



*We develop seismic policies and share information to promote programs intended to reduce earthquake related losses.*



*A non-profit earthquake consortium for the western states*

## Fall 2017 e-Newsletter

### Western States Seismic Policy Council

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### It's Nomination Time Again

Nominations for 2018 WSSPC Awards are Open! Recognize outstanding colleagues and projects that have had an impact on seismic risk reduction with a nomination for the WSSPC Awards in Excellence, Lifetime Achievement Award, or WSSPC Leadership Award. The nomination deadline is January 5, 2018. Nomination forms and eligibility guidelines can be found on the website at: <http://www.wsspc.org/awards/call-nominations/>



### National Earthquake Hazards Reduction Program Reauthorization Act of 2017

On September 6 Senator Dianne Feinstein (D-California) introduced a bill (S.1768) to reauthorize and amend the National Earthquake Hazards Reduction Program (NEHRP). The bill is cosponsored by Senators Lisa Murkowski (R-Alaska), Cory Gardner (R-Colorado), Patty Murray (D-Washington), Ron Wyden (D-Oregon), Kamala Harris (D-California), Jeff Merkley (D-Oregon), and Maria Cantwell (D-Washington). The introduced bill aims to better enable earthquake-prone communities to prepare and protect themselves by minimizing losses through infrastructure improvements and hazard/risk assessments.

To read the NEHRP Act and track its progress visit: <https://www.congress.gov/bill/115th-congress/senate-bill/1768/text>

### 801 K Street Lobby Fair



With September being National Preparedness Month, and ShakeOut approaching October 19<sup>th</sup>, WSSPC partnered with the California Geological Survey (CGS) and California Earthquake Authority to hold an earthquake and tsunami informational event in the lobby of our building at 801 K Street, Sacramento, California. The event began early in the morning as people arrived for

work and extended into the early afternoon. Interactive activities were used to engage the building occupants: WSSPC created a game (featured in the August Bulletin) to sort actions that would be taken before, during, and after earthquakes, and CGS demonstrated liquefaction and tsunamis.

**Get Ready to ShakeOut.**

October 19, 2017 Register Now at [www.ShakeOut.org](http://www.ShakeOut.org)



## NEWS

### Largest Earthquake in Hawai'i in 10 Years

On June 8, 2017, just past 7a.m., a magnitude 5.3 earthquake with a depth of 8 kilometers occurred on the east coast of the Big Island of Hawai'i. The quake was followed by 15 aftershocks later in the afternoon. Minor damages were recorded including a small rock fall along the Chain of Craters Road in Hawai'i Volcanoes National Park.

Almost 1,000 felt reports were submitted by residents of the islands; the farthest report being from Oahu which is 310 miles away from the epicenter. The collected felt report data was used to help create the ShakeMap for June 8<sup>th</sup>. According to the ShakeMap the strongest ground motions had a maximum intensity of VI on the Modified Mercalli Intensity Scale. An intensity this high hasn't occurred on the islands since the Kīholo Bay and Māhukona earthquake sequence in 2006.

#### References:

<http://mauinow.com/2017/07/27/largest-hawaii-earthquake-in-decade-offers-preparedness-reminder/>

<http://mauinow.com/2017/06/08/no-tsunami-after-5-earthquake-at-kilauea-hawaii/>

The National Earthquake Resiliency Coalition is a group formed after the last National Earthquake Conference in 2016 to keep the visibility on earthquakes alive. The group meets every 2 months on a conference call, with the next call occurring in November 2017. The Coalition is led by FLASH who has set up a You Tube channel. Their goal is to have at least 100 subscribers. You can subscribe here: [https://www.youtube.com/channel/UCc\\_3X9-gk1BwGij8WDM90RA](https://www.youtube.com/channel/UCc_3X9-gk1BwGij8WDM90RA)

### Yellowstone National Park Experiences Earthquake Swarm

University of Utah Seismograph Stations (UUSS) is still monitoring Yellowstone's earthquake swarm that initiated on June 12 along the western edge of the Yellowstone National Park.

The largest recorded earthquake of the swarm was a 4.4 magnitude quake on June 15. Nearly 1,600 events have been registered thus far. The swarm is larger than average, however not the largest, recorded. An earthquake swarm occurred in Yellowstone in October 1985 which lasted 3 months and over 3,000 quakes were recorded. Jacob Lowenstern, scientist in charge of the Yellowstone Volcano Observatory, stated that residents should not be worried about an occurrence of a big quake in the near future because swarms do not typically occur before a large earthquake event.

The June 2017 swarm occurred at the same site as a 7.2 magnitude quake which occurred in 1959—near the Hebgen Lake area. Due to the closeness in the timeline geologists do not believe another big quake is going to hit the Yellowstone area any time soon. "There is [also] no indication that this swarm is related to magma moving through the shallow crust," said Jamie Farrell, Research Assistant Professor at the University of Utah. "The bottom line is that visitors should definitely not be worried about an impending volcanic eruption of the Yellowstone volcanic system."

#### References:

[quake.utah.edu](http://quake.utah.edu)

<http://www.newsweek.com/yellowstone-supervolcano-earthquake-swarm-hits-over-1200-events-639816>

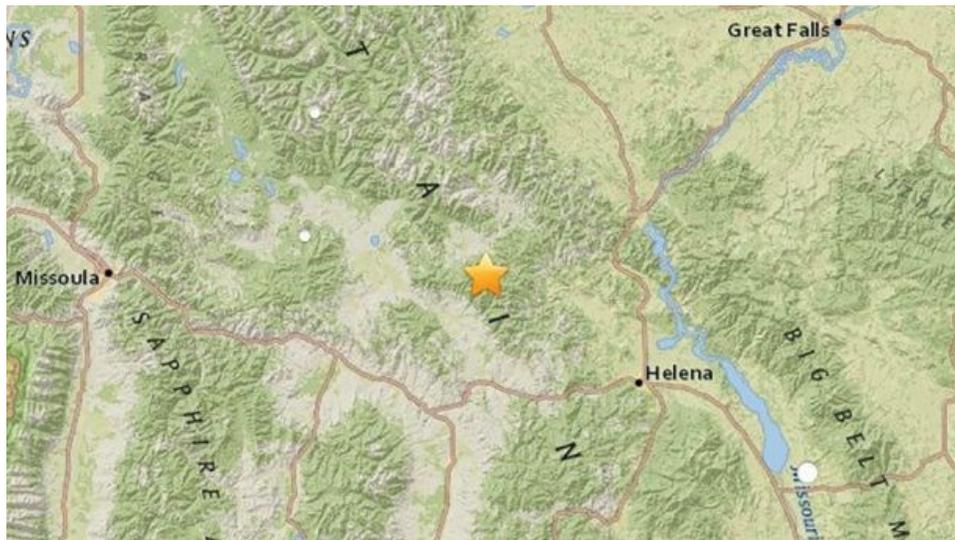
<https://www.newscientist.com/article/2141794-yellowstone-national-park-hit-by-1400-earthquakes-in-six-weeks/>

<http://yellowstoneinsider.com/2017/08/04/uuss-picks-nearly-1600-events-yellowstone-earthquake-swarm/>

## Strong Earthquake Hits Montana

On July 6 in Lincoln, Montana a magnitude 5.8 earthquake occurred at 12:30a.m., at a depth of 13.6 kilometers in Montana; the largest earthquake in Montana since the 7.2 magnitude Hebgen Lake quake in 1959. By 8:30a.m. 13,000 people had filled out a felt report on *USGS.gov*. Three to four aftershocks could be felt throughout the following hour. Residents in Lincoln lost power, and a gas leak occurred in the State Capitol of Helena (34 miles southeast of the epicenter).

Robert Sanders, a USGS geophysicist, stated that the quake was unrelated to the earthquake swarm surrounding Yellowstone. USGS geologists said the “location and focal mechanism solution of this earthquake are consistent with right-lateral faulting in association with faults of the Lewis and Clark line.”



*Image: Epicenter of magnitude earthquake that hit western Montana on Thursday, July 6, 2017.*

*Source: US Geological Survey via Twitter*

### References:

<http://tumblr.net/earthquake-insights/rare-m5-8-montana-earthquake-the-largest-to-hit-the-region-in-20-years-4518/>

<https://earthquake.usgs.gov/earthquakes/eventpage/us10009757#executive>

<http://www.foxnews.com/us/2017/07/06/montana-earthquake-5-8-magnitude-earthquake-felt-in-region.html>

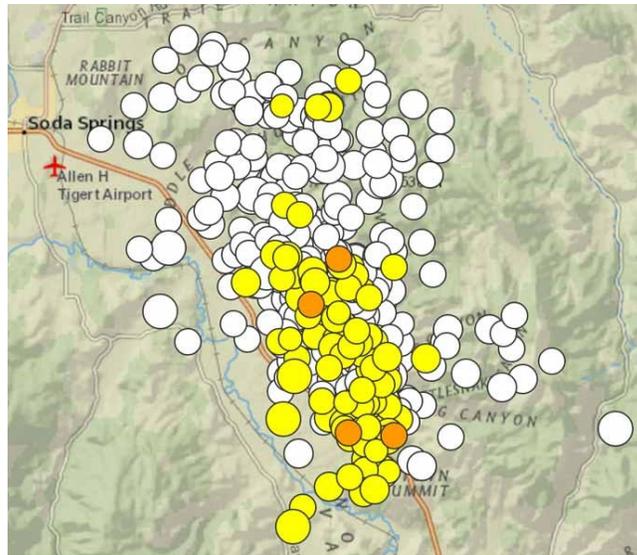
### **From the Tsunamizone.org:**

Tsunami Preparedness Week – Sept 24-30, 2017 for American Samoa

Tsunami Preparedness Month – October 2017 for Oregon and Washington

### **Southeastern Idaho Earthquake Swarm**

A swarm of over 1900 earthquakes struck southeastern Idaho near Soda Springs in early September. The swarm began with a magnitude 4.1 quake on September 2 and was followed by a magnitude 5.3 quake about an hour and a half later. The 5.3 magnitude quake, called the Sulphur Peak earthquake, garnered 1,869 felt reports on the USGS website and was the largest earthquake of the swarm. There were no visible damages reported, however the quakes were felt throughout southeastern Idaho, western Wyoming and northern Utah in Logan, Ogden and Salt Lake City.



*Image: A map of the earthquakes that affected Eastern Idaho in early September.  
Source: USGS*

The earthquakes occurred at the northern extension of the Bear Lake fault zone but could be related to other faults in the area because both strike slip and normal fault motions were observed. The Bear Lake fault zone is within the Intermountain Seismic Belt (ISB), a 1300 km-long zone of seismicity extending from southwestern Utah to northwestern Montana. The ISB contains mainly faults that are extensional in nature, though some show strike-slip motion. The sequence has a high probability of decaying, rather than having a much larger earthquake occur. The sequence is also not related to the Yellowstone Earthquake swarm.

Southeastern Idaho was the focus for Idaho's Office of Emergency Management earthquake exercise in May.

#### References:

<https://earthquake.usgs.gov/earthquakes/events/2017sodasprgs/>

<http://temblor.net/earthquake-insights/earthquake-swarm-continues-to-rattle-southeastern-idaho-5079/>

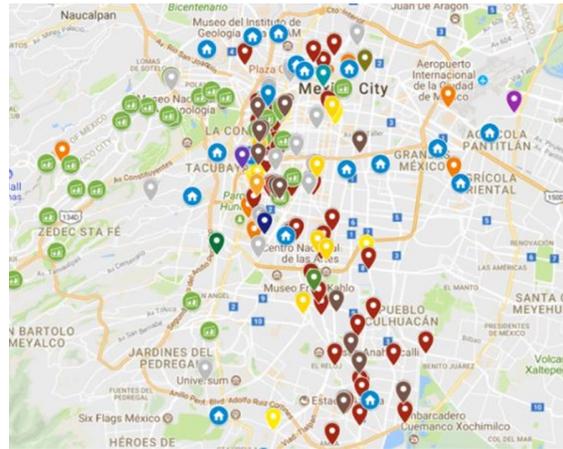
<http://quake.utah.edu/monitoring-research/sulphur-peak-earthquake>

<https://www.eastidahonews.com/2017/09/usgs-says-260-earthquakes-struck-eastern-idaho-since-sept-2-swarm-likely-continue-another-week/>

## EERI Response to the Puebla, Mexico Earthquake

On September 19, 2017, a M7.1 earthquake struck Central Mexico at 18:14:39 UTC. We extend our sympathy to all affected as relief work still continues.

EERI is currently monitoring the situation from media reports and notes from colleagues in central Mexico and surrounding areas as part of [Learning from Earthquakes Program](#).



EERI has set up a [virtual clearinghouse website](#) to find information and share knowledge about the earthquake impacts.

You can contribute to reconnaissance efforts by:

- Volunteering with the Virtual Earthquake Reconnaissance Team;
- Contributing Photos and Notes; or
- Informing EERI of your reconnaissance plans.

*Image: Map showing locations of damaged buildings in Mexico City. Source: EERI*

Any questions regarding EERI's response to this earthquake can be directed to: Maggie Ortiz-Millan, EERI Program Manager, at [Maggie@eeri.org](mailto:Maggie@eeri.org).

## Christchurch Earthquakes Uncover Hidden Artifacts

Reconstruction of Christchurch, New Zealand, after the 2010-2011 earthquakes, has uncovered a plethora of early European and Maori artifacts. Over 100,000 items have been uncovered—bottles, brick structures, mustard jars ceramics, old wells, and much more. Found Maori artifacts are covered under the Protected Objects Act. Other found artifacts are legally the property of the landowner; they are being held by Underground Overground Archaeology until a report on the objects has been approved by Heritage New Zealand.

Underground Overground Archaeology founder, archaeologist Katharine Watson states, “In a city that’s lost so much of its public heritage, we’re incredibly lucky to have this resource, and there’s recognition overseas of the significance of this collection which is notable for its size and completeness.”

*Image: A sampling of the objects that were uncovered in Christchurch, New Zealand.*

*Source: J. Garland;  
Underground Overground Archaeology*



### References:

<http://www.star.kiwi/2017/07/reveal-thousands-of-hidden-artefacts/>  
[blog.underoverarch.co.nz](http://blog.underoverarch.co.nz)  
<http://www.legislation.govt.nz/act/public/1975/0041/latest/DLM432116.html>

## HAZARDS MITIGATION & PREPAREDNESS

### Property Owners Miss Retrofit Deadline

As of Monday, September 18, 484 soft story property owners in San Francisco were still out of compliance for failing to apply for a seismic retrofitting permit. According to San Francisco's Department of Building Inspection spokesperson, Bill Strawn, 3,464 buildings were required to get permits to start seismic improvements by Friday, September 15. Property owners will receive a notice of violation, have placards posted, and have 30 days to respond before their cases are referred to a code enforcement hearing. Strawn said that the department isn't looking to punish anyone—they just want procrastinators to get into compliance.

Seismic safety and mitigation is a priority for San Francisco. In 2013 the soft-story retrofit program was established to ensure that San Francisco buildings are earthquake safe. Property owners who wish to determine if a property is on the required retrofit list and/or learn more about soft-story retrofit requirements can go to [www.sfdbi.org/softstory](http://www.sfdbi.org/softstory) or call (415) 558-6699.

#### References:

<http://abc7news.com/seismic-building-inspections-underway-in-san-francisco-/2422418/>

<http://www.sfgate.com/news/bayarea/article/Nearly-500-Property-Owners-Miss-Deadline-For-Soft-12207888.php>

### Seattle URM Policy Committee Recommendations Released

A Seattle Department of Construction and Inspections (SDCI) policy committee released its recommendations for an unreinforced masonry (URM) seismic retrofit policy in a report out in early August. The SDCI identified 1,100 URMs throughout the city of Seattle (excluding single-family residences and duplexes), that have the potential to have 25,000 occupants.

The policy recommendations are a result of a city wide group formed in 2011 comprised of URM property owners, geological and seismological experts, structural engineers, architects, housing and real estate development representatives, and historic preservation professionals.

The recommendations include: requiring mandatory retrofits to all buildings with URM bearing walls (excluding single-family residences and duplexes); requiring retrofits for critically vulnerable buildings be completed in 7 years and in 13 years for moderately vulnerable buildings; addressing specific targets that need to be met during the retrofitting process; and identifying a framework to enforce URM rules.

The next steps for SDCI, in cooperation with other city departments, is to:

- Brief the City Council in September 2017
- Convene a working group to develop a funding and financing proposal for URM retrofits
- Develop staff recommendations
- Establish a URM retrofit standard
- Publish draft legislation for public comment.

#### References:

<http://buildingconnections.seattle.gov/2017/08/03/sdci-releases-recommendations-of-the-urm-policy-committee/>

[http://www.seattle.gov/dpd/cs/groups/pan/@pan/documents/web\\_informational/p3452259.pdf](http://www.seattle.gov/dpd/cs/groups/pan/@pan/documents/web_informational/p3452259.pdf)

<http://www.seattle.gov/dpd/codesrules/changestocode/unreinforcedmasonrybuildings/whatwhy/default.htm>

## UC Berkeley Earthquake Drill—Golden Alliance 2017

On Friday, August 11<sup>th</sup> University of California Berkeley’s Office of Emergency Management conducted a full-scale campus earthquake exercise. Golden Alliance 2017 was a simulated response to a 6.8 magnitude quake along the Hayward Fault. Amina Assefa, Manager of the Office of Emergency Management (OEM), led the all-hands-on-deck simulation; she said that it was the largest exercise to be conducted at Cal. Approximately 400 people participated at nine separate locations across campus.



*Image: Golden Alliance 2017—full-scale campus earthquake exercise on UC Berkeley’s campus.  
Source: Ted Friedman with UC Berkeley*

OEM created a free emergency preparedness app with Berkeley-specific tips and emergency guidance. To learn more about how to be prepared on UC Berkeley’s campus visit: <http://oem.berkeley.edu/get-informed-taking-action-earthquake>.

Remember to be prepared in advance. In order to be conscientious of what to pack, take a look at the table below and check out :<http://www.bugoutbagbuilder.com/learning-tutorials/choosing-bag>

EDC 'Every Day Carry'	GHB 'Get Home Bag'	BOB 'Bug Out Bag'	INCH 'I'm Never Coming Home'
<ul style="list-style-type: none"> <li>• 12-24 hours</li> <li>• Use: electrical storm, tornado, power outage, etc.</li> <li>• Must Have: light, multitool, fire source, water, money, phone charger, USB w/ important documents</li> </ul>	<ul style="list-style-type: none"> <li>• 24 hours</li> <li>• Use: electrical storm, tornado, power outage, etc.</li> <li>• Must Have: water, food, weather gear, light, knife, basic sleeping/shelter needs, change of clothes</li> </ul>	<ul style="list-style-type: none"> <li>• 72 hours—1 week</li> <li>• Use: flooding, hurricane, tsunami, earthquake</li> <li>• Must Have: food, cooking gear, blankets, tent, clothing, light, tools, radio, entertainment/ distraction</li> </ul>	<ul style="list-style-type: none"> <li>• 1 week or more</li> <li>• Use: house fire, tsunami, hurricane, super storm, earthquake</li> <li>• Must Have: water, food, clothing, tent, tarp, stove, table, chairs, sleeping gear, lights, tools, batteries</li> </ul>
			

### References:

<http://www.berkeleyside.com/2017/08/08/uc-berkeley-conduct-full-scale-earthquake-drill-aug-11/>

<http://www.berkeleyside.com/2017/08/11/uc-berkeley-gets-ready-big-one/#>

## RESEARCH

### Increase in Aftershock Size and Triggering Proposed by New Modeling

Through computer simulations, a new model of earthquake hazard in California shows that in the week following a magnitude 7 earthquake, another magnitude 7 aftershock is 300 times more likely. Most aftershocks are smaller than the main shock, but in rare cases they can be larger. The study includes aftershocks as a possible triggering mechanism as well as the main shock, by adding short-term probabilities to the Uniform California Earthquake Rupture Forecast Version 3 model (UCERF3).

The combined model, called UCERF3-ETAS (epidemic-type aftershock sequence), “represents a relaxation of segmentation assumptions, the inclusion of multifault ruptures, an elastic-rebound model for fault-based ruptures, and a state-of-the-art spatiotemporal clustering component. It also represents an attempt to merge fault-based forecasts with statistical seismology models, such that information on fault proximity, activity rate, and time since last event are considered in OEF,” (operational earthquake forecasting), according to the authors Edward H. Field and others.

#### References:

<http://www.bssaonline.org/content/early/2017/02/24/0120160173.abstract>

<http://temblor.net/earthquake-insights/a-m7-aftershock-is-300-times-more-likely-in-the-week-after-a-m7-mainshock-in-new-study-4553/>

<http://srl.geoscienceworld.org/content/early/2017/07/07/0220170045>

### Disaster Resilience Research Grants Program

The U.S. Commerce Department’s National Institute of Standards and Technology (NIST) awarded just over \$6 million to 12 selected grant recipients for disaster resilience research projects. The projects were chosen from 172 submitted proposals and had to support research that will:

- Help advance the principles of disaster resilience in the design of building and infrastructure systems; or
- Facilitate the development of building codes and standards to reduce the impact caused by windstorms—primarily hurricanes and tornadoes—and coastal inundations, wildland fires and earthquakes; or
- Lead to the development of innovative measurement methods and technologies to collect and evaluate building and infrastructure performance data in the wake of a hazard event.

The grant recipients in the western states include Stanford University (Stanford, California), University of California, San Diego, University of Boulder (Boulder, Colorado), and University of Washington (Seattle, Washington). To view a complete lists of recipients visit: <https://www.nist.gov/news-events/news/2017/08/nist-funds-12-projects-make-communities-more-resilient-disasters>

#### Reference:

<https://www.nist.gov/el/disaster-resilience/disaster-resilience-federal-funding-opportunity-ffo>

### What Every Wardrobe Needs:

A special selection of men’s and women’s shirts emblazoned with the WSSPC logo is now available for order directly from Lands End:



<https://business.landsend.com/store/wsspc/>

## ADDITIONAL RESOURCES & PUBLICATIONS

### **San Diego's Rose Canyon Fault Scenario Project**

Preliminary results of a scenario of the damage a 6.9 magnitude earthquake along San Diego's Rose Canyon fault could cause were presented September 13. The project is sponsored by the San Diego chapter of EERI (Earthquake Engineering Research Institute) with the California Geological Survey, Structural Engineers Associations of San Diego, and the University of California San Diego, Jacobs School of Engineering.

The development of the earthquake scenario has encompassed a collaborated effort of over 50 federal, state, county, city, academic and private organizations in San Diego and Tijuana. Anthony Court, an engineer at A.B. Court & Associates and member of the EERI team, said, "The goal of the scenario is to raise the awareness of the earthquake risks among the public and policy makers, and to encourage long term planning to mitigate risks, reduce the social and economic impacts, and strengthen the region's resilience."

The team has not fully completed their study, however they do have preliminary data of the risk assessments:

- Thousands of buildings could be damaged with costs climbing up to \$40 billion.
- A massive landslide could be triggered, generating a local tsunami ultimately flooding the Silver Strand within minutes and sending strong currents and waves into San Diego Bay.
- 1,000-2,000 people could be killed and 33,000 families could be displaced.
- There would be extensive damage to the San Diego International Airport, Naval Air Station North Island, and older buildings in Balboa Park.
- 200,000 buildings in San Diego County could incur moderate to severe damage.

The last notable quake along the Rose Canyon fault was an estimated magnitude 6 in 1862. However, Jim Gingery, an engineer with Kleinfelder, explains that the probability of an event like this happening is low.

#### References:

*[Sandiego.eeri.org/?page\\_id=265](http://sandiego.eeri.org/?page_id=265)*

*<https://www.eeri.org/cohost/member-resources/pulse/769-september-15-2017#san-diego-tijuana-earthquake-scenario-two-cities-two-states-two-countries-one-response>*

*<http://www.sandiegouniontribune.com/news/science/sd-me-earthquake-sandiego-20170908-story.html>*

*<http://www.10news.com/news/researchers-69-earthquake-in-san-diego-could-kill-thousands-cost-billions-of-dollars>*

The final report from the National Earthquake Conference in 2016 available for download here:  
<http://newsroom.flash.org/news/reports/national-earthquake-conference-final-report.htm>

## Active Faults in Southern California

The California Geological Survey released preliminary review maps under the authority of the Alquist-Priolo Earthquake Fault Zoning (AP) Act that have redrawn the locations of faults in Hollywood, Beverly Hills, and Santa Monica. These faults are the Newport-Inglewood, Hollywood, and Santa Monica faults on the Beverly Hills and Topanga map sheets.

If a piece of property lies within the Alquist-Priolo Earthquake Fault Zones, a special investigation is required prior to any construction to identify the fault location. Once the fault traces are located, the building must have a mandated setback from the fault.

The additions, revisions and removals of certain fault sections will impact real estate in this urbanized area to the tune of billions of dollars.

“These changes in fault traces highlight the importance of continually researching and remapping urban faults, as only with better knowledge can we prepare for the earthquake which will inevitably happen” (Jacobson and Stein, Temblor).

The State Mining and Geology Board will be holding a public hearing to review the proposed fault zone maps at the beginning of October. The preliminary review maps will not become official until January 11, 2018.



*Images of preliminary review maps: proposed new (Topanga Canyon) and revised (Beverly Hills).  
Source: California Geological Survey*

### References:

[http://www.conservation.ca.gov/cgs/rghm/ap/Documents/Announcement\\_Preliminary\\_EFZ\\_2017\\_07\\_13.pdf](http://www.conservation.ca.gov/cgs/rghm/ap/Documents/Announcement_Preliminary_EFZ_2017_07_13.pdf)

<http://temblor.net/earthquake-insights/state-finds-new-active-fault-strands-in-santa-monica-beverly-hills-and-hollywood-4609/>

## **Washington Releases Draft Resilience Report**

The *Resilient Washington Subcabinet Report: Findings and Recommendations* is the result of a 10-month state effort to assess a “strategy in creating a resilient Washington State with regard to the hazards posed by earthquakes and tsunamis.”

In November 2016, Governor Jay Inslee issued Directive 16-19, establishing a Resilient Washington Subcabinet. Through this subcabinet, the Washington Military Department’s Emergency Management Division was directed to lead the coordinated effort of multiple workgroups.

The conclusions of the workgroups recommend establishing a body to further the state’s resilience goals. The report estimates a \$27.6 million initial investment is needed to accomplish the high priority short-term actions, but notes that significant additional investment will be needed for the longer term actions. Funding sources to make the necessary changes to become more resilient were not identified. It was also reported that the Governor was looking for quick and easy options rather than tackling the longer term, more expensive actions.

In a Subcabinet meeting September 27, Governor Inslee announced he plans to release recommendations for next steps within the next few weeks. A short video clip of the meeting is available at <http://www.king5.com/news/local/governor-told-state-not-ready-for-earthquake/479188865>

### References:

<https://mil.wa.gov/uploads/pdf/resilient-wa-subcabinet/rw-subcabinet-draft-reprt-with-appendices-9.22.17.pdf>

<https://mil.wa.gov/emergency-management-division/resilient-washington-subcabinet>

<http://mynorthwest.com/766285/gov-inslees-earthquake-subcabinet-releases/>

## **Unreinforced Masonry (URM) Building Policy Committee Report**

Portland Bureau of Emergency Management has written a draft policy report for URM buildings. Portland is home to hundreds of URM buildings including: 45 schools, 35 churches, and 270 multifamily structures. A complete building inventory is available on the Portland Bureau of Emergency Management’s website at [www.portlandoregon.gov/bds/urms](http://www.portlandoregon.gov/bds/urms) .

A mandatory seismic strengthening program was recommended to be put into effect concerning the retrofitting of URM buildings. The Policy Committee highly recommends that URM buildings be prioritized into a classification system and to be retrofitted to meet specific standards based on potential risk factors i.e.,

- Class 1—Critical Buildings and Essential Facilities
- Class 2—Schools and High-Occupancy Structures
- Class 3—Average URM Buildings
- Class 4—Low Occupancy URM Buildings

To read the complete report: <https://www.portlandoregon.gov/pbem/article/646226>

## PEOPLE & TRANSITIONS

- **Marilyn Gally** has transitioned from Director of Colorado Emergency Management Office to a role with the Colorado Recovery and Resiliency Collaborative.
- **Ezzie Michaels**, Preparedness Director and Acting Emergency Management Director, Colorado Office of Emergency Management while DHSEM conducts a national search for a new Emergency Management Director.
- **Jennifer Hogan**, SHMO, California Governor's Office of Emergency Services

## CONFERENCES, WORKSHOPS & EVENTS

**Webinar: Improving Earthquake Performance on Manufactured Homes**  
October 4, 2017 (12P.M.-1:30P.M. Pacific)  
To register: <https://register.gotowebinar.com/register/6139535876042879489>

### **Geological Society of America (GSA)**

October 22-25, 2017

Seattle, Washington

For more information: <http://community.geosociety.org/gsa2017/home>

### **FLASH—2017 National Disaster Resilience Conference**

October 25-27, 2017

Atlanta, Georgia

For more information: <http://flash.org/nationaldisasterresilienceconference/>  
[WSSPC is a Presenting Partner]

### **WSSPC Board Meeting**

December 7, 2017

Sacramento, California

### **American Geophysical Union (AGU) Fall Meeting**

December 11-15, 2017

New Orleans, Louisiana

### **EERI—11<sup>th</sup> National Conference of Earthquake Engineering**

June 24-29, 2018

Los Angeles, California

For more information: <https://11ncee.org/>  
[WSSPC is a Cooperating Partner]

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If you have a newsworthy item for our e-Newsletter, please forward it to  
Erin Mommsen Program Manager at: [emommsen@wsspc.org](mailto:emommsen@wsspc.org)