat, scaly tail — without hitting one of its namesakes." We rarely give thought to the roots of these names, yet Backhouse brings us to several in the course of her quest, upending assumptions at every turn. Take one of the many places named Beaver Lodge, for example this one a cabin, on a remote lake in Saskatchewan's Prince Albert National Park, where an eccentric Englishman named Archibald Stansfeld Belaney reinvented himself as the beaver trapper "Grey Owl" in the 1930s. Controversial self-promoting faux-Indian that he was, Grey Owl lived with two orphaned beavers named Jelly Roll and Rawhide, and his writings helped Canadians think of beavers as something more than a pelt.

This is not to say that Backhouse shuns beaver traps, or the tough economic, ethical and ecological questions that they spring. Knife in hand, she learns the art of skinning through Pete Wise's "animal damage control" work in British Columbia's Lower Fraser Valley; she joins Paddy Hall, a beaver fur grader, at the North American Fur Auction; she even meets with folks at the Smithbilt factory in Calgary, Alberta, where beavers are still made into hats. Backhouse avoids moral judgments; what she does offer is a wide assortment of reasons to value the beaver's utterly unique lifestyle, while helping us understand how it has shaped — and still shapes — our own.

For last few centuries, we've regarded beavers as either nuisances or commodities. Now, we're increasingly learning how they make our landscapes livable: not only by clearing a path for settled lands and farms, but by filtering, diversifying and storing the water on which we depend. Backhouse identifies beavers as "a classic keystone species — that is, the indispensable creator of ecosystems that support entire ecological communities; an unwitting faunal philanthropist." As a Canadian, she surely has a particular affinity for her national animal, but the beavers' watershed stewardship blurs political borders. In her final chapter, "Détente," Backhouse shows that countries that once fought over fur are finding promising ways of beaver coexistence. And as we face climate change together, she suggests that partnerships between beavers and humans can help provide a cooler future, too.

Tolerance in Trump's America

Amid fear and despair, we'll have to find ways to talk to each other

live in Los Angeles — a sprawling, polluted, overpopulated megacity alongside millions of busy strangers. I like to describe the feel of the place as apocalyptic. But the truth is Los Angeles has a way of functioning despite the odds. I often think about this when I rush out of my apartment each morning and join the flow of cars on the freeway: I can always count on city workers picking up the trash and fixing roads, around the clock. Families, including mine, seem to manage their busy schedules and still spend time together. We endure long hours inside our cars, stuck in traffic, yet we rationalize this mindless activity day in and day out.

Los Angeles is also one of the most diverse cities in America, a hotbed of cultural cross-pollination — the kind of place where we refused to believe that Donald Trump was real.

My neighbors are a couple of middleclass Asian and Latino families, an African-American couple, retirees. When we run into each other, we say hello, that's about it. But in the past few months, as this election's rhetoric heated up and our mailboxes filled up with angry campaign mailers, I felt an urge to get to know them. As a middle class, college-educated, immigrant woman living in the urban West, I'd wonder if they were in my camp, the kind of Angelenos I've come to expect in this huge global city: politically liberal, tolerant, willing to embrace multiculturalism.

Then, one day this fall, I noticed a Trump sign in the window of an apartment a couple of blocks away, along with more than a few "Make America Great Again!" bumper stickers on cars parked in the neighborhood. Still, I refused to accept the possibility of a Trump win. I was confident that the rest of the West — and a majority of voters — shared my logic, that we'd elect the most decent candidate, someone who did not espouse the racist myth that America's greatness is in its past.

Call me naive. Now we're all living in a Trump America. Today, there's a palpable sense of despair coursing through my city, especially among immigrants, people of color, Muslims, Sikhs, Jews. For me, there's more than despair. There is real fear.

Three days after the election, I boarded a flight from Denver to Los Angeles. From the back of the plane, I watched a Salvadoran family — mom, dad and three young daughters under the age of 10 — as they tried to find seats that would allow them to stick together. The mom spoke to her oldest daughter

in Spanish, telling her to make her way to her seat, alone. Then, in English, she asked fellow passengers if they wouldn't mind switching, so that she could be with her other kids.

Stuck between two men occupying the aisle and window seats, I could hear my neighbors exchanging complaints about the Salvadoran woman: "Does she not know how to read her seat assignments?" "Speak English, you're in America."

Three days is all it took to embolden bigots everywhere, I thought. Before the election, I would have felt the impulse to shame these men in public. This time, I opted for quiet civility, telling myself I'd speak up if it continued. I closed my eyes. I picked up my novel and read. I put on headphones for a while. A couple of hours later, as we began our descent, I met the gaze of the young white male next to me. He wore a white T-shirt and jeans; a dragon tattoo wrapped around his left arm.

"Do you live here?" he asked. His name was Chris and he was 24, from a military family in Colorado Springs. We quickly moved on from small talk and got straight to the topic of the election. "I didn't vote, but my candidate won," he said, almost in disbelief.

Chris couldn't articulate why he supported Trump, beyond the fact that, at home, everyone else seemed to. He looked like a tough guy, but when he spoke his demeanor was gentle. Like his father and his friends, he was afraid of terrorists and criminals crossing the border, and he believed Trump when he promised he would get rid of all of them.

I let him speak. For those of us who believe in tolerance, the challenge now is twofold: We must keep standing up for our principles, but, increasingly, we must also engage with the other side. This was to be his first time in Los Angeles, Chris went on, a place he hoped to move to some day. "I've always wanted to come check it out for myself," he confessed, as the plane swept over the vastness of my city. "I imagine there is something here for everyone."

Ruxandra Guidi is a contributing editor at *High Country News* who writes from Los Angeles.



Pedestrians, and signs in Spanish and English, are reflected in a Lincoln Heights storefront window. Although Latinos are the majority here and the Spanish language predominates, Cantonese, Vietnamese and English can also be heard along Broadway Avenue. ROBERTO (BEAR) GUERRA



HEARD AROUND THE WEST | BY BETSY MARSTON

WYOMING

We now know more about why an Oregon brother and sister walked across Yellowstone National Park's hottest geothermal region last June, thanks to a Freedom of Information Act request filed by Wyoming's KULH-TV. Their illegal stroll made national news because the young man fell into a hot spring and was never seen again — only his flip-flops remained. Like many of the 840,000 who visited the park that month, reports the Washington Post, Sable and Colin Scott came to marvel at Norris Geyser Basin's weird array of orange, green and pink microorganisms and boiling water, which has been measured as high as 459 degrees. When they left the boardwalk, however, they had more than scenery on their minds: "Their goal was to find a thermal pool and take a soak — illegal conduct that the park describes as 'hotpotting." The two had hiked 225 yards into the basin when Colin Scott reached down to check the water's temperature, slipped and fell into a 10-foot-deep pool. Though bad weather delayed a rescue attempt, even a fast save would have been futile. As Yellowstone ranger Lorant Veress delicately put it, "In a very short order, there was a significant amount of dissolving." Veress warns visitors that "straying" beyond the official paths is definitely dangerous.

CALIFORNIA

"I got a turkey here that just won't let me leave," said a desperate caller to a 911 operator in Davis, California. Just in time for Thanksgiving, the Revolution had begun: Several dozen angry wild turkeys formed a gang that patrols the streets and bullies residents, reports *The Week* magazine. Wildlife specialist John McNerney advised people cowed by the turkeys to not act chicken: Remember you're "the dominant species. Don't let them intimidate you." That advice might have helped the man who complained that the wild bunch "just put me in a corner."

OREGON

A man fleeing police in Ontario, Oregon, thought he'd found the perfect hiding place — a large badger hole on Bureau of Land Management



IDAHO Signs say the darndest things. CLAYTON PARR

property. Unfortunately, the hole was 8 feet deep, and it swallowed first the man's dog and then the suspect himself, 22-year-old Gregory Morrow, who found himself trapped and unable to move. It took police 90 minutes to dig him out, and he likely would have died if they hadn't found him, reports *The Associated Press*.

COLORADO

If you're going to poach an elk, be sure to post a braggy picture of yourself with your kill on Facebook. That's what one self-incriminating poacher did, and JT Romatzke, wildlife manager for Colorado Parks and Wildlife in Grand Junction, happily used that picture to identify four possible canyons where it might have been taken. It took months, but the "kill site" was narrowed down to Exxon Mobil property near Rifle, where no hunting is allowed. Wildlife officers then used DNA evidence to link the poachers to the site during an investigation that took two years to complete. What proved startling, however, was the identity of two of the four poachers, reports the Grand Junction Daily Sentinel: Thad Bingham and Brian Scheer were both federal employees, working for the U.S. Fish and Wildlife Service at the agency's Native

Fish Facility Ponds near Fruita. "We cannot stress this enough," said Romatzke. "If you commit a wildlife crime, no matter who you are, we are going to do what we can to find you." The other men sentenced for poaching were Josh Fitzsimmons and Barrett Rowles. Sentences included a mix of suspension of hunting privileges and fines.

ARIZONA

City managers with progressive ideas seem to get nowhere fast in Arizona. The state Legislature recently banned cities from attempting to ban plastic grocery bags, and as if that weren't enough, a second bill banned cities from requiring landlords or developers to disclose their energy use. The two bills were a reaction to the city of Tempe, which tried to outlaw the use of plastic bags in grocery stores, and Phoenix, which merely looked into imposing an energy-use mandate. They were simply following the lead of a great many energy-conscious cities around the country, reports the *Phoenix Business Journal*.

TEXAS

Time to give Texas some credit for progress in energy conservation. The Electric Reliability Council of Texas provides power to almost everyone in the state — 24 million customers and about 90 percent of the state's total electric load. The grid operator just made a stunning forecast, reports the Union of Concerned Scientists: "Solar power will not only offer the cheapest electricity for projected bulk power purchases in the state from 2017 to 2031, but its price is also so low that no other type of power plants will likely be built in the state." Nonetheless, politics continues to trump economics, and Texas leads the court fight against President Obama's Clean Power Plan to reduce carbon pollution.

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.



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When people in rural areas consume news about cities, they're bombarded with violence, civil unrest, and the condescension of cultural elites. When city-dwellers read about their country counterparts, they're treated to meth addiction, guns and rural blight. Each side views the other as the source of social rot.

Ben Goldfarb, in his essay, "A new journalism, past fear-mongering," from Writers on the Range, hcn.org/wotr