Lifelines are the systems and facilities that provide services vital to the function of an industrialized society and important to the emergency response and recovery after a natural disaster. These systems and facilities include communication, electric power, liquid fuel, natural gas, transportation (airports, highways, ports, rail and transit), water, and wastewater.

- American Society of Civil Engineering Technical Council on Lifeline Earthquake Engineering (TCLEE), 2009

Meeting #13 – Visualizing our Interdependencies
September 19, 2013
3:00pm – 5:00pm
SAN FRANCISCO CITY HALL
Conference Room 201
Co-Chairs
Naomi Kelly, City Administrator, General Services Agency, City and County of San Francisco
Chris Poland, Co-Chair, SPUR Resilient Cities Initiative, and Chairman, Degenkolb Engineers

REPRESENTED AGENCIES

| Association of Bay Area Governments | San Francisco Department of Emergency Management | San Francisco Municipal Transportation Agency |
| Bay Area Center for Regional Disaster Resilience | San Francisco Department of Public Works | San Francisco Office of the City Administrator |
| California Resiliency Alliance | San Francisco Earthquake Safety Implementation Program | San Francisco Public Utilities Commission |
| Comcast | San Francisco Capital Planning Program | San Francisco International Airport |
| Degenkolb Engineers | San Francisco Fire Department | SPUR |
| Laurie Johnson Consulting | San Francisco Real Estate Division | Urban Resilience Strategies |
| Pacific Gas & Electric | | Verizon Wireless |
| Port of San Francisco | | |
| SamTrans | | |

1) Welcome and Introductions
Naomi Kelly and Chris Poland, Co-Chairs

Naomi Kelly and Chris Poland called the meeting to order. Following a round of introductions, Mr. Poland provided an overview of the day’s agenda which emphasized reports from three work groups that are underway with the Lifelines Council.

2) Rim Fire Briefing & Q&A Session
Michael Carlin & Mary Ellen Carroll, SFPUC

Mary Ellen Carroll and Michael Carlin gave an update on the “Rim Fire” and the SFPUC’s response. As of September 19, over 256,000 acres have been burned and the fire is now 84% contained. The fire started on August 17th and SFPUC activated both its main Department Operations Center (DOC) and the Moccasin emergency operations center (EOC) up at Hetch-Hetchy on August 20th. The city issued an emergency declaration on August 21st and the governor issued a state-level emergency declaration on August 23rd. There was a unified command post with Cal Fire, U.S. Forest Service, and the National Park Service. Tuolumne County is the lead local agency and works through the ICS structure with Cal OES and FEMA. A San Francisco Fire Department liaison was sent to the Unified
Command. The SFPUC’s Bay Area resources were mobilized to support the Hetch-Hetchy Water and Power activities. SFPUC provided daily updates to the Mayor and other City leadership.

Only 1% of fire burn area was within the Hetch-Hetchy watershed boundary. This was along the southern perimeter of the reservoir and, in these areas, it was a low intensity burn. Mr. Carlin reported that the system intake was 250 feet below the surface of the reservoir, so it was not directly affected by the fire. As a contingency, SFPUC started drawing down the reservoir and putting reserves into local reservoirs. SFPUC also started planning to consider how they would be able to serve and meet demand if they had to shut off the O’Shaughnessy site. On August 29th, they provided a draft contingency plan to their wholesale customers showing how they would use potential alternative sources. However, these plans were not needed. The SFPUC has been and continues to provide high quality water. The purity of Hetch-Hetchy water exempts it from filtering and this remains the case.

Ms. Carroll reported that two of three SFPUC power houses and most of the power transmission/distribution lines were taken offline on August 17th. After this, municipal power needs were met through power banking agreements and market purchases. The most major damage appears to be in the electric distribution lines and there are some areas of potential slope instability along roads leading to the new power facilities. All city owned structures are now secure. The Camp Mather and O’Shaughnessy compound were close to the fire but mostly unaffected.

As of September 19th, SFPUC remains in a state of emergency and transitioning to the assessment and recovery phase. Some losses will be covered through property insurance coverage and SFPUC is also applying for state and federal disaster assistance funding. The insurance payments and state and federal reimbursements will take time. SFPUC’s financial condition also remains stable. They took a pre-payment from wholesale customers on money owed and don’t anticipate any rate increases.

In response to question about the federal disaster assistance process, Ms. Carroll explained that SFPUC has fast-tracked a mobile computing applications. Field crews are using iPads to complete inspections and estimate repair costs and SFPUC’s finance team is up there helping to complete the disaster assistance forms. SFPUC had a mobile computing pilot project ready to go and it was fast-tracked. They estimate they have condensed about a year’s worth of work into a month.

Asked about the potential for mudslides, Mr. Carlin said that they don’t expect problems with erosion impacting the main reservoir but they are concerned with the potential for damage to the road leading up to Cherry Lake. Asked about the power situation, Mr. Carlin said that they were asked to de-energize the system around August 17th or 18th when the fire was only 800 acres near Groveland. So, the power plants were offline when the fire burn area started growing. SFPUC then evacuated its crew.

SFPUC had generated a lot of power in the spring of 2013 and bank it with PG&E and local irrigation districts. SFPUC was able to access this excess supply during the shutdown. When the fire was finally under control, SFPUC was able to bring the power plants back online. SFPUC is now working to rebuild the distribution system. They have about 1200 power posts and lost about 300 or 400 of them in the fire. SFPUC hopes to have the intake to the Mather line completed by October 1st, and they are also trying to piggyback on some of AT&T’s poles.

3) Work Group Update:

Priority Routing

Chris Poland, Degenkolb Engineers &
Patrick Otellini, SFGSA-ESIP

The Priority Routing Working Group is near the completion of the data collection phase and has begun analyzing the data to develop and produce a map of identified key priority routes to be used for post-event damage assessment within 0-24 hours after a major disaster. One to two additional maps will be created to address key...
priority routes for clearance and restoration of lifelines identified for time periods after the first 24 hours. They are currently working with PG&E to utilize the most current methodology for developing alternate routes when particular streets are not usable. Further policy work is being done to develop an ordinance to require mandatory facade maintenance inspections aimed at identifying buildings at risk of façade failures which could potentially block identified key access routes.

### 4) Work Group Update: Temporary & Permanent Cell Sites

| John Updike gave the report for the work group. He noted that the co-chair, Tedi Vriheas from AT&T was attending a Board of Supervisors meeting. Mr. Updike said that the group has crystallized their focus on 3 main issues: 1) developing common language for agreements with the city that will facilitate easier installation of cell facilities on city-owned properties and also help with 2) better coordination of annual or special events; and 3) planning ahead for the installation of infrastructure at large gathering points or other locations that we anticipate, or places that we know will be, critical or critical gathering points. He said that a meeting is planned for early October with many city agencies and ‘cousins’ to work on building consensus for the approaches to these issues. He said that the group also wants to identify some of the most geographically vulnerable areas – Mission Bay, area around Candlestick, Golden Gate Park, the Transbay Terminal, Civic Center and Treasure Island. We will have a lot more information to share involving language, streamlined process and improving infrastructure. There were no additional questions or comments. |
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| Tedi Vriheas, AT&T & John Updike, SFGSA-Real Estate |

### 5) Work Group Update: Interdependency tabletop Discussion, Scope & Objectives

| Jill Raycroft, DEM, passed out a handout with the proposed exercise design and Mr. Dudgeon described the concepts behind the design. He said that the exercise proposes taking a portion of the city’s power offline, and then talking through how other operators and agencies are going to deal with it off. With power out all those entities within that area will have to identify their work-arounds, such as for fuel and generators, and what the implications will be if power is not restored for a few days. That will be the first move of the exercise. In the second move, the lifeline operators will consider if there are limited resources and what the work-arounds, such as for fuel or other logistics needs, will be. Finally, in the third and last move, the group will discuss recovery and PG&E’s claims team will discuss what is and isn’t eligible for reimbursement, which is very similar to dealing with reimbursements under the Stafford Act. Cecile Pinto, PG&E and Co-Chair of the Exercise Work Group, said that PG&E is going to limit power in an area where they also have gas transmission and a substation, so they will have certain requirements to make the areas safe for crews to come. She added that this will also give PG&E an opportunity to exercise some of their work arounds. If natural gas is, they can bring in Liquefied Natural Gas, for example. Mr. Dudgeon said that they want the exercise to be simple and achievable in 2 hours, and that this exercise will provide valuable input to build in some lifelines/infrastructure components to future functional exercises. Linda Yeung, GSA, added that DEM has committed to write an after action report that Council members can take back to their companies and discuss the results. Ms. Pinto added that this is a good scenario to learn from each other. Mr. Poland expressed his hopes that the scenario talks through the full restoration. Mr. Dudgeon agreed that this could be teased out a little more with immediate needs being emphasized in the first move, and longer-term issues addressed in the 3rd move. The date of the exercise is set for December 4, 2013. |
| Cecile Pinto, PG&E & Rob Dudgeon, SFDEM |

### 6) Lifelines Interdependency Study Process Planning

| Dr. Laurie Johnson |

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Laurie Johnson gave a quick update on the status of the lifelines interdependency study. She reported that the final draft of the study has been completed and has been sent to all the participating operators to review. Comments are due by September 30th. After this, the report will be finalized and available for distribution at a future date to be determined.

7) Briefing: San Francisco Hazard Mitigation Plan

Rob Dudgeon, SFDEM

Mr. Dudgeon explained how San Francisco is updating the existing Hazard Mitigation Plan, which was approved in January 2009. The plan must be revised every five years. San Francisco’s Hazard Mitigation Plan describes our City’s natural and human-made hazards, identifies actions we can take to reduce the effects, and establishes a process for implementing the plan.

The San Francisco Department of Emergency Management is seeking public input on the City’s Hazard Mitigation Plan. The plan can be found at www.sfdem.org/hmp.

8) Input from the Council

Jim Turner, California Resiliency Alliance, reported that the CRA is organizing three regional stakeholder workshops to inform preparation of a Lifelines Restoration Annex to the Regional Catastrophic Earthquake Logistics Response Plan. The power workshop will be held October 4 in San Ramon, the water/wastewater workshop will be held October 7 at East Bay Municipal Utility District’s headquarters in Oakland, and a fuel workshop will be held on October 11 at URS headquarters in Oakland. Asked if telecommunications were part of this, Mr. Turner responded yes that they would like to emphasize this at the power workshop on October 4.

Linda Yeung, Deputy City Administrator, noted that a recent article in Emergency Management magazine reported on the Lifelines Council and its work to study the interdependencies of infrastructure in the city as well as the city’s CAPSS program. The article can be found at: http://www.emergencymgmt.com/disaster/7-Ways-Response-Loma-Prieta-Earthquake.html

8) Next Steps and Announcements

Naomi Kelly & Chris Poland

None.

8) Adjourn

The meeting adjourned at 4:15pm.