

WHAT NOW?

The fire is out, but the damage lingers; what projects are ahead and how much will it cost?

THE PUBLIC POWER NEWSLINE

Special Edition

PUD No. 1 of Okanogan County



In this issue:
Cold Springs Fire damage report
Ongoing infrastructure projects
Bonds and rates

Photos by PUD staff

Top: A destroyed transmission structure smolders days after the fire moved through. Left bottom: Crews work on a distribution structure. Center bottom: Overhead shot shows burnout. Right bottom: Destroyed insulators and poles.

GETTING BACK TO NORMAL

Better Than

We aren't just replacing what we lost; we are making our system ready for the future.

A lot has changed in 75 years, but some of our poles haven't. When construction of the Loup line between Okanogan and Twisp first began, some of our soldiers were just returning from World War II.

Around that same time, the PUD had just taken over operations and was finally expanding into the more rural areas of the county – Molson, Chesaw, Pine Creek, Tunk Valley, Paradise Hill, Twisp River and more.

Since then, poles have been replaced mostly just as needed, after an accident or when they show excessive wear. This past September, quite a few of those older poles were lost in the Cold Springs Fire. Long before that fire swept through, the PUD had those lines on the list for replacements and upgrades.

Wildfire has a way of accelerating projects and shifting priorities.

COLD SPRINGS FIRE

The events of the Cold Springs Fire were, simply put, unexpected. Four separate major transmission lines feed our local electric system from sources like Grand Coulee Dam and Wells Dam. Usually they provide redundancy for each other in case of emergencies. But at various points during the fire, we lost power from all of them.

Since its start the evening of Sept. 6, the intense fire raced

across the valley. By the next morning, transmission lines began dropping. Line crews followed the black to see what burning poles they could extinguish, what power they needed to cut, what infrastructure they could replace right away. And in some cases, while one pole burned and broke apart a few feet away, crews lifted a new pole to replace it.

By Monday evening Sept. 7, power was coming back to the valley. When one transmission line into the county came on, another dropped.

At one point during that first day, every PUD customer was without power, although not all at the same time. Aside from the burn area itself, nearly all customers had power back on less than 24 hours after it was lost.

Power came back on so quickly not just because our crews are incredibly efficient, but also because the PUD has redundant routes in place for just such occasions – that's why the Pateros-Twisp transmission line was so important to build several years ago – it's the only reason the south county and Methow had power for most of the fire.

Rebuilding enough to get power back to everyone and restore some redundancy took about 10 days of 18-hour shifts. Then the crews spent a couple more days helping Douglas County PUD and Neselem Valley Electric Cooperative in their rebuilding efforts. The four Okanogan crews and others through mutual aid agreements shared meals together in the Okanogan parking lot. And then went back to work.

It was exhausting. But line crews kept at it. Why?

"It's our family, it's our ratepayers, and they need power," Operations Manager Randy Bird said.

Cold Springs was the third massive wildfire these crews have managed in the past six years. Although the amount of damage (estimated at \$7.6 million) seemed to be less this time around for Okanogan, the loss of all outside transmission lines was a new feature, and the challenges with communications was about the worst-case scenario.

A majority of cellular services and internet services were inoperable by Monday evening when the fire damaged multiple critical communication sites. In some areas, face-to-face was the only communication option left.

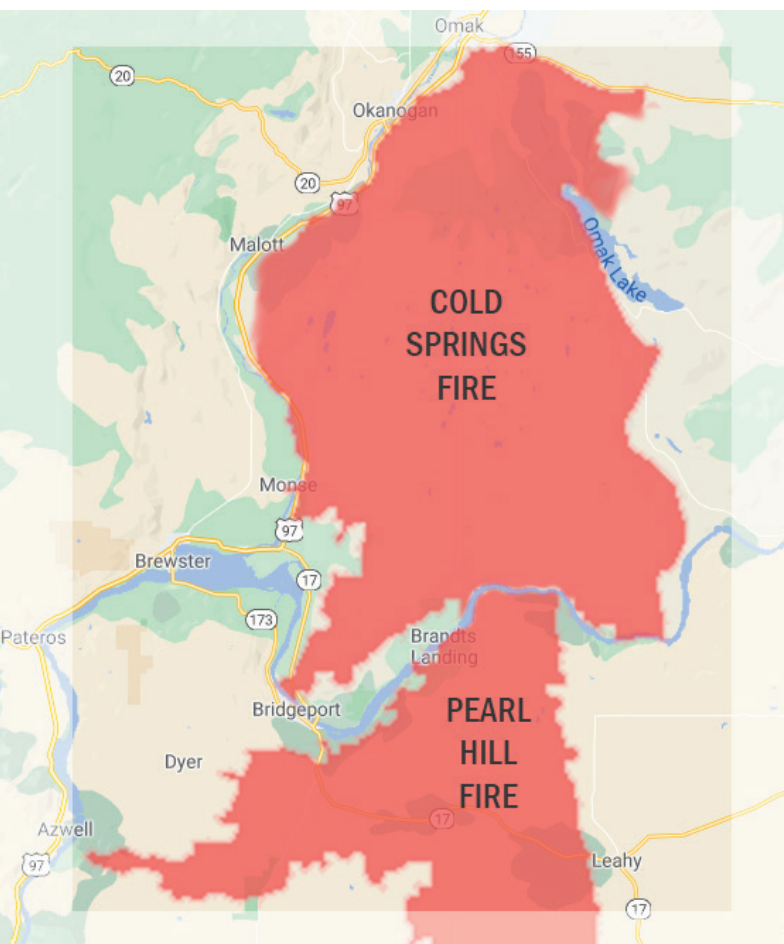
Extreme weather conditions and fire cut the fiber that serves the entire county at both the north and south ends, ending all internet-based or fiber-based services for a short time.

The spare phones that usually collect dust in our operations department suddenly were snatched up and divvied out – they happened to be on a functioning network.

Although much work to restore the system is now complete, one critical internal transmission line – and one of the oldest lines the PUD's owns – is still in pieces. The 67-year-old Okanogan-Brewster

"It's our family, it's our ratepayers, and they need power."

**- Randy Bird
Operations Manager**



***MAP AND FIRE LOCATIONS ARE APPROXIMATE (Google map)**



COLD SPRINGS FIRE DAMAGE:

Distribution - 27 miles, 189 poles

Transmission - 18 miles, 175 poles

Fiber - 20,000 feet



(From left) The Foster Creek transmission line presented several challenges for rebuilding on a hillside. Large structures broke apart in multiple places along multiple lines. Fire nearly reached the new Chicken Creek substation.

line was slated for replacement and upgrades in the next few years, but work has already begun to gather materials to rebuild it. This time, they won't just swap out the same wooden poles and wire – the line will be upgraded to steel poles (take that, fires) and larger wire in order to accommodate more power from Wells Dam (our least-cost source of power).

BUILDING BEYOND RECOVERY

As in the case of the Okanogan-Brewster line, sometimes it's not enough to just replace what was burnt. About 40 percent of the line was destroyed when Cold Springs blew through, but 100 percent of the line will be replaced. Our lines can't just wait until disaster strikes to finally replace them – **we have to be proactive to prevent outages and failures.**

Hence, the PUD has been working on capital planning, mapping out several years' worth of projects to replace problem areas or the oldest lines and equipment. As we go along and needs change, the plan evolves to fit those needs.

More than half of our poles are more than 50 years old (the average lifespan of a pole). Not only is the issue that they are aging and wearing out, but even if they are still in good shape, they might not be able to accommodate today's needs. It's doubtful that crews in the 1960s anticipated adding broadband access points, for example – some poles

are just too small to make it work.

And for those items of infrastructure that really are wearing out, we want to be more proactive on preventing outages rather than spending the money (which tends to be more) on responding to outages.

For example, the Tonasket substation needs not only a newer power transformer, but a second one to both provide additional capacity and redundancy. Power transformers aren't only expensive (around a half million dollars on average), but they take a long time to order, deliver and install (we're talking months).

Why wait until catastrophic failure to improve the system? **The responsible thing has always been to balance low rates with safe, reliable services.** We can't just go back to "normal," we need to get to better than normal, because normal is getting worn out.

Many parts of the system were brand new in the early days of the PUD, as customer connections boomed. Hundreds of miles of lines were added in the first few years. That equipment has served its purpose, and now it's time to replace it.

And it's expensive. About \$13 million for the Okanogan-Brewster line. About \$4 million for the Tonasket substation. And to replace old power transformers and have extra ready in case of emergencies – that's going to be another \$3 million.

Another difficulty is that even though the system will be stronger, more reliable and more capable of providing the services all of us need, it's not easy for customers to see the difference. A new television means a sharper picture and more features, or a new internet service means new lightning-fast speeds, but after we upgrade electric infrastructure, light switches will turn on just as bright and quickly as before. The measure of an upgraded, robust system isn't that the services noticeably improve, it's that the number and duration of outages will decrease.

As for broadband, those services could improve or expand due to better infrastructure, but it will take additional steps and even more capital first.

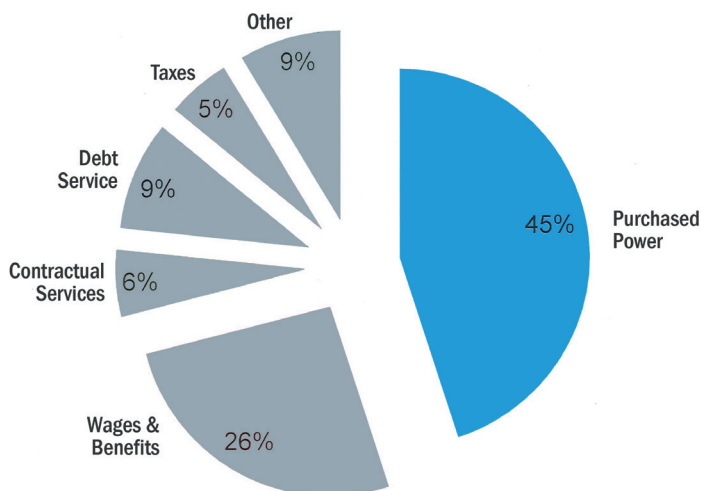
THE COST OF CAPITAL

To get us started on this more aggressive capital plan, the PUD has borrowed \$40 million, collected in bonds.

At the bond sale Oct. 28, the district had more than enough interest in its bonds because of its good ratings and financial standings. We locked in a low rate, and the sales should close Nov. 19.

Of course, we have to pay that back. With those and other past debts, we expect to have to make about \$5 million in payments per year.

(Continued on next page)



Purchased power is the district's largest annual expense at \$25 million. Upcoming multi-year capital projects are estimated at \$35 million.

Okanogan County PUD

PO Box 912 • 1331 N. Second Ave.

Okanogan, WA 98840

www.okanoganpud.org

Standard
U.S. Postage PAID
Permit #241
Wenatchee, WA
ECRWSS

RESIDENTIAL CUSTOMER

(Continued from previous page)

Other debts will drop off in the coming years to reduce our debt service payments. Once we get these first major projects covered, there are still other projects to come.

At first, the focus is on transmission lines mostly, but we have thousands of distribution poles to take care of, too. And that's where a lot of the old, too-small, under-built issues come into play. Some of that expense needs to be covered in regular annual maintenance and replacements.

To continue to provide services – and more reliable services – the district has to make sure it has enough revenue to cover the costs. We anticipate small rate increases over the next few years, based on cost of service studies and equity management plans.

If we really want a strong system, we have to have strong capital funding to match. And although that comes at a cost, **our PUD has some of the lowest rates in Washington**, which averages among the

least expensive rates in the nation. We rank about fifth lowest in the state, and even with the proposed rate increase next year, we still will.

We don't want to just get by and cross our fingers that disaster doesn't find us again. **We want to provide the best possible service for our customers**, whether that's a quick response to an outage in the middle of the night, or going that extra mile with a customer facing a hardship. We really do care. Our commissioners are elected to represent customers. Our processes are open and public.

Although a lot has changed since 1945 when the PUD began its work, some things haven't - **we are still all in this together.** Snow and fires, bonds and rates, outages and upgrades, **this PUD belongs to all of us - its customers - and it always has.** Back 75 years ago, the farmers, business owners and families built a system to serve their families for decades to come, and now we can build a stronger system to serve us and future generations.

~ Okanogan County PUD staff



Above, melted fiber runs along a charred pole. Middle, supplies for the fire response were marked with special labeling for priority delivery. Right, new cable is plowed underground instead of overhead on Jackass Butte.

PUD COMMISSIONERS:

Jerry Asmussen (North)

486-1962, jerrya@okpud.org

Bill Colyar (South)

923-9233, billc@okpud.org

Scott Vejraska (Central)

826-7088, scottv@okpud.org

GET INVOLVED:

Keep up on board meetings, budget updates and more on our website:

www.okanoganpud.org

or

Find us on Facebook!

