

2014 CARLTON AND 2015 OKANOGAN COMPLEX FIRES

NWPPA's ENGINEERING AND OPERATIONS CONFERENCE

APRIL 13 2016

WASHINGTON STATES LARGEST WILDFIRES



OKANOGAN COUNTY and PUD STATISTICS

THE LARGEST COUNTY IN THE STATE

COVERS 5,268 SQUARE MILES

BORDERS : CHELAN, DOUGLAS, FERRY, GRANT, LINCOLN, SKAGIT, WHATCOM COUNTIES AND THE CANADIAN BORDER.

POPULATION 41,290

OKANOGAN COUNTY PUD

96 EMPLOYEES

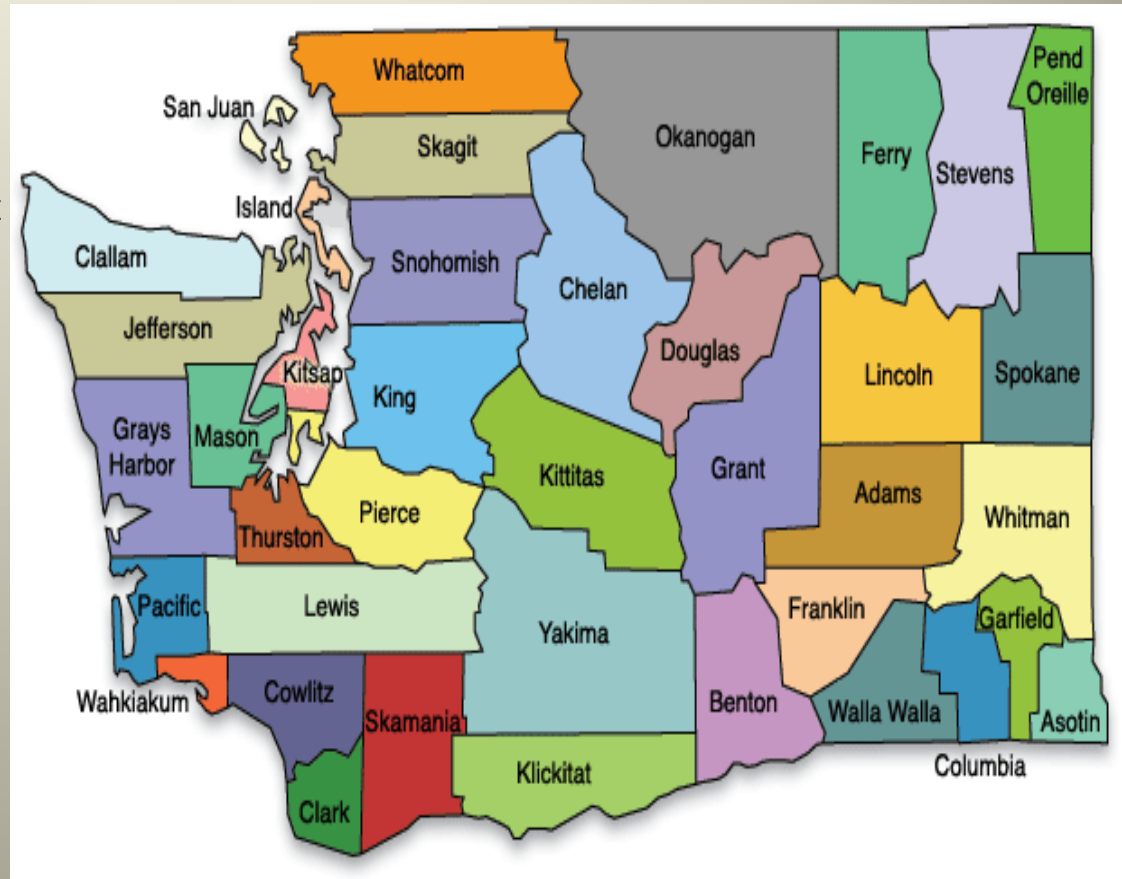
21,000 METERS

104 TRANSMISSION LINE MILES

1371 DISTRIBUTION LINE MILES (27,409 poles)

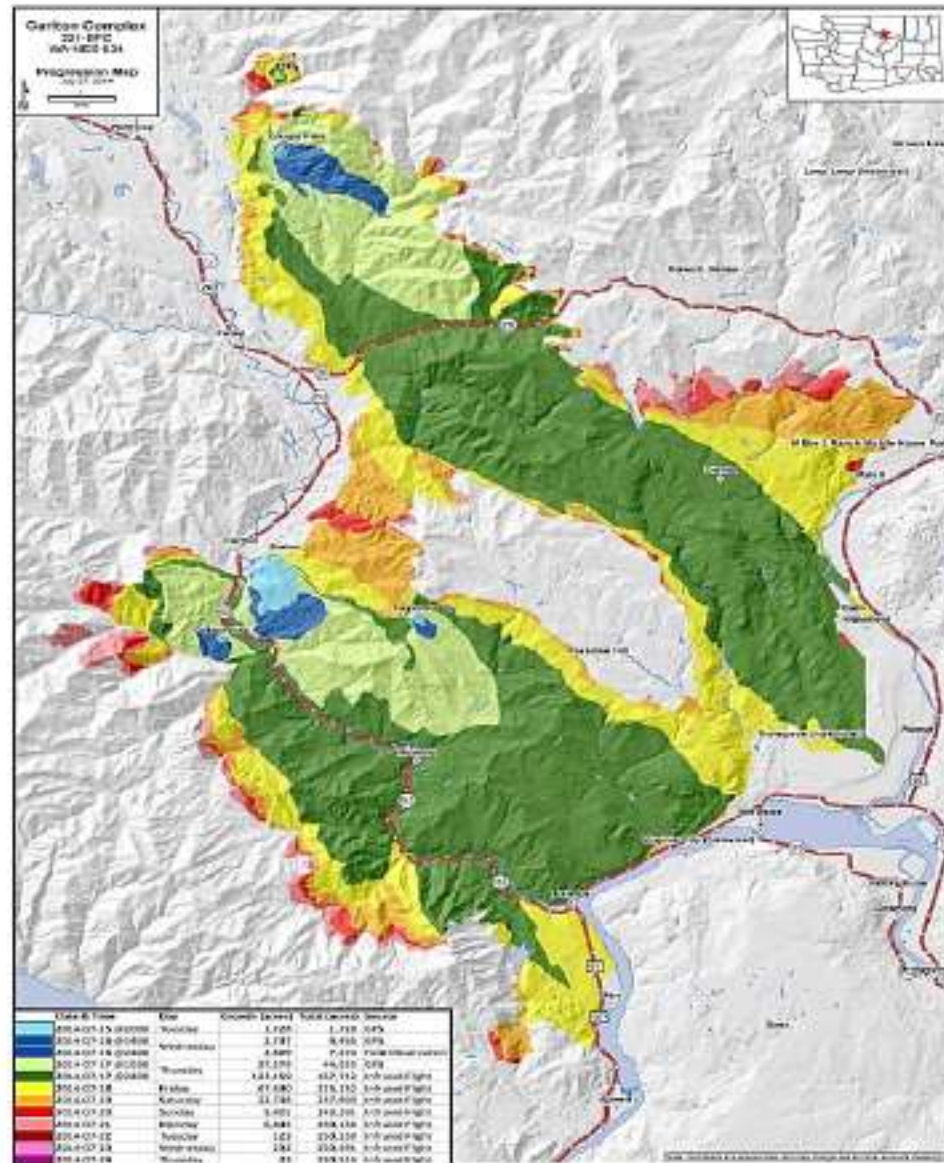
411 UNDERGROUND MILES

500 FIBER LINE MILES



CARLTON COMPLEX FIRE STATISTICS

- STARTED : JULY 14, 2014
- STARTED AS 4 SEPARATE FIRES:(Lightning caused)
 - STOKES FIRE GOLD CREEK FIRE
 - FRENCH CREEK FIRE COUGAR FLATS FIRE
- ACREAGE : 256,108 (400.2 square miles)
 - 80,564 acres FS 70,215 acres WA STATE
 - 6,157 acres BLM 99,082 acres PRIVATE LANDS
- HOMES LOST: 237 plus 55 cabins
 - 12 more homes damaged/destroyed in mudslides
- POLES BURNED : 1097
 - 584 DISTRIBUTION POLES REPLACED
 - 78 TRANSMISSION POLES REPLACED
- DISTRIBUTION SYSTEM
 - 341 MILES
 - 9 FEEDERS
- TRANSMISSION LINES
 - 3 TRANSMISSION LINES EFFECTED
- FIBER
 - 60 MILES OF FIBER AND WIRELESS INFRASTRUCTURE WERE LOST



OKANOGAN COMPLEX

- **STARTED : AUGUST 15TH**
- **STARTED AS 6 SEPARATE FIRES**
 - BLUE LAKE LIME BELT
 - BEAVER LAKE TWISP RIVER
 - NINE MILE TUNK CREEK
- **ACREAGE – 353,310 (552 SQ. MILES)**
 - Okanogan complex + North star + Tunk Block
- **HOMES LOST - 123 plus 72 other buildings**
- **POLES BURNED - 1077**
 - 588 DISTRIBUTION POLES REPLACED
 - 11 TRANSMISSION POLES REPLACED
- **DISTRIBUTION SYSTEM**
 - 289 MILES
 - 15 FEEDERS
- **TRANSMISSION LINE EFFECTED - 1**
- **FIBER EFFECTED - 10 miles and 9 AP's**

Legend Revised 9/2/15

- AT1000 34 Consumers
- OM6000 6 Consumers
- Trans_Lines
- BPA_Lines

DistributionSource

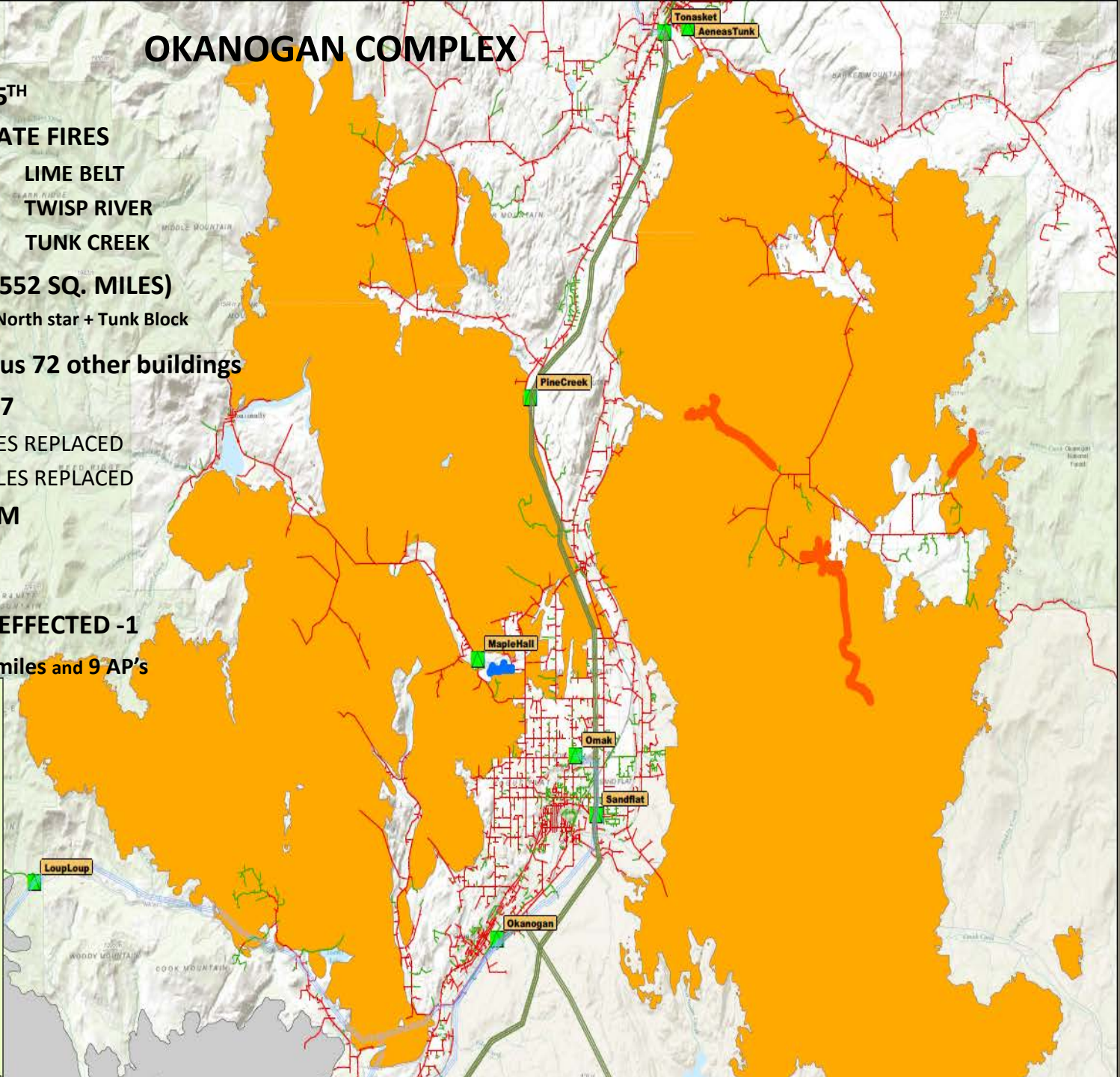
Type

- DistributionSubstation

Primaryline

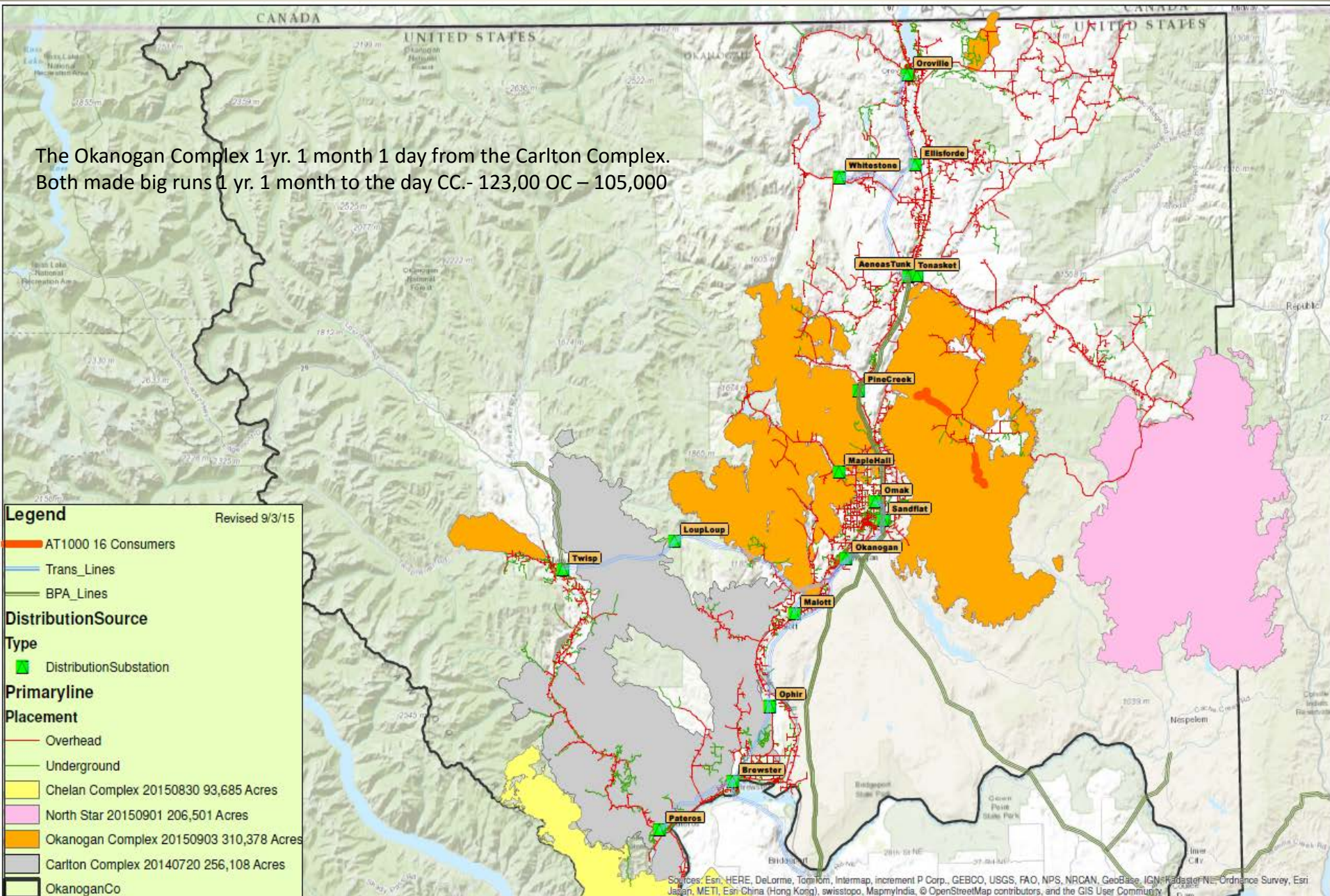
Placement

- Overhead
- Underground
- Okanogan Complex 00150000 010 020 Area

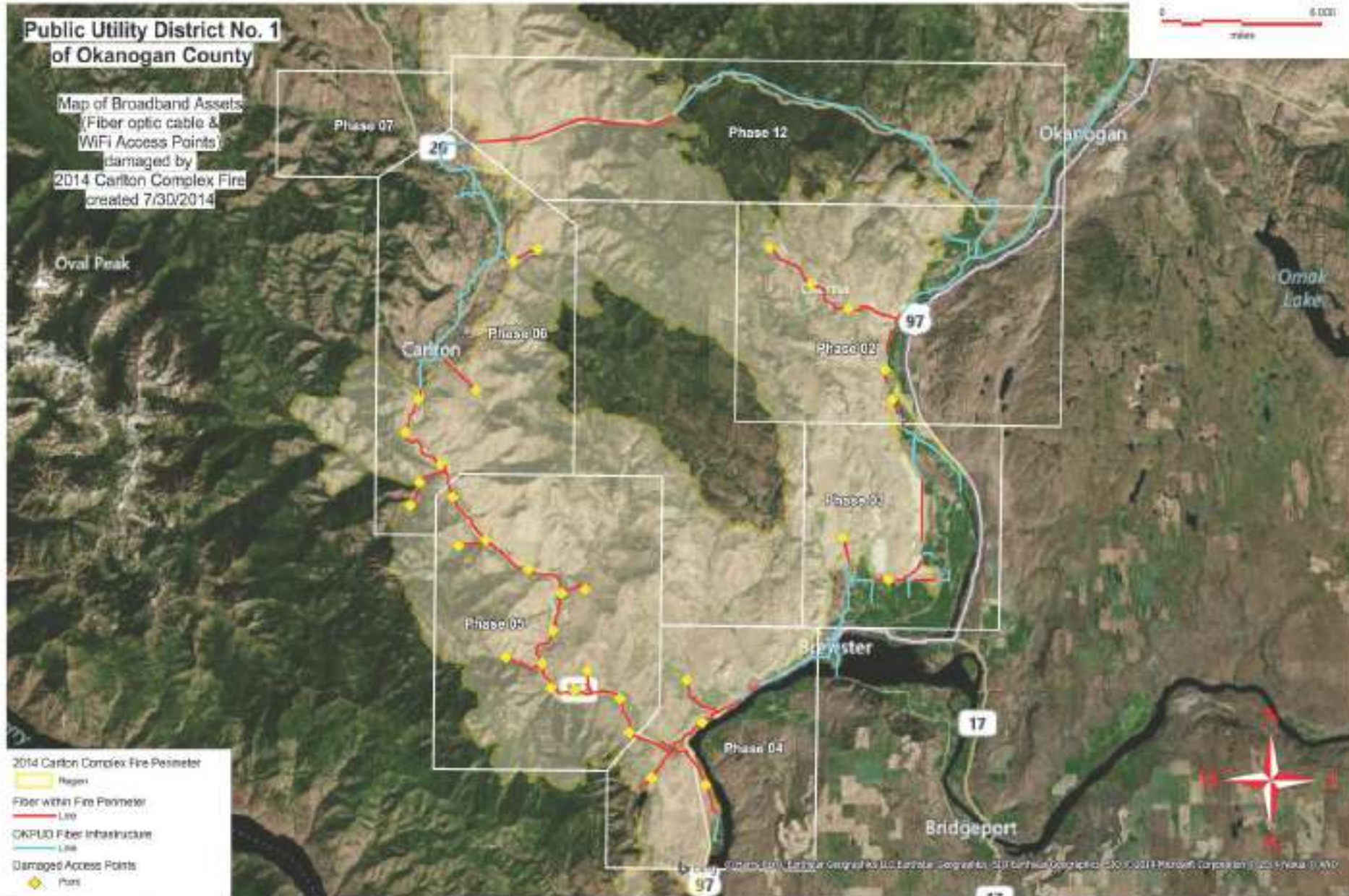


2014-2015 COMPARISON MAP

The Okanogan Complex 1 yr. 1 month 1 day from the Carlton Complex.
 Both made big runs 1 yr. 1 month to the day CC.- 123,00 OC – 105,000



FIBER COMMUNICATION



PREPARE FOR FIRE SEASON

- **ALL OPERATIONS AND ENGINEERING ARE FIRE SHELTER WILDLAND FIRE TRAINED (RT-130)**
- **MUTUAL AID AGREEMENTS UP TO DATE.**
- **SHORT WORKS ROSTER FOR EQUIPMENT AND CONTRACTORS ARE UP DATED.**
- **TRANSMISSION POLES ARE TREATED WITH FIRE PROTECTION COATING.**
- **TRUCKS ARE PREPARED FOR FIRE FIGHTING AND SAVING POLES.**
- **BEGINNING OF EVERY YEAR MEET WITH DNR, FOREST SERVICE, EMERGENCY MANAGEMENT, WEATHER SERVICE, EMS, AND LOCAL FIRE DEPARTMENTS.**



2016 Central Washington Large Fire Pre-Season Meeting

Announcement and Registration Information

May 26 • 0900-1600 • Okanogan County Fairgrounds

June 2 • 0900-1600 • Cle Elum • Putnam Event Center

Hosted by interagency partners including: Okanogan-Wenatchee National Forest, Washington State Department of Natural Resources Northeast and Southeast Regions, Bureau of Land Management, US Fish and Wildlife Service, and Local Fire Districts.

You are invited to attend a 1 day workshop targeted for participants at the Local Duty Officer through Agency Administrator level including all partner fire agencies, and other stakeholders who may be at the table during an escalating large wildfire, including local government, county emergency management, law enforcement and infrastructure/ utility providers.

The purpose of this meeting is to bring interagency partners together including Agency Administrators, Agency Representatives, and Fire Leadership to prepare for the 2016 Fire Season through sharing information and exercising skills in unified command, delegating authority, incident organization (complexes), and prioritization. Through training together partners will be better prepared to efficiently implement an appropriate response to wildfire incidents, as well as all-risk incidents.

The workshop will include speakers and exercises, with the following objectives:

- Build and improve interagency relationships at the Duty Officer through Agency Administrator levels.
- Improve the understanding of Unified Command, Jurisdiction, and roles and responsibilities of parties.
- Exercise the delegation of authority.
- Practice prioritizing resources and values at risk during high exposure/low resource scenario.
- Experience complexing multiple incidents and understand the process and impacts.
- Understand the latest changes in Washington Legislation and how that may impact managing wildfires.

**Please register online
no later than April 30, 2016**

The event is free, and additional information is on the registration form.

https://docs.google.com/forms/d/1SevNHpB6izvX2w2DaeTwl5iGez1ZeMWdz2drs03zDK8/viewform?c=0&w=1&usp=mail_form_link

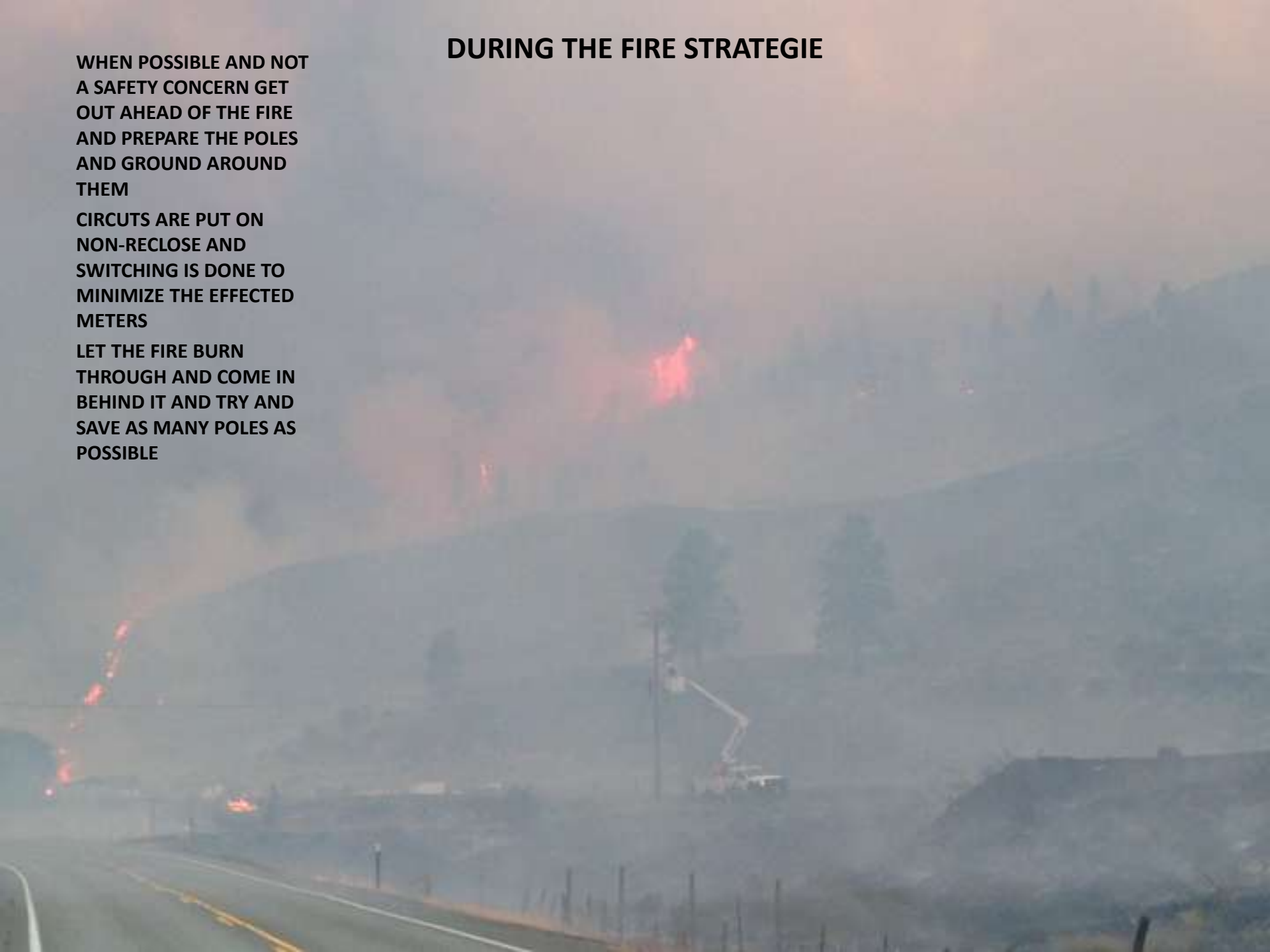


DURING THE FIRE STRATEGIE

WHEN POSSIBLE AND NOT
A SAFETY CONCERN GET
OUT AHEAD OF THE FIRE
AND PREPARE THE POLES
AND GROUND AROUND
THEM

CIRCUTS ARE PUT ON
NON-RECLOSE AND
SWITCHING IS DONE TO
MINIMIZE THE EFFECTED
METERS

LET THE FIRE BURN
THROUGH AND COME IN
BEHIND IT AND TRY AND
SAVE AS MANY POLES AS
POSSIBLE





CHALLENGES

CREW HOUSING

FOOD/MEALS

COMMUNICATIONS

GENERATORS

ACCESS

MATERIAL

PERSONNEL

CLEANUP

FLAGGING FOR CREWS



Evacuation - they have to go somewhere

Gordon Short Photography



FOOD



COMMUNICATION CHALLENGES

RADIO COMMUNICATION, PHONE SYSTEM, CELL PHONE AND FIBER SYSTEM ALL DOWN



COMMUNICATION PERSON

- RESPONSIBLE FOR:
 - ATTENDS MORNING UPDATE MEETING
 - EOC CONTACT
 - FIRE CAMP MEETINGS
 - IC CONTACT
 - LAW ENFORCEMENT
 - PUBLIC AND TOWN MEETINGS
 - MEDIA – TV, RADIO AND NEWSPAPER
 - PUD'S CONTACT
 - WORKS WITH THE SOCIAL MEDIA PERSON

SOCIAL MEDIA

- RESPONSIBLE FOR:
 - ATTENDS MORNING UPDATE MEETING
 - EOC MEETINGS
 - PUBLIC AND TOWN MEETINGS
 - WORKS WITH COMMUNICATION PERSON
 - UPDATES SOCIAL MEDIA



Okanogon PUD worker inspects pole as fire rages near Malott along Old Highway 97.

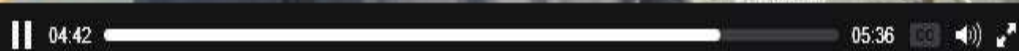
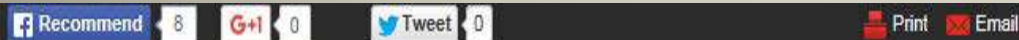
#Firestorm2014



RETWEETS 28 FAVORITES 15



9:21 PM · 18 Jul 2014



CRISIS COMMUNICATION

TELL IT ALL, TELL THE TRUTH AND TELL IT FAST

PSA

GENERAL OFFICE
 800 W. 2ND ST.
 P.O. BOX 512
 509-422-2210
 FAX 509-422-2211

OMAG, WA 98841
 P.O. BOX 2089
 509-422-6190
 FAX 509-422-6191

BREWSTER, WA 98812
 P.O. BOX 187
 509-686-2700
 FAX 888-1000

OROVILLE, WA 98849
 P.O. BOX 1000
 509-478-2620
 FAX 478-2649

WOLLESET, WA 98880
 P.O. BOX 580
 509-384-2131
 FAX 384-1730

TRIER, WA 98858
 P.O. BOX 614
 509-388-2700
 FAX 388-1730

PUBLIC UTILITY DISTRICT NO. 1 OF OKANOGAN COUNTY

Okanogan PUD

Public Service Announcement

August 20, 2015

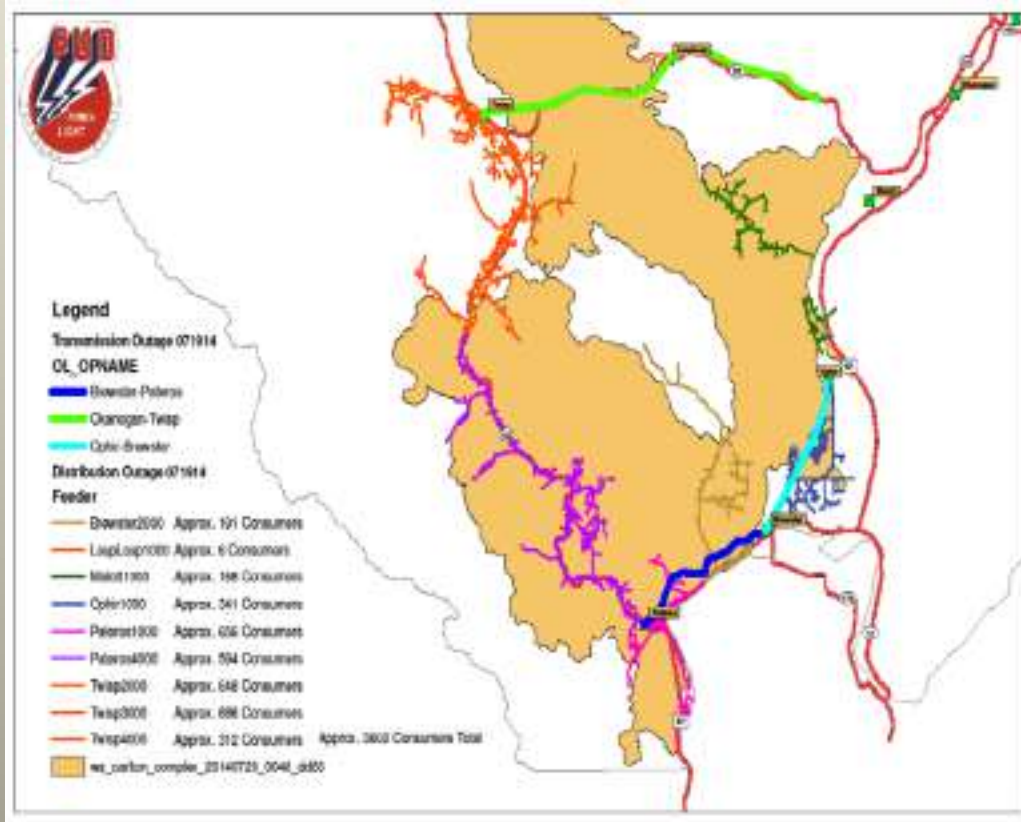
Severe winds last night fueled flames and prompted the evacuation of the towns of Twisp, Winthrop, Concocton, Riverside and portions of Omag. PUD crews are assessing the damage from last night's activities and continue to focus on restoring electric and fiber services that have been affected by the aggressive fires that continue to threaten Okanogan County. The PUD has several areas currently without power and telecommunication services. The PUD anticipates that half of those customers will have electric service restored before 5:00 p.m. today.

Fires continue to threaten the Loop Loop Transmission line. The line is currently energized and serving the towns of Twisp and Winthrop. This line will continue to stay energized unless (1) the Department of Natural Resources (DNR) requests the line to be de-energized for firefighting safety, or (2) the fire burns the transmission line.

Weather predictions indicate high winds beginning this afternoon and continuing through this Friday. The PUD is encouraging customers to make preparations for outages due to wind, downed lines and fire damage.

Please be aware of your situation, determine evacuation routes and check on neighbors who may not have received notification. For customers that have been affected by the fire or to report outages or downed lines, please call 509-422-3110.

OUTAGE MAP



GENERATORS

COMMERCIAL AND RESIDENTIAL



GENERATORS WERE BEING HOOKED UP WITHOUT PUD INVOLVEMENT SAFETY FOR THE PUBLIC AND LINECREWS WAS A CONCERN



GENERATOR INSTALLATIONS ON OKANOGAN PUD ELECTRIC SYSTEM

1. **HIRE A LICENSED AND BONDED ELECTRICIAN**
 - a. They can correctly install and connect your generator using proper wiring methods.
 - b. They can help you understand what appliances and loads your generator can support.
 - c. This will help prevent unnecessary damage to your generator and appliances.
2. **CONTACT THE PUD**
 - a. Public safety is paramount. Improperly installed generators have the potential to backfeed into the PUD's electrical system and energize distribution lines that are dead.
 - b. Customer safety is paramount. Eliminate potential liability and negligence due to an improperly installed generator.
3. **RE-ENERGIZATION OF THE PUD'S DISTRIBUTION SYSTEM**
 - a. If there is not a visible open, the re-energization of the PUD's distribution system will put your structure and generator at risk as well as our equipment.

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(509) 422-3310
FAX 422-0030

CHAK, WA 98841
P.O. BOX 2086
(509) 422-8380
FAX 422-8388

BREWSTER, WA 98812
P.O. BOX 187
(509) 889-2802
FAX 889-3090



ORVILLE, WA 98844
P.O. BOX 1988
(509) 476-2828
FAX 476-2445

TONASKET, WA 98856
P.O. BOX 585
(509) 488-2121
FAX 488-1710

TWISP, WA 98856
P.O. BOX 514
(509) 897-2828
FAX 897-1710

PUBLIC UTILITY DISTRICT NO. 1 OF OKANOGAN COUNTY

Okanogan PUD

Public Service Announcement

August 24, 2015

Approximately 500 customers are without power. Mutual Aid crews will be arriving today and tomorrow from PUD's to assist our crews replace over 500 poles that have been destroyed in the fire. We estimate that power in Copcomully could be restored as early as the end of the week. Additionally, we estimate that it will take several weeks to fully restore service to the Tunk Mountain and Aeneas Valley areas.

Although crews are working around the clock to restore power to affected areas, we will continue to respond to new customer service requests.

For those customers that are, or will be, running generators, please call the PUD at (509) 422-3310 to notify us. Safety is our first priority. Small generators can compromise the safety of our customers, utility crews and emergency workers. All small generators should be installed by a licensed electrician. Proper generator installation procedures are available on our website at www.okanogampud.org.

There remains active fire along multiple sections of the power line corridor. The Loup Loup Transmission line continues to stay energized and will continue to stay energized unless (1) the Department of Natural Resources (DNR) requests the line to be de-energized for firefighting safety, or (2) the fire burns the transmission line.

We are still experiencing an active fire situation. Please be aware of your situation, monitor evacuation levels and check on neighbors who may not have received notification. For customers that have been affected by the fire or to report outages or downed lines, please call 509-422-3310.



625W
RUNNING WATTS
VARIOS EN MARCHA

625 WATT

625 WATT

Access



WE HAD TO BUILD ROADS



MATERIAL

MANUFACTURE DELIVERY



WAREHOUSE TO CREWS









© Tim DeVries 2015

CLEAN UP



FLAGGERS



FIRE EFFECTS ON POLES THEY BURN



THEY BURN A LITTLE



THEY BURN A LOT



OR THEY COMPLETELY DISAPPEAR





© Tim DeVries 2015











© Tim DeVries 2015

UNDERGROUND IS THE ANSWER TO PROTECTING YOUR ELECTRICAL INFRASTRUCTURE?



UNDERGROUND BURNS TOO





RESTORATION/PRIORITY

1. TRANSMISSION
2. MAIN FEEDERS
3. WHAT WORK CAN GET THE MOST CUSTOMERS.
4. WHAT WORK CAN CONTRACTORS DO TO ALLOW US TO DO WHAT WE DO.
5. REPLACE OR REPAIR MAKE IT SAFE AND MOVE ON.
6. RIGHT OF WAY CLEARING/HAZARD TREES.
7. ENGINEERING ASSESSMENT.



RIGHT OF WAY CLEARING



ENGINEERING ASSESSMENT





SUMMARY

- WE ARE USING DUCTILE IRON OR STEEL POLES
 - WHERE ACCESS IS NOT AN ISSUE
- ADDITIONAL FIRE FIGHTING UNITS
 - ON THE AVERAGE DEPENDING ON POLE AND FRAMING EVERY 5 POLES SAVED IS ANOTHER UNIT.
- WORK SHIFTS – ALL PERSONNEL INCLUDING MUTUAL AID CREWS WORK THE SAME HOURS
 - CARLTON COMPLEX 5AM -11PM / OKANOGAN COMPLEX 6AM – 11PM
- MEALS – WE USED A CATERER FOR ALL MEALS
 - PROVIDE BREAKFAST, LUNCH AND DINNER ALL SHOW UP AT THE SAME PLACE SAME TIME
- LODGING
 - EARLY AS POSSIBLE RESERVE ROOMS FOR OUTSIDE CREWS
- COMMUNICATION
 - ONE CONTACT FOR EOC, FIRE CAMPS AND MEDIA
 - FACE BOOK AND TWITTER IS NEW
 - ONE PERSON OVER SEE THE PUBLIC SERVICE ANNOUNCEMENTS (PSA), SOCIAL MEDIA
 - DEVELOP A BACK UP PLAN FOR LOSS OF RADIO, CELL PHONE COMMUNICATIONS
- FEMA
 - CONTRACTS AND MUTUAL AID UP TO DATE BEFORE THE EVENT
 - BE PREPARED FOR THE WHAT IF - KNOW THE CAN AND CANT'S
- THE EFFECTS ON FAMILY
 - HAVE A PLAN OR AWAY A SPOUSE OR LOVED ONE CAN GET OR SEND INFORMATION
 - SOMEHOW INCLUDE THE FAMILY OF THE EMPLOYEE
- YOUR UTILITY
 - THE LINEMAN OR OPS PEOPLE ARE THE FOCUS BUT IT TAKES THE WHOLE ORGANIZATION TO MAKE IT WORK -THE SUPPORT TEAM IS CRITICAL TO THE SUCCESS!!!

THE BEST VIEW COMES AFTER THE HARDEST CLIMB



CARLTON COMPLEX



OKANOGAN COMPLEX



A THANK YOU LETTER

DEAR PUD,

OUR THANKS FOR EVERYTHING YOU ARE DOING (AND HAVE ALWAYS DONE) SINCE THE FIRE. WE REALLY DON'T KNOW HOW YOU KEEP FUNCTIONING AROUND THE CLOCK.

WE DID NOT LOSE POWER BUT MANY DID – WE HAVE IN THE PAST SO WE KNOW WHAT IS LIKE, MORE THAN ONCE WE'VE CALLED DURING A SNOW OR RAIN STORM- YOU'VE ALWAYS BEEN ABLE TO GET US BACK IN POWER IN A DECENT TIME. YOU MAKE IT POSSIBLE FOR US TO READ BY LIGHT BULB AND NOT BY CANDLE, WATCH TV, OPERATE A MICROWAVE DO LAUNDRY IN A MACHINE INSTEAD OF A ROCK. WE MUST ADMIT THAT YOU ARE A GREAT GROUP OF PEOPLE! WE KNOW WE CAN COUNT ON YOU TO TAKE CARE OF US.

9/11
Dear PUD,
I write thanks for everything you are doing (and have always done) since the fire. We really don't know how you keep functioning around the clock. We did not lose power. But many did - all have in the past so we know what it's like. More than once we've called during a snow or rain storm - you've always been able to get us back on line" in a decent time. You make it possible for us to read by a light bulb and not a candle, to watch TV, operate a microwave, do laundry in a machine instead of on a rock. You must admit that you are a great group of people! We know we can count on you to take care of us.
Sincerely,
Jim & Karen Delaney
412 S. Pine Cr Rd
Danvers

MOST IMPORTANT: THANK THOSE THAT SUPPORT YOU

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FRISV, WA 98836
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FAX 507-1718

PUBLIC UTILITY DISTRICT NO. 1 OF OKANOGAN COUNTY

Okanogan PUD

Public Service Announcement

September 3, 2015

Okanogan PUD anticipates that power will be fully restored by the end of today to all retail customers who were affected by the Okanogan Complex Fires. Okanogan PUD line crews and support personnel, along with line crews from Douglas PUD and Pend Oreille PUD, have worked tirelessly to make sure power is restored as fast and as safely as possible. For those customers still experiencing a power outage as a result of the fires, please call the PUD at 509-422-3310.

The Okanogan PUD would like to thank everyone for their unwavering support of our crews and support staff through these devastating fires. We are proud to serve the citizens of Okanogan County.

Mark Pritchard
Operations Manager
Okanogan County PUD
www.okanoganpud.org

QUESTIONS

