

# Clearinghouse Briefing

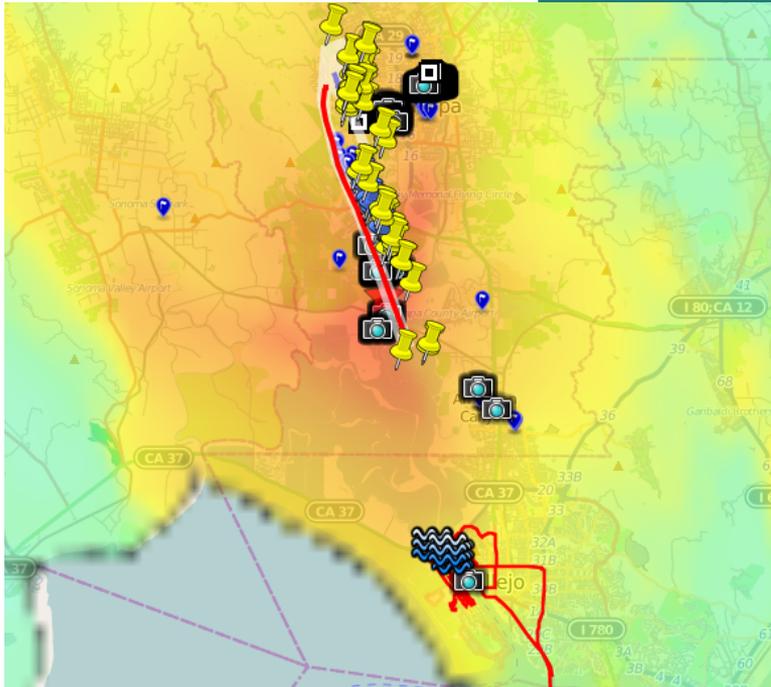
Monday, August 25, 2014

<http://www.californiaeqclearinghouse.org>

# Data on ArcGIS Online Map

EERI is hosting a data map that hosts layers from numerous EERI members and other investigation teams.

<http://bit.ly/1smi6so>



## Data Content

USGS Compiled Observations with Faults and EQs

Clearinghouse Fieldnotes Application

Mare Island 082414-Michelle-Zee

Wells\_ground\_deformation\_OldSo

Oskin-NapaEQrupture1300hrs8-22

Mare\_WL Break1

Mare\_WL Break2

Mare\_WL Break3

Mare\_WL Break4

Poss Mare\_WL Break5

Marko + Bill EERI recon

Napa EQ 2

CHP-Over-Flight

USGS ShakeMap

CuttingsWharf\_20140824v2-Kelson

Photo Upload Map

CA Clearinghouse Napa\_8-25-2014\_Mathieson

Napa\_Aug\_25\_2014\_Photos\_PetrosKeshishian

Napa\_Downtown\_Aug\_25\_2014\_Photos\_PooyaSarabandi

Overflight Data

## Source

Luke Blair

EERI

Michelle Zee

Donald Wells

Mike Oskin

Michelle Shriro

Michelle Shriro

Michelle Shriro

Michelle Shriro

Michelle Shriro

Marko Schotanus/Bill

Tremayne

Marko Schotanus

Jon Bray

USGS

Keith Kelson

EERI

Betsy Mathieson

Petros Keshishian

Pooya Sarabandi

Steve DeLong

# Data Layers

Contribute your own  
data layer by sending  
data to:

[heidi@eeri.org](mailto:heidi@eeri.org)

and

[maggie@eeri.org](mailto:maggie@eeri.org)

More data layers will be added  
as it is processed from teams  
in the field Monday

# Preliminary Team Reports

EERI will be posting updates and preliminary team reports that support the data on the ArcGIS map on the EERI virtual clearinghouse. This EERI site will be linked from the California Clearinghouse website as well.

<http://www.eqclearinghouse.org/2014-08-24-south-napa/>

# Team Focus Areas

- Geosciences
- Geotechnical
- Buildings: Commercial: URMs
- Buildings: Residential: Mobile Homes
- Buildings: Residential: Single Family
- Buildings: Residential: Multi-family
- Business Interruption & Wineries
- Lifelines
- Transportation: Bridges
- Transportation: Roads
- Nonstructural

# Geosciences

Team Members: Tim Dawson

- Various CGS staff in the field following fault trace and looking for other ground failure.
- contact Tim for more details.

# Geotechnical

Team Members: Keith Kelson





Kelson 20140825



2014 08 25

Kelson 20140825



Kelson 20140825



Kelson 20140825



Kelson 20140825



2014 08 25

Kelson 20140825



Kelson 20140825



Kelson 20140825

# Buildings: Commercial: URM

Team Members: Janiele Maffei, Marko Schotanus, Dave McCormick, Joshua Marrow, Andy Yiu, Eddie Vega



# Build

Team Member



B

Team





m  
s, D



B

Tear



# Bu

Team Me



# Bu

Team Me



# Buildings: Residential: Single Family

Team Members: Betsy Matheson, Karl Telleen, Veronica Crothers, Simpson Strongtie Team

- Jefferson west of downtown Napa
  - Two cripple wall failures
  - Many toppled chimneys
- West of Main Street north of downtown
  - Cripple wall distress to 30% of houses
  - A few houses shifted west on foundations
- South of downtown
  - Chimney damage

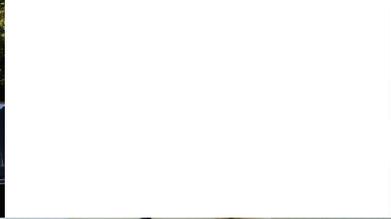
# K. Telleen & V. Crothers





# B. Mathieson & 3 students





# Winery Inventory Damage

Team Members: Partner Engineering and Science Team with Joshua Marrow, Andy Yiu



# Business Interruption & Wineries

Team Members: Partner Engineering and Science Team with Joshua Marrow, Andy Yiu

- Extensive barrel storage damage
- The recovery process is slow and dangerous
- Building owner/manager/wine owner
- Co-operative facilities particularly difficult
- Limited tank damage, mostly barrels

# Winery Inventory Damage

Team Members: Partner Engineering and Science Team with Joshua Marrow, Andy Yiu



# Business Interruption in Downtown

Team Members: RMS Team with Pooya Sarabandi & Petros Keshishian

A quick summary from downtown area:

- Most of damage in downtown is concentrated within a 3-4 blocks by 3-4 blocks with most of damage around the Main and First/Second. Street.
- Most of damage is to URMs with one newer building sustaining major damage
- Retrofitted URMs generally performed well. There are a number of cases with façade being pilled off the building either due to lack of anchors or poor performance of anchors. Other URM damage is localized. No fully collapsed URM.
- Masonry infills bucked out in a number of cases. No/limited shear connectors to the beams or columns
- Majority of buildings in the downtown are yellow tagged with some red tagged.
- Most of damage is coming from contents damage to businesses and also BI with relatively smaller contribution from structural damage. A lot of business had damage to their contents (wine, fixtures, ceiling, etc. etc.) and they are cleaning those up almost immediately.
- Most of people expect 2-3 days for cleanup and about 1-2 weeks to get back to normal business (these are green and yellow tagged buildings mostly)
- Sprinkler damage to the DA building (Napa County District Attorney Building)
- Justice hall – damaged - red.
- City Library – damaged – red.
- Police and fire station – OK with minor nonstructural damage

# Business Interruption in Downtown

Team Members: ARUP Team Andy Thompson, Ibbi Almufti, Candice Avanes, and Lauren Biscomb

Preliminary findings from team (more formal report coming tomorrow):

- no one we spoke to had eq insurance (for either direct damage or BI). Small business owners whose businesses were either yellow- or red-tagged are particularly vulnerable because they don't actually own the building so they are at the mercy of their landlord.
- the tagging in Downtown Napa seemed somewhat conservative and obviously the judgment of whether a building is green or yellow-tagged has a huge impact on small business owners (as described above). Also the owners didn't know who to appeal to to get a second opinion.
- many buildings were red-tagged solely due to adjacent collapse-hazard buildings. The damage to the tagged building (or lack thereof) certainly did not necessitate a red-tag. In some cases this was probably justified but in others probably not - in other words, it was hard to see how the adjacent building would cause damage to the tagged building. Some owners wanted to know whether their red-tag would only be removed once the adjacent building was repaired (which could take years).

# Residential (Mobile Homes)

Team Members: ABAG Team with Danielle Mieler, Mike Mieler, Dana Brechwald, and Michael Germeraad

- Windshield Survey of 4 mobile home communities
  - roughly 100-150 units per community
- At Salvador Estates walked and surveyed 81 structures.
  - 22 team labeled moderate or worse damage
    - Home was significantly shifted off foundation.

# Residential (Mobile Homes)

Team Members: ABAG Team with Danielle Mieler, Mike Mieler, Dana Brechwald, and Michael Germeraad

- All homes were on concrete blocks (~2' of ground)
  - Most of homes shifted off foundation fell West.
  - Handful of retrofitted homes with steel bracing.
    - Anecdotal story “After 1989 decided to retrofit, cost \$8,000 then” had minimal damage in event.
-

R

Team





# Fire

Team Member: Charles Scawthorn

- City of Napa reported 6 ignitions
- 0 fires (napa county = Calfire)
- Phones failed (911) immediately
  - People could call incidents into 911 but CAD couldn't dispatch--problem with AT&T (perhaps building damage?)
  - 911 was calling chief in the yard of station 1 and he was doing dispatch with his radio in the yard

# Fire

Team Member: **Charles Scawthorn**

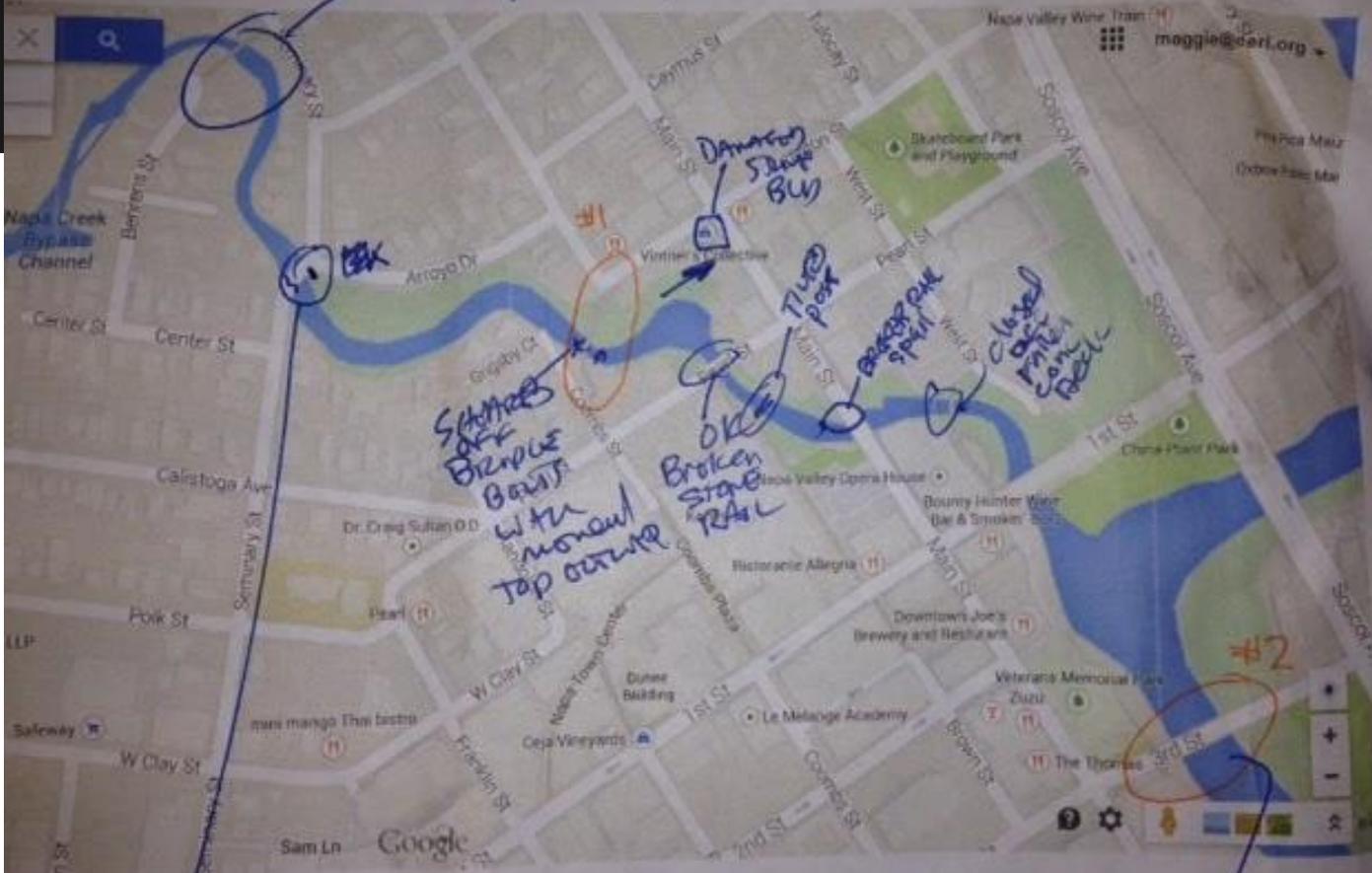
- City of Napa
  - First pulled rigs out of station
  - For 2 minutes no calls, then deluge
- Strike teams from OES within 5 hours

# Transportation: Bridges

Team Members: Kleinfelder Team with Zia Zaffir and Bill McCormick

- Observed all bridges over Napa Creek and First and Third Street Bridges over Napa River
- Bridges over Napa River had deck movement on the order of 2 inches
- Third Street bridge had sand boils/fissures, lateral spreading and subsidence

OK NO  
moment  
PEO BR.



SCHEDULE  
OFF  
BRIDGE  
BUILT  
WITH  
moment  
TOP OUTSIDE

OK  
Broken  
STAIRS  
REAL

DANGER  
STAIRS  
BUS

THIRD  
FLOOR

GRASSY  
ONE  
SPILL

CLOSED  
OFF  
WITH  
CONCRETE

#2

OK

maggie@earl.org

Google

# Transportation: Bridges

Team Members: Kleinfelder Team with Zia Zaffir and Bill McCormick



Sand Boils and Fissures Near Third Street Bridge

# Transportation: Bridges

Team Members: Kleinfelder Team with Zia Zaffir and Bill McCormick

- Coombs Street Pedestrian Bridge: Retaining wall movements, backfill subsidence and lateral movement, minor cracking, sheared connector bolts on southwest corner and rest of the bolts were bent; bridge should remain cordoned off

# Transportation: Br

Team Members: Kleinfelder Team with Zia Zaffir and Bil

Sheared off bolt on  
Coombs Street  
Pedestrian Bridge



# Transportation: Bridges

Team Members: Kleinfelder Team with Zia Zaffir and Bill McCormick

- Other bridges had minor spalling and small movements

# Nonstructural

Team Members: Glen Granholm

- Napa College Warehouse
- Napa Airport Tower
- Ross Department Store
- Target Store
- US Post Office

# Vallejo Early Warning

Report by Bob Anderson based on media and written report

- Vallejo had 5 operating Quakeguard earthquake early warnings at five fire stations .
- the units triggered and alerted the firefighters, turned on lights and started open the fire house main doors.
- System different than what the USGS/OES and other prototype is in approach and different from that used by the Berkeley Seismological Lab.

# Teams without updates

The following teams were in the field on Monday, but updates on their findings were not available in time for this briefing. Their data, reports and findings will be posted on to the ARCGIS map as it becomes available.

- Bridges: Caltrans Team (Mark Yashinsky lead)
- Structural: PEER Team (various)
- Seismology, Ground Failure, Geoscience: USGS (various teams)
- Flyover: Steve Real, USGS
- Ground Failure: GEER (various teams)

# For Further Study/Needs

- Fault Rupture
  - Lidar of fault rupture
  - Trenching
  - Near-field/Far-field measurements of cross-fault deformation
  - Northern extent of fault rupture
    - Trace out northern extent of fault crossing Thompson Rd between Thompson Rd & Browns Valley
    - Does rupture extend north of Redwood Rd?
    - Find northern extent of rupture section (Partrick up to Redwood Rd North)
  - Fault rupture: HWY 12 to Old Sonoma Rd
  - Measure and confirm estimates of deformation in area of Leaning Oak Dr and in area South of Glenbrook Lane (private property but landowners have been accommodating) (Recommended by FUGRO consultants)
- Dam evaluations/walk-downs
- Roads
  - Crews have gis layer of surface deformation they observed in road and adjacent ground surfaces
  - Dept of Public Works contact: Dave Cardwell, Road Maintenance Supervisor, Main (707-944-0196)
- Sanitation
  - Contact City of Napa Sanitation about surveying manholes and pipelines (GPS coordinates exist for all major system components) (suggested by Fugro Consultants)

# For Further Study/Needs

- Buildings
  - Soft-story buildings (possible apartment buildings on Jefferson St)
  - Schools
  - Napa Post Office - structural and non-structural (pipes) survey
  - Target building - structural survey
  - Ross building - non structural survey
  - Mobile home park - continue surveys (post 1996 brace tiedowns, ETS & ERBs survey)
    - Partial survey of Salvador Mobile Estates (ABAG)
    - Napa Valley Mobile Home Park, Siesta Village, and Newell Manor (drive-through surveys completed by ABAG)
- Bridges
  - Coombs St Pedestrian Bridge - structural survey
    - Surveyed by Zia Zaffir and Bill McCormick (Kleinfelder): Deck bolts sheared off on southwest corner (2 of 4), on other corners bolts are distorted. Large retaining wall apparent outward movement at top.
- Close up of damage photos: URM's (300mm zoom)
- Vineyards
  - Mapping of and outreach to vineyards
  - West of Buhman Rd between Henry and Browns Valley