

Photos by Colin Murphey/The Daily Astorian

Wade Tucker, left, and Kelly Anderson work the night shift with the Oregon Department of Transportation spraying de-icing material on roads.

Spraying: Magnesium chloride is not without its own dangers

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The mixture — referred to by road managers as "mag" — is applied when temperatures range between 25 and 38 degrees Fahrenheit, with no rain forecasted in the next 24 hours. Transportation workers deploy sand when packed snow and ice already cover the highway. While the de-icer has been invaluable in helping keep highways passable, Anderson said it can also give drivers a false sense of security.

"They see us putting out the de-icer, and they're flying," he said. "But they don't realize it might be really cold, or there might be a bad batch."

Tucker and Anderson cautioned against driving at all when there is freezing rain, or when temperatures fall dangerously low, and advise drivers to stay well away from the trucks deploying magnesium chloride, a highly corrosive substance over time.

Last winter, more than 430,000 gallons of magnesium chloride was spread on Northwest Oregon roadways, along with about 9,000 cubic yards of sand. The state has used the de-icer for nearly 20 years, Buffington said.



Wade Tucker stands next to a tank of magnesium chloride, which is used by the Oregon Department of Transportation to treat area roads for ice.

mon rock salt and salt brine used by neighboring states to de-ice roads because of the harm to water quality and aquatic life as residual chlorides drain into streams. Evi-

Oregon has eschewed the more com- dence has been scant, however, as to the environmental friendliness of magnesium chloride. The state has recently experimented with rock salt on especially treacherous stretches of road near borders with

California, Idaho and Nevada.

Even with corrosion inhibitors mixed in to limit damage to property, magnesium chloride is not without its own dangers.

The results of a study published in 2015 by the state and Alaska University Transportation Center showed magnesium chloride can weaken the state's bridge decks and piers after 10 to 20 years of treatment, increasing the possibility of premature failure. The damage is not visible from the road surface, but core samples showed magnesium chloride's ability to weaken the elasticity of concrete in absorbing the force and weight of cars driving overhead.

"It could be catastrophic," Xianming Shi told The Bend Bulletin in a 2015 story about the study. "I think it's important to educate the public on what the risks are."

Shi recommended washing down bridges at the end of winter, because most of the damage occurs in summer, and said alternate mixes of Portland cement could mitigate damage. State transportation spokesman Dave Thompson told the paper at the time that the state maintained the practice of sealing bridge decks prior to winter, but hadn't created a plan in response to the study's findings.

Bundys go free in Nevada — and dismissal reverberates across Oregon

By AMELIA TEMPLETON, CONRAD WILSON and AMANDA **PEACHER**

Oregon Public Broadcasting

A federal judge in Nevada Monday dismissed the criminal indictment against the Bundy family and one of their key supporters, dealing federal prosecutors and federal land management agencies an embarrassing rebuke.

In Oregon, the dismissal prompted both celebration and deep dismay.

The case stemmed from a 2014 standoff between members of the Bundy family, fellow ranchers, armed militia and the Bureau of Land Management.

U.S. District Court Judge Gloria Navarro ruled that federal prosecutors improperly withheld key information from the defense, and she dismissed the charges with prejudice. That effectively ends the government's case against family patriarch Cliven Bundy, his sons Ammon and Ryan, and Army veteran and militia leader Ryan Payne.

"The day has changed," said Brett Whipple, Cliven Bundy's lawyer. "There will be a new standard for the government's treatment of evidence and requirements of due process.

Technically, prosecutors could appeal Navarro's ruling, but they realistically face a difficult path if they choose to pursue charges against the four men.

"The federal government

is out of touch with the local needs is what this really comes down to," Whipple said.

The Bunkerville standoff began in spring 2014 when the Bureau of Land Management obtained a court order to round up and impound Cliven Bundy's cattle, which were grazing on the public land next to his family's ranch. For two decades, the elder Bundy refused to pay grazing fees. He owes the BLM more than \$1 million in unpaid fees and

The case raises questions about the BLM's ability to effectively manage more than 150 million acres of grazing leases across the American West, including 14 million acres in Oregon. It was closely watched by environmentalists, cattle ranchers and anti-government activists.

And it's the second sweeping victory for the Bundys and shocking defeat for the U.S. Department of Justice; brothers Ammon and Ryan Bundy were acquitted for their role leading the occupation of the Malheur National Wildlife Refuge in Harney County in

The Bundys and their followers contend the Constitution prohibits the federal government from owning land.

Vindication

Members of various militia and so-called patriot groups that have followed the case said the judge's ruling is vindication for their long-held beliefs.

"This is huge," said Ken in control," he said. "Federal



K.M. Cannon/Las Vegas Review-Journal Cliven Bundy walks out of federal court with his wife, Carol, on Monday in Las Vegas after a judge dismissed criminal charges against him and his sons accused of leading an armed uprising against federal authorities in 2014.

Medenbach, a 23-year veteran of the sovereign-citizen movement who was acquitted by the Oregon jury for his role in the Malheur occupation. "There's nothing in the Constitution that gives the federal government the power to own land in the states.

Legal scholars say that issue, however, has been settled. The U.S. Supreme Court has upheld the federal government's broad authority to own and manage land.

Medenbach described the outcome of the Nevada case of the federal government —

as example of the corruption and of divine intervention. "There's a higher power land is going to go back to the states. Abortion is going to stop, same-sex marriage is going to stop. Otherwise God is going to destroy this country.

Neil Wampler also stood trial with the Bundys for the Malheur occupation.

"They tried to make an example out of this good family, and we made an example

out of them," he said Monday. Speaking to reporters outside the federal courthouse in Las Vegas, Ammon Bundy encouraged people to assert

their rights. "And then when it comes time to defend them, they need to defend them," he said

in a video posted online by

The Oregonian.

Even though it was a separate case, many environmentalists and opponents of the occupation in Eastern Oregon viewed the Nevada case as an

opportunity to get justice. heartbreaking, because I know so many people who have worked to support everything the BLM stands for and managing the land," said Liz Appelman, a Harney County resident who worked for the BLM for 30

years. "Federal prosecutors clearly bungled this case and let the Bundys get away with breaking the law," tweeted Kieran Suckling, executive director of the Center for Biological Diversity. "The failure of this case will only embolden this violent and racist anti-government movement that wants to take over our public lands."

Darling of conservatives

During the Bunkerville standoff, Cliven Bundy became a darling of conservative media and politicians, until he told a journalist he wondered if African-Americans were "better off as slaves, picking cotton."

While the Bundys went to trial and successfully fought the charges against them, a handful of other defendants in the Nevada standoff were convicted by a jury.

In Oregon, several lesser-known defendants charged in the Malheur wildlife ref-

uge occupation pleaded guilty,

and others were found guilty at a trial in 2017 of conspiracy or damaging government property. Among those who pleaded guilty in the Oregon case is Ryan Payne, who no longer faces charges for his role in the Bunkerville standoff. Prosecutors have recommended he serve three to four years for his role in the Ore-

gon occupation. The 13 defendants who pleaded or were found guilty in the Malheur occupation are collectively paying \$78,000 in restitution.

Andrew Comez, standby attorney for Jason Patrick, who was convicted of conspiracy, acknowledged that the gamble of going to trial rather than accepting a plea agreement paid off for some.

"On one level, of course there's a miscarriage of justice, assuming first that they're all guilty, which I don't concede," he said. "But, in a perfect world, everyone who did the crime should do their time, right? But we know that doesn't happen."

Bundy's cattle, a herd of big-eared, humped-back Brahman crosses, still graze federal lands near the Bundy ranch, four years after the BLM's failed attempt to round them up.

Whipple, Cliven Bundy's attorney, estimates that at one time, there were about 400 mothers and calves, but they have likely been reproducing on the range, he said.

"There's probably more of them there than there were