

# From Scenarios to Safety: How PG&E Prepares for Natural Hazards



2026 CRESCENT Partnership Workshop



# About Us

PG&E serves natural gas and electricity to **16 million people** across Northern and Central California.

## Our Service Area

**70,000**  
square miles



## Customer Accounts<sup>1</sup>

**5.6 million**   
electric distribution

**4.6 million**   
natural gas distribution

## Coworkers<sup>2</sup>

**28,400**  
employees



## Energy System

**7,815 MW**

of owned hydroelectric, nuclear, natural gas, battery energy storage and solar generation


### ELECTRIC SYSTEM:

 **108,000** circuit miles  
distribution lines

 **18,000** circuit miles  
transmission lines

### GAS SYSTEM:

 **45,200** miles  
distribution pipelines

 **5,650** miles  
backbone + local gas transmission pipelines, plus storage

### HYDROELECTRIC SYSTEM:



One of the largest investor-owned systems in the nation

<sup>1</sup> Electric and gas customers are counted separately as customers and are given unique service agreement numbers individually for gas and electric service.

<sup>2</sup> Includes 17,600 employees covered by collective bargaining agreements with three labor unions: the International Brotherhood of Electrical Workers Local 1245; the Engineers and Scientists of California IFPTE 20; and the Service Employees International Union Local 24/7.



## Putting scenario outputs into practice

- Plans
- Exercises & Trainings
- Infrastructure Impacts
  - DASH
  - SERA
- Mitigation
  - Gas Pipeline Fault Crossing
  - Retrofits
- Business Continuity



# Emergency Response Planning

## Scenarios form the basis of our plans



**DASH** CRESS Facesheet

### SCENARIO EVENT

THIS IS NOT A REAL EARTHQUAKE

**M7.0** SCENARIO - Calaveras Central + South Mon 2026-01-26 13:32:45 PST  
LAT/LONG 37.1644, -121.5678 USGS Event ID 99902277 Version 1

Event Description Reviewed by Jenny Tang Mon 2026-01-26 14:01:17 PST

This ShakeMap is a scenario provided by the USGS. The ground motion values in this ShakeMap are acceptable based upon comparison with empirically predicted ground motion values. Please refer to the Facesheet Job Aid for additional information.

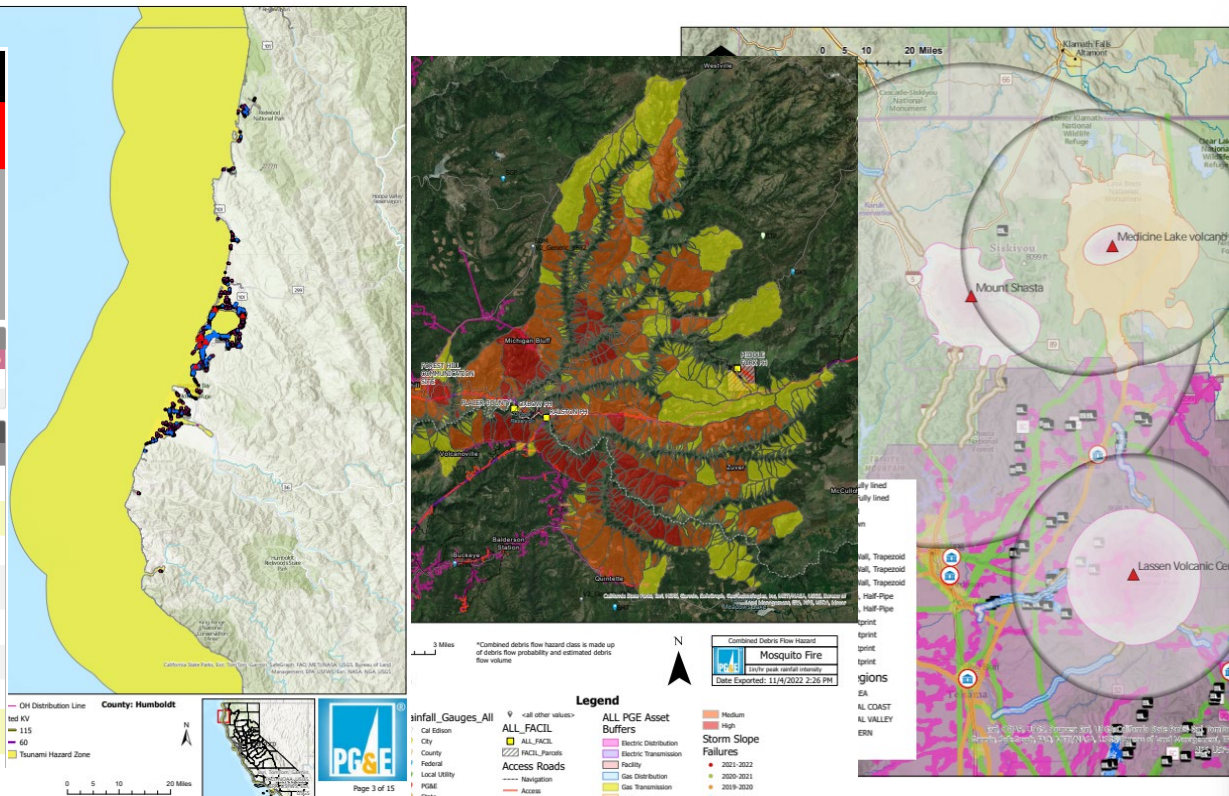
Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
Values	0	1-60	61-75	76-90	91-100
Facilities	161	341	20	1	1

Affected CRESS Facilities			
EP	Building	CRESS Tier	PGA(g)
93	Hollister - 293102 - SC Tool Room/Garage	Best Effort	0.551
81	San Jose - 343702 - San Jose Office & CSO - OEC	Business Critical	0.302
71	Watsonville - 364702 - SC Storage	Best Effort	0.173
86	Morgan Hill - 709302 - Morgan Hill Gate Trans Construction Mgmt Ofc	Best Effort	0.413
65	San Jose - 313202 - Metcalf Sub - Electric GC Office	Best Effort	0.388
65	San Jose - 412502 - San Jose Cinnabar SC Annex	Best Effort	0.286
62	Gilroy - 305602 - Llagas Substation	Best Effort	0.390
62	San Jose - 262002 - Cinnabar SC Operations Bldg-OEC	Business Critical	0.286
	Watsonville - 364702		

Estimated Peak Ground Acceleration (PGA, g)

0.02 0.25 0.30 0.40 0.50 0.75 >0.75

Earthquake Emergency Contacts



**Pacific Gas and Electric Company**

## Company Emergency Response Plan (CERP)

**WE POWER & PROGRESS**

## Scenarios help us prepare

- Create realistic situations
- Expose gaps in plans or training
- Strengthen coordination across teams
- Build muscle memory
- Practice decision-making
- Improve communication
- Build confidence
- Gives something measurable to evaluate



## Earthquake Annex

to the  
Company Emergency  
Response Plan (CERP)

Earthquake Annex Playbook



# Infrastructure Impacts

## DASH

DASH
CRESS Facesheet

**SCENARIO EVENT**  
THIS IS NOT A REAL EARTHQUAKE

**M9.3** SCENARIO - Cascadia Megathrust  
LAT/LONG 45.0611, -124.4183

Mon 2026-01-26 13:39:03 PST  
USGS Event ID 99902280 Version 1

**Event Description** **Reviewed by** Mon 2026-01-26 14:10:34 PST

This ShakeMap is a scenario provided by the USGS. The ground motion values in this ShakeMap are acceptable based upon comparison with empirically predicted ground motion values. Please refer to the Facesheet Job Aid for additional information.

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>Facilities</b>	49	427	32	16	0

**Estimated Peak Ground Acceleration (PGA, g)**

0.02 - 0.20	0.30	0.40	0.50	0.75	≥0.75
0.20	0.30	0.40	0.50	0.75	≥0.75

Affected CRESS Facilities			
EP	Building	CRESS Tier	PGA(g)
89	Willow Creek - 215802 - SC Garage		0.579
85	Eureka - 276902 - SC Transfer Repair		0.619
80	Eureka - 276902 - SC Materials Facility #470		0.619
79	Chico - 261302 - Chico Division Maintenance		0.204
79	Eureka - 276902 - SC Hazardous Waste Storage		0.619
79	Eureka - 276902 - SC Storage		0.619
79	Eureka - 276902 - SC Operations Bldg		0.619
78	Eureka - 276902 - SC Vehicle Maintenance		0.619
78	Fortuna - 73002 - SC Hazardous Waste Storage		0.617
78	Fortuna - 73002 - SC New Storage Bldg		0.617
78	Fortuna - 73002 - SC Operations Bldg		0.617
77	Red Bluff - 161602 - SC Transformer Repair Shop		0.327
76	Eureka - 276902 - SC Customer Service Office		0.619
76	Red Bluff - 161602 - SC Office/Shop/Warehouse		0.327
76	Red Bluff - 161602 - SC Repair Shop		0.327
76	Red Bluff - 161602 - SC Veh Maintenance Shop		0.327
75	Willow Creek - 215802 - SC Operations Bldg		0.579
73	Garberville - 75402 - SC Operations Bldg		0.457
71	Chico - 261102 - SC Chico Transformer		0.200
71	Garberville - 75402 - SC Hazardous Waste Storage		0.457
69	Redding - 25702 - SC Customer Services Center		0.354
69	Redding - 25702 - SC Vehicle Maintenance		0.354
68	Red Bluff - 161602 - SC Gas Pumps		0.327
68	Redding - 25702 - SC Operations Bldg		0.354
67	Orland - 139902 - SC Operations Bldg		0.253
63	Red Bluff - 161602 - SC Vehicle Maint		0.327
62	Colusa - 34302 - SC Ops		0.158
61	Point Arena - 154302 - SC Office/Warehouse		0.137
61	Redding - 708002 - Redding Crossroads Office		0.348
61	Willows - 49602 - East Willows Maint Sta-Shop & White		0.214

**Earthquake Emergency Contacts**

**Geosciences**

**Hazard Awareness Warning Center**

**CRESS**

Earthquake response procedures are available in the [Earthquake Annex](#) and [Post Earthquake Building Evaluation Manual](#).

Questions about how to use this Facesheet? Refer to the [Facesheet Job Aid](#).

[Download Data Report](#)

## Gas Facilities

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>Facilities</b>	4,628	44	63	3	13

## Gas Distribution

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>GD Plats</b>	17,189	662	255	143	83

## Gas Transmission

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>Miles</b>	6,155	91	50	11	11

## CRESS

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>Facilities</b>	49	427	32	16	0

## Hydro

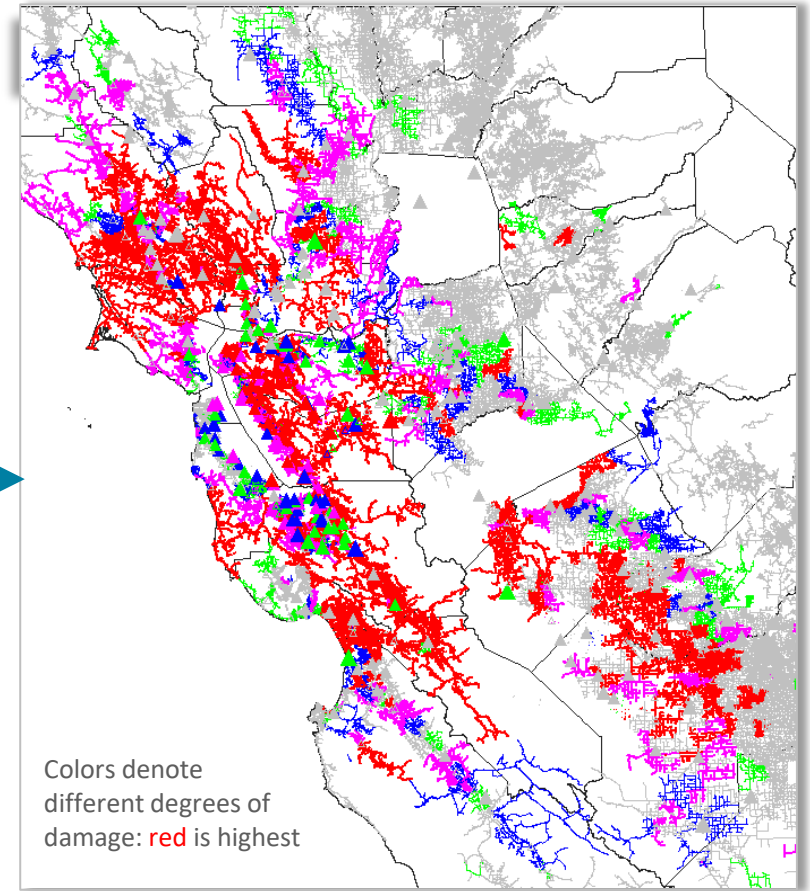
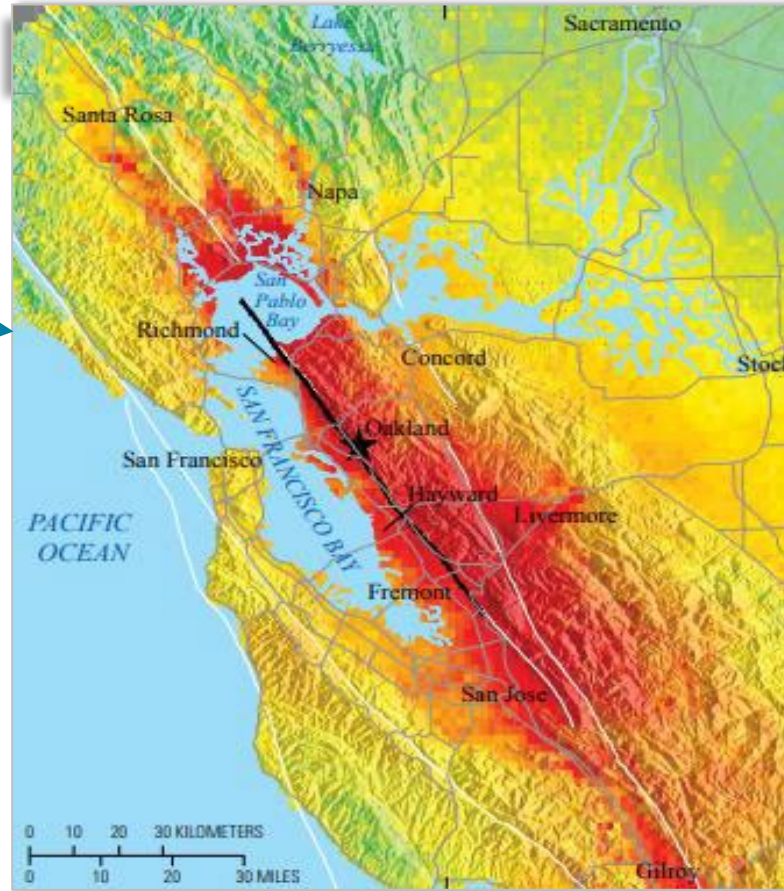
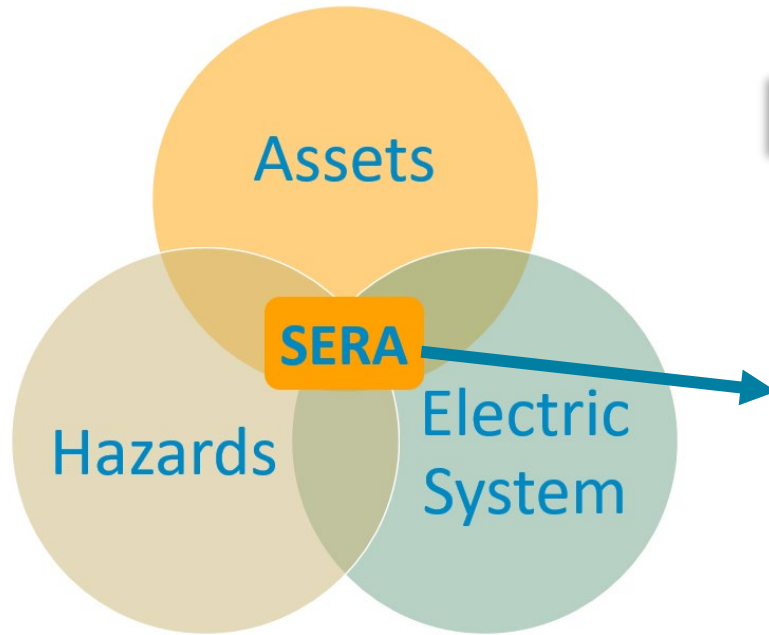
Affected PG&E High Hazard Dams *				
Distance (mi)	Dam	PGA(g)	%DSHR (2021) PGA	Within 50 miles of M5.0+
315.7	Pit 7	0.215		
310.9	Pit 6	0.214		
397.4	Cape Horn	0.187		
296.0	McCloud	0.212		

## Electric Transmission

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
<b>Values</b>	0	1-50	51-75	76-90	91-100
<b>Substations</b>	4	1,490	73	15	45
<b>UG Lines</b>	74	0	0	0	0
<b>OH Lines</b>	1,185	97	48	27	44

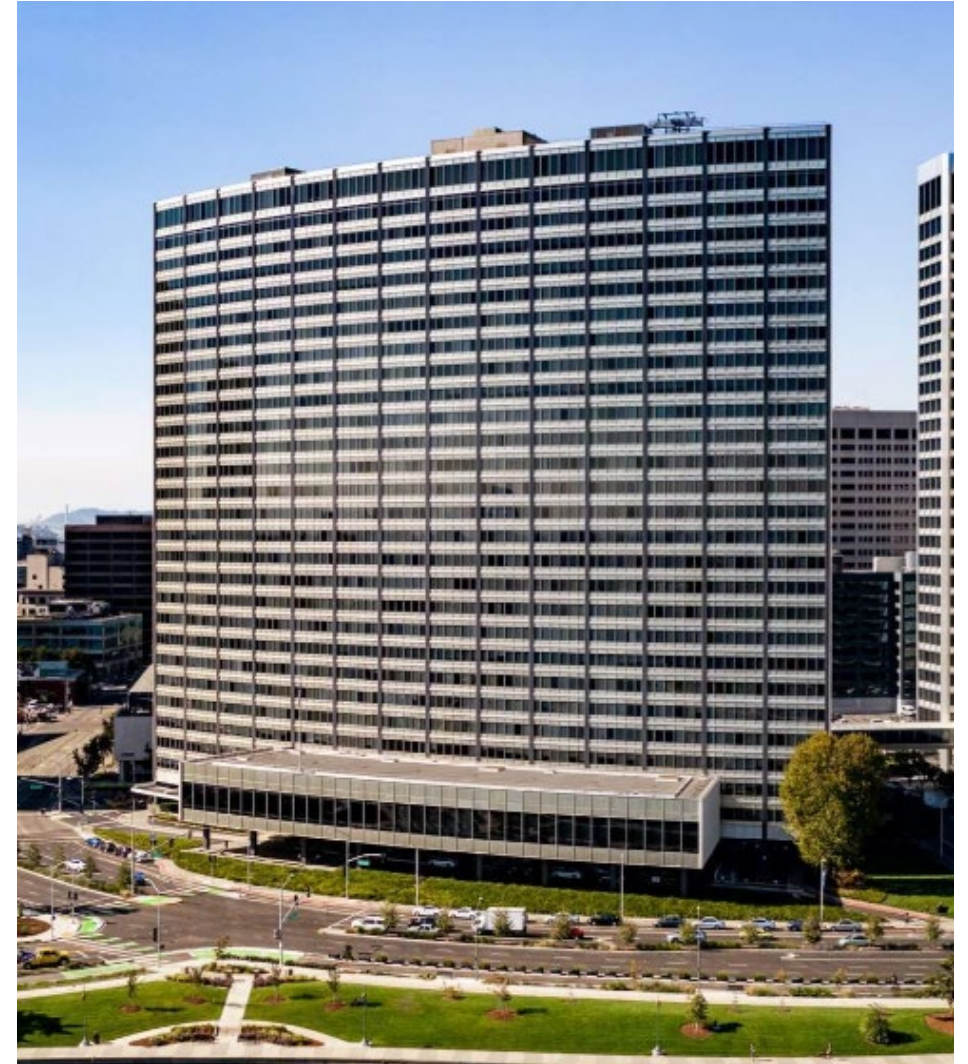
## Electric Distribution

<p>Tags <b>177.1K</b></p>	<p>Customers <b>4.2M</b></p>	<p>Assessment Line Hours <b>694.1K</b></p>	<p>Restoration Line Hours <b>859.7K</b></p>
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Source: [USGS: The Haywired Scenario](#)

## Scenarios inform pre-event activities



## Using scenarios for downtime and recovery

Gas Facilities (GF) Facesheet

SCENARIO EVENT

THIS IS NOT A REAL EVENT

M7.3

SCENARIO - Hayward North + South  
 LAT/LONG 37.7918, -122.1559

Tue 2025-07-15 11:11:08 PDT  
 USGS Event ID [99902190](#) Version 1

**Event Description** Reviewed by Jenny Taing Tue 2025-07-15 11:38:35 PDT  
 This ShakeMap is a scenario provided by the USGS. The ground motion values in this ShakeMap are acceptable based upon comparison with empirically predicted ground motion values. Please refer to the Facesheet Job Aid for additional information.

Earthquake Prioritization (EP)					
Priority	Unaffected	Low	Medium	High	Very High
Values	0	1-50	51-75	76-90	91-100
Facilities	4,112	496	84	106	0

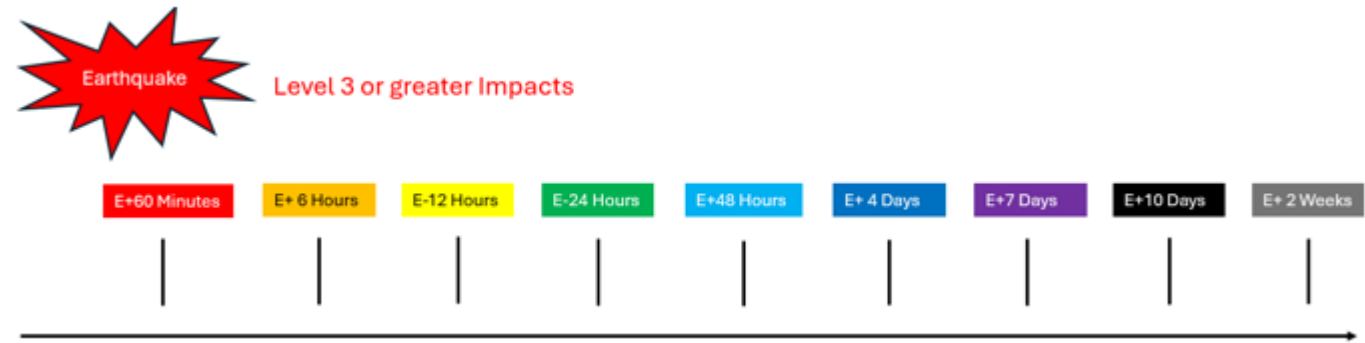
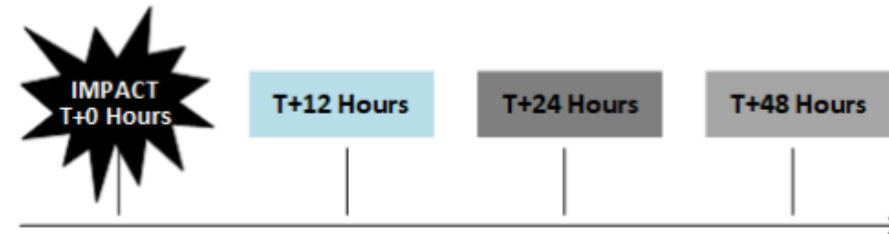
  

Affected Gas Facilities			
EP	Name	GPOM Workcenter	PGA(g)
76	FLETCHER & MISSION BLVD	HAYWARD	0.574
76	Landing Parkway Regulator Station (Fremont, RF-50, Dual Asset)	HAYWARD	0.573
76	Tesla Meter & Regulator Station (Large Volume Customer)	HAYWARD	0.573
76	2138 OXFORD ST	RICHMOND	0.568
76	Alston Way & Fulton St	RICHMOND	0.568
76	Channing Way & Shattuk Ave	RICHMOND	0.568
76	Bonita Ave & Hearst Ave	RICHMOND	0.566
76	64th Ave & Arthur St	OAKPORT	0.565
76	Havenscourt Blvd & Foothill Blvd	OAKPORT	0.565
76	INDUSTRIAL PKWY W/O DIXON		

**Estimated Peak Ground Acceleration (PGA, g)**  

0.02 - 0.20	0.20 - 0.30	0.30 - 0.40	0.40 - 0.50	0.50 - 0.75	≥ 0.75
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**Earthquake Emergency Contacts**



## What more do we need from scenarios?

- GIS data layers of potential infrastructure impacts
- Improved regional models
- Timeline of events
- Collateral to input to our tools to estimate damage
- Sandbox modes on platforms



# Thank you!

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