Cupertino ARES/RACES
2022 Year-End Review

December 1, 2022
Jim Oberhofer KN6PE

Topics for tonight

The top 7 changes/updates for CARES and Citizens Corps operations…

7. Volunteer Annex and Capabilities
6. Covid: what's next?
5. Outdoor Packet
4. 2022 Fire Season
3. PG&E's PSPS vs EPSS
2. Evacuation Maps
1. Earthquakes… they're back!

#7

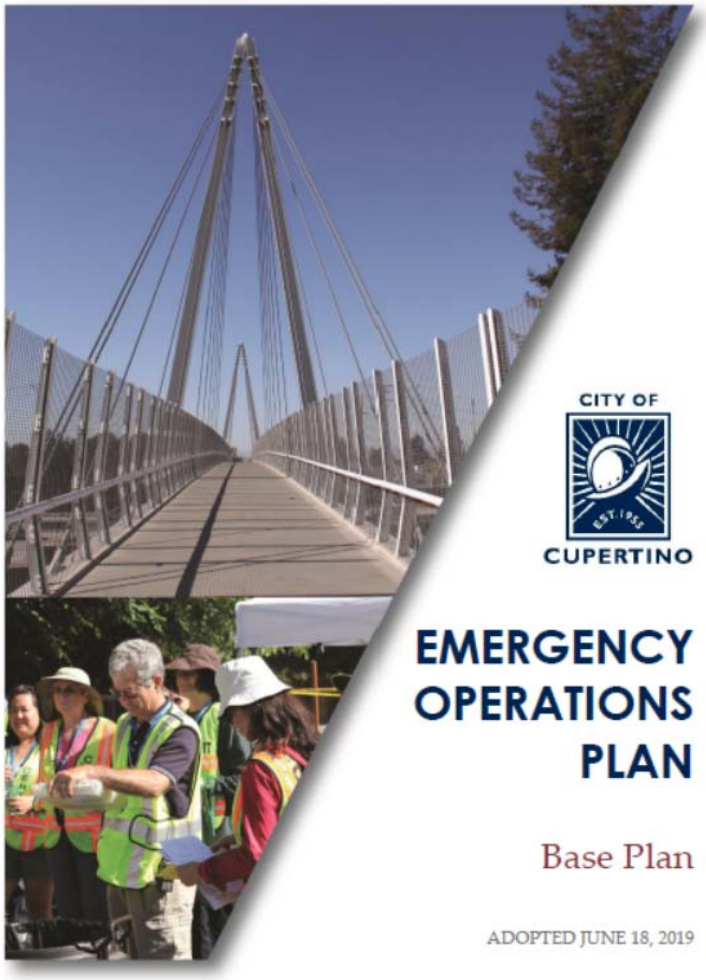
VOLUNTEER ANNEX

Cupertino's EOP

EOP

The Emergency Operations Plan (EOP)

- *Provides the structure and processes that the City uses to respond to and initially recover from an event*.
- Cupertino's plan was submitted and approved in 2019.



Link: https://www.cupertino.org/home/showpublisheddocument/24990/637019800695800000

Volunteer Annex

EOP > Volunteer Annex

- Describes volunteer management related to outreach and education programs, guidance on volunteer integration, procedures to activate a Volunteer Coordination Team, call centers, relevant points of contact, safety and security considerations, and a demobilization process.

Link: https://www.cupertinoares.org/docs/210715-Cupertino_Volunteer_Annex_FINAL.pdf

Appendices

EOP > Cupertino Volunteer Annex > Appendices

A. Capabilities Descriptions
B. DSWVP form
C. Code of Conduct
D. Minors DSWVP usage guidelines
E. ID Badge, Photo both sides and printing instructions
F. (Future Use)
G. Sign-In Documents
H. Drivers' skills sign off sheet for 469 Vehicle
I. Training matrix Citizen Corps, DOC
J. Citizen Corps managed assets
K. Handbooks, ARK Activation, Field Responder, others
L. Fingerprinting

CCC Capabilities Descriptions

EOP > Cupertino Volunteer Annex > Appendices > Capabilities Descriptions

Auto Activation Capabilities

1.1 Citizen Corps Dept Op Center (DOC)
1.2 Emergency Radio Net
1.3 Mike-Mike Assessment Reporting
1.4 Neighborhood Safety Assessment
1.5 ARK Level 3 Activation / Zone Reporting
1.6 ARK Level 2 Activation / Field Comms
1.7 ARK Level 1 Activation / Full; ICP
1.8 Light Search and Rescue
1.9 Cribbing
1.10 Utilities Management
1.11 Fire Suppression
1.12 Neighborhood Damage Assessment
1.13 Infrastructure Safety Assessment (ISA)
1.14 EOC/ICP Communications Support
1.15 Alt911 Field Call Taking
1.16 Medical Treatment Area
1.17 Psychological First Aid
1.18 Good Samaritan Response

Requested Activation Capabilities

2.1 Communications Shadow
2.2 Public Safety Partner Mutual Aid
2.3 RACES Mutual Aid
2.4 Medical Treatment First Aid Booth (Public Service Events)
2.5 Psychological First Aid Site Support (Shelter)
2.6 Area Search and Canvasing
2.7 Specific Situation Monitoring
2.8 Public Service Field Response
2.9 Language Interpreting Services
2.10 Shelter Staffing
2.11 Points of Distribution Staffing

Link: https://www.cupertinoares.org/docs/210715-Cupertino_Vol_Capabilities_FINAL.pdf

CARES Task List

…. > Capabilities Descriptions > cupertinoares.org > Docs & References > CARES Task List

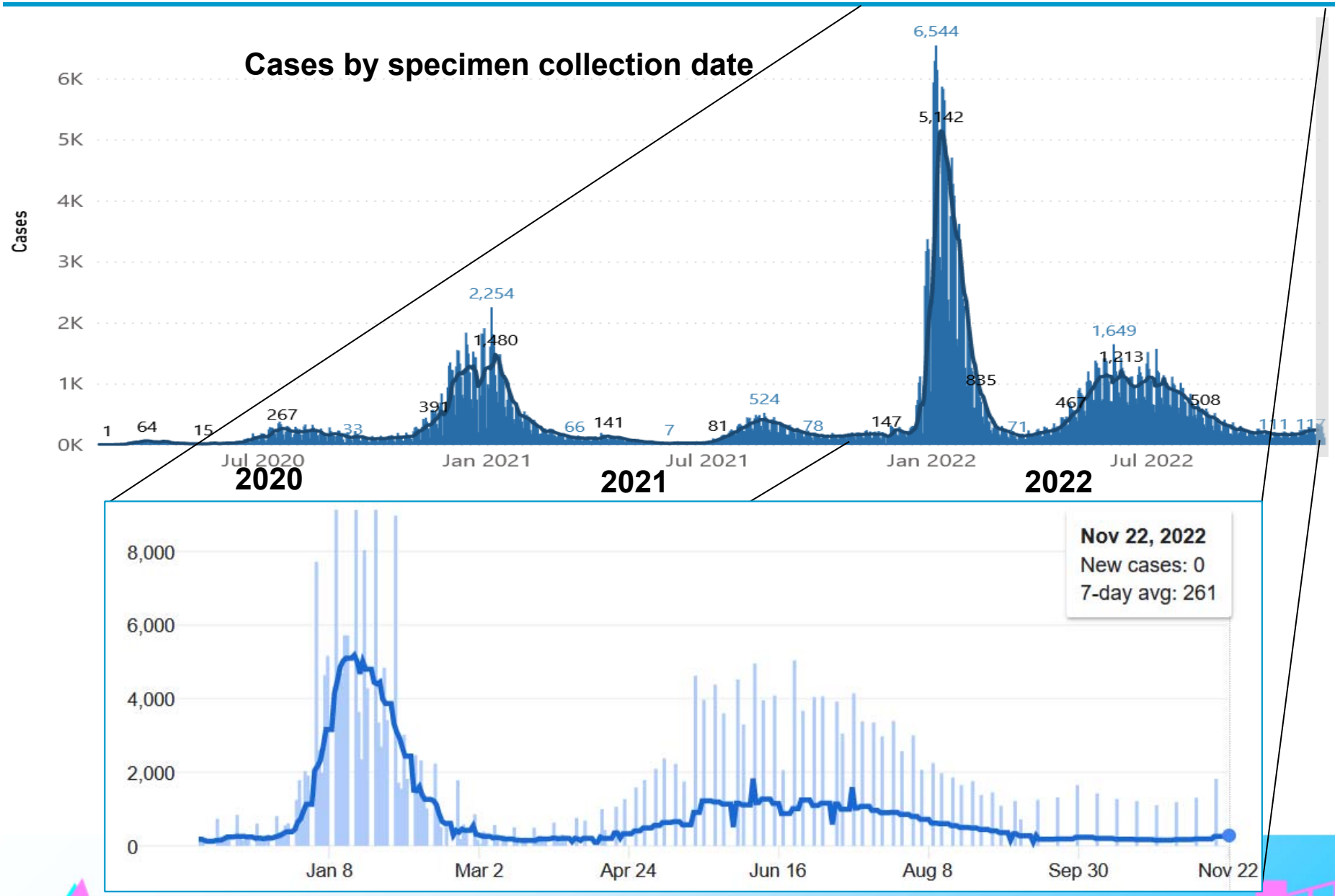
CARES Level 3 Tasks

1. Event Management
2. Resource Management
3. Resource Net Control Operations
4. Message Net Control Operations
5. Field Message Handling
6. Packet Message Handling
7. ~~Preliminary Safety Assessment~~ Mike-Mike Reporting
8. Infrastructure Safety Assessment
9. Alternate 9-1-1 Operations
10. Ember Watch Operations
11. Cross-band Operations
12. Fire Station Operations
13. ARK Activation
14. Comm 469 Operations
15. Alternate (Equipment) Response Plan Operations
16. County MAC Notifications

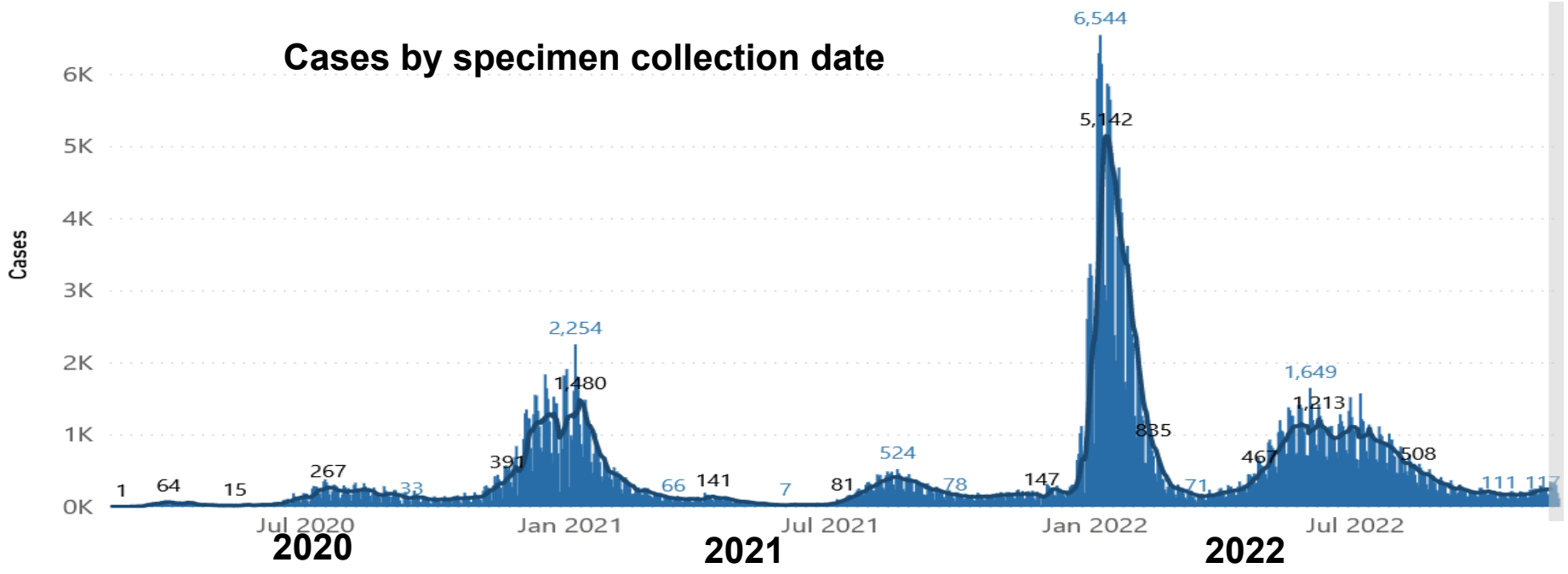
#6

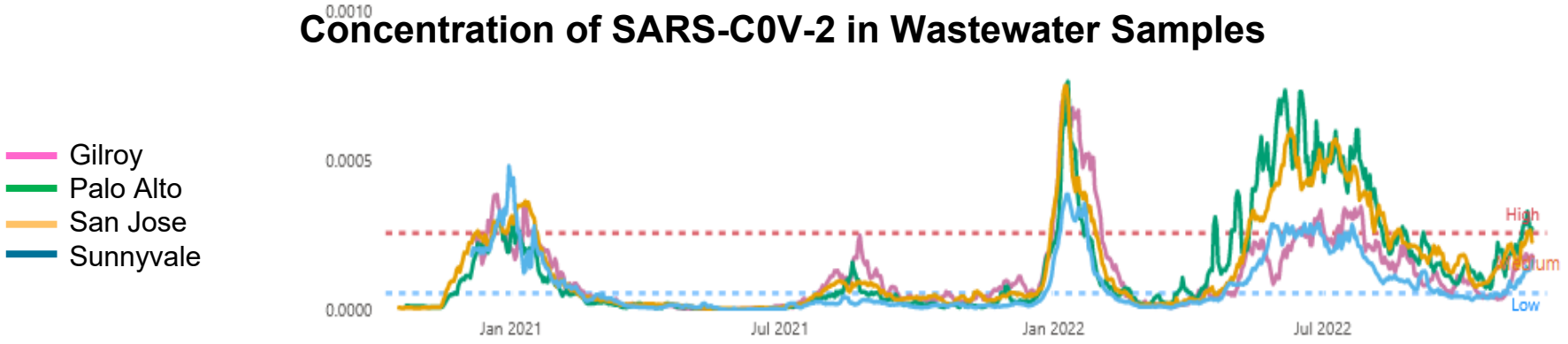
COVID-19: WHAT'S NEXT?

Tracking Covid, then…



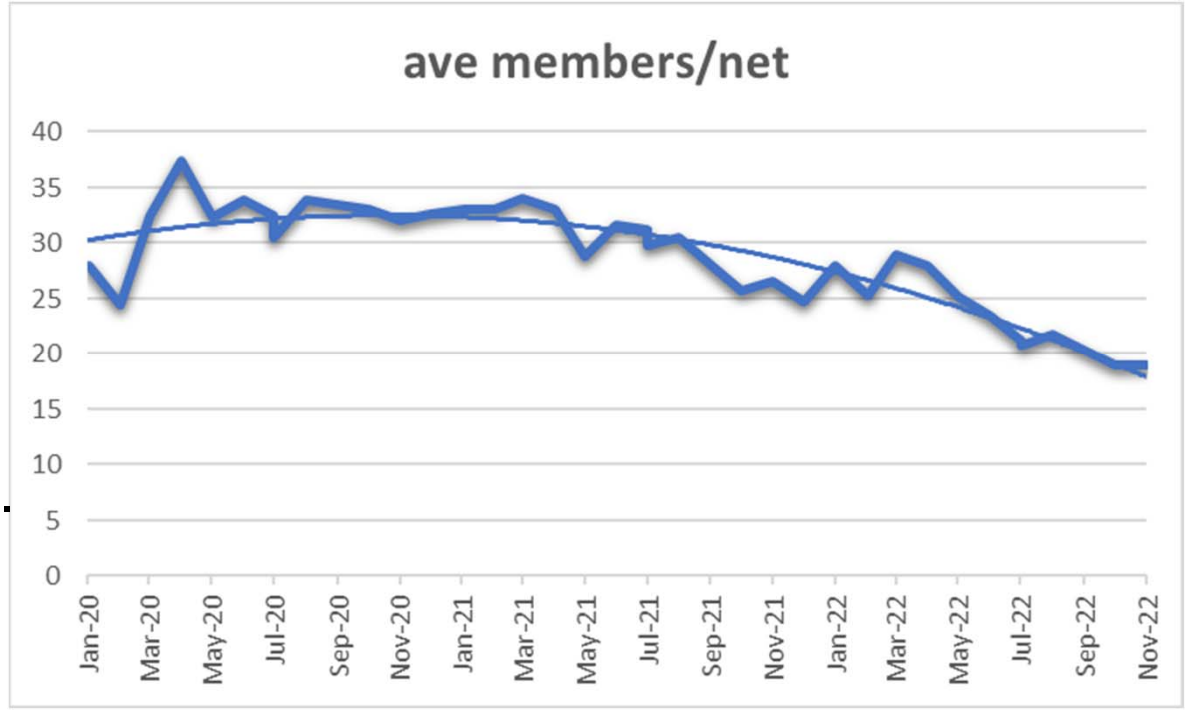
Tracking Covid… and now





Covid and a CARES Retrospective

- March 2020: *“I’m sheltering at home… now what?!”*
- Net weekly check-ins jumped up by 15-30% some weeks during the first year.
- We moved our F2F meetings to Zoom.
- Introduced early check-ins.
- Moved the net back to 7:40pm.
- April 2021: Counts started to drift down, possibly as vaccines became more available and employers ‘invite’ employees back to the office.
- Fall 2022: getting back to pre-Pandemic levels



And Today…

1. **You're feeling cruddy. Is it flu? COVID?**

   A: Yes, you might have COVID.
   Yet again, this time it might be the flu.
   Or maybe its just a really bad cold that is making the rounds.

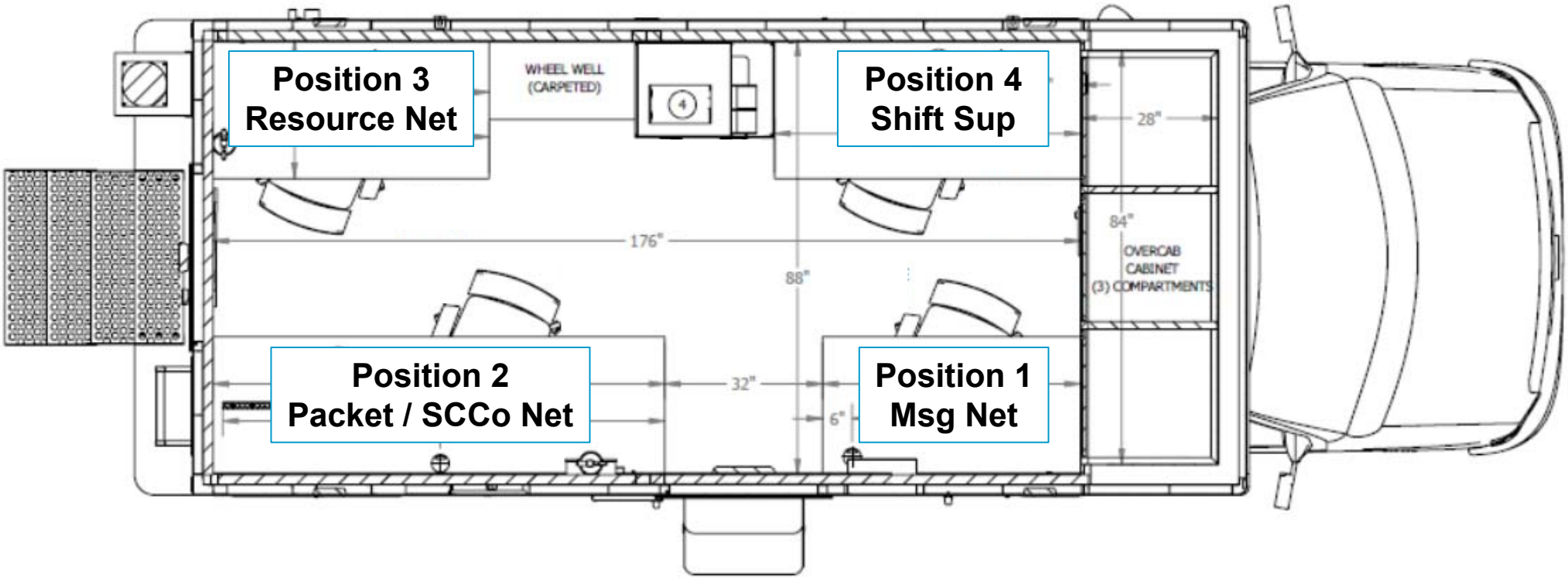
2. What do we do in 2023?

   a. Reset our Net start time to 19:45… lets start that on Tuesday 6-Dec

   b. Go back to Face-to-Face meetings? Stay with zoom?

RADIO
BCP-1
BCP-2
AC POWER
A-9
NETWORK
N13
N14
24VDC POE!
No Laptops!
DC POWER
D-7
#5
OUTDOOR PACKET

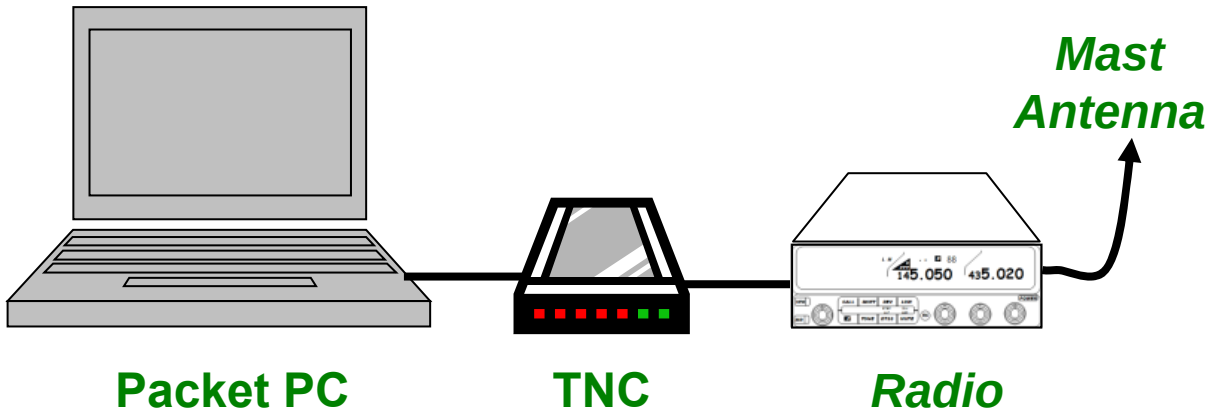
C469 Layout – As built



Comm 469 Packet Radio

How Packet was set up in Comm 469

1. Radio connects direct to the Mast Antenna
2. TNC connects direct to the radio
3. Packet PC connects direct to the TNC



Comm 469 Packet Radio

What's changed?

1. Antennas reconfigured to support GMRS
2. Move to a single net on W6TDM for most of our operations
3. Upgrade the Packet PC to a laptop
4. Started to loosen COVID-19 restrictions
5. Occasional need for a scribe with net control
6. Acknowledgement that it does get crowded in the truck

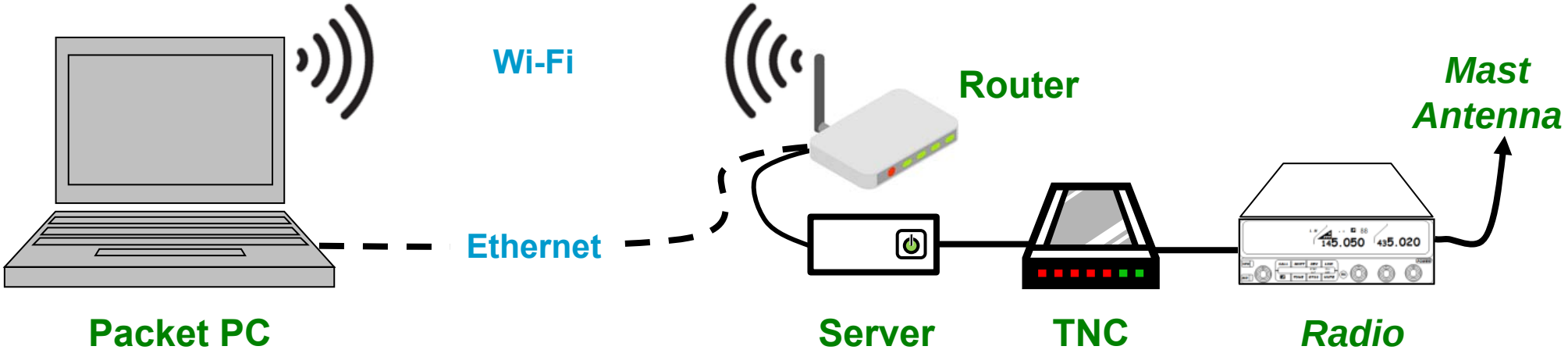
How to address crowding

1. Move packet operations outside of Comm 469
2. Move GMRS monitoring outside of Comm 469

Comm 469 Packet Radio

And Now…

1. Radio connects direct to the Mast Antenna
2. TNC connects direct to the radio
3. Local Linux Server connects to the TNC
4. Linux Server connects to the C469 LAN / Router
5. Packet PC connects to the TNC over C469 LAN



Comm 469 Packet Radio

Implementation:

1. Laptop can be taken outside Comm 469 for packet operations
2. Needs to be within range of the Comm 469 Wi-Fi signal
3. Reduces crowding in the truck
4. Other than one extra Laptop startup task, the packet software works the same.

And the software?

- ***ser2net:*** A Linux software package that provides a way for a user to connect from a network connection to a serial port.
- ***COM2TCP:*** Windows programs that creates a virtual PC com port that is mapped to a remote device over a network connection.

#4
2022 FIRE SEASON

Earlier this year…

Apr 3, 2022 – *Ongoing drought*, extreme weather. Sacramento Bee

- California's recent fire seasons have stretched unsettlingly late into the year, with devastating blazes breaking out in November and December.
- Climate change and forest conditions mean 2022 could be bad for wildfires in California… *UC Berkley Climatologist*

California wildfire risk factors

DROUGHT

The drier it is, the better it burns.

WIND

Winds fan flames & carry sparks.

HUMAN ACTIVITY

Negligence can lead to wildfires.

And now?

Nov 7, 2022 – Is California's Fire Season Over?

New York Times

- "… But this year, thankfully, the fire forecast looks much less grim.
- "Recent rainfall and cold weather have already quashed fire season in Northern California"
- In the short term, this is really one of the best forecasts you could hope for if you don't like drought and extreme autumn wildfires.
- "The upcoming rain and mountain snowfall should deliver some much needed water to parched ecosystems, and effectively kill off fire season in northern and central California once and for all."

… Daniel Swain, UCLA climate scientist

And from the State?

https://www.gov.ca.gov/2022/11/17/governor-newsom-and-cal-fire-announce-the-end-of-peak-wildfire-season-for-most-of-california/

Governor Newsom and CAL FIRE Announce the End of Peak Wildfire Season for Most of California

Published: Nov 17, 2022

CAL FIRE completed more than 20,000 acres of prevention and mitigation projects in the last two months

Under the Newsom Administration, California has invested record amounts in wildfire response and resilience projects

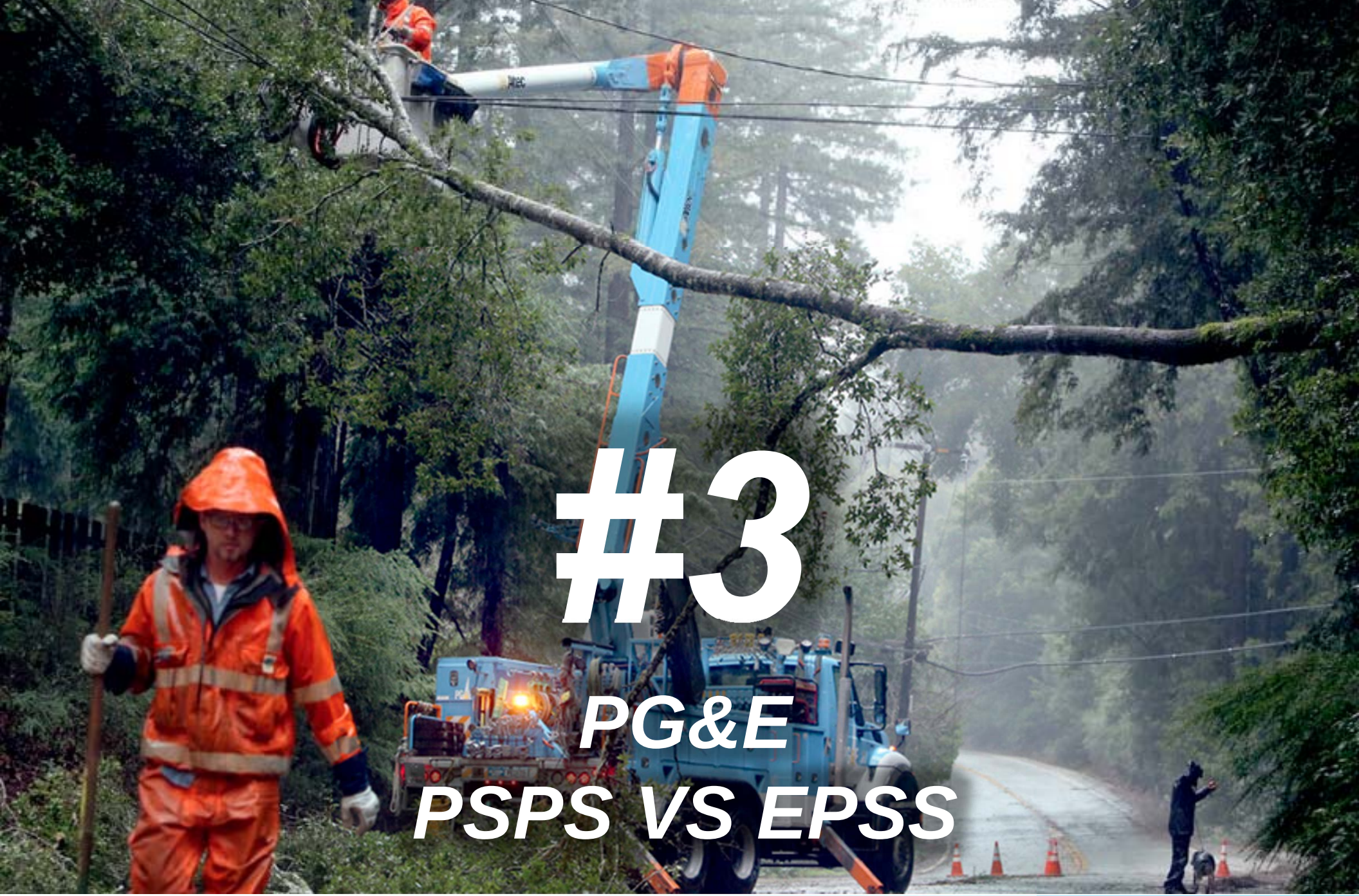
B-ROLL: CAL FIRE 2022 controlled burns and brush cleanup

NAPA – Today, at a fire station in Napa, Governor Gavin Newsom and state fire officials announced the end of peak fire season in most areas of California, while highlighting CAL FIRE's early work in preparation for next year's wildfire season. The state stays ready to respond to wildfires across the state. Just yesterday, Los Angeles and Ventura Counties were under Red Flag Warnings, underscoring how California wildfire season is year-round.

And, the disclaimer!

- Of course, there are no guarantees when it comes to California's increasingly year-round fire season.

Here's hoping for a light 2023 Fire Season!



#3

PG&E
PSPS VS EPSS

What is PSPS?

PSPS – Public Safety Power Shutoff

Power is turned off proactively to help prevent wildfires as a last resort during severe weather.

- **Notification:** We are notified in advance with real-time updates
- **When:** Outages are likely during high winds, low humidity, and dry vegetation; most likely from September to November.

PSPS… Year over year comparison*

Event Details	2019	2020	2021
PSPS Events	7	6	5
Customers Impacted	2,014,000	653,000	80,400
Average Number of Counties Impacted	17	17	10
Average Outage Duration (hours)	43	35	31
Average Outage Restoration Time (hours)	17	10	12
Damage/Hazards	722	257	442
Peak Wind Gusts	102 MPH	89 MPH	102 MPH
Potential Impacted Acreage Prevented	3.5M	912K	691K
Potential Damaged Structures Prevented	280K	196K	86K

***CPUC Public Briefing, August 2022**

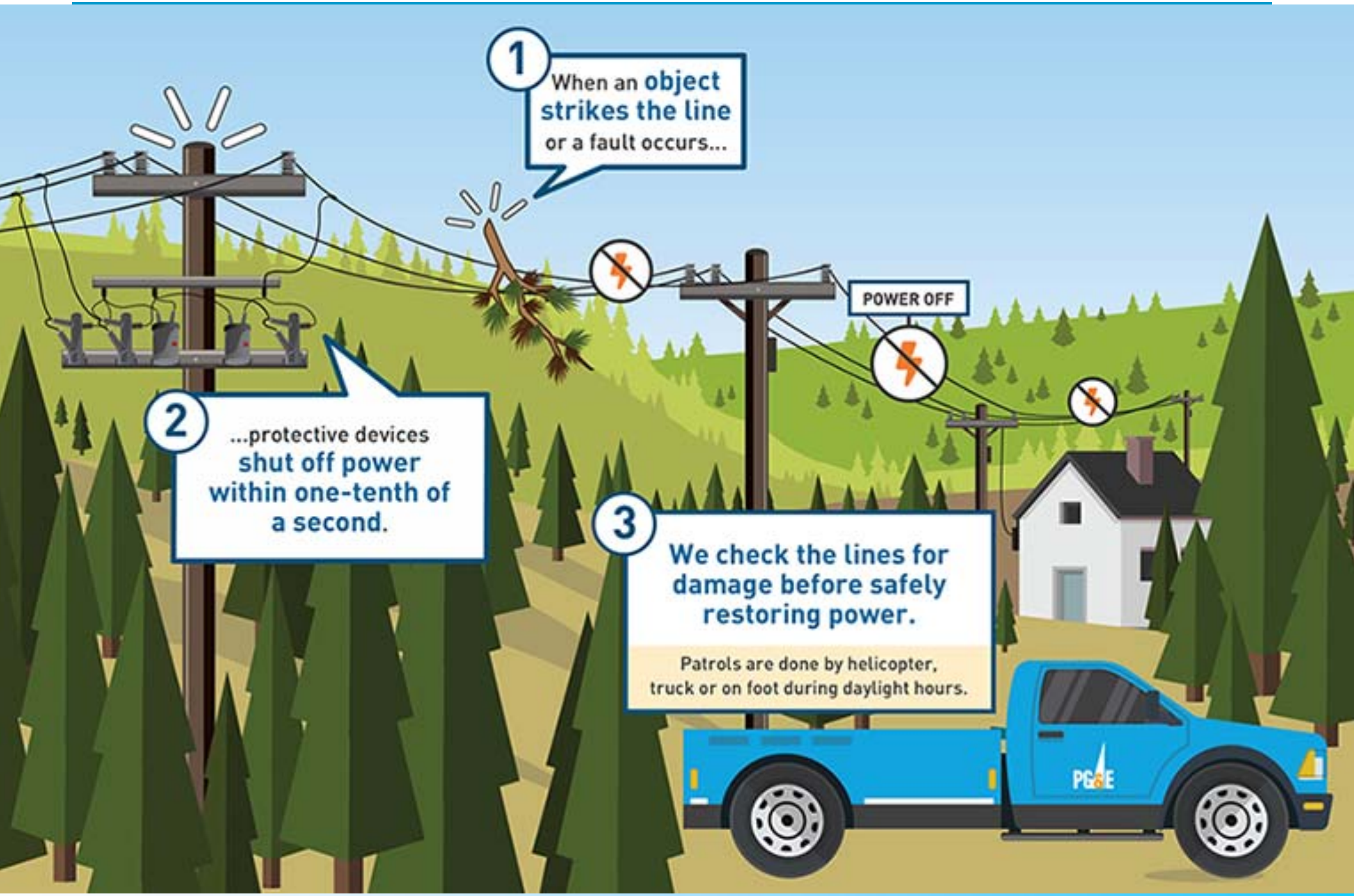
What is EPSS?

EPSS – Enhanced Power Safety Settings

EPSS technology turns off power within 1/10 of a second if a hazard, like a tree branch, strikes a line to prevent wildfires before they start.

- **Notification:** If there is an outage, PG&E will share updates on when power will be restored. Since power goes out from an unplanned safety threat, unable to send notifications.
- **When:** Began implementing EPSS in July 2021.
- **Does it work?** In 2021, PG&E saw *80% reduction* in ignitions on EPSS-enabled lines over previous years.

How does EPSS work?



PG&E's EPSS Testing

EPSS Settings DISABLED

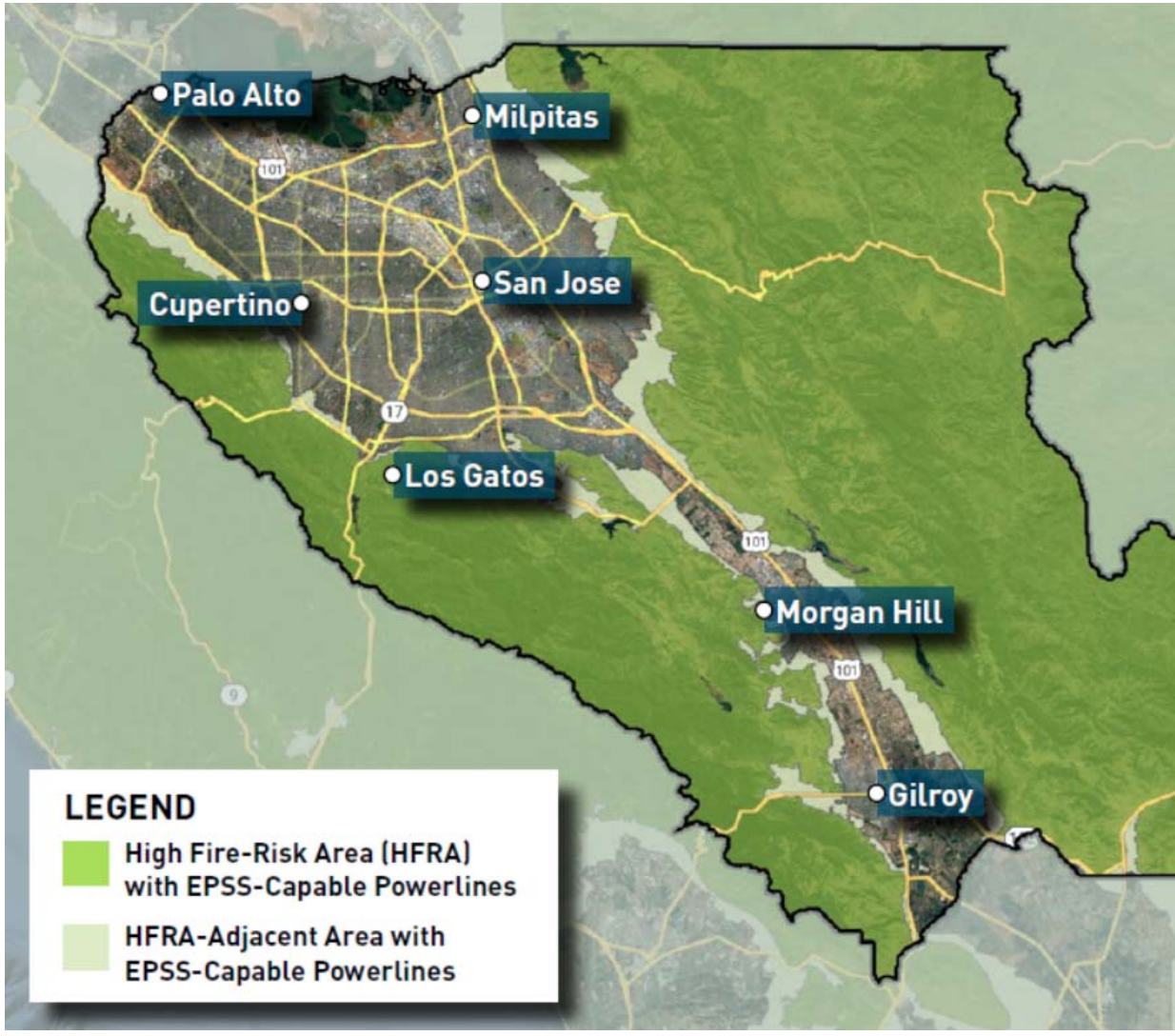
EPSS Settings ENABLED

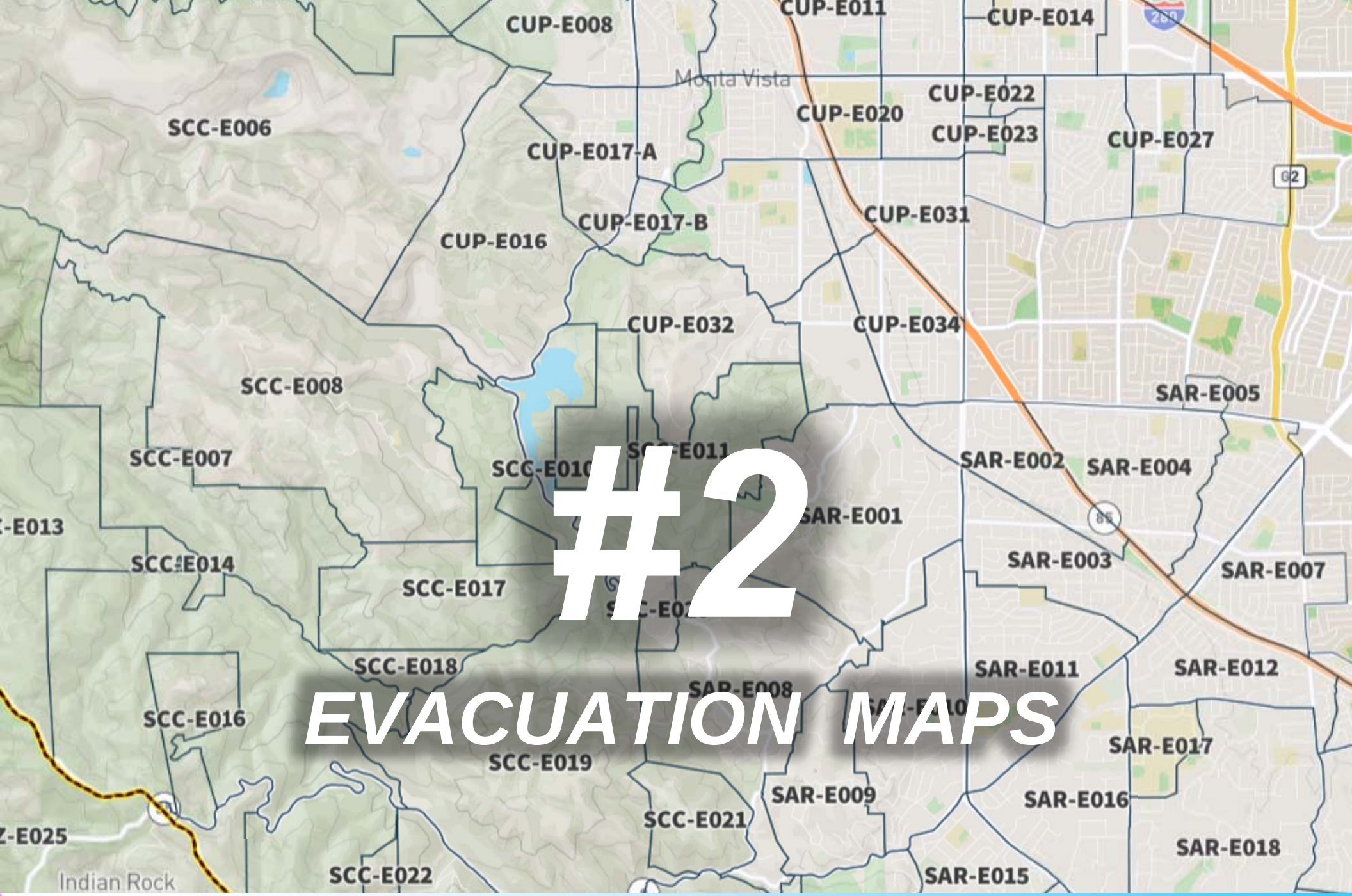
Where is EPSS in the Bay Area?

Why we care in Cupertino

Santa Clara County

Approximate areas in the community powered by EPSS-capable circuits, which will be enabled during times of heightened wildfire risk.

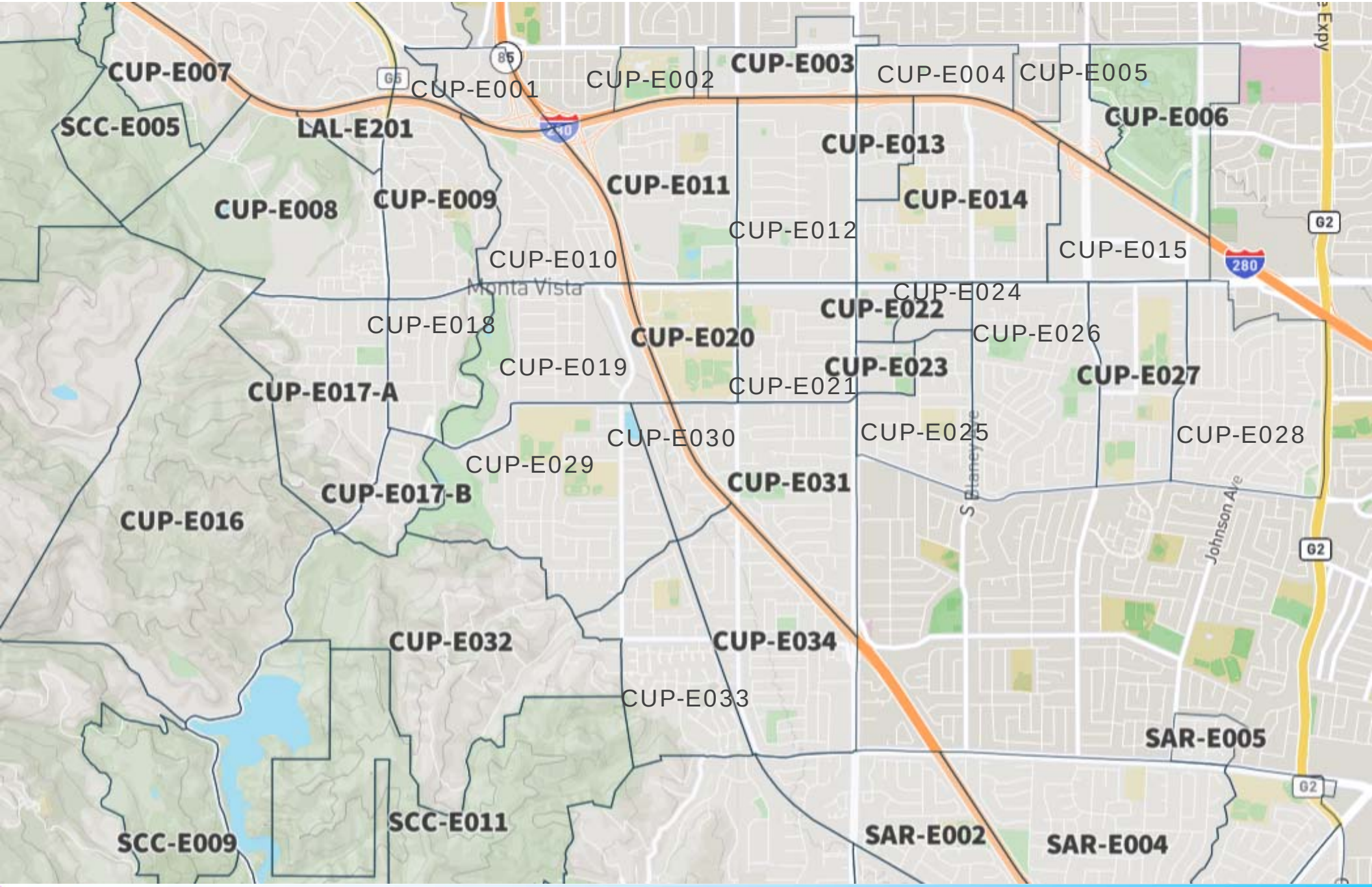


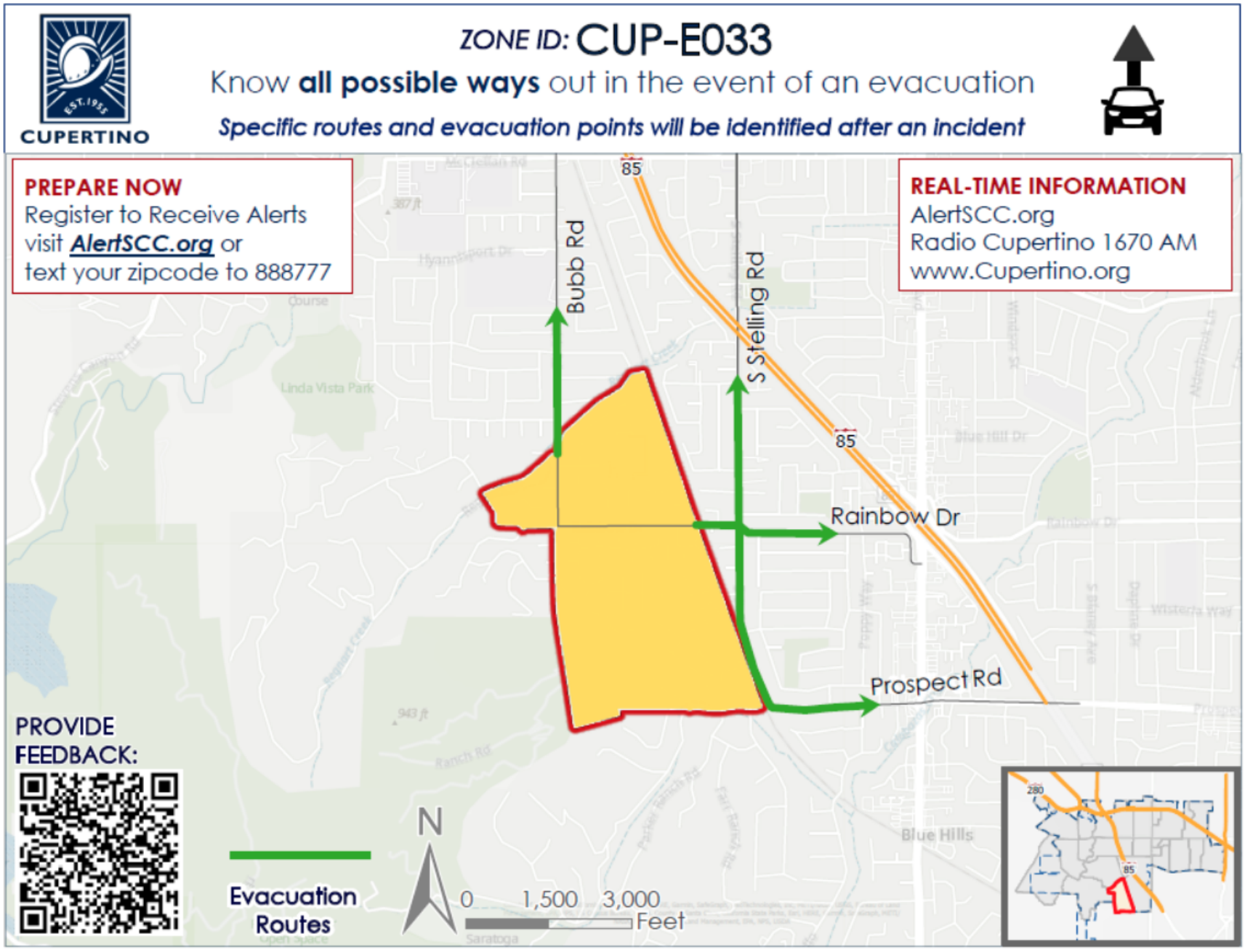

CUP-E008
CUP-E011
CUP-E014
Monta Vista
CUP-E022
CUP-E020
CUP-E023
CUP-E027
SCC-E006
CUP-E017-A
CUP-E017-B
CUP-E031
CUP-E016
CUP-E032
CUP-E034
SCC-E008
SAR-E005
SCC-E007
SCC-E010
SCC-E011
SAR-E002
SAR-E004
SAR-E001
SCC-E014
SCC-E017
SAR-E003
SAR-E007
SCC-E018
SAR-E011
SAR-E012
SCC-E016
SCC-E019
SAR-E017
SAR-E009
SAR-E016
SCC-E021
SAR-E018
SCC-E022
SAR-E015
Indian Rock
#2
EVACUATION MAPS

What's new?

- County Fire defined 34 Cupertino zones that follow natural or man-made boundaries
- City's goal is on coordination with public safety partners, learning from past fires (2017 - 2021), increase resident engagement and comply with recent state legislation (AB747 requires an evacuation planning element).
- In 2022,
  - City OEM ran 2 table top exercises with public safety partners.
  - City built and rolled out evacuation tools
  - CCC ran the west side evacuation exercise which prompted questions on CARES' and CERT's role during an actual wildland fire threat.

- In short… coordination and communication lends itself to a better situation when something does happen.


CUP-E007
CUP-E001
CUP-E002
CUP-E003
CUP-E004
CUP-E005
CUP-E006
SCC-E005
LAL-E201
CUP-E013
CUP-E011
CUP-E009
CUP-E014
CUP-E008
CUP-E012
CUP-E010
CUP-E015
Monta Vista
CUP-E024
CUP-E022
CUP-E018
CUP-E020
CUP-E026
CUP-E019
CUP-E023
CUP-E027
CUP-E017-A
CUP-E021
CUP-E030
CUP-E025
CUP-E028
CUP-E029
CUP-E031
CUP-E017-B
CUP-E016
CUP-E032
CUP-E034
CUP-E033
SAR-E005
SCC-E011
SCC-E009
SAR-E002
SAR-E004
S Blaney Ave
Johnson Ave
280
G2
85


CUPERTINO
ZONE ID: CUP-E033
Know all possible ways out in the event of an evacuation
Specific routes and evacuation points will be identified after an incident
PREPARE NOW
Register to Receive Alerts
visit AlertSCC.org or
text your zipcode to 888777
REAL-TIME INFORMATION
AlertSCC.org
Radio Cupertino 1670 AM
www.Cupertino.org
Bubb Rd
S Stelling Rd
85
Rainbow Dr
Prospect Rd
PROVIDE FEEDBACK:
Evacuation Routes
N
0 1,500 3,000
Feet

Where are the maps?

www.cupertino.org
> Residents
> Emergency Management
> City Emergency Planning
> Evacuation Plans

- Click on Downloadable Zone Maps and pick your zone or
- Use the map to zoom in, find your area, and open the map

CARES' role during an evacuation

During a wildfire threat,

- What we can do…
  - C469 is deployed to the EOC or ICP to manage CCC radio traffic, backup communications with other jurisdictions.
  - ARK(s) are opened in the impacted zone areas to roll up neighborhood reports (CERT) for the EOC (CARES) and passes back information from the city.
  - CARES deploys field teams to specific locations to monitor and make observation reports (specifics?).
  - CARES deploys Communications Shadows to cover specific individuals with backup communications.
  - CERT/CARES deploys to open shelters to assist the Shelter Manager; may apply to Temporary Evacuation Points as well.

CARES' role during an evacuation

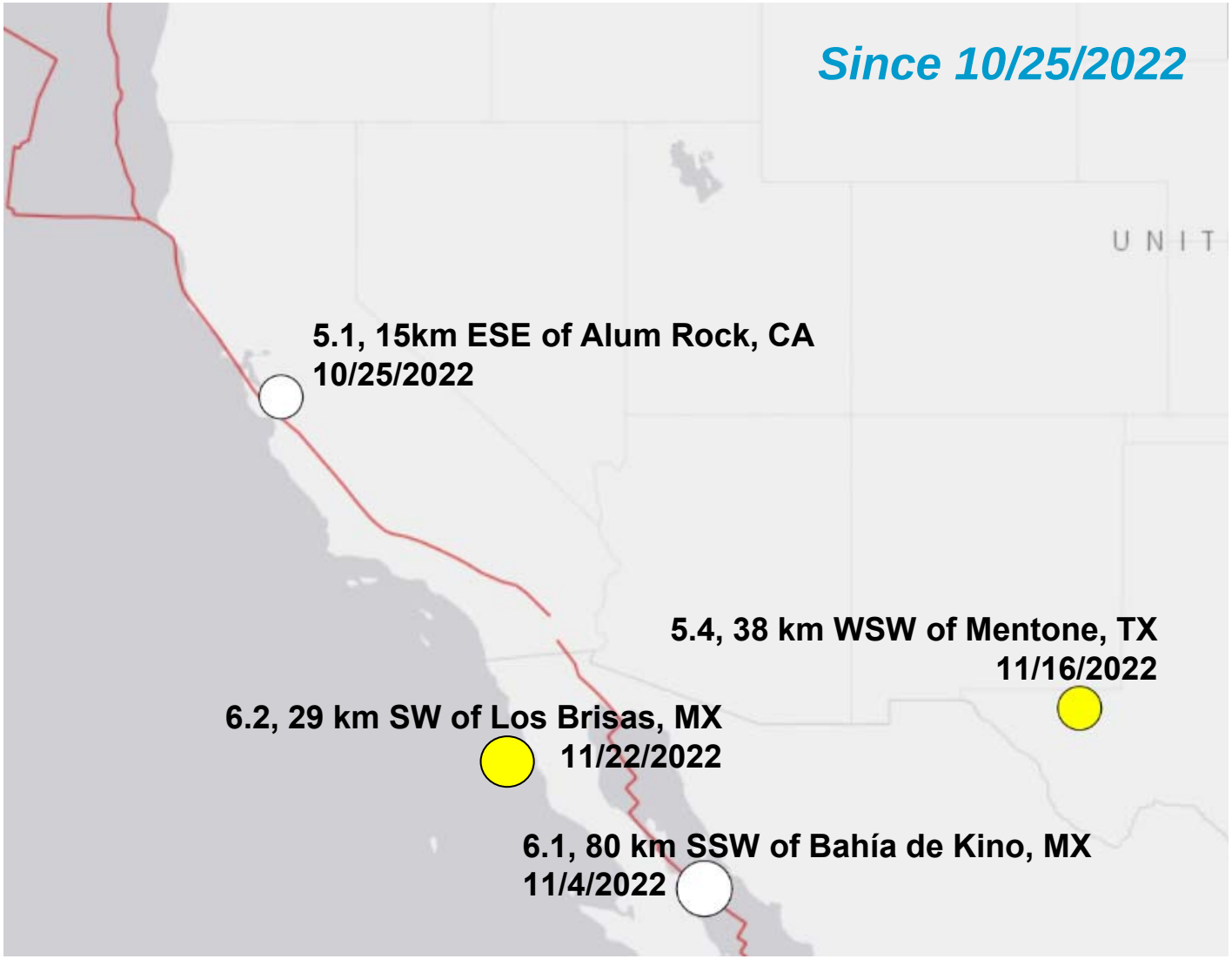
During a wildfire threat,

- What we won't do…
  - Respond beyond our training
  - Deliberately put ourselves in harms way
  - Operate in an ***Evacuation Order*** Zone

#1
EARTHQUAKES…
THEY'RE BACK!

USGS Magnitude 4.5+ Earthquakes, Past Month

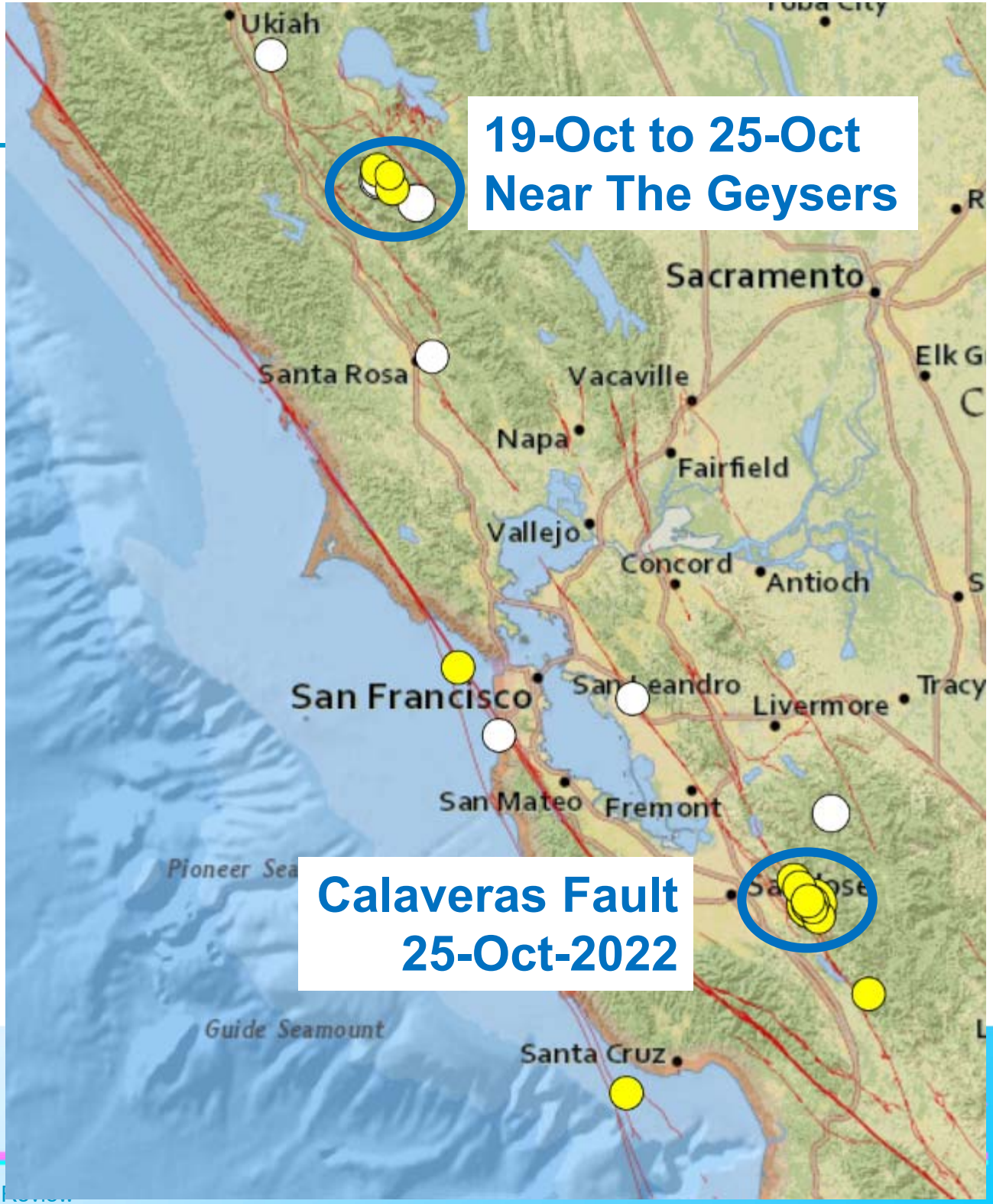
4 of 504+ earthquakes in the map area



https://earthquake.usgs.gov/earthquakes/map

2.5+ magnitude ‘quake clusters

- The San Andreas fault system forms the plate tectonic boundary between the North American Plate and the Pacific Plate.
- The Calaveras Fault, is part of the San Andreas Fault System
- This earthquake appears to have ruptured a patch at depth on the near-vertical Calaveras Fault.
- Historically, this section of the Calaveras fault has been very seismically active, producing earthquakes of magnitude 5 to 6.5 on the time scale of decades.

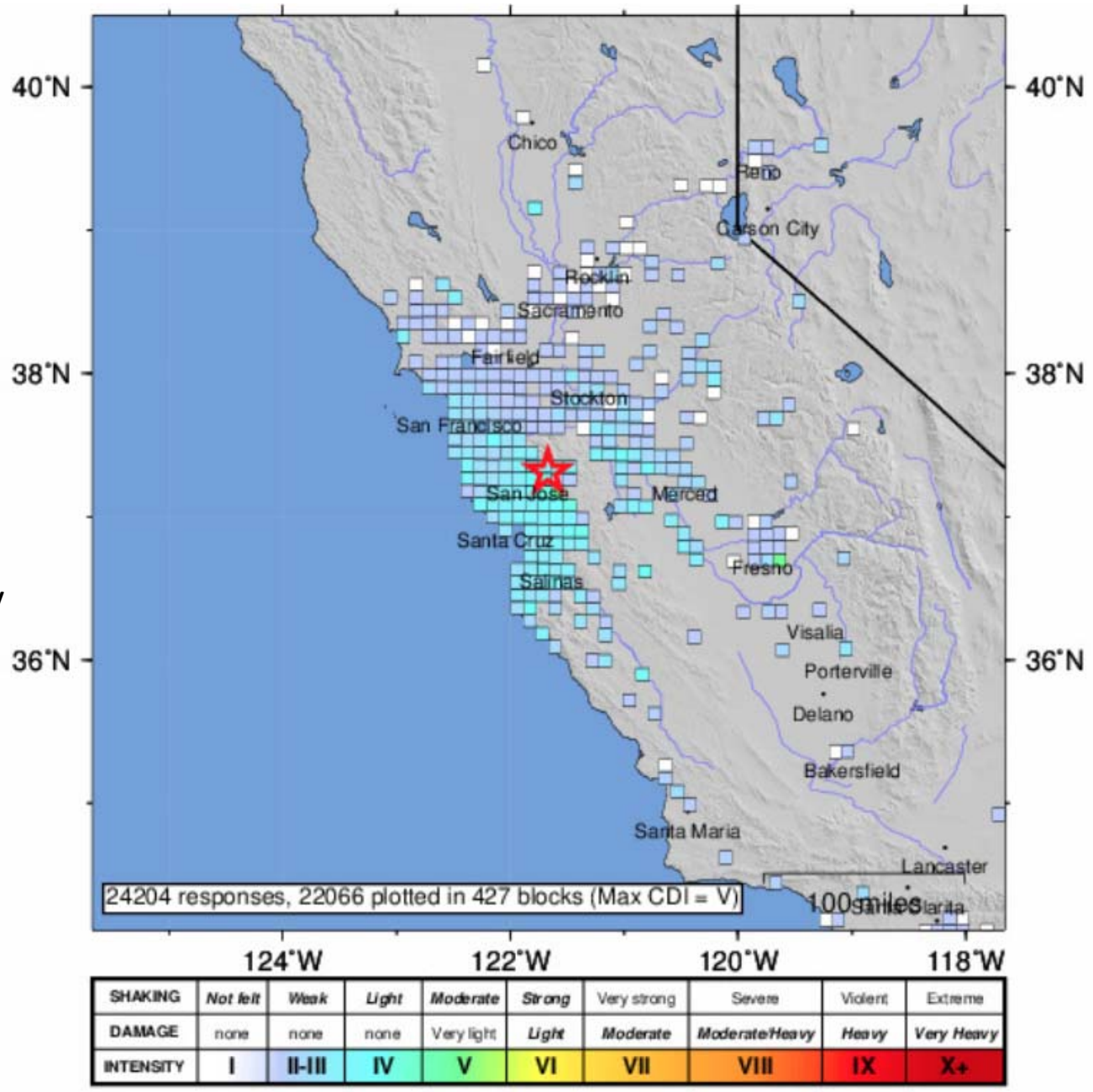


25-Oct-2022… Did you feel it?

https://earthquake.usgs.gov/earthquakes/eventpage/nc73799091/dyfi/intensity

Modified Mercalli Index

Intensity	Shaking	Damage
I	Not Felt	none
II, III	Weak	none
IV	Light	none
V	Moderate	Very Light
VI	Strong	Light
VII	Very Strong	Moderate
VIII	Severe	Mod/Heavy
IX	Violent	Heavy
X+	Extreme	Very Heavy



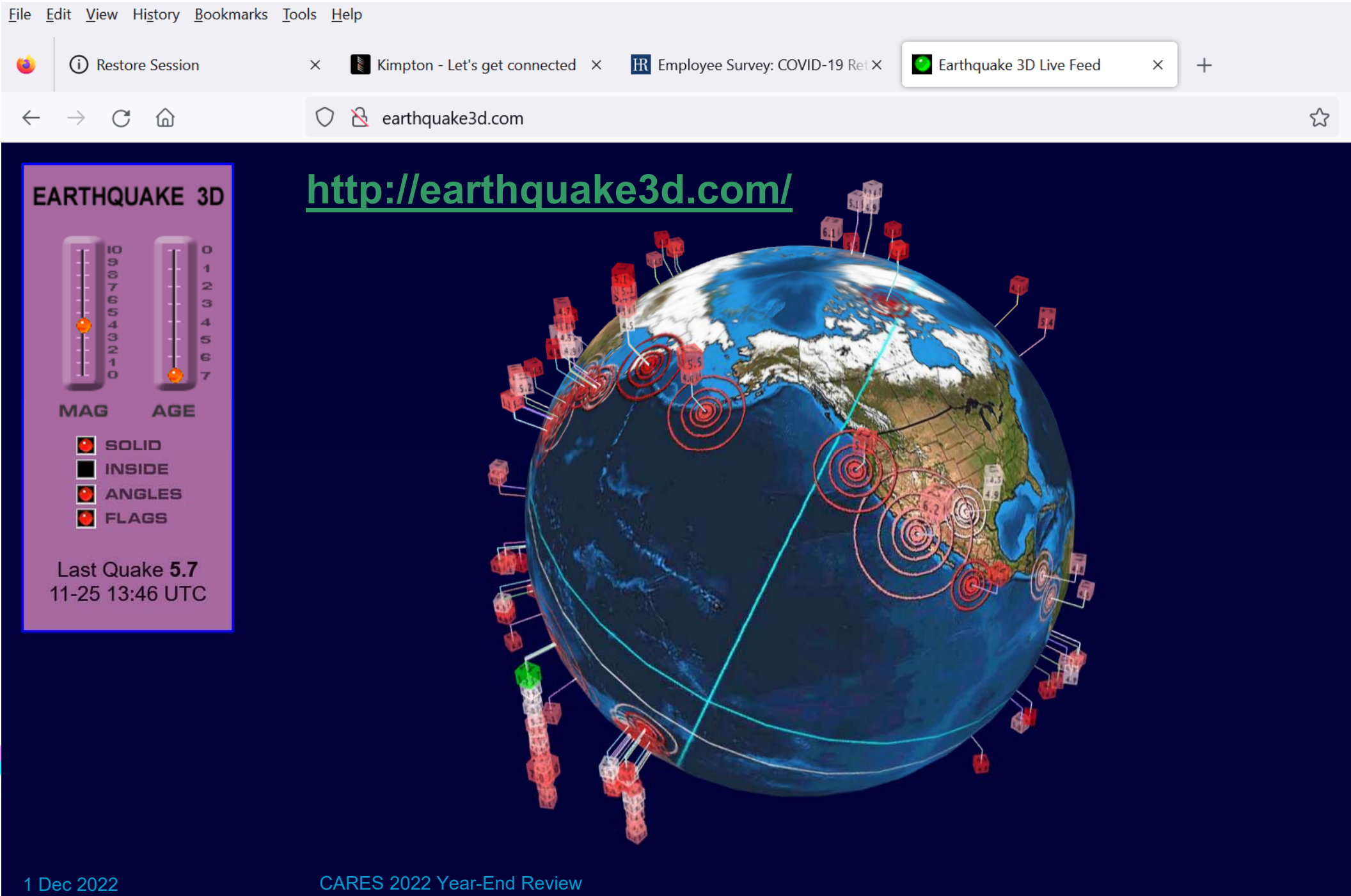
Why even mention this?

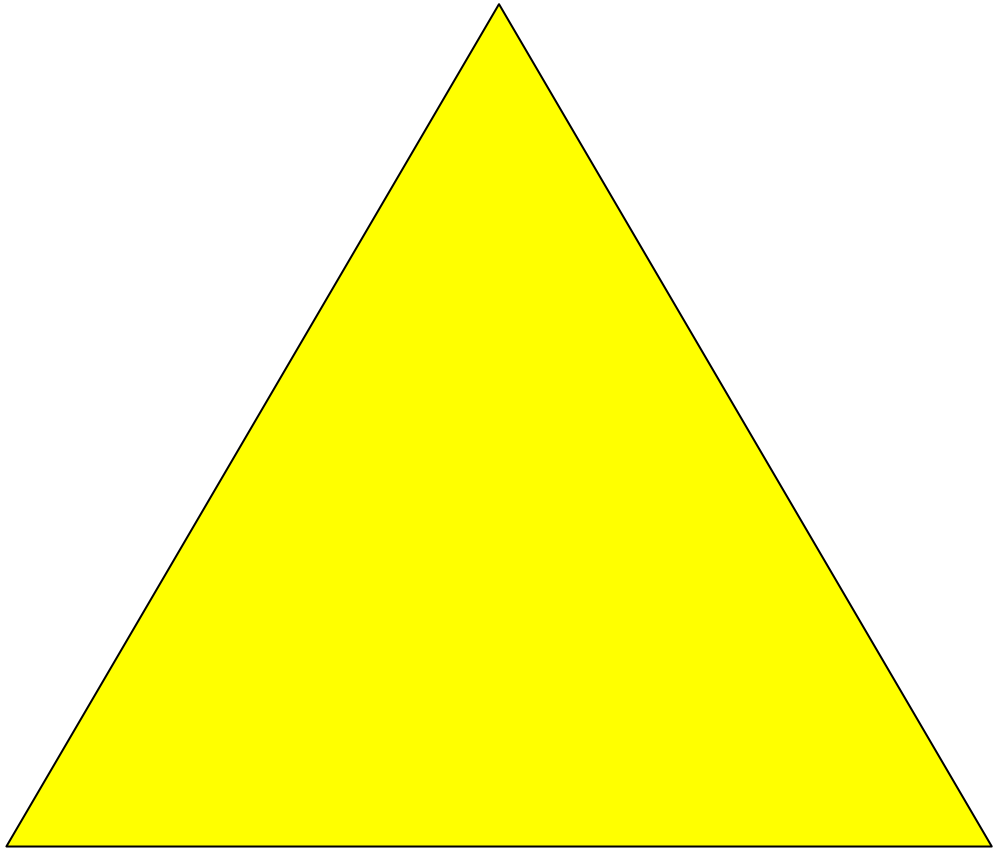
With all the recent focus on wildland fires, we cannot forget that we live in earthquake country!

Earthquake Country

We're all in this together.

Cool tool… 3D Earthquake



Thank you

Any Questions?