#### https://www.lacity.org/ Emergency Preparedness Committee Bel Air Ridge Clubhouse - 2760 Claray Wednesday, July 20, 2016 7 pm

#### **Draft Minutes**

1. Call to order: EP Chair, Chuck Maginnis, called the meeting to order at 7:14 p.m.

#### 2. Roll call & introduction of attendees:

<u>Present</u>	Affiliation/Title
Danielle Cohen	Bel Air Ridge Resident & EPAC Co-chair, Ham & CERT
Maureen Smith	Bel Air Resident, BABCNC, CERT
Michael Schlenker	Bel Air Crest Resident, EP Chair, Ham & CERT
Irene Sandler	Bel Air Crest, BABCNC
Patricia Bell Hearst	Fed hillsides, Chair Emeritus
Hildreth Simmons	Residents of Beverly Glen Secretary & EP Committee
Chuck Maginnis	Bel Air Resident. BABCNC Safety Chair, CERT
Cathy Palmer	BABCNC Administrator & Transcriber'

#### Special Guest Speaker:

Debbie Weiser, Ph.D., US Geological Survey, Pasadena, Science Application for Risk Reduction (one of 10, working across the nation).

**3.** Approval of May 18, 2016 minutes: Maureen Smith moved; Danielle Cohen seconded; none opposed; minutes were approved unanimously.

**4. US Geological Survey Presentation** – Debbie Weiser, USGS Pasadena - Risk Reduction – (7:18 - 8:55)

Ms. Weiser spoke on the science of what could happen in an earthquake, and about landslides, and liquefaction, particularly in California.

**California:** a Multi-hazard State: Landslides, fires, floods and debris flows and earthquakes which can cause the others to occur.

**Southern California Faults**: "We don't know all the faults that exist; we have to sometimes have to have an earthquake to know one exists." San Andreas is the main fault, beginning down at the Salton Sea or further down at the north of Mexican border and goes up to Mendocino County. Pacific Plate and the San Andreas plates below and above the SA Fault. Generally the depth of the SA Fault is about 15-20 KM deep, 11-16 miles deep. The earth's crust extends 30-70 km deep (18-50 miles in depth.

Ms. Weiser discussed different kinds of tectonic plate motion, towards, away or... that move in different ways. Subduction zone types are the worst.





For a visual context, Ms. Weiser provided a map, showing the various faults in Los Angeles, including the Santa Monica fault, offset by the Newport Inglewood fault, which connects, in theory, to the Hollywood fault.

In Santa Monica, the Mormon Temple lawn is over a fault. Debbie provided a map showing various levels of activity among the different faults, color-coded.

Depends on what you're built on, how the house responds, bedrock will shake the least.

#### Seismic Waves:

**Body waves** – move through the interior of the earth

<u>P waves</u> - compression, move like sound waves, (initially, is like a jolt) <u>S-waves</u> – shearing motion and damaging (These are secondary waves, move up and down, with a shearing pattern, and that's when we first feel the earthquake). After the S-waves, we have Surface waves that are damaging and you feel the most.

You need a magnitude 6 to cause the liquefaction.

<u>Surface Waves</u> Only propagate at surface Can cause most intense and damaging shaking "Rolling" motion Often the only waves are recorded at distant locations.

<u>What will the big one be like?</u>; It will likely start down south, and go up. Greatly affect 8 counties of Southern California 300 km, (180 mile) rupture Magnitude 7.8 100 seconds of fault rupture

In this model, the first people to feel it would be in the Coachella Valley, most shaking in the valleys, even if the rupture has gone by.

65 seconds of strong shaking would be expected in Santa Monica.

In San Bernardino County, it could shake for 2 minutes.

There would be disruption to services. Asked about underground, the shaking is less strong underground; miners would feel the earthquake less strongly than those above ground.

Designers are working on the Aqueduct.

## Shake Out Scenario "Disaster Equation"

<u>Widespread Strong Ground Shaking + Shaking of long duration =</u> 300,000 buildings being significantly damaged, widespread infrastructure damage, freeways, aqueduct, 213 billion dollars in damages, 270,000 displaced persons, 50,000 injured, approximately 1800 deaths, assuming no high rise collapse.

<u>California Faults</u> Map showing the probability of Magnitude greater or equal to 6.7 earthquakes.

- 1. San Andreas.
- 2. Hayward
- 3. San Jacinto
- 4. San Andreas
- 5. Elsinore

Below, from left Cathy Palmer, Irene Sandler, Patricia Bell Hearst, Hildreth Simmons, Michael Schlenker, Danielle Cohen & Maureen Smith attentively listen to Debbie.



They forecast earthquakes, e.g., over the next 30 years, the probability of an earthquake on the San Andreas Fault is 59 percent.

Forecast: Tells you a general magnitude 6 or 7; not specific. Magnitude, time, location.

Asked about buildings being built on rollers, they are very expensive.

They use more "base isolators" which help to absorb some of the shock of the waves, and reduce stress of the building.

<u>Thoughts on the La Habra Earthquake Forecast</u>: New paper came out last year suggesting an increased and high potential for an earthquake in the greater LA area.

USGS evaluation has not changed (hazard already known to be high).

Authors did not submit earthquake forecasting technique for testing to the traditional groups (CSEP, CEPEC, and NEPEC).

Methodology to calculate high probability or rationale for time frame was not explained in the paper.

They think the estimate of the USGS is the best working estimate. The estimate is high but not as high as they said. The USGS responded for a magnitude 5 larger, the paper said 99% ours is 85% within a three year period within 100 km of the La Habra earthquake (that happened in the last few years.)

#### Sediment-Filled Valleys Amplify Shaking:

When you have unconsolidated sediment, fill, the waves bounce off of surfaces. Where you have basins and valleys, you have more amplification of these earthquake waves because of the desire of the wave to reverberate off of these surfaces.

The roads will shake more than the houses; which could cause more damage to the roads than the properties.

# <u>"What we do now, before the earthquake, will determine what our lives are like after.</u>" <u>www.shakeout.org</u>.

Debbie encouraged us to have a strong presence at the shakeout: October 20<sup>th</sup> at 10:20 a.m.

#### Get Prepared:

You are responsible for ensuring your personal preparedness

This does not have to be expensive

If you knew you had one day, one week, one month, or one year to get ready for damaging earthquake, you would do it!

## Know your Resources!

Go to www.Myhazards.caloes.ca.gov

Type in your address and it shows you the specific hazards in your region.

Putting down roots in earthquake country

Map your neighborhood.

Ms. Weiser did the search on this location, and the mapping showed liquefaction lines at the canyons. There's loose unconsolidated sediment there. However, she doesn't know if the drought effects the liquefaction. Where the water table is high. The website will give you what you can do in the event of the likely hazards occurring.

## Putting Down Roots in Earthquake Country

English and Spanish pdfs.

California (regional and statewide)

UT, OR, AK, Central US. www.earthquakecountry.org/booklets/index.html

## Map Your Neighborhood

9 steps to take immediately following a disaster
Skills and equipment inventory (landline phones are best to have)
Neighborhood map
Neighborhood contact list
Neighborhood evaluation as a team, post-disaster; take necessary actions
WA State program; bridges gap between CERT and individual preparedness
Program used in at least 43 states.

"Water is the most important thing."

## What to do before an earthquake

Earthquake/emergency kit: a fire extinguisher, first aid kit, a battery-powered radio, a flashlight, and extra batteries at home

Make a plan of where to meet family after an earthquake

Learn first aid

Learn how to turn off the gas, water and electricity

Don't leave heavy objects on shelves (they'll fall during a quake)

Anchor heavy furniture, cupboards, and appliances to walls and floor

Think about what you need before you need it.

"Map your Neighborhood" Program

Purification tablets for water, alternate cooking methods (camping stove)

<u>What to do During an Earthquake</u>: Use common sense. Stay in the same place. Do not run outside. Drop, Cover and Hold On.

Do not go into a doorway and do not do a triangle of life: In an adobe house, the safest place to be is in a doorway (wooden beams above the door); otherwise in modern construction, the building is strong; it's safer to be under a table; if you're in a door way, the door can slam against you. If you are in bed, stay in bed, cover up. Move as little as possible in an earthquake. Anything built after 1933 is safer than prior to that date. Stay away from windows.

<u>The Earthquake is over, now what</u>? Biggest case of injuries in Northridge earthquake, broken glass. Follow the plan. <u>Expect aftershocks</u>. <u>Remember: We're all in this together!</u>

### Earthquake Early Warning:

Objectives: Rapidly detect initiation of an earthquake, estimate the level of shaking to be expected, and issue a warning before significant ground shaking.

In California, a warning time would range from a few second to tens of seconds.

Taking preventative action can reduce damage and casualties.

Can prevent cascading failures

Debbie showed an example of the early warning system, using one scenario. It's still in beta testing mode, now more advanced, to a second version. Need more funding. USGS Product, developed in collaboration with a university in one in Washington, two in California.

## Additional Info.

Resilience by Design report by Lucy Jones

There is an app; go to the App store: Red Cross Earthquake.

## 5. Communications Updates - Michael Schlenker, Communications Committee Chair

Michael related that he had an opportunity to test their "Hillside Community Emergency Communication System" to alert his communities of a brush fire in Bel Air Crest, a few days before the 4<sup>th</sup> of July. They were alerted to the vegetation fire at the same time as the LAFD, by the PulsePoint application.

PulsePoint links with the LAFD systems on how they log and track response units, to enable citizens to be responders. You can set it to different types of events, e.g., vegetation fires. It's done through 911. His fire first came up at 405 and Skirball. Michael got the alert, Rick Cole also got the alert. It's based on the four battalions in Los Angeles. Michael monitors Valley & West, and gets alerts. At the time of the alert, which was in his community, he turned on his scanner and could hear how many

companies came into his community. He was able to get Bel Air Crest's water truck to the fire before the Fire Department. They ended up not using it, because they were onsite. He was able to coordinate with Dennis Koci up at Mountaingate via text. Because he was on the radio, he could give the information out to various communities once.

Chuck stated that if he doesn't respond, and something is important, the reason why he cc'd people and not blind-copied, is so that others with that list could send emails out.

Michael has loaner radios for those who want to use them. Irene recommended that every high school have a ham radio.

You can buy scanners online on Amazon. You can get one for \$99.00. There are other apps that follow police and fire fighters across the country.

Michael stated that he and his community are planning a brush-fire, fire drill that they will play out on the radio.

CERT was going to do an emergency drill put on by the Canoga Park NC this Saturday, but it's not going to happen this Saturday after all.

Emergency Preparedness Alliance started by DONE is having their monthly meeting this Saturday.

## 6. Roundtable EP Future Topics & Outreach Chuck Maginnis, BABCNC EP Chair

Michael Schlenker noted that we are not serving our entire NC; we need to make this committee known to the rest of the communities. To increase outreach, we would like other hillside communities to invite us to speak to them about EP about how they can help themselves and all of us.

8. Adjourn: Adjourned at 9:20 pm.