Challenge to prevent Sierra forest fire catastrophe

By Linda Fine Conaboy

INCLINE VILLAGE – “It’s not a matter of getting better at firefighting, it’s now a matter of too much stuff for fires to burn,” Malcolm North, forest ecologist with the U.S. Forest Service Pacific Southwest Research Station said, explaining that in 2017, the costs to fight fires was upward of $3 billion. “We’re losing the forest fire battle. It’s not whether fire will occur, it’s when.

“We have two choices. We can continue to deny that we can control fire or we can get in front of it and learn how to be smarter when it comes to forest fires.”

Forest fire and drought are top-of-mind for those who live in, or close to, the Sierra Nevada, as attested to by the packed house last week at a UC Davis TERC presentation at Sierra Nevada College on managing fire and drought in the Sierra Nevada.

The room was jammed as North did his best to explain the symbiotic nature of fire, fuels and forest inhabitants.

“The goal for a resilient forest and happy owls is big trees and moisture.”
– Malcolm North

Beginning with why our forests are unhealthy, with a nod to spotted owls and the role they play, followed by data collection and finally, circling back to managing forests so that all creatures can live out their lives despite climate change, drought and wildfire, North wove his four intertwined topics into a fascinating saga.

“It doesn’t take a forest ecologist to see that our forests are in bad shape. Clearly, something is out of whack,” North said.

He blames early clear-cutting in the Sierra during the Gold Rush time period for the beginning of an irrevocable alteration of the forests. “Large, fire resistant trees were cut and ‘defect’ trees were eliminated,” he said. “But in actuality, these gnarled, crooked trees (defect trees) are the nexus for wildlife—like owls. This was not a good idea.”

Additionally, fire suppression changed the forests in the Sierra Nevada forever, causing incredible density on the forest floor, thus providing fire with the fuel it needs to easily burn.

“Fire is actually essential in a forest. Eliminating fire, like for the last 100 years, causes crown fires,” he added. “In the past, fires occurred every 10-15 years, adding life to the forest.”

Long ago, a typical, healthy forest supported about 64 trees per acre with a diameter of about 26 inches; now, there are about 320 trees on an acre with measly girths of 14 inches or so.

Canopy cover totaled 32 percent of the green foliage aloft; now, the dense forest canopy averages 65 percent.

Forests, North said, used to be able to recover and reseed themselves, but now money is going directly to fire suppression, not to the necessary replanting of a fire-ravaged forest, causing lots of shrub fields to grow, further exacerbating the problem.

Additionally, the elimination of repeated fires (every 10-15 years) means that there is now competition for water.

“Lack of water causes stressed trees, which are becoming overwhelmed by beetles who can sense when a tree is unhealthy. There’s never been a precedent for beetle infestation in the Sierra,” North said. “Beetle mortality is particularly accelerating the loss of large, tall, old-growth trees.”

He added that sugar pines are in a reduced state not only because of drought and forest mismanagement, but also because of rust. “Beetles are just a pile on,” he said.

Add to all of this the spotted owl, whose now-protected habitat is a roadblock to forest restoration and resilience. According to North, owls need lots of tree canopy to thrive as do northern flying squirrels, Pacific fisher and northern goshawk. “Actually, 70 percent canopy is good for owls; bad for fire.”

To determine the amount of actual available canopy cover, some means of measurement needed to be utilized, North said. “If canopy structure is so important, how accurately is it measured? Not so well,” he said. “Measurements are crude and inaccurate. The Forest Service doesn’t even accurately measure canopy cover.”

Enter LiDAR (light detection and ranging) a remote sensing method used to examine the surface of the Earth. In actuality, LiDAR analysis found that owls really don’t need masses of dense ground cover, but they do need canopy cover to survive.

“So maybe ladder fuels (live or dead vegetation that allows a fire to climb up from the landscape into the tree canopy) can be reduced without endangering owl habitat,” North mused.

As he prepared to wind up his talk, he arrived at his final topic—how to meld owls’ needs with wildfire resistance? He suggested that tree planting patterns are key to a healthy forest. For example, trees need to conform to a group/gap situation where groups of trees are surrounded by gaps of space. “There’s a tight coupling among ecosystem processes—forest heterogeneity supports fire diversity.

“Old-growth forests with restored fire patterns in Yosemite and Sequoia national parks all exhibited the same needs—tall trees, snags and moisture. The goal for a resilient forest and happy owls is big trees and moisture.”

Big One could leave 250,000+

quake refugees in Calif.

People walk toward the Ferry Building on Market Street after the 1906 San Francisco earthquake. Photo/Library of Congress

By Rong-Gong Lin II and Sarah Parvini, Los Angeles Times

When a catastrophic earthquake hits California, buildings will topple and potentially hundreds could be killed.

But what gets less attention is the wrenching aftermath of such a huge temblor, which could leave whole neighborhoods torched by fires uninhabitable and hundreds of thousands of people without a home.

Officials are grappling with where all these quake refugees would go.

Read the whole story

Increasing number in Calif. looking to move

By Liz Kreutz, ABC-10

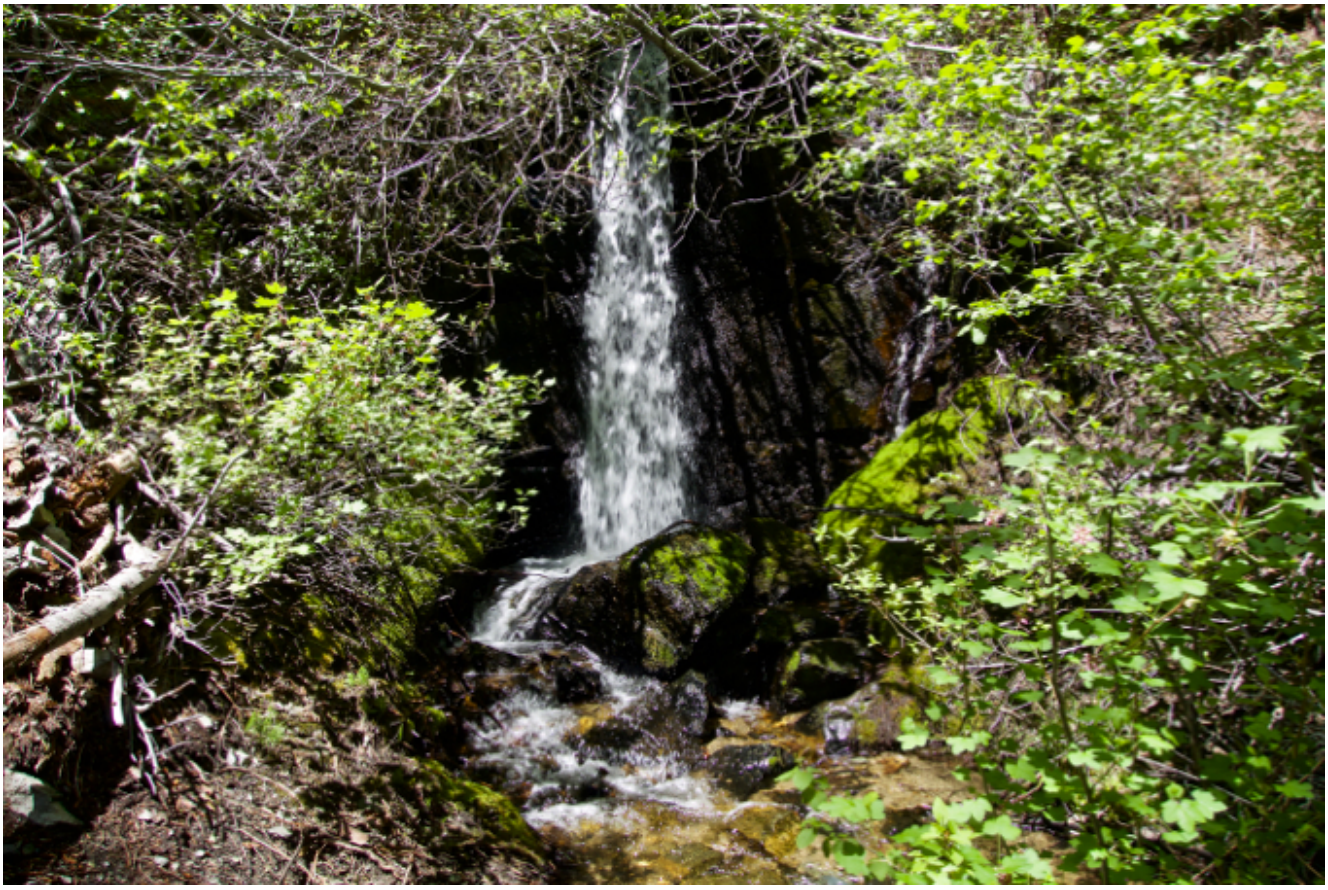
While many people can’t imagine themselves living anyway other than the Golden State, research shows an increasing number of Californians may be looking to move away.

According to studies done by real estate sites Realtor.com and Redfin.com, the housing crisis in California is driving people to search for homes outside the state.

So where are people looking? Realtor.com says most people are searching in Phoenix, Las Vegas and Prescott, Ariz. Redfin.com also say many people searching in Seattle.

Read the whole story

Genoa Falls dances from the rugged brush



Genoa Falls at about 10-feet-high tumbles from the mountainside. Photo/Kathryn Reed

By Kathryn Reed

GENOA – There is something about a waterfall that always brings a smile to my face even it isn't very big. Something about the magic of Mother Nature; showing who's boss, mixing up the contours of the landscape. I'm never disappointed.

A week ago eight people and two dogs set off to see the Genoa Falls for the first time. Considering it was a holiday weekend, we were pleasantly surprised not to come across that many people.

This is the time of year when hiking at lake level is still iffy because you don't have to go up far in elevation to still hit snow. That is why starting lower is a safe bet.

Vibrant snowplants just off the trail. Photo/Kathryn Reed

The distinctive yellow flowers of mule’s ear are already sprouting on the Carson Valley side of the range. Snow plants are in their glory.

This trail that begins on the outskirts of Genoa is a bit steep at first. More than one person complimented the trail builders. It’s single-track almost all of the way as the switchbacks wind their way up about 1,400 feet.

A mix of hardpack dirt and loose rock fill the trail. While I’m not big on using poles, I was glad I had them for the ascent, and especially for the descent. My footing slipped in a couple places and the poles kept me upright.

Switchbacks are necessary to ease the steepness. Photo/Kathryn Reed

It’s understandable why signs recommend cyclists and equestrians stay off this trail – it’s the verticle. Still, that didn’t deter a couple mountain bikers who passed us. Fortunately, we all shared the trail respectfully.

It doesn’t take long until sweeping views of the Carson Valley come into view. With the moisture we had in May, it was still amazing how verdant this farmland is. Living in Tahoe it’s easy to forget how lush areas can become with rain.

There was a little bit of water at times for the dogs, but definitely bring some along for them. Wiley had no problem plopping himself down in the water that ran from the falls. It was like a private bath for him.

The tree canopy provided plenty of shade, which was a good thing. While I was in shirtsleeves, I wish had been in shorts.

We turned around at the waterfall, but the trail kept going. There are longer loops. The trail hooks up with the Tahoe Rim Trail at 13.4 miles from the parking lot. Our out and back was just shy of 6 miles total.

Plenty of lush green grass for the cattle in Carson Valley. Photo/Kathryn Reed

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Getting there:

From South Lake Tahoe, take Highway 50 east to Stateline. Go right on Kingsbury Grade. Go left on Foothill Road. Go left on Carson Street. The road dead ends at the Genoa Canyon Trailhead.

Sage grouse now a proxy for control of Western lands

By John Freemuth, The Conversation

The Trump administration is clashing with conservation groups

and others over protection for the greater sage grouse (Centrocercus urophasianus), a bird widely known for its dramatic mating displays. The grouse is found across sagebrush country from the Rocky Mountains on the east to the Sierra and Cascade mountain ranges on the west.

This region also contains significant oil and gas deposits. The Trump administration is revising an elaborate plan developed under the Obama administration that sought to steer energy development away from sage grouse habitat. Conservation groups are suing in response, arguing that this shift and accelerated oil and gas leasing threaten sage grouse and violate several key environmental laws.

This battle is the latest skirmish in a continuing narrative over management of Western public lands. Like its Republican predecessors, the Trump administration is prioritizing use of public lands and resources over conservation. The question is whether its revisions will protect sage grouse and their habitat effectively enough to keep the birds off of the endangered species list – the outcome that the Obama plan was designed to achieve.

Sage grouse under siege

Before European settlement, sage grouse numbered up to 16 million across the West. Today their population has shrunk to an estimated 200,000 to 500,000. The main cause is habitat loss due to road construction, development and oil and gas leasing.

More frequent wildland fires are also a factor. After wildfires, invasive species like cheatgrass are first to appear and replace the sagebrush that grouse rely on for food and cover. Climate change and drought also contribute to increased fire regimes, and the cycle repeats itself.

Concern over the sage grouse’s decline spurred five petitions to list it for protection under the Endangered Species Act

between 1999 and 2005. Listing a species is a major step because it requires federal agencies to ensure that any actions they fund, authorize or carry out – such as awarding mining leases or drilling permits – will not threaten the species or its critical habitat.

In 2005 the U.S. Fish and Wildlife Service declared that an ESA listing for the sage grouse was "not warranted." These decisions are supposed to be based on science, but leaks revealed that an agency synthesis of sage grouse research had been edited by a political appointee who deleted scientific references without discussion. In a section that discussed whether grouse could access the types of sagebrush they prefer to feed on in winter, the appointee asserted, "I believe that is an overstatement, as they will eat other stuff if it's available."

In 2010 the agency ruled that the sage grouse was at risk of extinction, but declined to list it at that time, although Interior Secretary Ken Salazar pledged to take steps to restore sagebrush habitat. In a court settlement, the agency agreed to issue a listing decision by Sept. 30, 2015.

Negotiating the rescue plan

The Obama administration launched a concerted effort in 2011 to develop enough actions and plans at the federal and state level to avoid an ESA listing for the sage grouse. This effort involved federal and state agencies, nongovernmental organizations and private landowners.

California, Colorado, Idaho, Montana, Nevada and Wyoming all developed plans for conserving sage grouse and their habitat. The U.S. Forest Service and Bureau of Land Management revised 98 land use plans in 10 states. And the U.S. Department of Agriculture provided funding for voluntary conservation actions on private lands.

In 2015 Interior Secretary Sally Jewell announced that these

actions had reduced threats to sage grouse habitat so effectively that a listing was no longer necessary. A bipartisan group of Western governors joined Jewell for the event. But despite the good feelings, some important value conflicts remained unresolved.

Notably, the plan created zones called Sagebrush Focal Areas – zones that were deemed essential for the sage grouse to survive – and proposed to bar mineral development on 10 million acres within those areas. Some Western governors, such as Butch Otter of Idaho, viewed this element as a surprise and felt that it had been dropped on states from Washington, without consultation.

The Trump administration wants to cancel creation of Sagebrush Focal Areas and allow mining and energy development in these zones. Agency records show that as Interior Department officials reevaluated the sage grouse plan in 2017, they worked closely with representatives of the oil, gas and mining industries, but not with environmental advocates.

Can collaboration work?

If the Trump administration does weaken the sage grouse plan, it could have much broader effects on relations between federal agencies and Western states.

Collaboration is emerging as a potential antidote to high-level political decisions and endless litigation over western public lands and resources. In addition to the sage grouse plan, recent examples include a Western Working Lands Forum organized by the Western Governors' Association in March 2018, and forest collaboratives in Idaho that include diverse members and work to balance timber production, jobs and ecological restoration in Idaho national forests.

There are two key requirements for these initiatives to succeed. First, they must give elected and high-level administrative appointees some cover to support locally and

regionally crafted solutions. Second, they have to prevent federal officials from overruling outcomes with which they disagree.

When the U.S. Fish and Wildlife Service announced in 2015 that an endangered listing for the sage grouse was not warranted, the agency committed to revisit the bird's status in 2020. To avoid having to list the grouse as endangered, the Trump administration must provide enough evidence and certainty to justify a decision not to list, as the Obama administration sought to do. If Interior changes land management plans and increases oil and gas leasing, that job could become harder. It also is possible that Congress might prohibit a listing.

Finding a lasting solution will require the Trump administration to collaborate with states and other stakeholders, including environmental advocates, and allow local land managers to do the same. Then, whatever the outcome, it cannot reverse their efforts in Washington. As Matt Mead, Wyoming's Republican governor, warned in 2017, "If we go down a different road now with the sage grouse, what it says is, when you try to address other endangered species problems in this country, don't have a collaborative process, don't work together, because it's going to be changed."

John Freemuth is a professor of public policy and executive director of the Andrus Center for Public Policy, Boise State University.

Climate change may lead to

bigger atmospheric rivers

By Esprit Smith, NASA’s Jet Propulsion Laboratory

A NASA-led study shows that climate change is likely to intensify extreme weather events known as atmospheric rivers across most of the globe by the end of this century, while slightly reducing their number.

The new study projects atmospheric rivers will be significantly longer and wider than the ones we observe today, leading to more frequent atmospheric river conditions in affected areas.

The results also show that the frequency of the most intense atmospheric river storms is projected to nearly double.

Read the whole story

Tahoe Keys targeting boats to stop AIS spread

A sign in the Tahoe Keys asks boaters to stop and reverse their motors to dislodge weeds on props. Photo/Kathryn Reed

By Kathryn Reed

Tahoe Keys has set up a high-tech boat wash of sorts in order to prevent more invasive weeds from reaching the heart of Lake Tahoe.

Beginning next week the bubble curtain is expected to be fully operational. This device complements the boat backup station that was implemented two years ago. Sea bins will be added later in the summer as a way to more instantaneously pick up the fragments. Those components are on back order.

Together the goal is to keep the Eurasian milfoil and

curlyleaf pondweed in the canals. More than 90 percent of the Tahoe Keys' 172-acre lagoons are riddled with these invasive species. The Keys is blamed for being the source location for the weeds that have turned up in Lake Tahoe proper. That is why the goal is to stop the spread where it starts.

Skimmers will be used to pick up the fragments the boats discard and then they'll be removed from the waterway.

Greg Hoover with the TKPOA has his hands full with myriad AIS issues. Photo/Kathryn Reed

New this year are larger signs so boaters will be able to better read what they are supposed to do.

The goal is to have boaters stop, then reverse the direction of the prop. That action loosens and in large part dislodges the weeds that have taken hold.

The drawback to this is that as a homeowners association employees cannot mandate boaters do the backup maneuver. They are working on that. Staff, however, is out there at different busy times talking to people about why it is a good idea to do this and are educating people about aquatic invasive species. They have literature to hand to people to drill home the message.

Once boaters do the prop shimmy they will drive through the bubbles near the mouth of the channel.

“The bubbles should strip off all the weeds that are still attached,” Greg Hoover who manages aquatic invasive species for the Tahoe Keys Homeowners Association told *Lake Tahoe News*. “We will create a monitoring plan to see how successful we are.”

The bubbles are also expected to create a barrier to prevent weeds from reaching the lake. Boats are the No. 1 way AIS spread from one location to another.

This is the first time the bubbles have been used at Lake Tahoe. At their lowest output the pressure is about 0.5 cubic feet per minute. These types of devices have been used to deflect gas and oil spills from sensitive areas.

The harvester is like a lawn mower on water. Photo/Kathryn Reed

Regulatory agencies have studied the potential effect on fish and don't believe it will be a concern.

TKPOA was just waiting on the final sign off from the city to be able to operate the electricity for the bubbles on a 24/7 basis. The apparatus cost about $30,000, with homeowners footing the bulk of the bill and the League to Save Lake Tahoe coming up with about one-sixth.

To create the backup station with signs and designating clear routes for boaters was another $12,000.

Once the sea bins are installed it will be the first time anywhere in the world that they will be used with the bubbles. They will go in three locations acting as a suction that will trap the weed fragments. Then they will be manually drained.

All of this is on the west channel of the South Lake Tahoe neighborhood. The property owners association has control of this area, whereas the marina owners are responsible for the bulk of the waterway near the boat launch.

While all of these devices are designed to keep the weeds in the lagoons, they do nothing to actually get rid of the plants not attached to a moving vessel. The use of herbicide is still very much on the table. It is in the hands of the Lahontan Regional Water Quality Control Board and Tahoe Regional Planning Agency.

Until a decision is made there is still the harvester that essentially mows the weeds.

Brown OKs permanent residential water restrictions

By Taryn Luna and Alexei Koseff, Sacramento Bee

The drought may be over, but California residents should prepare themselves for new and more permanent restrictions on water use.

Gov. Jerry Brown signed a pair of bills Thursday to set permanent overall targets for indoor and outdoor water consumption.

Assembly Bill 1668 by Assemblywoman Laura Friedman, D-Glendale, and Senate Bill 606 from state Sen. Bob Hertzberg, D-Los Angeles, give water districts more flexibility than the strict cuts mandated under Brown's emergency drought order and will eventually allow state regulators to assess thousands of dollars in fines against jurisdictions that do not meet the goals.

Read the whole story

Study: Drugged driving on the rise

By Nathan Bomey, USA Today

Drugs are being detected in a growing share of drivers responsible for fatal crashes, according to a new study by the Governors Highway Safety Association.

Although it's difficult to tell when drugged driving is a cause of accidents, the findings provide fresh reason for concern that marijuana and opioids are driving a growing safety crisis on American roadways.

Some 44 percent of drivers killed in crashes in 2016 who were tested afterward had drugs in their system, according to the GHSA study.

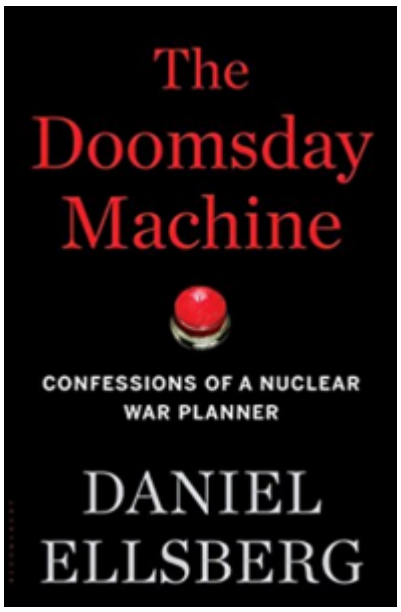
Read the whole story

LTN Book Club: 'Doomsday' brings clarity to nuclear war

By Kathryn Reed

Sobering. Scary. Eye-opening. Educational. Thought-provoking. Those are just a few of the ways to describe "The Doomsday Machine: Confessions of a Nuclear War Planner" (Bloomsbury 2017) by Daniel Ellsberg.

If the author's name sounds familiar, it's because he is the person who released the Pentagon Papers, which were the subject of the 2017 movie "The Post."



The now 87-year-old worked for the RAND Corporation as an analyst on nuclear strategy and then for the Defense Department through the 1960s.

What is so alarming is how inaccurate the information was about the destruction that would occur from the use of nuclear weapons. And then who knew what and when is incredible. The facts that were kept secret from those making decisions is downright frightening. The lack of trust between the military and civilians – including the president and his advisors – is stunning.

Scientists for decades didn't understand about nuclear winter being a reality if there would be an all-out war. The fires and then smoke that would follow the bombs' detonation weren't part of the calculations at the get-go. This would eventually lead to worldwide starvation because plants wouldn't be able to grow without adequate sunlight.

The fact the United States for years had only one plan for all of its nuclear missiles was startling. They were to be used to wipe out the then Soviet Union and China. Both. There was no other plan. The fact that all of the bordering countries would be severely impacted was of little consequence to the war planners.

The segment on the Cuban missile crisis is like none I ever learned about in school or have read about until now.

I read and listened to “Doomsday” based on my schedule. It took longer to read because I would reread parts. It’s complex. I wanted to make sure I had read things correctly. I feel like I should reread or listen to it all again down the road to fully comprehend everything Ellsberg shares.

Yes, it’s a history book of sorts. But it is so incredibly relevant to today because we have even more weapons that can wipe out life as we know it on Earth – as do the Russians and others.

Ellsberg makes a strong case for getting rid of these weapons of mass destruction. It would be hard to argue otherwise. The ethical and moral use as well just the possession of these weapons is worth a serious discussion.

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Notes:

· The next book will be “Emerald Bay and Desolation Wilderness” (Arcadia Publishing 2018) by Peter Goin. The review will be published July 1.