

# Public Safety Power Shutdown Cupertino Citizen Corps Retrospective

November 7, 2019  
Jim Oberhofer KN6PE



# Topics for tonight

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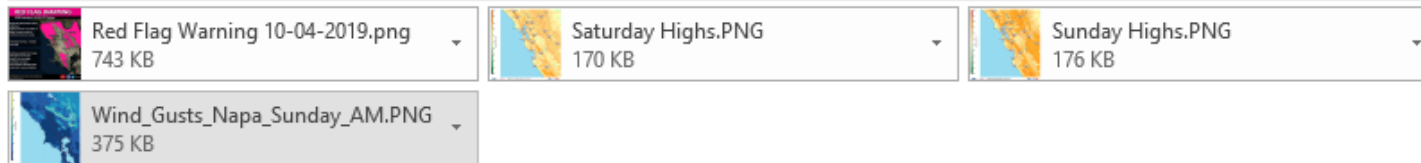
1. Run up to PSPS Oct08 Event
2. CUP-19-100 Activation
3. Observations
4. Key Findings
5. Recommendations
6. Perspective from the EOC
7. Shelter Deployment



Ryan Walbrun - NOAA Federal <ryan.walbrun@noaa.gov> | undisclosed-recipients: | 4 | 10/4/2019

Partner Briefing: Red Flag Warning North Bay Hills and Warm Temps this Weekend

If there are problems with how this message is displayed, click here to view it in a web browser.



Red Flag Warning and Warm Weekend Temperatures

National Weather Service - SF Bay Area/Monterey

Issued: 4:30 am Friday Oct 4, 2019

Point of Contact: 24/7 OPS - EM: 831-656-1717 | Media: 831-656-1724

Key Points - Expected Impacts

- Red Flag Warning for North Bay Hills 8 pm Saturday through 10 am Sunday
- Warming trend all areas this weekend
- Increased beach visitors with surf and cold water impacts

Changes From Previous Briefing

First issuance, no changes.

Confidence and Details

North Bay Mountains

HIGH Confidence

Red Flag Warning Saturday Night. Moderate offshore wind gusts to 35 mph with low humidity.

MODERATE Confidence

Possible local wind gusts 40-50 mph Saturday Night.

Details:

After a warm Saturday afternoon, Northeast winds will develop in the Napa Hills around sunset. Northeast wind gusts 20-35 mph with little or no humidity recovery will create critical fire weather conditions. Strongest winds during the overnight hours, roughly midnight through sunrise with winds easing by 10 am Sunday. Continued hot and dry Sunday afternoon with highs mid 80s to lower 90s.

San Francisco Bay Area and Central Coast

HIGH Confidence

Warming trend this weekend with temps 80s to near 90. Hottest temps expected Sunday.

MODERATE

Low Humidity and light offshore winds all portions of the Bay Area and Central Coast leads to increased Fire



# RED FLAG WARNING

8 PM Saturday to 10 AM PDT Sunday



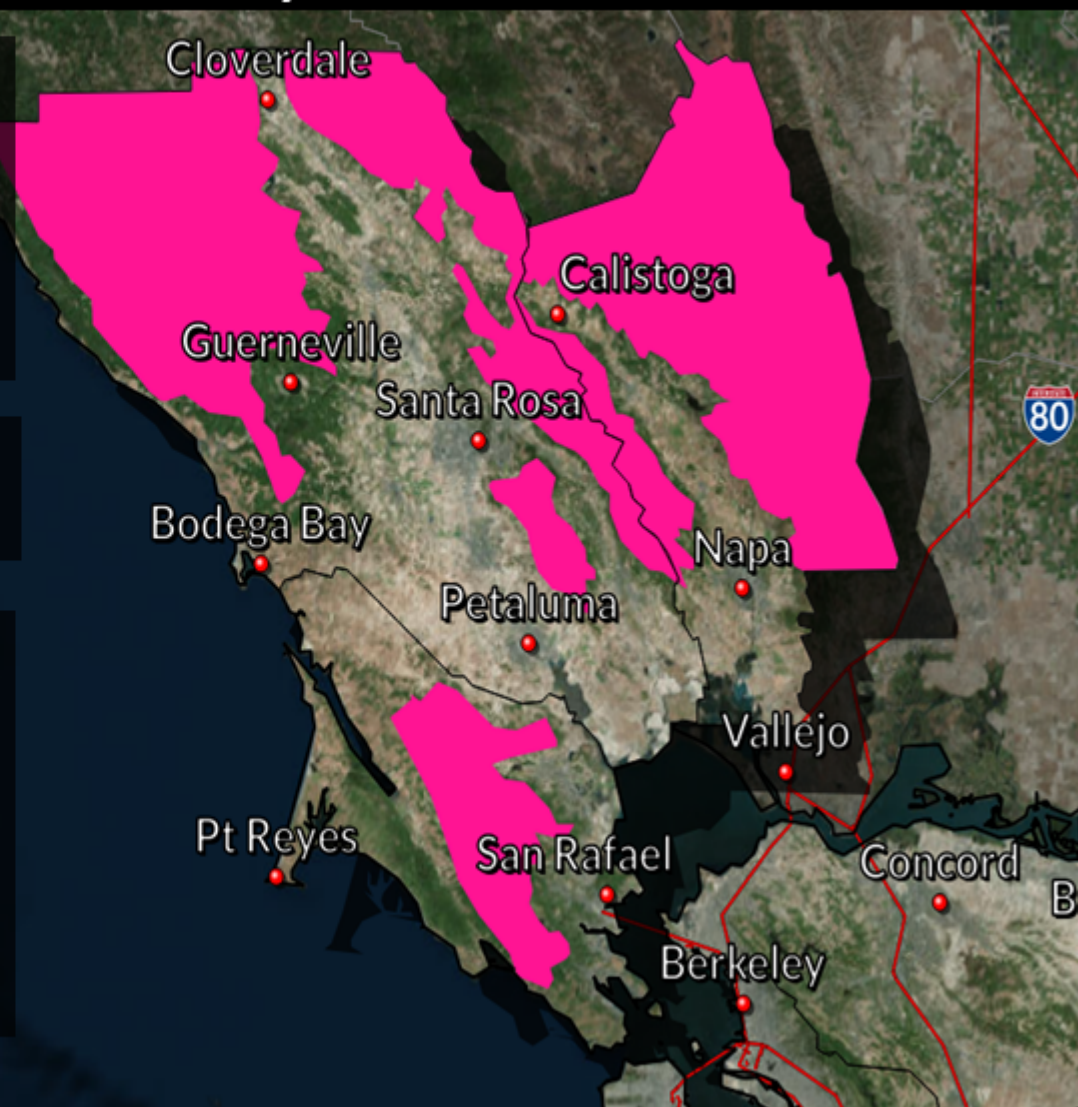
- North Bay Mountains above 1000 feet
- Highest threat across hills of Napa County as well as northern Sonoma County



- Saturday evening – Sunday morning



- Northeast winds 10-20 mph with gusts to 35 mph
- Little or no overnight humidity recovery
- Any fires that develop have potential to spread rapidly.



National Weather Service San Francisco Bay Area  
[weather.gov/sanfrancisco](https://weather.gov/sanfrancisco)

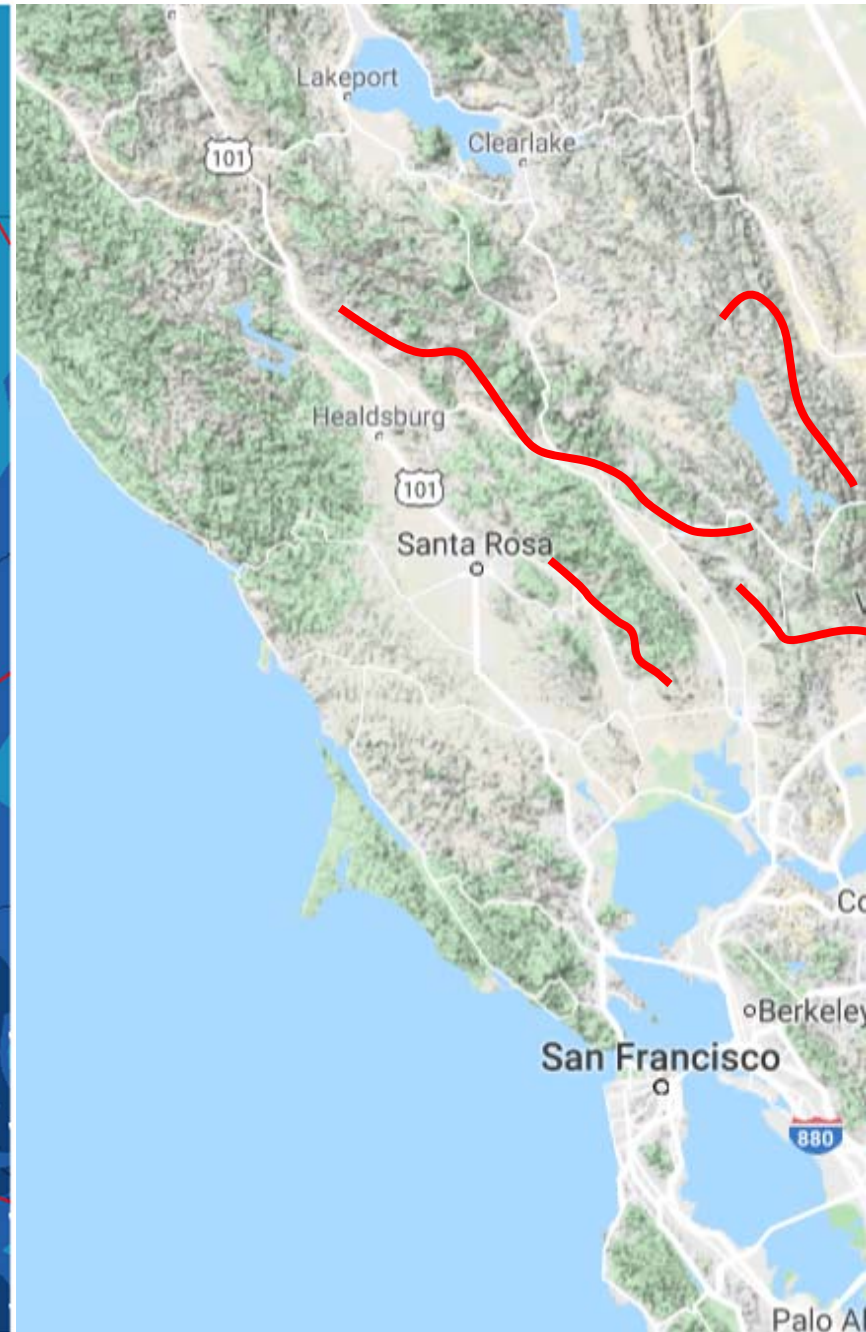
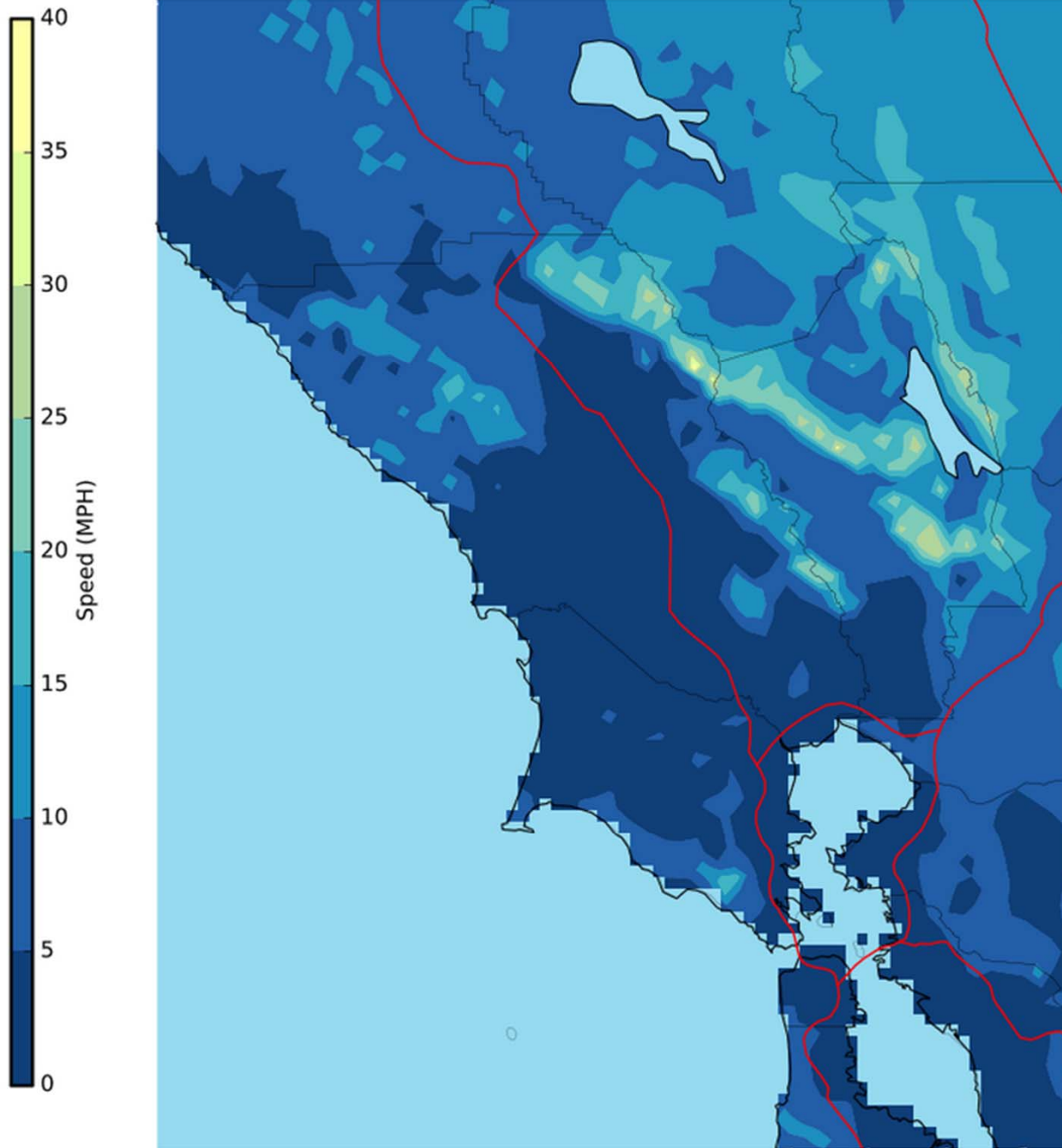


/NWSBayArea



# Wind Gusts Sunday Morning

Valid: 10/06/2019 05:00 AM - 10/06/2019 08:00 AM PDT



**National Weather Service**  
**San Francisco Bay Area**  
10/04/2019 04:28 AM PDT

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Cupertino ARES/RACES







# RED FLAG WARNING



**North Bay Mountains & Valleys, East Bay Hills & East Bay Valleys**



**Wednesday 5 AM PDT to Thursday 5 PM PDT**



**Santa Cruz Mountains**



**Wednesday 5 PM PDT to Thurs Noon PDT**

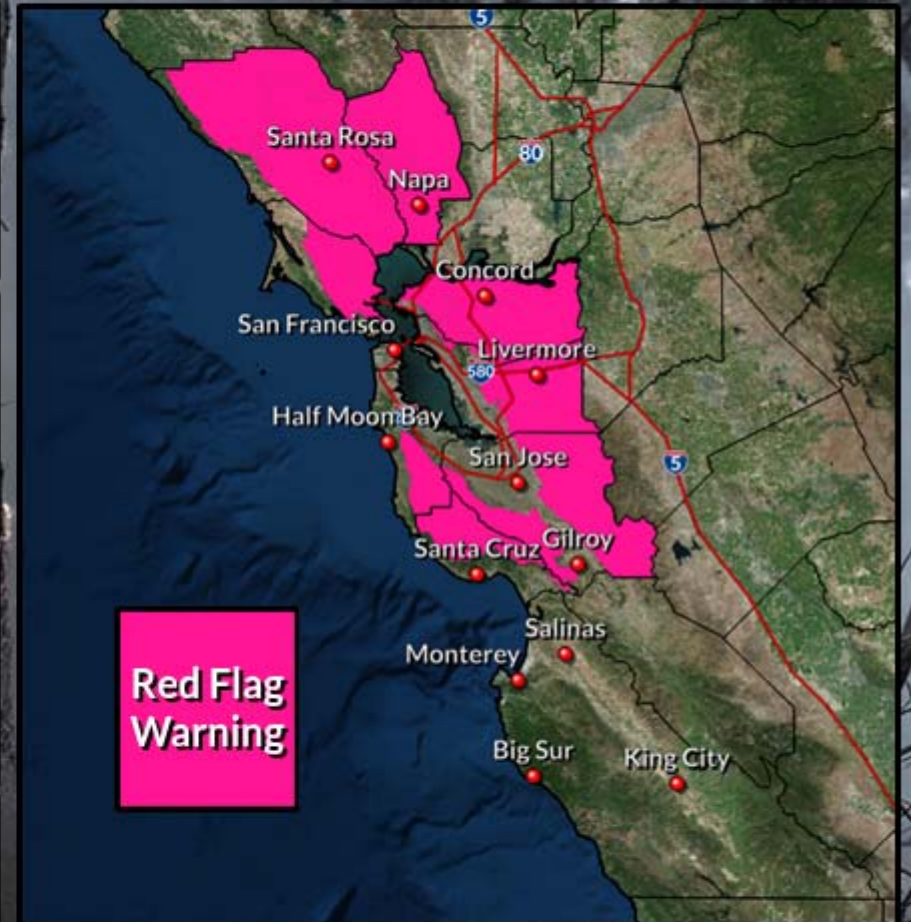


**Gusty north to northeast winds:**

- Mountains: 20-30 mph, gusts 45-55 mph (locally higher)
- Valleys: Gusts to 30 mph



- Extreme fire danger
- Gusty and potentially strong, damaging north to northeast winds
- Low relative humidity



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**San Francisco Bay Area/Monterey**

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# WIND ADVISORY



## Location...

North and East Bay Hills above 1000 feet.

## Timing...

6 AM Wednesday to 3 PM Thursday.  
Peak winds Wednesday Night.

## Winds...

North to Northeast winds 20-30 mph with gusts 45-55 mph. Locally higher gusts possible on Wednesday night.

**Impacts...** Critical fire weather conditions. Possible downed trees and powerlines.



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# Refresher:

How does the power get here?

## 1. Very simplified view...

- North County dams and geothermal plants ➡ North Bay Area substations
- Altamont Pass Wind Farm Substation ➡ Fremont Substation
- Moss Landing ➡ Metcalf Energy Center ➡ San Jose, Monta Vista Substation, others







# WIND ADVISORY



## Location...

North and East Bay Hills above 1000 feet.

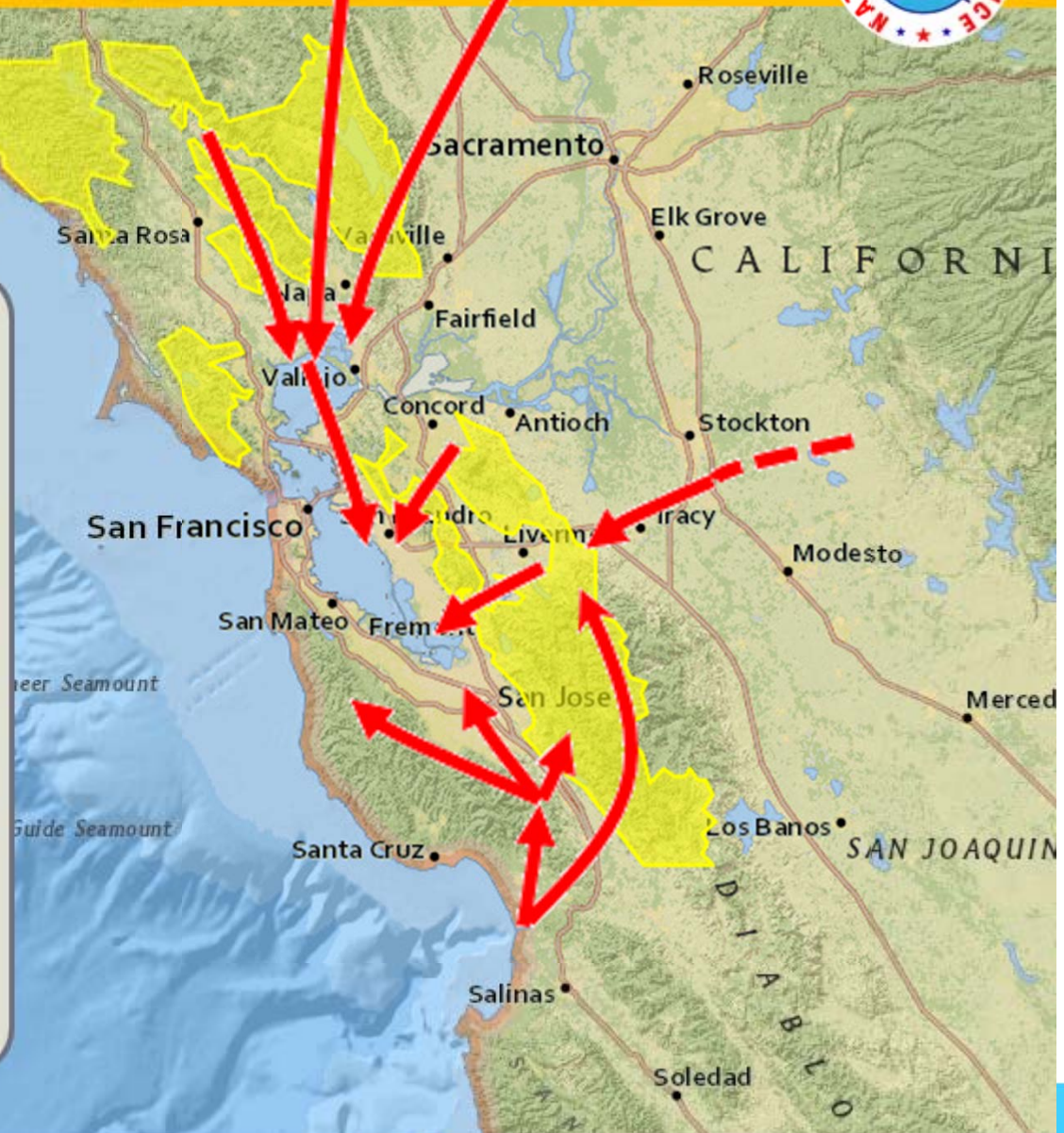
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# What did the deployment look like?

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1. City staff decided to do an information outreach to the affected residents
2. Cupertino EOC activated to Level 3 (Monitor), CCC to Level 1
3. PG&E identified the affected addresses
4. IT's GIS (Graphic Information System) team developed the PSPS maps
5. City Managers Office developed a hand-out to be left with every affected resident, either in person or by the door.
6. City requested that we use their GIS *Collector App*
7. City requested staff to participate



# CUP-19-100 Timeline

Friday, 4-Oct	NWS forecasts a Red Flag Warning and warm weekend temperatures for North Bay Hills
Monday, 7-Oct	PG&E announces a possible Power Safety Power Shutoff incident that is expected to affect up to 29 counties
Tuesday, 8-Oct	*** PG&E announces the possibility of a PSPS, starting 9-Oct 11:00: Cupertino will be impacted: 2,700; activates EOC to Level 3 12:00: CCC formally activated to Level 1, notifications made to CCC, respond by 15:00 13:30: MVA ICP setup in progress 16:00: Six teams deployed (CCC =17) 18:15: All teams returned (18% complete). Developed IAP for tomorrow
Wednesday, 9-Oct	*** PG&E announced a PSPS will impact about 38,250 SCC customers including 1,086 Medical Baseline Customers. 07:50: MVA opened, ICP setup started 10:30: Revised Cupertino impact: 3,300. Fourteen teams deployed (CCC + Staff = 42) 15:45: All teams returned (~75% complete). Developed IAP for tomorrow ~23:00: <b>Power goes out for affected residents.</b>
Thursday, 10-Oct	07:50: MVA opened, ICP setup started 10:10: Thirteen teams deployed (CCC + Staff = 32) 13:00: Receive reports that the <b>power is back on</b> . All teams return to ICP 15:30: MVA ICP was ordered to secure and demobilize



# By the numbers

CUP-19-100, Oct08 PSPS

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Homes and businesses impacted:	3,300 addresses
Total canvasser hours:	304 hours
CCC volunteer canvas hours	189 hours
City staff canvas hours:	115 hours
Duration of the power outage:	~14 hours
Days activated:	3 days



# Response Resources

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## Assignment

CCC to develop and implement a plan to personally contact residents and businesses in the affected area.

## Participants

Participants	Numbers	Volunteer Hours
Cupertino ARES/RACES	15	132
Cupertino CERT, MRC	14	55
Cupertino City Staff	35	115

## Approach

- Established an ICP at Monta Vista ARK, (SCC Monta Vista Fire Station 77).
- Minimal ICP staffing with an emphasis on field resource management: team assignments, tracking, and communications.

# The Handout

## Notice of Public Safety Power Shutoff – October 9, 2019

Due to high fire risk & weather conditions that include gusty winds, PG&E has announced a Public Safety Power Shutoff (PSPS). The Power Shutoff is expected to impact areas in Santa Clara County, including in Cupertino, as early as **midnight, October 9 (tonight)**. You are receiving this courtesy notice because your residence may be impacted. Residents are advised to prepare for having no power for **up to seven days**.

Check with PG&E to see if your address will be impacted at: <https://bit.ly/2mvpeLy>

To prepare for the PSPS event, residents are encouraged to:

- **Update their contact information** at [pge.com/mywildfirealerts](https://pge.com/mywildfirealerts) or by calling 1-866-743-6589 during normal business hours. PG&E will use this information to alert customers through automated calls, texts, & emails, when possible, prior to, & during, a Public Safety Power Shutoff.
- **Plan for medical needs** like medications that require refrigeration or devices that need power.
- **Identify backup charging methods for phones** & keep hard copies of emergency numbers. Below is information on Charging Centers that will be open for residents.
- **Build or restock your emergency kit** with flashlights, fresh batteries, first aid supplies, & cash.
- Keep in mind family members who are **elderly, younger children, & pets**.
- More information from PG&E on how to be prepared: <https://bit.ly/31KfKMI>

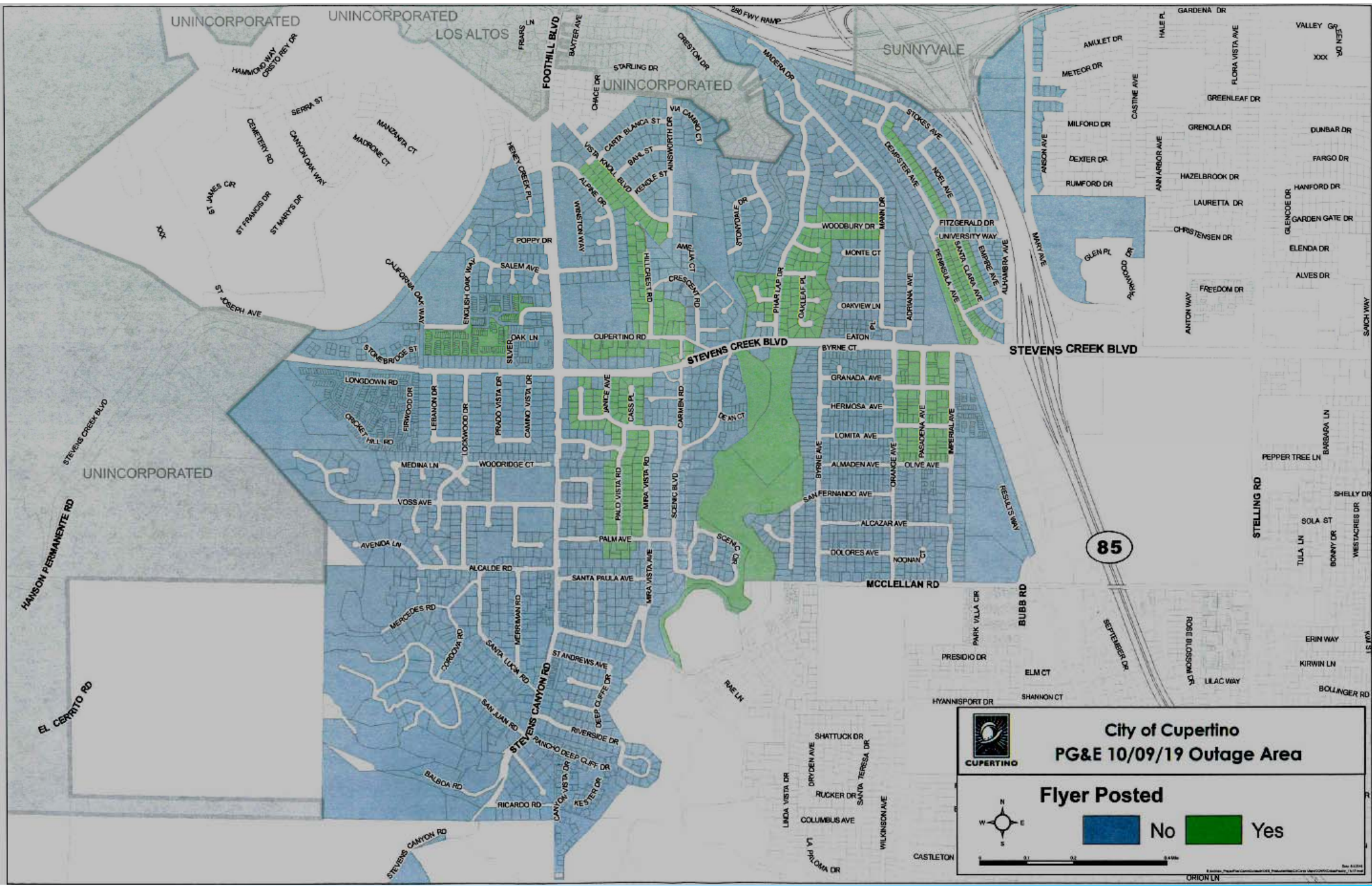
PG&E will provide a Customer Resource Center at the Avaya Stadium, 1123 Coleman Avenue from 8:00 a.m. to 6:00 p.m. on Wednesday. Information, water, & charging stations will be available.

Additionally, some City facilities will be open as Charging Stations for residents to charge small devices. Charging stations are available at the following locations & hours:

- **Quinlan Community Center**, 10185 N. Stelling Road  
Monday-Friday 8:00 a.m. – 10:00 p.m.  
Saturday 8:30 a.m. – 4:30 p.m., Closed Sunday
- **Teen Center**, 21111 Stevens Creek Boulevard (Teens ONLY)  
Monday-Friday 3:00 p.m. – 7:00 p.m.  
Saturday 12:00 p.m. – 6:00 p.m., Closed Sunday
- **Senior Center**, 21251 Stevens Creek Boulevard  
Monday-Friday 8:00 a.m. – 5:00 p.m.  
Saturday 8:30 a.m. – 4:30 p.m., Sunday 2:00 p.m. – 6:00 p.m.

If you are experiencing an emergency, call 9-1-1. If you are unable to call 9-1-1, report to the Monta Vista ARK located at the Monta Vista Fire Station, 22620 Stevens Creek Blvd.







# Day 2: ready for sign-ups





# Day 2 Turnout





# Day 2: GIS with data

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# And now, a word from your sponsor...

Katy Nomura / City Managers Office





## 7 Nov

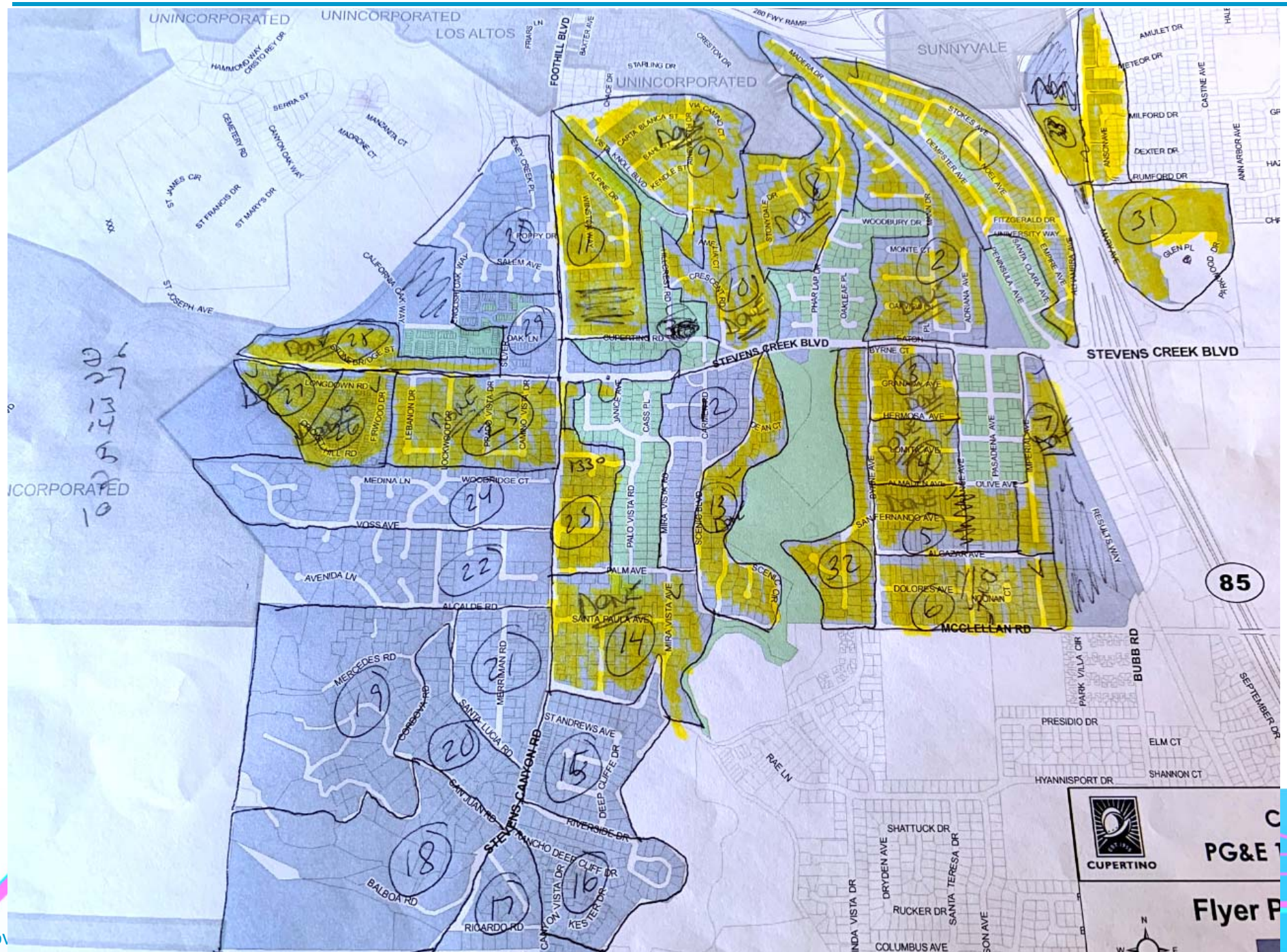




# Day 2 Lunch







# Day 3

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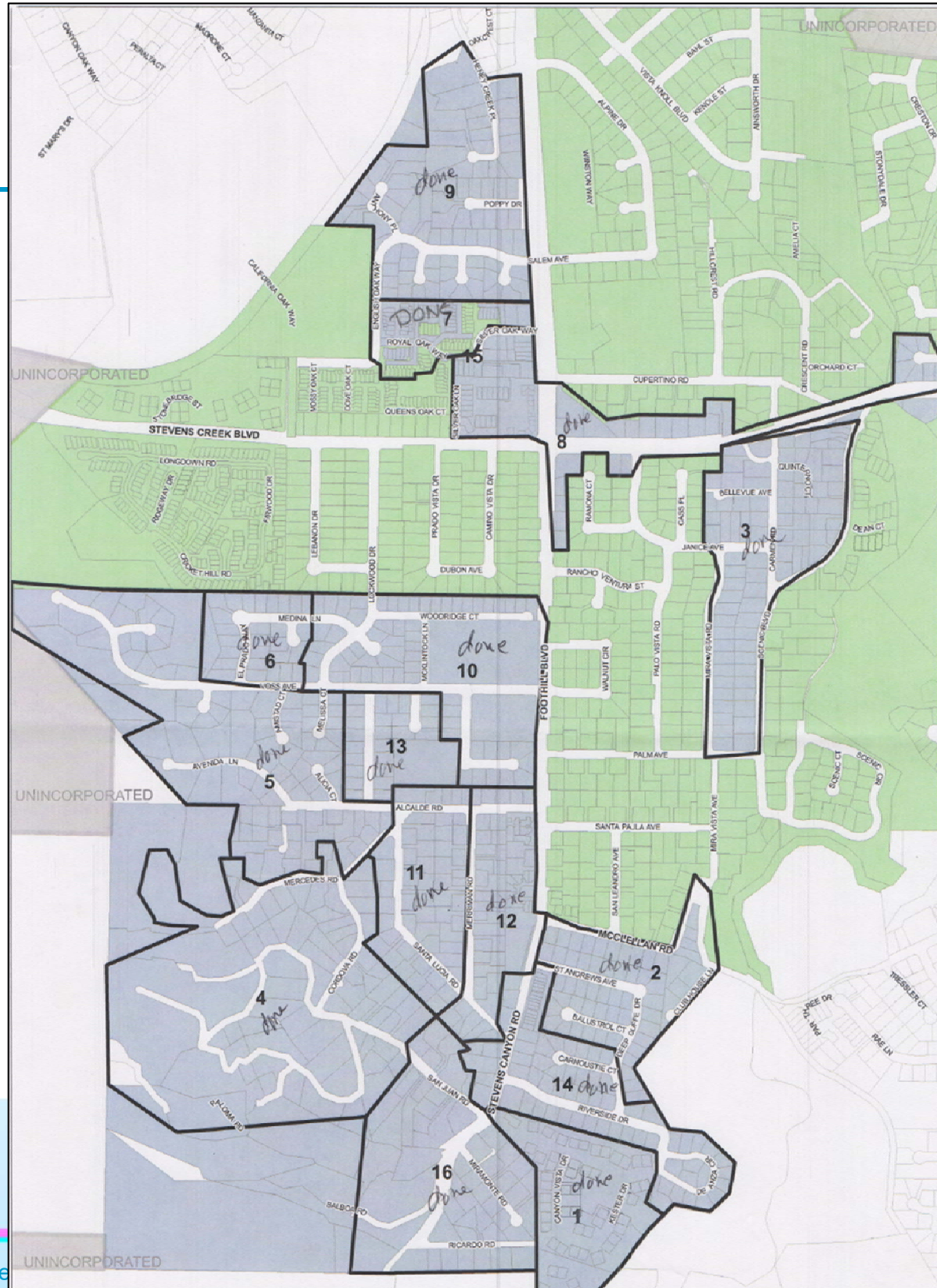
- Wednesday, ~23:00: Power goes out
- Thursday Morning: cell tower batteries quit
- **Amateur Radio** was the only means for contacting field teams and the EOC.





# Day 3 Maps

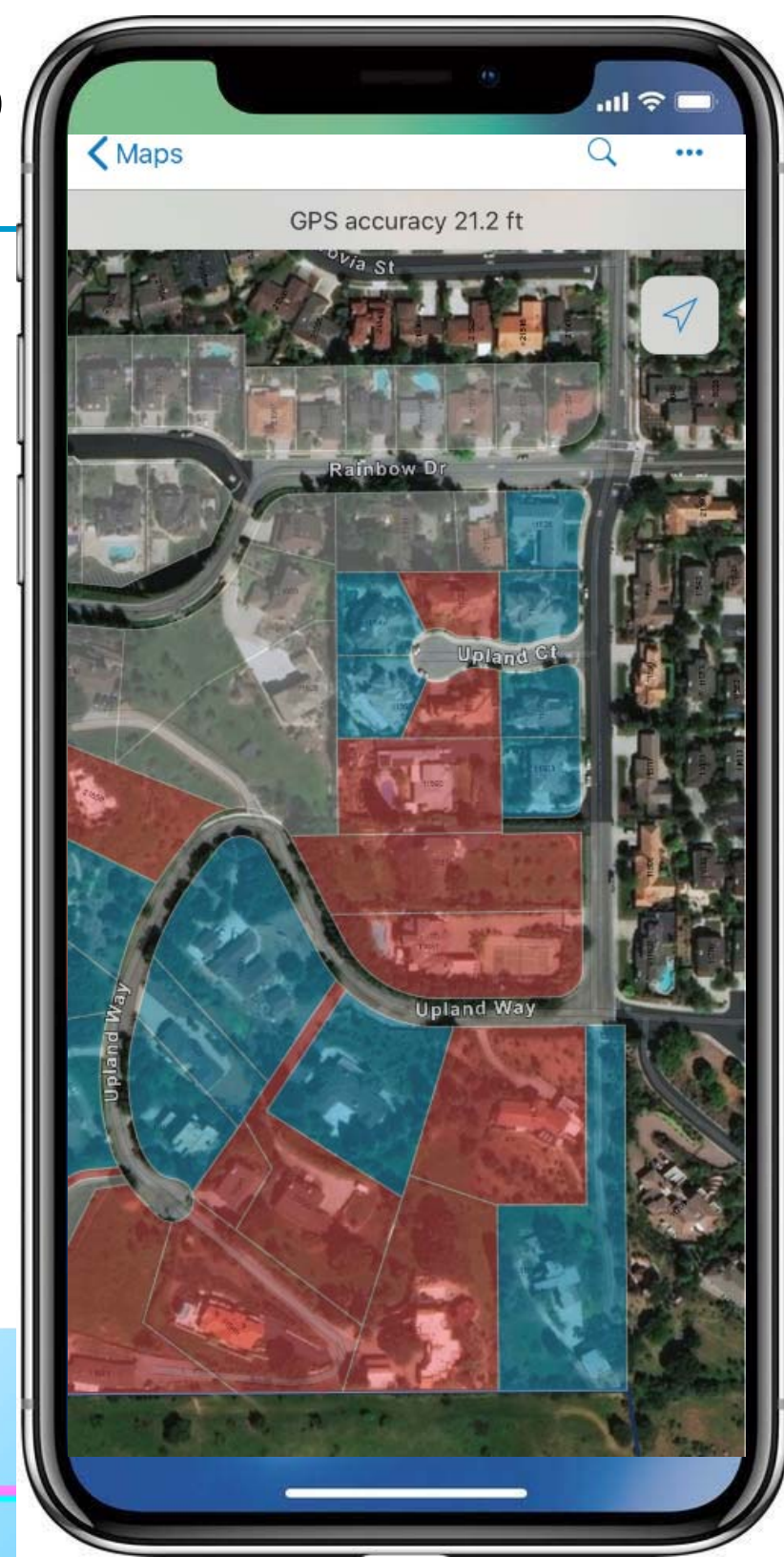
- GIS continued to improve their map product from day to day and delivered what we needed on time!



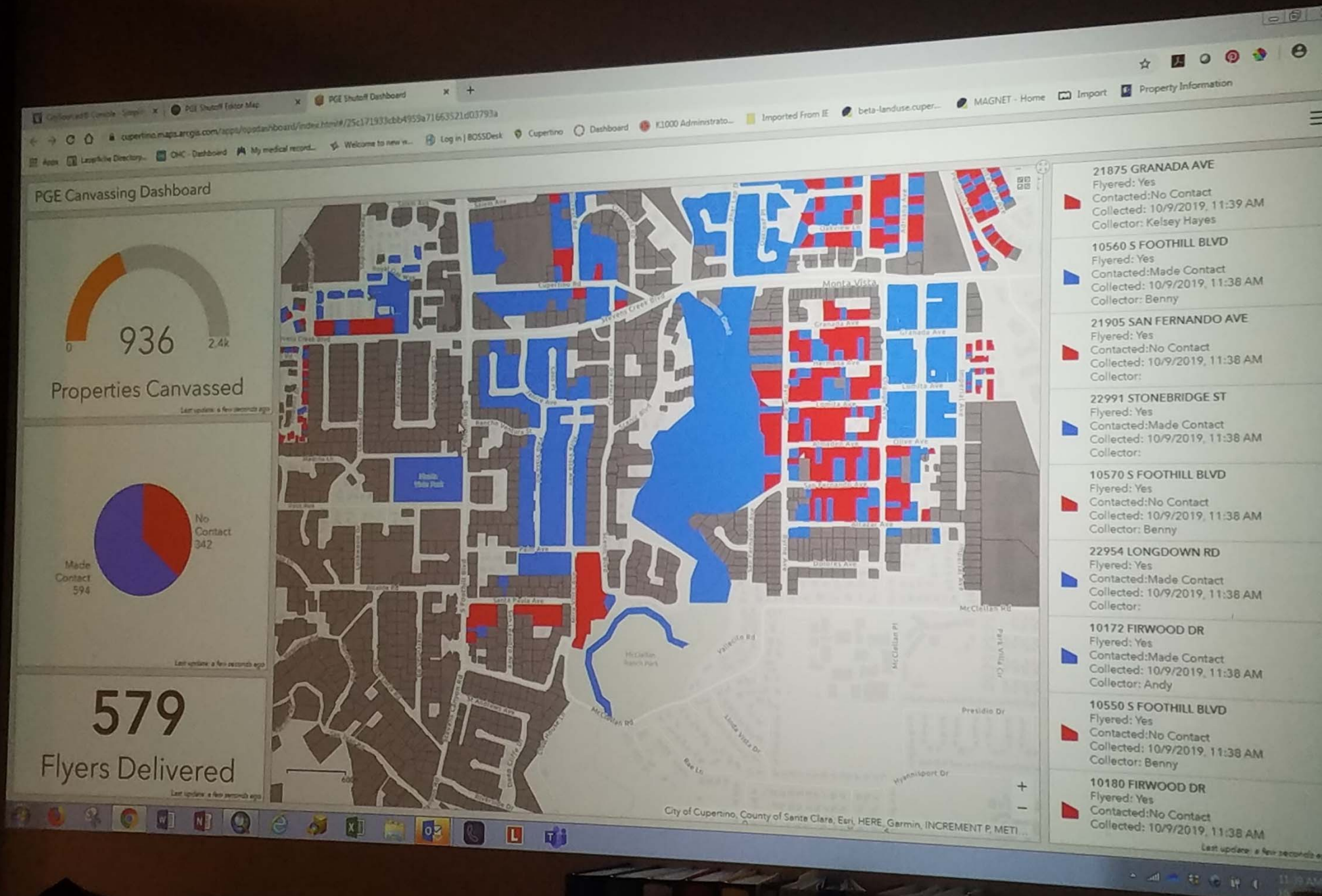


# Esri Collector for ArcGIS app

- IOS and Android based
- Cellular data feed to EsriGIS server for real-time reporting
- The PSPS app configured to do:
  - Pick an address (click on the map)
  - Made Contact (Yes/No)
  - Wellness Follow-up (Yes/No)
  - Power (On/Off)
  - Other comments (free text)
  - Save your edits

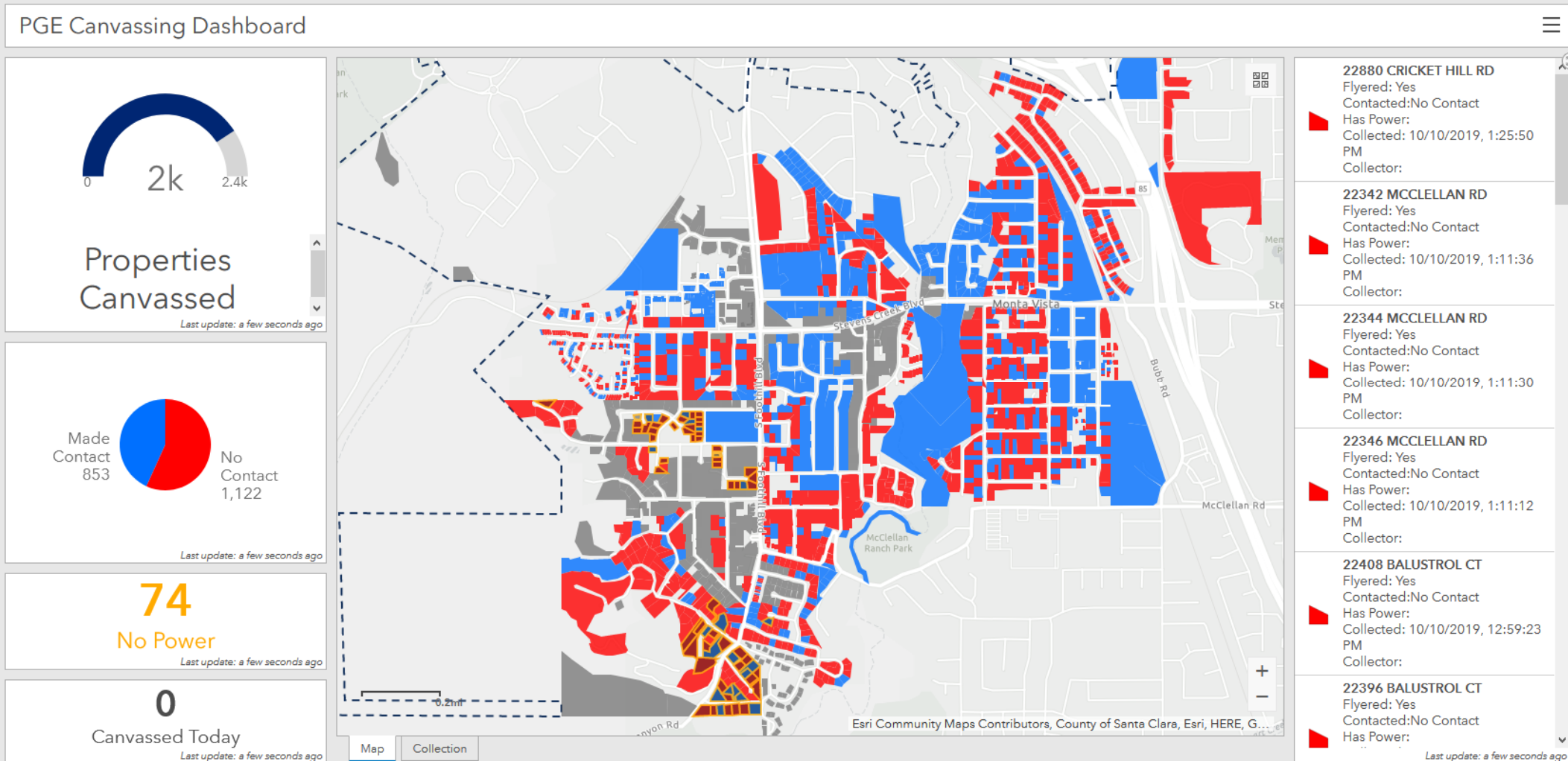


# Esri Collector App Dashboard, EOC





# Esri Collector App Dashboard



# What did we observe?

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## Resource Management

1. Resource Management tools, specifically T-Cards, were useful in defining field teams, but their shared use across the ICP was insufficient to provide visibility and tracking of team status.
2. The short notice for the initial activation resulted in only 16 Citizen Corps volunteers responding. A portion of the City's cadre of volunteers is the Block Leaders program; however, this program is managed outside of CCC resulting in no understanding of their efforts or coordination with the broader city response.
3. During Day 3, no Comm 469 operator was available, causing the field response to fall back to an ARP field deployment.

## Field Communications

4. Communication among field teams using cell phones was problematic.
5. For Day 3, only one operator was assigned to cover both the CARES Emergency Net and the Telephone Net, and was thereby overloaded.

## Fire Station Operations

6. The Santa Clara County Monta Vista Fire Station crew was very supportive of the CCC ICP that was set up at the MVA ARK.

# What did we observe?

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## Policies, Processes and Tools

7. The Esri Collector for ArcGIS app worked well for city employees and seems to be a potentially valuable tool. However, there were technical problems that prevented some volunteers from using it.
8. It took 300 canvasser hours spread over 3 days to contract the targeted 3,300 residents. If a larger outreach effort (i.e.: city-wide) was required in the same timeframe, then this staffing level would be insufficient given the time constraints needed for an effective personal contact.
9. The city GIS response was outstanding in delivering updated and timely canvas event maps for each operational period.
10. Multi-day canvassing provided CCC with several opportunities to confirm and refine its canvassing processes. The next day's activities were refined based on the previous day's results.

## Community Preparedness, Health, and Safety

11. Canvassers encountered several residents who were not prepared for an extended power shutdown and several who did not have any idea of what they should do about it.
12. Canvassers encountered elderly and AFN residents who were ill prepared and/or had medical problems that required electricity for refrigeration of medications and for medical devices (e.g. CPAP, wheelchairs, etc.).

# Recommendation highlights

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## Recommendations for the City

- Investigate options for expeditious delivery of PSPS-like public safety information, such as a USPS EDDM solution.
- Strengthen the linkage with the Block Leader program and OES for better resource alignment.
- GIS review feedback from CCC on suggested changes to the app.
- Review the community risk assessment and develop the crisis communication annex for the city
- Determine how to address the health care and life safety risk that a PSPS or earthquake will present for vulnerable Cupertino residents.

## Recommendations for Citizen Corps

- Identify alternative radio communications methods that could be deployed. These include city trunk radio, GMRS, and FRS. Complete the GMRS ARK deployment.
- Work with CERT on resource management process refinement.
- Develop and execute a program to train CCC members on the Collector app.
- Work with the city to increase the qualified Comm 469 operator pool.
- Complete ALT911 implementation and deployment to County Comm by August 2020.



# Summary of findings

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## ***Practice makes perfect***

- Used several processes and procedures that have been well practiced during exercises and public service events.
- Focusing on activities relevant to a live activation, then critiquing and incrementally improve them, paid off.

## ***CCC Resource Availability***

- Took place during the work week.
- Event was not an infrastructure- or economic-impacting event.
- CCC resource turn-out level was anticipated, but was insufficient to cover the entire field response by ourselves.

## ***Community Readiness***

- Encountered residents who were ill prepared for an extended power shutoff.
- Some were totally unaware that a shutoff was imminent.
- The largest category of these residents were the elderly and AFN individuals.
- If residents are not prepared for an event that was well publicized, then they will not prepared for the inevitable earthquake that will hit unannounced.

# What does this mean for CCC?

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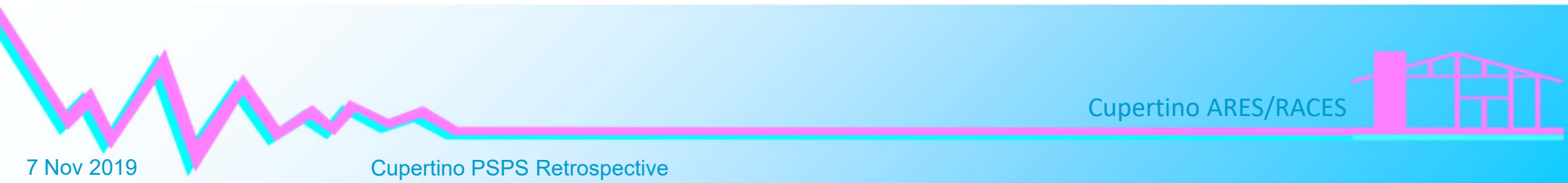
1. We were fortunate that these events were fairly localized and not city-wide.
2. We can expect PSPS events to be an annual occurrence.
3. Are we ready to take Alternate 911 calls in the field?
4. Refine what our role really needs to be for a PSPS event
5. Add a PSPS (partial or city-wide) exercise to the 2020 exercise schedule





# City Perspective / Bob N6IM

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# Shelter Deployment / Judy KK6EWQ

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# Thank you

*Any Questions?*

