

### Public lands for private enterprise

Continued from page 7



PHOTO FROM "RESTORATION OF RIPARIAN AREAS FOLLOWING THE REMOVAL OF CATTLE IN THE NORTHWESTERN GREAT BASIN"

Hart Mountain National Antelope Refuge is shown during cattle grazing.

The federal government owns about half of Oregon, and much of that public land is broken up into grazing allotments where, ecologists and biologists say, cows are acting as an invasive species.

They trample the earth and devour vegetation, posing a danger to already threatened species in sensitive areas, and they act as a significant contributor to the rising temperatures and dropping levels of the state's waters.

There are 1,657 grazing allotments on U.S. Bureau of

Land Management land in Oregon, occupying roughly a quarter of the state's landmass. Up to about 930,000 livestock are permitted to graze these areas, although that number represents the limit, not necessarily the number that are actually grazing, said Robert Hopper, BLM rangeland manager.

He said that while rangeland managers periodically check to make sure the cows aren't overgrazing or trampling sensitive areas on these allotments, the frequency of visits varies significantly, with smaller allotments going unchecked.

Right now there are about 30 rangeland managers in Oregon, Hopper said. Offices that had seven managers when he started with BLM three decades ago now have three or four.

"There are a lot of vacancies," he said, adding that budget cuts have been a factor in staffing.

The U.S. Forest Service also grants

grazing permits, although fewer, for up to 91,300 head of cattle on 625 allotments in national forests across Oregon.

To understand how damaging cows can be in these areas, you have to understand the importance of riparian zones.

"Riparian zones are defined as those areas that are associated with streams and lakes and other wet areas," said Boone Kaufman, a professor and senior researcher at Oregon State University's Department of Fisheries and Wildlife.

While these areas only make up 1 to 2 percent of the landscape, he said, "82 percent of the wildlife in the state of Oregon depend upon riparian zones for all or part of their life.

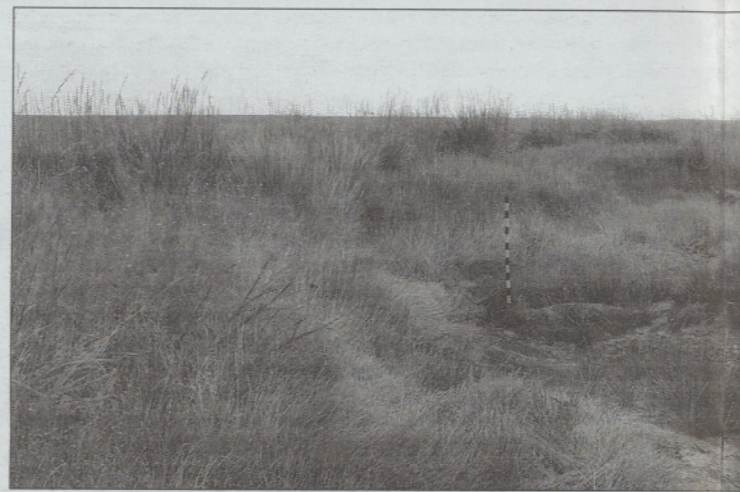
"These small areas function as incredibly important water filters for cleaning water and giving us fresh water. They store water and slowly release it late in the year, and they have important aesthetic values for tourism," he said. "They are far greater in value than almost any other area of land in the state."

The problem is, cows love hanging out in them. There's water, shade and fresh vegetation for them to munch on.

"More stream miles or riparian zones are affected by livestock grazing than any other land use," Kauffman said.

He conducted a study to determine how the compaction of soil by cattle was impacting stream flows on the Middle Fork John Day River. He found that in areas where cows had compacted the earth, the soil's ability to absorb and store water was diminished. This meant that when it rained in the spring, rather than that water replenishing groundwater stores that would slowly release into the stream later in the year, it was running off into the stream.

But areas where cattle had been removed for the previous nine years showed great



PHOTOS FROM "RESTORATION OF RIPARIAN AREAS FOLLOWING THE REMOVAL OF CATTLE IN THE NORTHWESTERN GREAT BASIN" IN ENVIRONMENTAL MANAGEMENT. This pair of photos from Oregon's Hart Mountain National Antelope Refuge shows riparian conditions in the same spot before the removal of cattle in 1984-91 (top) compared to after the removal of cattle in 2013-14 (above).

resilience.

"We were getting 60,000 extra liters of water just in the top 10 centimeters," Kauffman said. "So we're thinking, for the entire John Day River we were sampling, it's something like the equivalent of 200 households of water use."

But compaction is just one of many problems cows create in riparian areas.

As they eat down the vegetation, they cause the stream banks to erode. Over time, this can transform a clear, deep and narrow meandering stream into a wide and shallow murky stream that warms quickly in the sun.

Compounding the temperature increase, cows also eat or otherwise destroy plants and young trees providing the shade that keeps the waterway cool.

All of these effects are detrimental to Oregon's many threatened and endangered salmon and other fish species, said Laurie Rule, senior staff attorney at Advocates for the West.

Before becoming an attorney, Rule worked as a wildlife biologist for the U.S. Forest Service and for private consultants who surveyed state land in Oregon and Washington.

She said she realized no matter what research was being done, land managers were going to do what they wanted despite the science.

"I thought that maybe a better way to create impact was to go to law school and try to incorporate science and law together," she said.

In January, her firm won one of three

lawsuits it brought against the U.S. Forest Service for allowing grazing near sensitive habitats that the cows kept trampling in the Fremont-Winema National Forest in Southern Oregon.

Each of the three lawsuits dealt with the degradation of a different species' habitat. While they lost their cases for the bull trout and short-nosed sucker, they won their case for the Oregon spotted frog, a recently listed threatened species.

### 625 grazing allotments in Oregon's national forests, managed by the U.S. Forest Service

She said winning these cases is tough because judges are very cognizant of the fact their judgment will affect the rancher's livelihood. Oftentimes her law firm will win a grazing allotment case on its legal merits, but rather than stopping the grazing, the judge will tell the land management agency to do a better analysis of the impacts.

"There's a lot of BLM land out there. It's a huge part of the state, and there's not a lot of people really looking at what's going on out there and paying attention to grazing impacts," she said.

"When you win and don't see any changes on the ground - that's frustrating," she said, when asked why so few environmental groups target grazing. "I think there is some fatigue, some frustration, some feeling like you are just beating your head against a wall by trying and trying to make change, and not much change happens."

Rule said wildlife that live on the west side of the state have it easy.

"The species that live out in Southeast Oregon? Man, they have it rough! They have these small niches that are highly dependent on water and riparian areas - that have good

vegetation. When those areas that they are highly reliant on are damaged by livestock? They don't have a chance."

While taxpayers fund fence building on public lands to protect some riparian areas from cows, many areas are unprotected or protected by fencing that fails to keep cows out.

"The majority of riparian areas are still totally accessible," Rule said.

But the fencing also poses problems.

"Fences fragment habitat and harm many species of native wildlife, including sage grouse, which collide with it, and pronghorn (antelope), which may not be able to cross it," said Paul Ruprecht, a staff attorney for Western Watersheds Project.

Western Watersheds Project launched a legal challenge in January against the U.S. Department of Fish and Wildlife for expanding grazing allotments into a wildlife refuge in Southern Oregon and Northern California's Klamath Basin, which houses the last sage grouse breeding area in the region.

Cattle are known to destroy sage grouse habitat by eating the sparse bunches of forbs and grasses where the birds hide their eggs and brood from predators.

In wildlife refuges, a land management agency must show its plans will improve the habitat, not degrade it.

"The Fish and Wildlife Service claims that grazing will be used to prevent fires and target invasive plants like cheatgrass,"

Ruprecht said. "But that justification is not scientifically sound because livestock are in fact the major cause of cheatgrass that causes more frequent fires in sagebrush habitat. Grazing is a cause of the degraded sage grouse habitat - not the solution to it."

Bill Marlett is a hydrologist and former director of the Oregon Natural Desert Association, which in the past was the primary initiator of lawsuits aimed at protecting sensitive areas on public lands in Eastern Oregon from grazing. He said that while there are many ranchers who are doing good work, such as protecting wolves and keeping their cows where they are supposed to be, there is still a pervasive mentality among others that the land is theirs to do with as they please.

"The holding out with (Malheur occupier Ammon) Bundy, that was classic," he said. "A lot of this is cultural, because cows were out there before the laws and regulations existed."

But, he added, "if there were no cows on public lands today, and someone came up with a bright idea and said, let's consider putting livestock on public lands. Just think about that and do an environmental impact statement, and make a decision. I predict if that happened, we would probably not have public-lands grazing today."

### 1,657

grazing allotments on public lands managed by the U.S. Bureau of Land Management in Oregon

### \$1.99 BILLION

value of Oregon's cattle, hay and dairy products in 2015

### Waters of the state

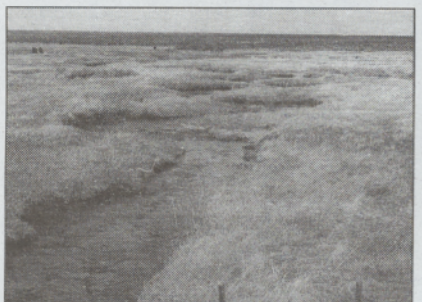


PHOTO FROM "RESTORATION OF RIPARIAN AREAS FOLLOWING THE REMOVAL OF CATTLE IN THE NORTHWESTERN GREAT BASIN"

Hart Mountain National Antelope Refuge is shown after cattle grazing was halted and vegetation returned.

While dairies and feedlots aren't regulated by air quality programs, the Oregon Department of Agriculture does permit and monitor manure management for water quality.

But most cattle ranching operations don't require a permit because they don't meet the definition of confinement, said Wym Mathews, who oversees the program.

For cattlemen

Rich and Michael Butler, protecting their watershed on private property was a top priority, but they said it was voluntary.

The married couple is raising 25 head of organic, grass-fed Angus cattle on their property in Muddy Valley. While they pasture feed their herd in the summer, they keep them in a covered barn area with a small outdoor lot during the winter where the waste collects. They store it in a pile on concrete nearby.

They noticed that when it rained, contaminated water full of nitrates was running off of their manure pile and into

nearby Muddy Creek. It was easy to see because the grass where the water had flowed was much greener and extended all the way to the creek. When asked if the Department of Agriculture had noticed the problem, Rich Butler said, "Nobody comes out and looks. We called them actually to ask for suggestions."

They won a grant through their local water conservation district that helped pay for a roof on their manure storage area that solved the problem.

But, Michael Butler added, "It's completely optional."

Nitrate levels exceed the safety standard in many of Oregon's watersheds. In some areas, livestock manure is the main source, and in other areas it's crop fertilizers, mainly synthetics made from petroleum byproducts.

One study of the Southern Willamette Valley, for example, found 20 percent of well water exceeded the EPA's benchmark for safe nitrate levels. Another study of the Umatilla Basin found that nitrate contamination is increasing in 33 percent of the wells tested and that five public water systems required nitrate treatment.

Elisabeth Holmes, an attorney with Blue River Law in Eugene, pointed out that the EPA's benchmark for nitrates, which is 10 milligrams per liter, was set in the early 1990s. "That level was based on studies from the 1950s," she said. "There are a lot of

studies that have come out that talk about various effects of nitrates - thyroid problems, blood circulation problems, diabetes, reproductive problems, birth defects, central nervous system defects and cancer. ... Some of these studies show levels as low as 4 or 5 milligrams per liter are associated with certain health problems."

The state's Watershed Protection Program requires the Department of Agriculture to work with local communities on watershed management plans, said Don Butcher, a DEQ water quality manager.

He said that while there are many ecological dangers to cows stomping around in streams, "the plans vary from basin to basin - some have prohibitions on that sort of thing, and some of them just say: Try not to do that, or plan not to do that, or preferably don't do that."

Butcher said when he drives around the state, he often sees damage from cows that he finds troublesome.

"I'll see areas where cows have completely eroded the stream banks and clearly are in the stream and there's no fencing, and all the riparian vegetation is gone. But it's kind of scattered," he said. "There's places where we have bacteria problems in streams because of accumulations of manure that gets hurled across fields, and they flood-irrigate next to the John Day River."

### OREGON'S TOP COMMODITIES For 2016:

1. greenhouse & nursery
2. cattle & calves
3. hay
4. milk
5. grass seed

SOURCE: OREGON DEPARTMENT OF AGRICULTURE

### But don't rural communities rely on cattle?



PHOTO BY ARKADY BROWN

An irony ecologist George Wuerthner likes to point out is that many of the very same ranchers who decry the federal government's regulations protecting public lands are more than willing to take taxpayer-funded subsidies to keep them in business.

Wuerthner, who sits on the board of the Western Watersheds Project, also wrote a book titled "Welfare Ranching: The Subsidized Destruction of the American West."

One subsidy is the low rate ranchers pay to let their cows loose and unsupervised on public lands. Ranchers pay \$1.87 per month per animal. It's a fee that's gone up only 64 cents since 1966.

They also get a giant break on property taxes in many states, including Oregon.

The Hammond family in Harney County, who was used as rationale by the Bundys for holding the Malheur Wildlife Refuge hostage last year, collected \$325,644 in livestock subsidies between 1995 and 2014, according to an online database of farm subsidies that Environmental Working Group manages.

Theirs was just a small portion of the \$11.5 million in federal subsidies paid out to

livestock owners in Harney County alone during that time.

In all, farmers and ranchers in Oregon have received \$2.1 billion in subsidies between 1995 and 2014, with \$62.4 million in the form of livestock subsidies.

Critics say using taxpayer dollars and offering huge tax breaks to keep ranchers' businesses viable and the price of beef low masks the true cost of what should be a luxury product that's not sustainable at current levels.

That many rural communities are dependent on the cattle industry is not an indication of the industry's economic strength, but of the economic weaknesses of those communities, Wuerthner said.

"The irony was during the Malheur takeover, people were all up in arms about how 'We hate the government,'" he said. "If government jobs were to disappear from Burns, there would not be a Burns left because the contribution from things like ranching is so small in the employment."

According to Oregon's Employment Department, in 2016, the government was the largest employer in Eastern Oregon, employing more than 17,000 people, while raising cattle accounted for just 1,600 jobs across the entire state.

When you combine all the jobs in beef and dairy, including slaughter and processing, it

accounts for just 6,700 jobs across Oregon - more than three times that number of people work in retail estate, and twice as many work in retail department stores, according to Oregon Employment Department data.

While the overall population of the state might not be reliant on ranching, however, some small communities are, said Rule, the Advocates for the West attorney.

"You have the ranchers themselves, then you have the people who own the stores where they buy their feed and their equipment, the grocery stores," she said. "A lot of these local economies are still relatively dependent on ranching."

But Wuerthner thinks a complete economic overhaul would be more beneficial to rural communities than sustaining the cattle industry.

"They think because their economies are not in good shape to begin with, they can't afford to have less ranchers. But probably in many cases, it would actually get better," he said. "Because without the cattle there, so many things would improve - the wildlife and the fisheries and so forth. That would be attractive to people who would be interested in moving to some of these rural communities, and who would bring jobs with them and other ways of living."

Continued on page 10