ASSOCIATION OF BAY AREA GOVERNMENTS
RESILIENCE PROGRAM

BRIEFING MINUTES

Getting Ready for El Nino: Briefing for Cities & Counties

December 16, 2015 | 2:00 – 4:00 pm

Oakland Museum of California • James Moore Theater • 1000 Oak Street • Oakland, CA

Attendees: List of registered audience members. If you would like contact information for any speakers please email michaelg@abag.ca.gov

I. Summary

The 2015 El Nino weather pattern is one of, if not the strongest system on record. Past strong El Nino years have been responsible for some of California's worst flooding years. NOAA is forecasting a wetter than average winter. Cities and special districts that have held El Nino informational meetings have attracted vast interest from their residents – it's an issue Bay Area residents are concerned about.

Local, state, and federal agencies are continually getting out the preparedness message. Many have taken additional preparedness actions themselves to prepare for the winter storms: developing concept of operations plans, prepositioning resources, and coordinating across government and with NGOs.

There are many resources already available that jurisdictions can actively share with all their residents, especially those in areas of flood and landslide risk and those communities that are most vulnerable during disasters (elderly, disabled, transit dependent, low income).

Below are the minutes from the December 16th El Nino Briefing for Cities and Counties. Resources mentioned during the talk are hyperlinked directly from the document. Example resources from other cities and state agencies are also available as links on the El Nino Resource page of the ABAG website.

II. Using Resilience to Raise the Bar – Chief Resilience Officers' Presentation

Victoria Salinas, Oakland; Timothy Burroughs, Berkeley

Oakland

- The 100 Resilient Cities program recognizes disasters typically exacerbate chronic issues cities face, and that individual resilience is critical in achieving city resilience.
- Oakland has 50 square miles – the city is better off if residents are prepared.
- City has hosted Weather Ready Workshops, providing weatherization resources to residents. The city is constantly holding CORE classes to educate residents on what they can do to prepare themselves, and their community.
- The city has an Adopt A Drain program, that has residents sign up to keep a storm drain in their neighborhood free of debris. Important for a city with 10,000 drains.
- In preparation of this El Nino, and in Oakland's larger resilience initiative, the city is working with the most vulnerable populations.

Berkeley

- The most direct El Nino action the city has taken was a workshop held on December 10th – dedicated to talking about El Nino and providing resources to residents.
  - It was a packed event with hundreds in attendance. Residents are concerned about El Nino and want to know what the city is doing and what they should be doing.
- The work that goes into planning for El Nino this year is helping the city get ready for the future.
  - El Nino exacerbates existing problems of aging infrastructure and sea level rise.
    - These issues are often bigger that what the city can tackle alone. Berkeley looks forward to trying to address these larger issues with neighboring jurisdictions and as a region.

III. Opening Climatology Keynote

Michael Anderson, DWR

- After a historic drought defined as the driest period on California record, we are experiencing the strongest El Nino pattern ever measured.
- NOAA forecasts are showing a wetter than average likelihood for the Bay Area, even more likely for Southern California. (NOAA Brief)
- Past El Nino years have had above average **rainfall**. Despite an average fall for most communities, most past El Nino events have had dry or average falls, followed by intense winters in January, February, and March.
    - In '97 portions of the state saw 150%, 200%, 250% of their monthly averages in January through March. (Business Times Infographic)
- High **tides** are also a major cause of flooding during El Nino years.
    - El Nino has resulted in an additional 6-8" to the expected high tides. The Bay Area will experience King Tides in December, January, and February – these tides are the highest of the year without any influence from storms. (if coupled with storm surge and rainfall, flooding will be significant.)
        - BCDC connects the region to NOAA resources related to tides. (BCDC Brief)
    - These higher El Nino influenced tides can be even higher with the addition of storm surge. Already this year in San Diego and Santa Barbara they have set all-time high water levels.
- Winter storms also have the potential to bring **strong winds**. After four years of drought and only a handful of strong storms over the past four years, there are a record number of dead and weak trees that could come down in large rain and wind events.
- As a result of the higher than average rainfall that can fall over the course of a single month there is the potential for serious **landslides** during El Nino. In the '82, '83events a 32 hour storm triggered more than 18,000 individual debris flows. Direct damage exceeded $66 million in 1983 dollars. El Nino in the Bay Area alone there were over 5,000 landslides. (USGS report)

IV. Panel: Local Utilities

Evermary Hickey, PG&E; Cecile Pinto, PG&E; Mary Ellen Carroll, SFPUC; Mike Ambrose, EBMUD; Moderated by Duane Bay (ABAG)

PG&E – Services 70,000 square miles (of diverse CA topography) and manage 160,000 miles of electrical lines, 49,000 miles of gas lines, servicing a population of 18 million across California.

- PG&E's mission is similar to all agencies responding to events. Protecting health and welfare is the number one priority; after that, it's about reducing any property damage, and reducing outage times.
- PG&E understands the critical importance of many facilities (eg. 911 call centers, hospitals, EOCs, etc.)
- PG&E has expert staff inform PG&E's every day operations. Staff meteorologists and geotechnical engineers provide both long term decision making support and forecast events that are on the horizon.
- PG&E website has a map interface that shows all current outages. Each outage includes details like the number of customers impacted, the outage cause, the length of the outage, and an expected restoration time. (PG&E Outage Map)
- PG&E continually gets the preparedness message out to customers. Whether it's fire season, storm season, or the continual earthquake message, PG&E is connecting customers to resources to help them prepare.
- The preparedness and response materials and processes were refined during the 2015 fire season.

SFPUC - Provides wastewater and power services to the City and County of San Francisco, and provides wholesale water to over 2.8M Bay Area Residents, and water distribution to San Francisco Residents.

- It has been an interesting past year with same day meetings on both flood and drought topics – it's a difficult dichotomy to communicate to residents.
- SFPUC is no different than every other utility in that it is constantly battling against the chronic issues of aging infrastructure
    - The good news is that SFPUC is nearly completed with a massive upgrade of the water system.

    - The caveated good news is that they are just now beginning a 20 year improvement plan for the wastewater system, but of course many of those upgrades will not be in place to address any impacts that occur this winter.
    - One project that remains as part of the water improvement program is the replacement of Calaveras Dam. While under construction it will be unable to store its full capacity. This is an issue for other dams across the region and state that function at reduced levels because of their seismic vulnerability.
- In San Francisco, there are places that flood during a certain duration and amount. It doesn't have to be the storm of the century.
- SFPUC has provided a number of materials to get out to residents. (SFPUC's Ready for Rainstorms website)
- In these areas in particular, SFPUC has also recommended residents purchase flood insurance.
- Internally the organization is viewing this winter as a potential snapshot into the future. There was an internal *climate change* team – over the past year that team has integrated throughout the organization to provide cross cutting support to the operations and planning side of SFPUC

EBMUD – provides drinking water for 1.3 million customers in Alameda and Contra Costa Counties, and sewage treatment for a smaller subset of Alameda County.

- A big component of preparation for El Nino has been the coordination with other utilities to share information. EBMUD has a number of agreements in place to share equipment and other resources with other jurisdictions.
- EBMUD has institutionally built emergency response into their day to day activities. Large main breaks are treated much the same way as large disasters. Practice, practice, practice.
- EBMUD is still reminding residents the district and its water supplies remain in a stage 4 critical drought. The message remains 35gal water/per person for indoor use and use wisely outdoors.
- Even with a wetter than expected winter, it could take years to recover water supply from the past four.
- Remind residents to have 3-7 days of water supply on hand. Consider having a temporary toilet.
- Ensure businesses have business continuity plans.

Question for all Utilities: How can cities tap into coordinated approach with utilities?

- PG&E offers workshops for first responders (typically fire, police, and emergency services staff). PG&E provides local staff with training and grants participants access to an online first responder portal with information about PG&E's system.
- PG&E has a government relations group within the organization to provide special assistance to local governments. All local governments should have a point of contact with PG&E. Cities should ensure they know this person and number before any event occurs.
- Just like PG&E most water utilities have a dedicated number cities can call to report needs. Cities can also report emergency and needs through the general dispatch system. It's important to check in with utilities beforehand if a communication process is not already in place.
- EBMUD will be involved at the County EOC for any event and will coordinate with other agencies and jurisdictions through that structure. All the utilities are also coordinated through California Utilities Emergency Association (CUEA) – which serves as a point-of-contact between infrastructure utilities and CalOES.

V. Panel: First Responders

Mike Dayton, San Francisco; Anne Reynolds, American Red Cross; Charles Rabamad, CalOES; Roger Gass, NWS; Benigno Ruiz, FEMA Region IX; Moderated by Jodi Traversaro, CalOES

City & County of San Francisco

- Developed a Con Ops Plan that outlines how the city will respond to all the expected storms this winter. (SF Concept of Operations Plan: El Nino)
- Have pre-identified a dozen shelter locations for vulnerable populations, specifically the homeless populations, and have worked closely with interfaith councils to bring to bear enough resources.
- PG&E has been informed of these shelter locations and have integrated the information into their Operation Plans.
- Internally, the city has organized across offices and departments.
- The city recognized in past storm events with many incidents that resources weren't always dispatched effectively. The city has worked on its 311 and dispatch center to connect the right staff to problems – ensuring responding staff (fire, police, public works, parks, etc.) are utilized to their fullest.

Red Cross

- Responds to disasters of varying scales. Everything from a single damaged house to a large multi-state event. Recently they've been responding to the flooding in Oregon over the past week.
- The Red Cross has been in an *assessment and repositioning* phase leading up to this winters expected El Nino storms.
- They have repositioned trailers and resources near areas that are a higher flood risk, so that resources can be deployed quickly to assist impacted Bay Area residents.

National Weather Service

- NWS gets information out through the media, first responders, and cities.
- If it's a threshold of concern, emails go out to cities and counties that include the confidence of the forecast and the expected impacts.
- If there is a localized weather event NWS will do their best to get the message out to the affected area. Their social media platform is a useful resource. (Twitter: @NWSBayArea)
- After an event, NWS is open to sending a meteorologist to an EOC to help inform of subsequent storms that could impact the response and recovery of an initial event.

Cal OES

- Has been leading workshops for local jurisdictions on cost recovery, highlighting the processes that are needed in place, so when the disaster hits the jurisdiction gets the reimbursements they are eligible for.
- In California, a number of jurisdictions are leaving money on the table by not following the necessary state and federal processes. This is a double impact as jurisdictions are losing out on money that could be reimbursed to them and then they're losing out on an additional 20% pot of money in the form of Hazard Mitigation Grants, which accompany disasters.
- Because California has an Enhanced Hazard Mitigation Plan the state is eligible to receive an additional 20% in funding to support mitigation, to reduce future hazard risks. (Hazard Mitigation Grant Program Brochure)
- After an event, it's not just CalOES staff that the state can bring into to assist. Other state agencies, like Caltrans and DWR, can send environmental professionals, geotechnical engineers, and administrative support.

FEMA Region IX

- Covers California, Arizona, Nevada, Hawaii, and the Pacific Territories. Over the past year they've responded to a number of events, with the drought and fire being the largest in California. FEMA is always in a preparedness mode.
- In the '97 '98 El Nino, 38 counties in California declared disasters.
- In September, FEMA set up a task force to plan for and prepare resources for the likely strong El Nino.
    - Assessments were completed to find the most vulnerable places for flooding as well as the most vulnerable populations, specifically those with mobility issues.
    - Also looked at places that might respond differently to rainfall this year compared with years past - especially all the burn areas resulting from fires.
- Two main resources they point the jurisdictions and the public too.
    - Floodsmart.gov
    - Ready.gov for emergency kit information.
- At this point there isn't time to construct permanent flood protection for this winter's storms – those measures will require long term planning in the years ahead. There is still a lot cities can do to help residents prepare: buy flood insurance, understand localized risk, and respond efficiently.
- FEMA would like to get out of the cycle of fixing the same damage over and over. If there is damage, FEMA wants to leverage mitigation in the recovery phase to protect against future impacts.

VI. Access Additional Information

- ABAG will host shared information on the El Nino Resource Page.
- ABAG's Resilience Program has an online hazard mapping tool.
- ABAG has an online open data page. You can download map layer files to overlay over city and county data sets.
    - Hazard data – there are 40+ hazard layers, many earthquake related, but there are FEMA flood maps (for all but SF County), as well as landslide layers created by the USGS and CGS.
    - Census data – the ABAG team has used census block groups to generally characterize where vulnerable populations are. The *Stronger Housing – Safer Communities* report highlights the methodology and strategies cities can take in the long term.
- Connect with CalOES for emergency preparedness and emergency response activities.
- Connect with ABAG and CalOES for assistance with hazard mitigation, climate adaptation, and resilience planning, policy, and action.