

OUR VIEW

Reusing big data's water can help farmers

Big tech has been putting large data farms in rural areas in the Pacific Northwest for years to take advantage of cheap hydroelectric power to run them, water to cool them, and generous local tax breaks to help fund them.

Data centers are large warehouses filled with computer servers. All the information gathered by websites such as Amazon and Facebook is stored in the server farms.

All of this has been controversial locally and throughout the region. For farmers and ranchers, the sticking point is water. In the arid, rural landscape that these facilities call home, water comes at a premium. Computer servers generate a lot of heat and tech firms need a lot of water to cool them.

A single data center consumes between 250,000 and 1 million gallons of water per day in the warmer summer months, when outside temperatures can top 100 degrees. The Apple facility in Prineville, for example, uses more than 27 million gallons of water a year.

To their credit, local leaders and the tech giants are working to temper the impact of extracting so much of a scarce resource.

In Prineville, Apple is using 5 million gallons of treated wastewater from the city's sewer system to help cool its facility, leaving 5 million gallons of fresh water for other purposes.

In Umatilla, city leaders were faced with another problem. The water used to cool two data campuses in the small city flows into the sewer treatment system. With two more facilities under construction, the city faced the prospect of its sewer system being overwhelmed.

City Manager Dave Stockdale says the water that comes out of the data centers is hot, but mostly clean. Both the city and Amazon began pondering ways they could reuse the water, adding benefit for the community.

Amazon now pipes some of that water to an irrigation canal run by the West Extension Irrigation District. The water takes a seven-mile route to a new headworks on the district's canal at the northeast end of the city. Along the way it's mixed with fresh water from the Columbia River, making the mixture suitable for irrigating crops on the 10,400 acres served by the district.

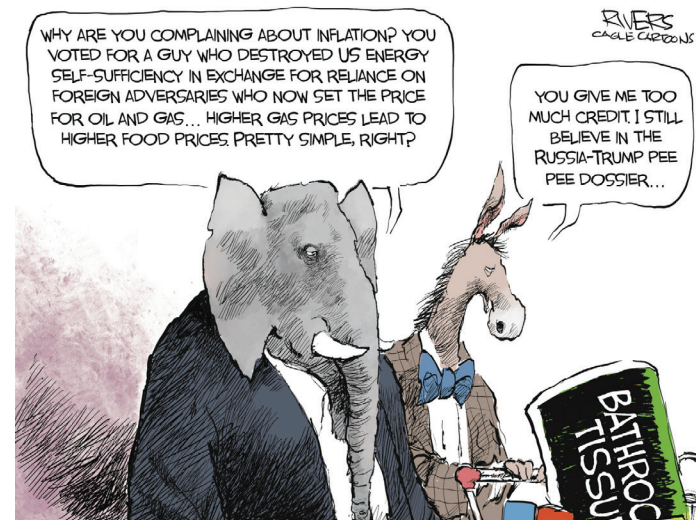
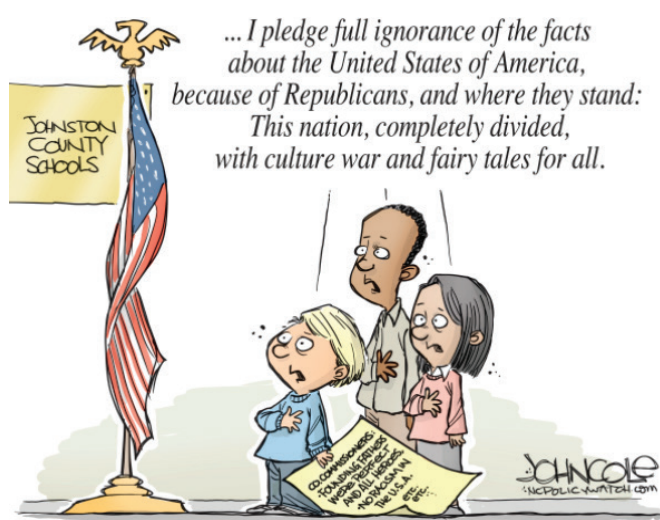
During this summer's drought, this creative reuse made millions of gallons of water available to farmers in the region.

Amazon says it wants to find other ways to reuse the water that cools its facilities, and eventually wants a reutilization rate of 100%.

There are any number of reasons to be suspicious of the tech giants. Like many others, we question whether local jurisdictions reap the big rewards promised by companies that have located in their communities.

But, once in place these server farms are a fact of life and won't be going anywhere soon. It only makes sense the water they consume, and have been given right to, is reused to the extent possible.

We congratulate the companies and communities that have given farmers the benefit from water that would literally have gone down the drain, and encourage all efforts to reutilize this ever more precious resource.



Keeping elk on public land



BILL ANEY
THIS LAND IS OUR LAND

Where are all the elk? It's a common question heard every fall around campfires and wood cook stoves in the Blue Mountains. Hunters share any number of theories about why they can't find elk: too many predators, too many hunters, too many motor vehicles, not enough (or too much) logging, too much cattle grazing, bad herd management — the list is long and imaginative.

The Blue Mountains have the potential for some of the world's best quality habitat for Rocky Mountain elk. There are about 55,000 elk in the Blue Mountains, and in most areas the herds are near the states' management objectives. So why do some hunters have a hard time finding elk? As is often the case, it's not about numbers, it's about distribution.

Elk like to be where they can find good habitat without being disturbed. Traditionally elk would spend the spring, summer and fall in the Blue Mountains where they found cooler temperatures and shade, plentiful water and lush forage. With the arrival of winter snow, they migrated to lower elevations, only to repeat the cycle in the spring and follow the green-up into the hills.

But some elk in the Blues have changed their habits to avoid public land, spending more time on lower elevation private lands where hunters and motorized vehicles don't disturb

them. By the time elk rifle season rolls around, the elk have been pushed around for several months by bow hunters and deer hunters, and in increasing numbers they have moved off public lands to get the security they crave, well before the winter snow.

Private landowners greet this development in a variety of ways. Some are pleased just to see elk on their land. Some want elk so their family and friends can hunt, and some are finding ways to monetize this public resource by charging for hunting and/or access on their property. And some landowners want no elk on their land because elk eat the same feed as domestic livestock and have a habit of destroying fences.

I maintain that we need a way to hold more elk on public lands through the fall. This is good for public land hunters, obviously, but it also would reduce conflicts with agricultural interests. I also confess that I don't like the idea of private landowners selling the rights to hunt native wildlife when those animals should be on public lands.

How do we keep them there? The science is known — and it's local. Projects completed on the La Grande Ranger District have demonstrated how managing vegetation and reducing disturbance from motor vehicles can turn around this problematic migration pattern. Forest thinning and prescribed burning creates quality feeding areas that are especially attractive to elk in the late summer and fall when they are trying to put on the calories for winter.

But quality feed is useless to elk if they are constantly disturbed by motor vehicles. With more than 4,500 miles of roads on the Umatilla National Forest, elk often

abandon areas used by cars, pickups, all-terrain vehicles, motorcycles and the like. Fortunately, the Umatilla National Forest has a travel management plan that identifies only a subset of these roads as open to motor vehicles, with the remainder closed for all or part of the year.

This is a good thing for elk as it improves habitat security and can ultimately increase public land elk hunting opportunities when elk relearn to stay on public lands later in the fall.

However, this requires that we all know what roads are open to traffic and which are closed, and follow the plan. A new cooperative venture between the U.S. Forest Service, Oregon Department of Fish and Wildlife and Oregon State University extension service should help. The effort will be highlighted in the 2022 big game hunting season synopsis, as well as on signboards at national forest entry points and in printed brochures and downloadable digital maps.

In the meantime, elk hunters need to learn which roads are closed to motor vehicles in their hunting area and commit to driving only on open roads. The Forest Service Motor Vehicle Use Maps are available for free download on their website and paper copies in the forest offices.

We also need to be supportive of forest thinning and prescribed burning projects, recognizing that the high quality habitat that results will attract and hold more elk and improve the odds for public land hunters.

Bill Aney is a forester and wildlife biologist living in Pendleton and loving the Blue Mountains.

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