Managing rivers to be resilient to climate change

Steve Lundburg
For Wallowa County Chieftain

CORVALLIS, Ore. – New strategies for river management are needed to maintain water supplies and avoid big crashes in populations of aquatic life, researchers argue in a perspective piece published today in Nature.

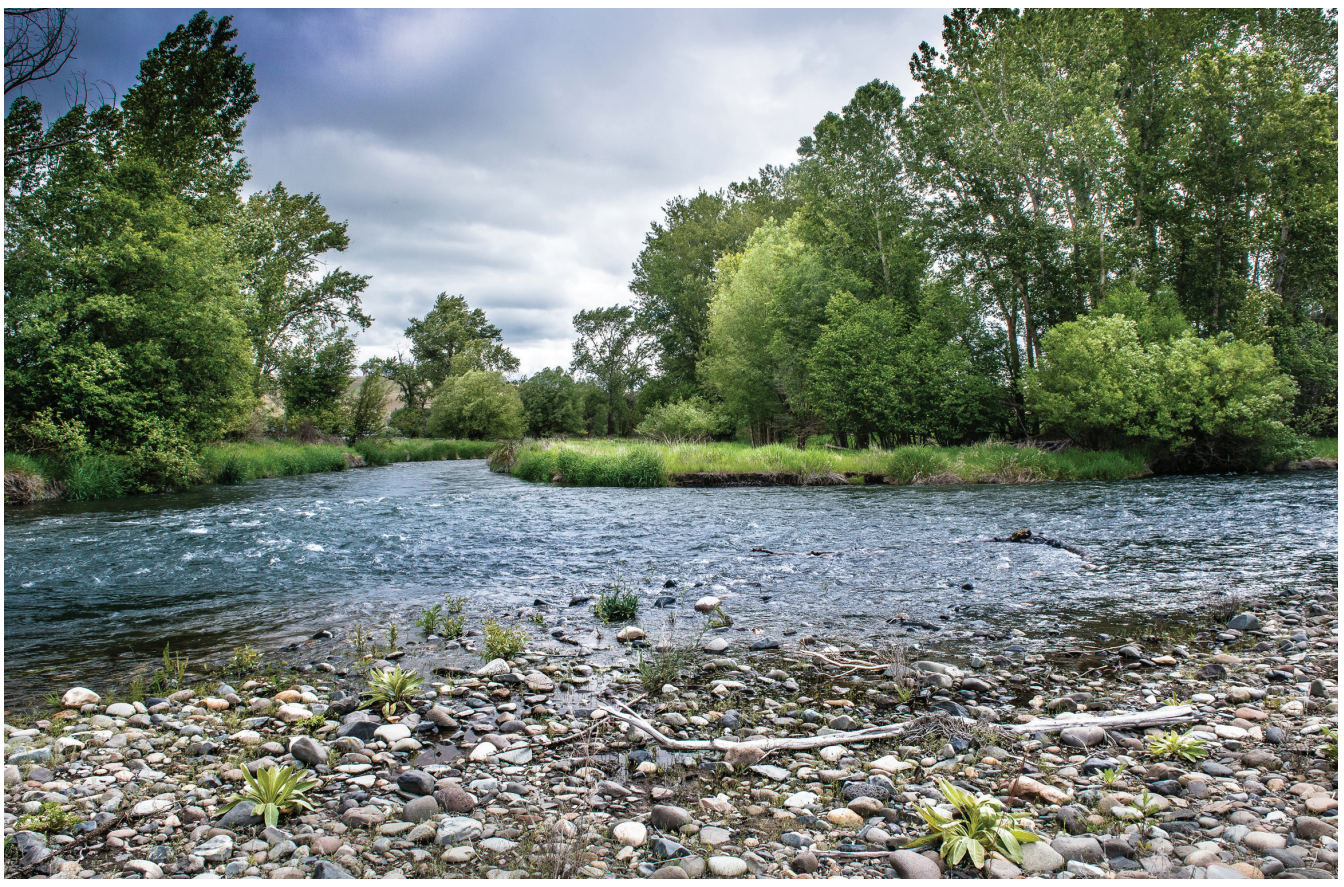
"The world's rivers are facing tough times," said the editorial's lead author, Jonathan Tonkin, who just completed a post-doctoral appointment in Oregon State University's College of Science. "Iconic species like the Murray cod, the largest freshwater fish in Australia, are in danger of vanishing. In a 2018 heat wave in Germany and Switzerland, thousands of fish died. The multiyear drought in California has restricted water supplies and wreaked havoc on wetlands, riparian forests, fish and other aquatic life."

Tonkin and his co-authors outline a four-part plan for an "adaptive" approach to river management – moving beyond simply monitoring ecosystems to understanding the biological mechanisms at play.

"We need to develop forecasting tools that project how key species, life stages and ecosystems respond to environmental changes," said co-author David Lytle, professor of integrative biology in the OSU College of Science. "We can't just track things like species diversity and population abundance and compare them to historical averages – often by the time negative trends are detected, it's too late to turn them around."

The answer, the authors assert, is developing "process-based" models that can track and predict how ecosystems change when conditions – like smaller river flows – change. The models can be tailored to life stages of populations, whole communities of species and sequences of events, enabling tipping points to be identified.

Lostine and Wallowa river confluence



Ellen Morris Bishop

The Lostine and Wallowa Rivers meet on the Wolfe Ranch east of the town of Wallowa.

Ponderosa Pine 'tree' sprouts near Flora

By Ellen Bishop and Steve Tool
Wallowa County Chieftain

If you are heading north on Highway 3 toward Lewiston, just before you get to the RimRock Inn you might notice a really, really big pine tree towering above the other ponderosas and Douglas firs off to the left. Its branches are a little short and a little stiff. It's diameter at breast height is about eight feet. And although at first glance it looks like a world-class old-growth yellow pine has sprouted almost overnight, it's really not a tree at all.

Don't worry. You haven't traveled through a time warp to a Lewis Carroll or Dr. Seuss tale. Nor is this a tree that timber fellers spared.

It's one of many styles of Stealth Cell towers, which now are frequently disguised as trees, lighthouses, water towers, light poles, and even church steeples to help them blend into their surrounding "habitat."

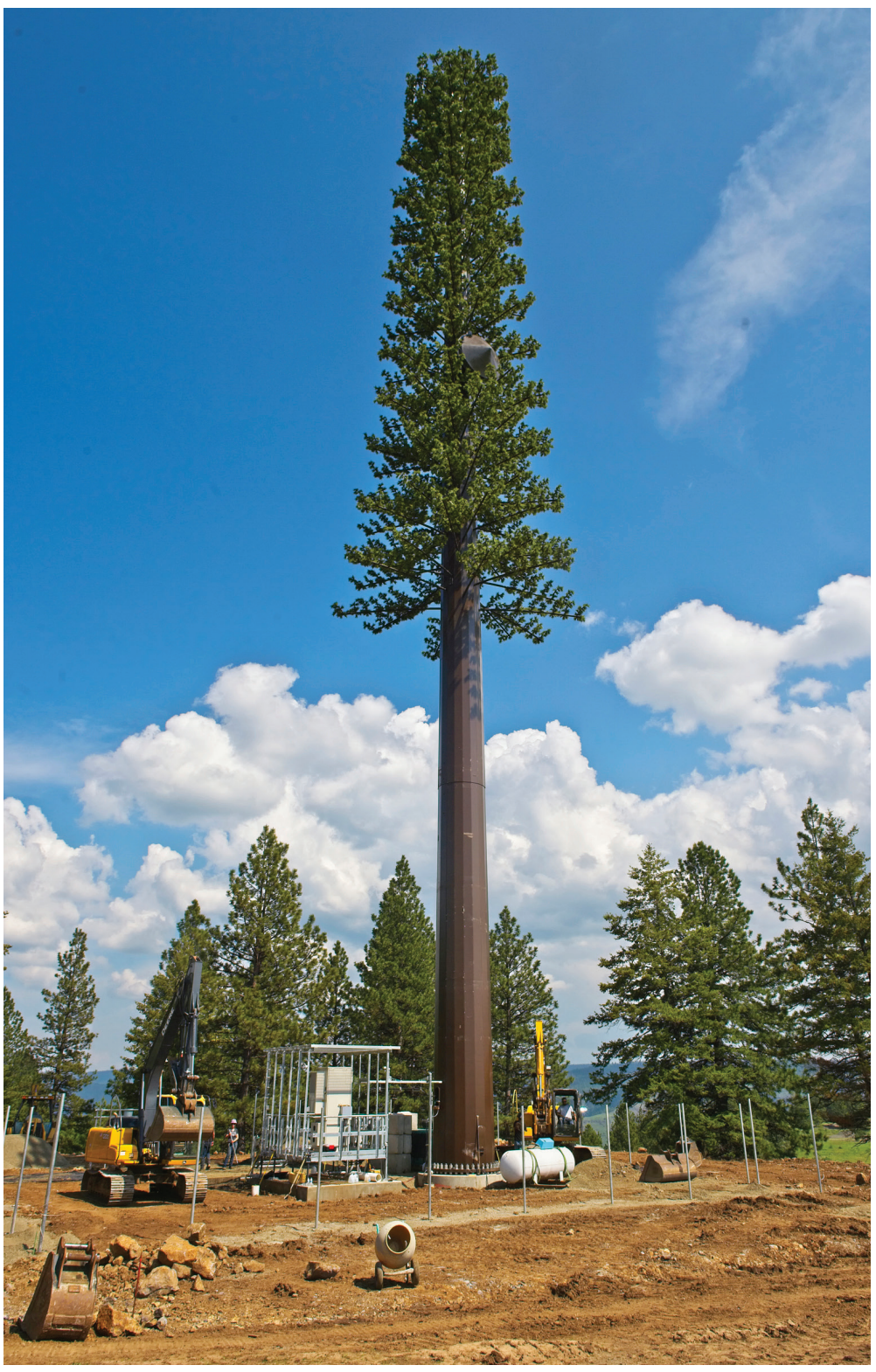
The county's planning commission approved a conditional use permit at the 261-acre site, which is owned by Donald and Barbara Ward, at its February 2019 meeting. The project needed a CUP because it is placed in a Timber/Grazing zone.

Surprising to some, perhaps, the commission did not receive a single dissenting call or letter. In fact, at the February meeting, the commission revealed that the proposed tower received 41 letters of support.

The commission confirmed it's findings at it's meeting in the following month, and general contractor, Doug Snyder, began building the stealth tower in April. It went online May 28.

Built by Sky-Comm, Inc, of Vancouver, Washington for U.S. Cellular, the 180-foot tower transmits 4G data streams and voice LTE, or VoLTE, signals. It relays those signals it collects to Tollgate via a microwave antenna that looks like a strange, giant, metallic pine cone growing out of its west side.

The tower will provide cell coverage for much of the North End of Wallowa County, including Troy and Flora through US Cellular service or, for many (but not all, including Verizon) other carriers, extended service.



Ellen Morris Bishop

NOT A DR. SEUSS TREE — this stealth tower, somewhat disguised as a super-gigantic Ponderosa pine, is a U.S. Cellular tower located off the North Highway near the Rimrock Inn. The tower, which became operational in May, will provide badly needed cell service to the northern portion of Wallowa County.