



Public Safety Power Shutoff

SOUTHERN MARIN STAKEHOLDERS WORKSHOP
MONDAY, JUNE 10, 2019

Agenda

A. Welcome

B. Introductions

C. Understanding

D. Assessment

E. Mitigation

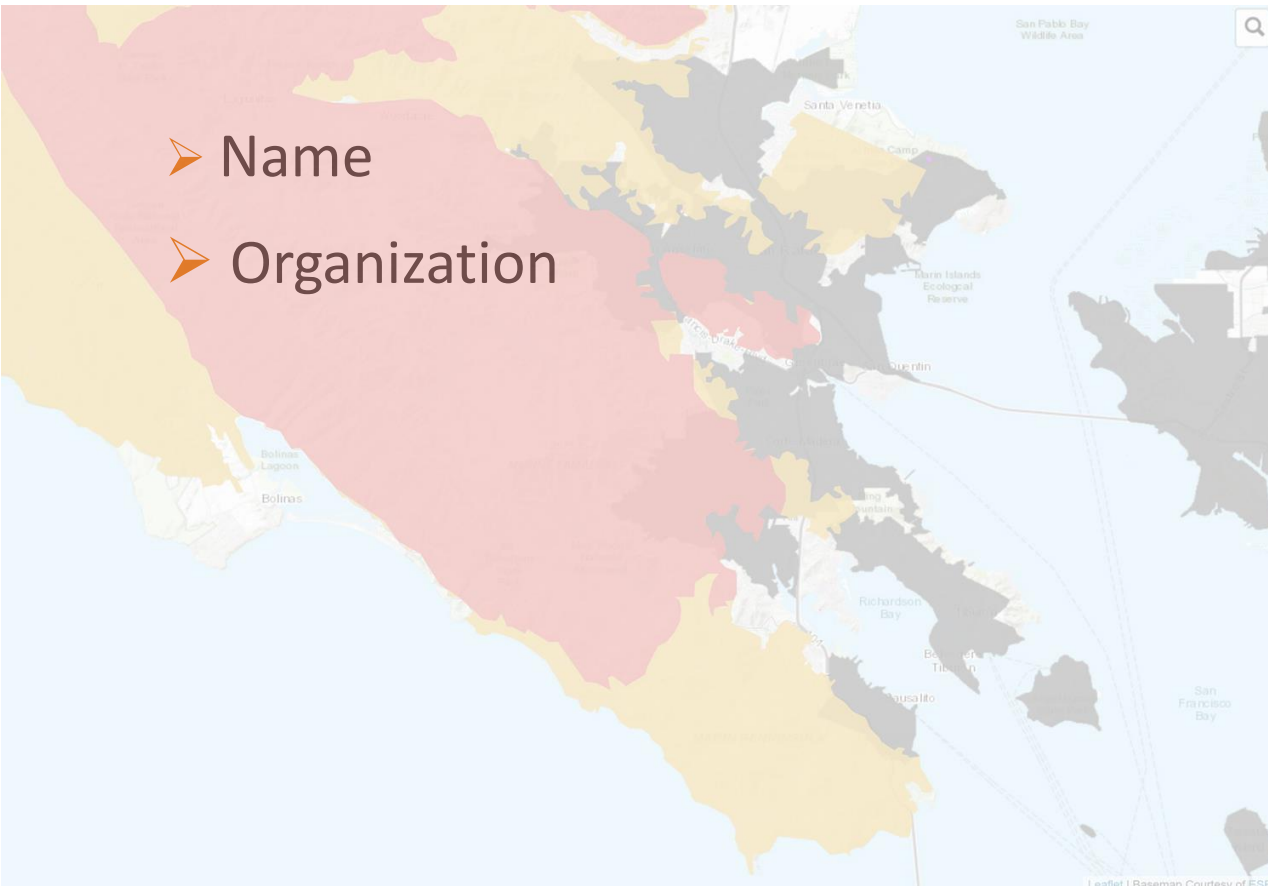
F. Preparedness

G. Next Steps



Introductions

- Name
- Organization



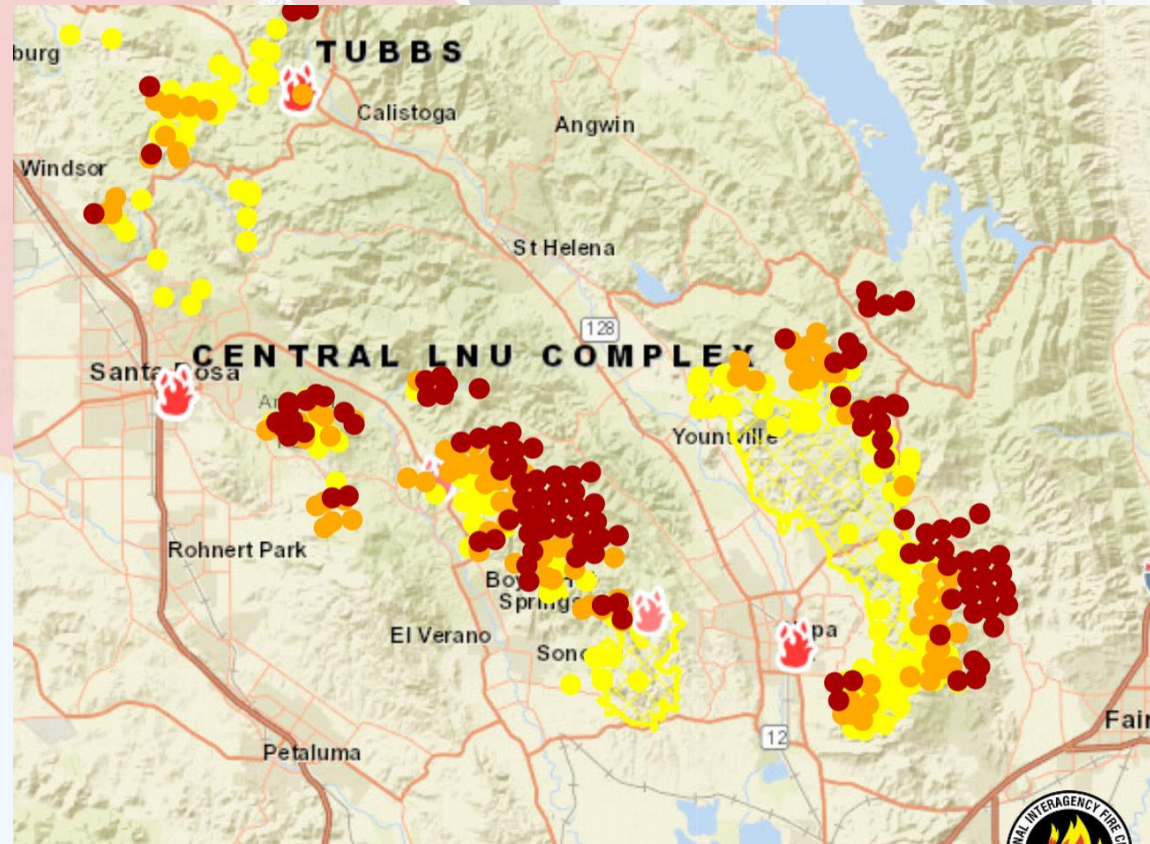
Understanding

**How many
of these did
you know?**

- **Public Safety Power Shutoff Plan**
 - History of the Plan
 - Criteria for Implementation
 - Tiers and Scope
 - Notifications
 - Outage Period
 - Complications

Understanding: History of the Plan

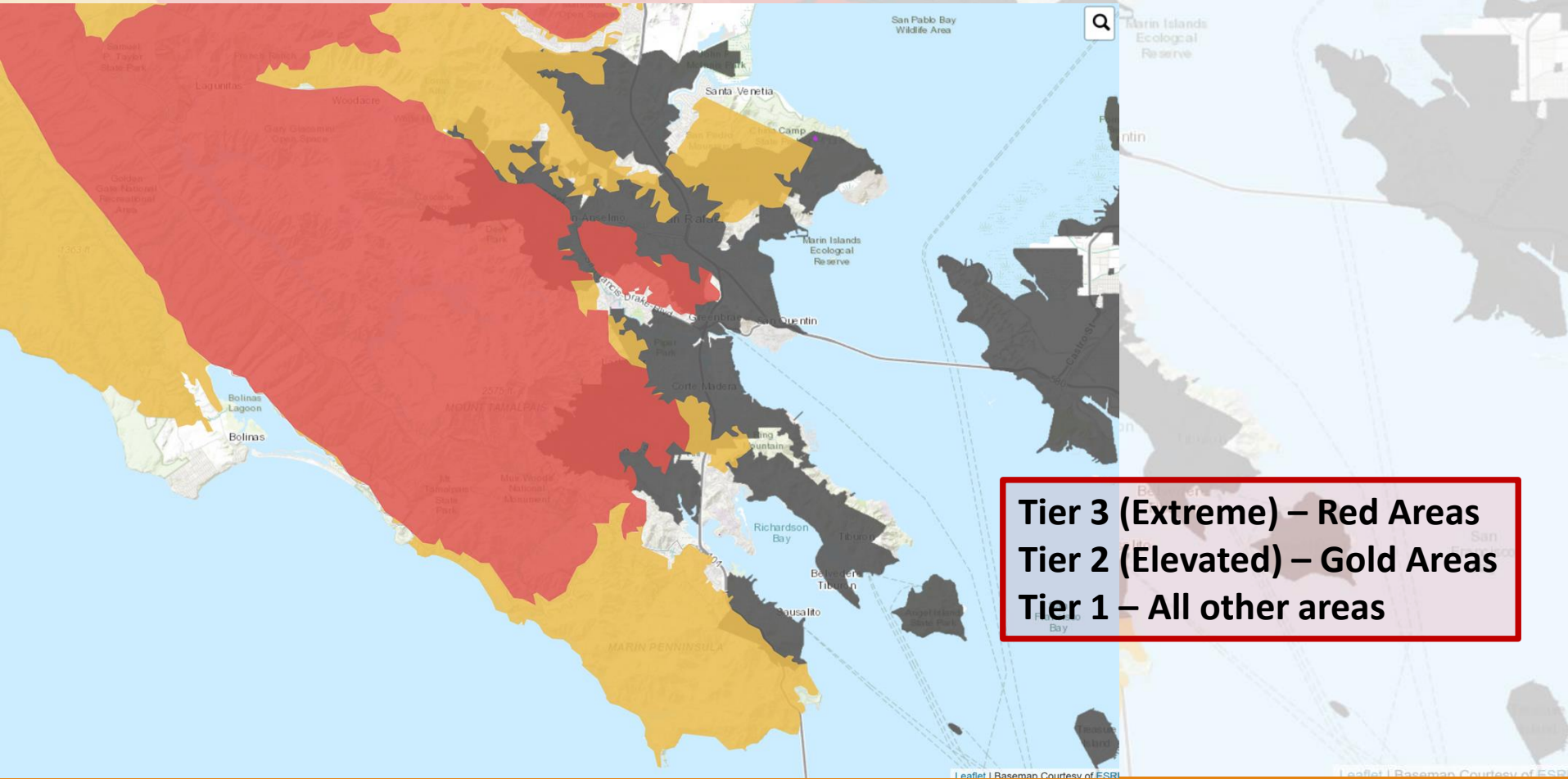
- A Response to the large fires of the recent past
- Statewide effort
- An attempt to reduce the likelihood of PG&E caused fires
- Involves shutting off the power to selected neighborhoods



Understanding: Criteria for Implementation

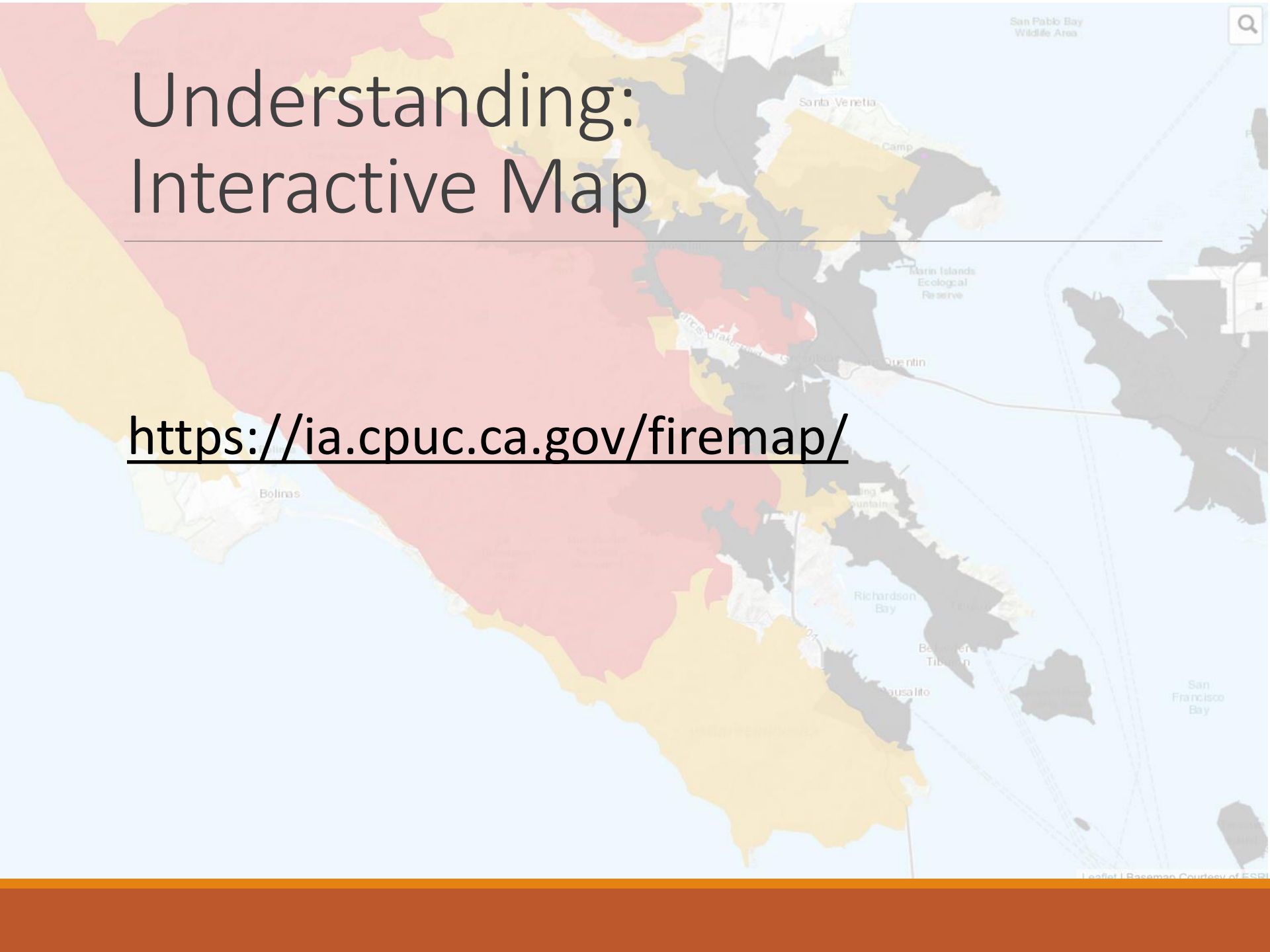
- No Single Factor, but.....
- **Red Flag Warning:** issued by the National Weather Service
- **Low Humidity Levels:** generally 20% and below
- **High Winds:** generally above 25 mph and gusts over 45 mph
- **Moisture Content:** condition of dry fuels and live vegetation
- **Ground Truth:** real-time observations by PG&E's Wildfire Safety Operations Center and field observations by PG&E crews

Understanding: Tiers and Scope



Understanding: Interactive Map

<https://ia.cpuc.ca.gov/firemap/>



Understanding: PG&E Notifications

Timing:

- 48 Hours prior to shutoff
- 24 hours prior to shutoff
- Just prior to shutoff
- During the outage
- Upon restoration

Methods:

- Customer
 - Phone
 - Texts
 - E-mails
- Public
 - Website
 - Social Media
 - Local News
 - **Public Safety Partners**

Understanding: Local Agency Notifications

- Alert Marin
- Nixle
- Media Releases
- Sign Boards
- Social Media
- Local Partners

Goals:

- Initial Alert: 48 hours prior (approx.)
- Second Alert: 24 hours prior (approx.)
- Third Alert: Just prior to Shutoff
- Alerts during Shutoff
- Alerts at Restoration
- Alert affected residents
- Describe local response and resources

Understanding: Outage Periods

- Outage Event Period based on weather criteria
- Restoration Period start depends on weather criteria and line inspection
- **ALL** lines in affected area need to be visually inspected before re-energizing
- Timelines:
 - Outage Event: Length depends on on-going weather conditions
 - Restoration: 2 to 4 days, estimated
- **Total Shutoff Time = Event Period + Restoration Period**

PG&E's electric system

PG&E's electric system is designed and built to deliver safe, reliable power to customers in Northern and Central California. PG&E produces or buys its power from a mix of conventional and renewable generating sources, which travel through our electric transmission and distribution systems to reach our customers.

1 PG&E-owned generators

PG&E's electricity is generated by many producers. The process starts with a diverse mix of generating sources. PG&E's generating plants make electricity by hydropower, gas-fired steam and nuclear energy.

3 Out-of-state generators

We also buy electricity for our customers from sources outside of PG&E's area, which is transmitted across several states.

2 Independent generators

PG&E acquires electricity from over 400 plants owned by independent power producers or qualified facilities, and sold to PG&E for resale to our customers.

4 Transmission system

Electricity is carried over the bulk electric grid, a "network" of high-voltage transmission lines that connect power plants to substations, and link our system to neighboring ones.

7 Individual services

Individual services or "drops" connect the distribution system to the customer – industrial, commercial, agricultural or residential.

5 Substations

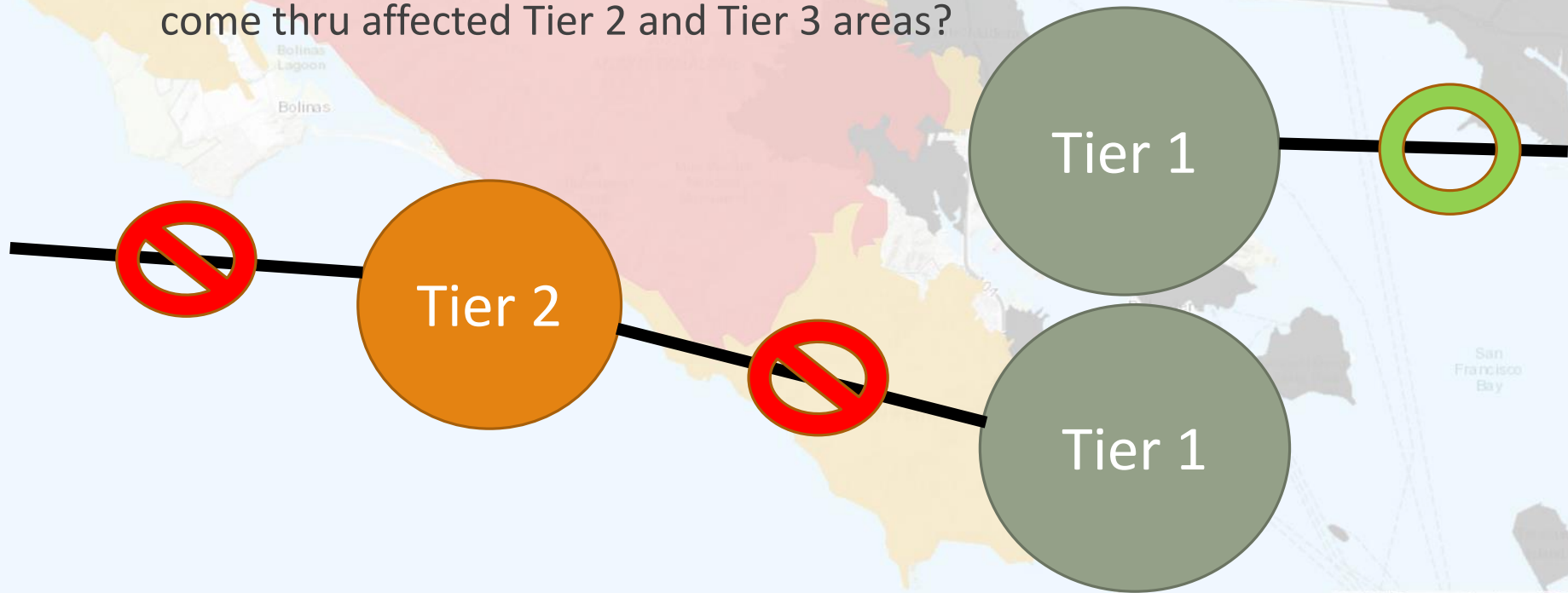
Substations are critical junctions and switching points in the electric system, connecting the transmission system to the distribution one. Substations use transformers to lower the voltage of electricity.

6 Distribution system

The distribution system links the transmission system and most customers. It includes: main or "primary" lines and lower voltage or "secondary" lines, which deliver electricity either overhead or underground; distribution transformers, which lower voltage to usage levels; and switching equipment to permit the lines to be connected together in various combinations and patterns.

Understanding: Complications

- What if Severe Weather returns during the Restoration Period?
- Shutoff includes Transmission and Distribution Lines
 - What if you are in a Tier 1 area but the power lines serving your area come thru affected Tier 2 and Tier 3 areas?



Assessment

**How many
of these will
affect you?**

- How does electricity support your operations?
 - Lighting
 - Cooling
 - Computers
 - Point of Sale
 - Telephones
 - Refrigeration
 - Security Systems
 - Gas Pumps
 - ATM's

- Community Impacts
 - Traffic Lights
 - Cell Sites
 - Street Lights

- Other Thoughts?



Mitigation



- What can you do to prevent or minimize impacts?
 - Generators
 - Batteries
 - Solar, Wind/Water Turbine
 - Moving or Adjusting Operations

What do you have now?



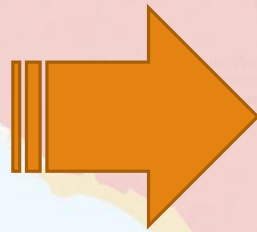
Preparedness

**How many
of these are
you doing?**

- Develop a Plan
- Test your Plan and Equipment
- Train your Staff
- Coordinate with Partners and Vendors
- Sign up for Alert Marin and Nixle

Preparedness: Develop a Plan

#	Task	Assigned	Due Date
1	Public Education		
1A	Develop Public Education Campaign	Tubbs/Welch/Pearce	06/15/19
1B	Conduct Public Education Campaign	Padilla/Chambers/Walsh/TFD	06/30/19
1C	Develop Media Release Templates for: Initial Warning, Event Start, Event On-going, Event End	Padilla/Chambers/Walsh/TFD	06/30/19
2	Staff Education		
2A	Develop Staff Awareness Plan *	Peterson / TFD	06/15/19
2B	Conduct /Disseminate Staff Awareness Plan	M. Barnes	06/30/19
2C	Develop Continuity of Operations Plan	TBD	TBD
2D	Train Staff on continuity of Operations Plan	TBD	TBD
3	Resource Sites		
3A	Develop Resource Sites Description *	Hilliard / Rogers / TFD	06/30/19
3B	Identify Potential Resource Sites *	Hilliard / Rogers / TFD	06/30/19
3C	Identify Resource Site staffing *	Hilliard / Rogers/ TFD	06/30/19
3D	Identify/Acquire Resource Site resources *	Hilliard / Rogers / TFD	06/30/19
4	Plans		
4A	Develop Security/Safety Plan for affected neighborhoods *	Fraass + MCSO / Piombo / TFD	06/30/19
4B	Develop Public Warning Plan and Alternatives *	Fraass + MCSO/Piombo/TFD	TBD
4C	Develop AFN Assessment and Response Plan *	TBD	06/30/19
4D	Develop Transportation Plan and Identify Resources *	Local LE + DPW	06/30/19
5	City / District Preparedness		
5A	Conduct City Generator Tests	Sausalito DPW/Mills/TFD	06/30/19
5B	Conduct District Generator Tests	Pasquale / TFD	06/30/19
5C	Verify City Refueling Process for Generators *	MCD? / Keith Mills / TFD	06/30/19
5D	Verify District Refueling Process for Generators *	Pasquale / TFD	06/30/19
5E	Verify City Gas Pump Power needs	MCD? / Keith Mills / TFD	06/30/19
5F	Verify District Gas Pump Power needs	Pasquale	06/30/19
5G	Identify Sources for Portable Generators/Contracts	Pasquale / TFD	06/30/19
5H	Review/Update City Facility Prep – Food, Water, etc.	Fraass / Sigmund / TFD	06/30/19
5I	Review/Update District Facility Prep – Food, Water, etc. *	Pasquale / TFD	06/30/19
5J	Develop EOC Action Plan *	McKinley / TFD	06/30/19
6	Operational Area Coordination		
6A	Marin OES for an Op Area Meeting (05/09/19 1000-1200)	M. Barnes	06/30/19
6B	Coordinate JIC/JIS with Op Area	M. Barnes	06/30/19
7	Southern Marin Area Coordination		
7A	Identify Area Partners	Tubbs/Welch/Pearce	06/15/19
7B	Conduct Area Workshop	Jeffries/Tubbs/Welch/Pearce	06/24/19
8	Public Safety Power Shutoff Playbook		
8A	Develop Draft *	Peterson	07/15/19
8B	Approved Final Version *	Tubbs / Welch / Pearce	08/01/19



Preparedness: Develop a Plan

- Playbook Example
 - Explain: Describe the threat and expected impacts
 - Develop your Plays: #1 – Notified, #2 – Event Start, #3 – Restoration
 - Contact Information: Public Safety, Vendors, Partners, Public Warning
 - Staff Education Plan
 - Customer/Client Education Plan
 - Resources: Generators, Other Power, Transportation

Play #1: Initial Notification thru 1 hour prior to event

Play #2: Event -1 to Event +12

Play #3: E + 12 to E + 24

Play #4: E + 24 to E + 48

Play #5: E + 48 to E + 96

Play #6: E + 96 plus

Play #7: Notification of Restoration thru Restoration

Play #8: Post Restoration

Preparedness: Test your Plan and Equipment

- Start simple
 - Sit down with your staff and walk thru your plan, ask for feedback
 - Make adjustments
 - Walk thru it again, until the bugs are worked out
 - How long will batteries and UPS supplies work? Try it!
 - Don't assume, test it!
 - If you have generators, how long can you run on a tank of fuel?
 - Where are you getting additional fuel?
 - If installing generators, consult with an electrician
 - If you think you have it all solved, try running your operations for a couple of hours with the electricity shutoff.
 - As you find issues, revise your plan

Preparedness: Coordinate with Partners and Vendors

- Network with similar businesses
 - How can you support each other?
 - Are their opportunities with your neighbors?
 - How will this affect your vendor relationships?
 - Timing and frequency of deliveries
- Work these decisions into your plan

Preparedness: Sign up for Alert Marin and Nixle

➤ Alert Marin:

- <https://member.everbridge.net/index/453003085612554#/signup>
- Call, Text, E-Mail and a Smart phone application to receive alerts
- Landline numbers are already included
- Cell, VOIP, Text and Email require free registration

➤ Nixle:

- <https://local.nixle.com/sausalito-police-department/> Or
- <http://www.nixle.com/>
- Select agencies you want to send you alerts
- Free registration, but you must register

Next Steps

- **Get AMP'd**
 - **Assessment**
 - **Mitigation**
 - **Preparedness**
- Email group for attendees with updates
- Other ideas?



Closing Comments

THANK YOU FOR JOINING US