



# LIFELINES COUNCIL

## Meeting 44: December 12, 2024

# Agenda

1. Call to Order	Douglas Legg, <i>Deputy City Administrator, City Administrator's Office</i> Chris Barkley, AECOM	5 minutes
2. Introductions and Agenda Review	Brian Strong, <i>Director, Office of Resilience and Capital Planning</i>	5 minutes
3. Lifelines Restoration Performance Report Update	Laurel Mathews, <i>Office of Resilience and Capital Planning</i>	5 minutes
4. San Francisco Fleet Week 2024 Exercise Outcomes and Takeaways for Lifeline Providers	Kendall Lee, <i>Department of Emergency Management</i>	25 minutes
5. Upcoming Full Scale Regional Earthquake Exercise	Kim Bowman, <i>Department of Emergency Management</i>	25 minutes
6. Tsunami Warning Response in SF	Mary Ellen Carroll, <i>Department of Emergency Management</i>	20 minutes

# Lifelines Restoration Performance Report Update

*Laurel Mathews, Office of Resilience and Capital Planning*

# Lifelines Restoration Performance Report

- ▷ Lifelines Council provided input on report update in September 2024.
- ▷ Workplan will be finalized this month.
- ▷ Tentative scope:
  - **Agency Interviews** to understand new/updated information about restoration timelines and assumptions
  - **Meeting** to share out updated restoration goals and timelines
  - **Half-day Workshop** to test assumptions and dependencies
  - **Report Revision** to incorporate updated understanding of restoration timelines, considerations, and high priority follow-up actions





# San Francisco Fleet Week 2024 Exercise: Outcomes and Takeaways for Lifeline Providers

*Kendall Lee, SF Department of Emergency Management*

# October 3, 2023

## *Summary of prior Lifelines Council discussions*

- ▷ **Presenters:** Caltrans; Golden Gate Bridge, Highway, and Transportation District; Water Emergency Transportation Authority
- ▷ **Discussion topics:**
  - Bridges passable within days, but access may be delayed because of weaker approaches and overpasses.
  - Challenge of determining who is allowed back into the city; different credentials, different jurisdictions.
  - Debris clearance – mutual aid agreements between DPW and Caltrans will likely be needed.

# December 13, 2023

## *Summary of prior Lifelines Council discussions*

▷ **Presenter:** Bay Area Rapid Transit

▷ **Discussion topics:**

- BART can be an important resource soon after an earthquake, but has dependencies on electric power, pump stations, and fuel for generators.
- Movement of responders, inspectors, DSWs will be critical for the recovery of multiple lifeline providers.
- Fuel will be in demand by all transportation modes – there will be regional prioritization with state oversight post-earthquake.
- Port piers are critical to connect people to ferries in the hours/days before bridge approaches are passable.



# **2024 San Francisco Fleet Week (SFFW) Defense Support of Civil Authorities (DSCA) Exercise Program Outcomes**

## **Lifelines Council Presentation**

December 12, 2024

Kendall Lee, Emergency Services Exercise and Training Lead  
San Francisco Department of Emergency Management



# 2024 SFFW DSCA Exercise Program



- SFDEM hosts an **annual San Francisco Fleet Week (SFFW) Defense Support of Civil Authorities (DSCA) Exercise Program** with the San Francisco Fleet Week Association to bring together **local, Bay Area, state, federal, and Department of Defense (DoD) partners** to improve emergency response and foster relationships.
  
- **Scenario:** Catastrophic earthquake
  - Debris, infrastructure destruction, utility failures
  - Disruptions to transportation systems
  - ~57% of City and County of San Francisco staff reside outside of City limits
  
- **2024 Exercise Program Themes:**
  1. Emergency route reopening
  2. Transportation of first responders and disaster service workers (DSWs)
  3. Interoperable communications and data systems



# Participating City Departments



- Port of San Francisco
- SF Adult Probation Dept.
- SF Controller's Office
- SF City Administrator's Office (CAO/ADM)
- SF Dept. of Building Inspection (DBI)
- SF Dept. of Emergency Management (SFDEM)
- SFDEM Auxiliary Communications Service (ACS)
- SFDEM Division of Emergency Communications (DEC)
- SFDEM Division of Emergency Services (DES)
- SFDEM Emergency Medical Services Agency (EMSA)
- SF Dept. of Homelessness and Supportive Housing (HSH)
- SF Dept. of Human Resources (DHR)
- SF Dept. of Public Health (DPH)
- SF Dept. of Technology (DT)
- SF Fire Department (SFFD)
- SFFD Neighborhood Emergency Response Team (NERT)
- SF Human Services Agency (HSA)
- SF International Airport (SFO)
- SF Municipal Transportation Agency (SFMTA)
- SF Office of Economic and Workforce Development (OEWD)
- SF Office of Resilience and Capital Planning (ORCP)
- SF Police Department (SFPD)
- SF Public Library (SFPL)
- SF Public Utilities Commission (SFPUC)
- SF Public Works (SFPW)
- SF Recreation and Parks Department (RPD)
- SF Sheriff's Office (SFSO)
- SF Treasure Island Development Authority (TIDA)

# External Partners



- Bay Area Rapid Transit (BART)
- Bay Area Urban Areas Security Initiative (UASI)
- CA Governor's Office of Emergency Services (Cal OES)
- CA Highway Patrol (CHP)
- CA Military Department (CMD) / CA National Guard
- CA Dept. of Transportation (Caltrans)
- Federal Bureau of Investigation (FBI)
- Federal Reserve Bank of San Francisco
- Federal Emergency Management Agency (FEMA)
- Golden Gate Bridge, Highway and Transportation District (GGBHTD)
- Metropolitan Transportation Commission (MTC)
- National Park Service (NPS)
- Neighboring jurisdictions & amateur radio groups
- Port of Oakland
- Presidio Trust
- Private sector partners, including CA Resiliency Alliance and Grainger
- SamTrans
- SF Fleet Week Association
- SF Interfaith Council (SFIC)
- SF State University (SFSU)
- UC San Francisco (UCSF)
- UC Law San Francisco
- US Army, including the Army Corps of Engineers (USACE)
- US Coast Guard (USCG)
- US Marine Corps (USMC)
- US Navy (USN)
- US Dept. of Defense (DoD), Defense Coordinating Element (DCE) Region 9
- US Dept. of Transportation / MARAD
- US Cybersecurity and Infrastructure Security Agency (CISA)
- US Environmental Protection Agency (EPA)
- Water Emergency Transportation Authority (WETA) / SF Bay Ferry



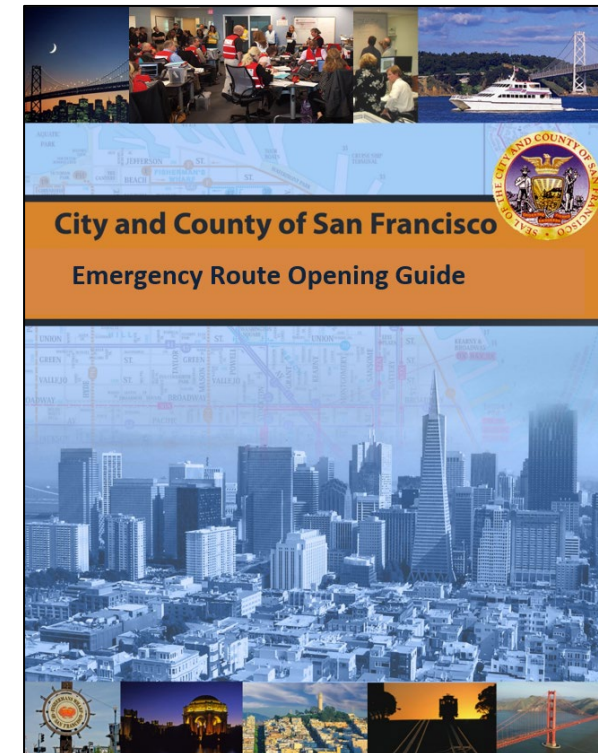
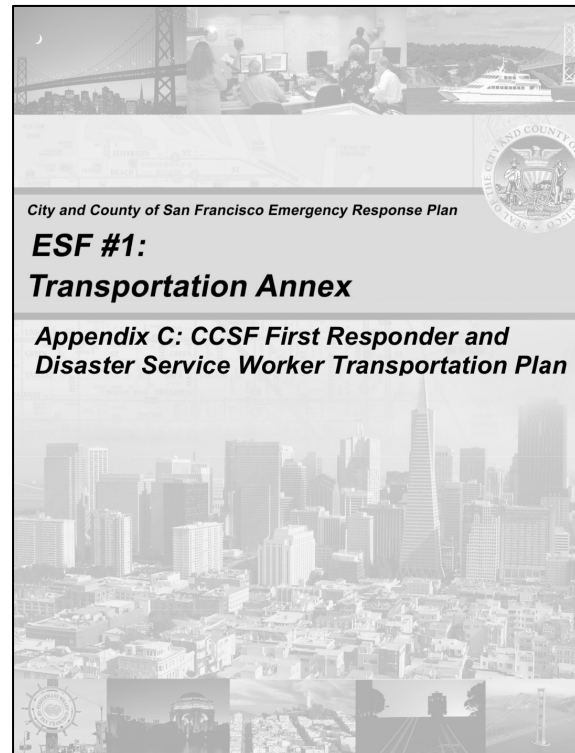
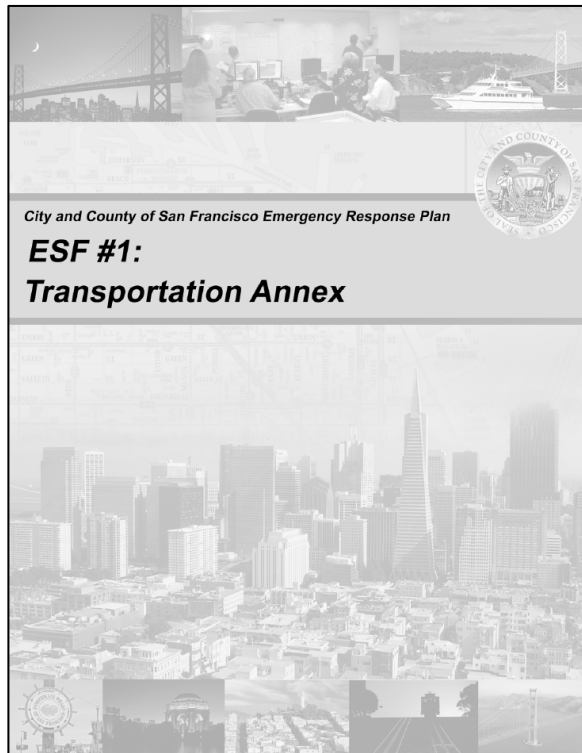
# Local Plan Review Workshops

Early 2024



## Reviewed Related Local Plans:

- Emergency Support Function (ESF) 1 Transportation Annex Plan
- First Responder and Disaster Service Worker (DSW) Transportation Plan
- Emergency Route Reopening Guide



# Local Tabletop Exercise

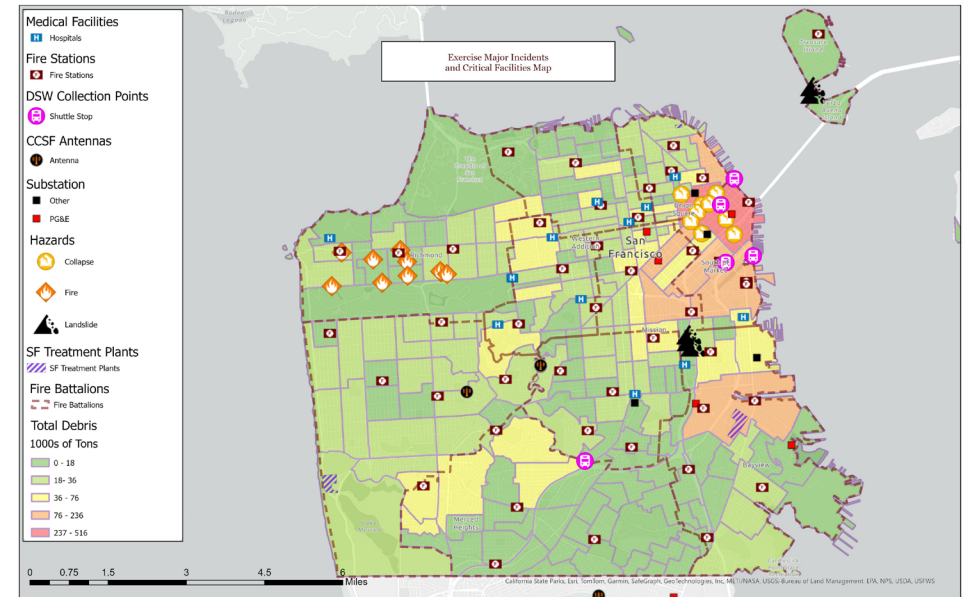
July 25, 2024

## Scope:

- Facilitated discussion about local plans and emergency response activities related to route reopening and the transportation of emergency services personnel after a major disaster into SF.

## Discussion Topics:

- Continuity of operations & staff recall
- Emergency route prioritization & needs
- First responder/DSW transportation needs





# DSCA Tabletop Exercise

September 17, 2024



## Scope:

- Seminar presentations and a discussion-based exercise about coordinating route reopening & transport of emergency services personnel into San Francisco with our regional, state, federal, and Department of Defense (DoD) partners.

## Discussion Topics:

- Regional coordination
- Resource requests & mission assignments
- Communication & common operating picture



# DSCA Full-Scale Exercise

October 8, 2024



Exercise Overview Video Link: <https://youtu.be/RbSofkwBk4k?si=jNup04yc4J5UBpiq>



# DSCA Full-Scale Exercise

October 8, 2024



**Capstone exercise with 200+ participants across 7 locations:**

1. Route reopening command post
2. Transportation of first responders and Disaster Service Workers (DSWs) into San Francisco
3. Data interoperability and communications testing
4. Emergency Operations Center (EOC) and Department Operations Centers (DOCs) coordination



# Overall Exercise Program Takeaways



- Successful series of exercises with strong participation and buy-in. One of the largest exercises in SFDEM's history.
- External assistance and coordination needs
- Regional considerations and resource prioritization
- Fuel may be a limiting factor for response operations (ground and maritime)





# First Responder / Disaster Service Worker (DSW) Transportation



- Tested actual movement of first responders/DSWs via ferries and buses
- Staffing and needs for Muster Sites and Collection Points
- Considerations for tracking staff movement
- Access to first responder/DSW transportation
- Timeline for initiating emergency transportation





# Emergency Route Reopening



- Route reopening coordination needs
- Route reopening/recovery vs. debris management
- Policy decisions around route reopening prioritization



# Interoperable Communications



- Built on successes from last year's SFFW Communications Drill
- Validated interoperability between military radios and SF's radio system. Protocols have been implemented nationally.
- Successfully tested alternate communication methods, such as amateur radio and SHARES HF
- Data system connections between the military and SF public safety agencies





# Next Steps



- After-Action Report/Improvement Plan (AAR/IP) for the Exercise Program is in development. Will be sent out for comment, finalized, and distributed in early 2025.





# 2024 San Francisco Fleet Week (SFFW) Defense Support of Civil Authorities (DSCA) Exercise Program Outcomes

## Discussion and Q&A Session

# Upcoming Full Scale Regional Earthquake Exercise

*Kim Bowman, SF Department of Emergency Management*



# Operation Epicenter

A San Francisco-led, regional, full-scale earthquake exercise.



# High Priority



USGS models have consistently shown a **high likelihood** of a major (6.7M+) earthquake in the near future



HAZUS modeling for San Francisco needs to be updated with fresh data



**A significant earthquake will require coordinated regional response and recovery efforts**



# Overview

## Hazus Modeling

- Completed by Dec. 2025

## Funding Scoping

- Completed by Dec. 2026

## Full-Scale Exercise

- Completed in 2027 or 2028

# Hazus Modeling

- FEMA's nationally standardized risk modeling methodology
- GIS-based desktop software fed by local, state, and federal data
- Quantifies and maps risk information from natural hazards:
  - Physical Damage
  - Economic Loss
  - Social Impacts
  - Cost-effectiveness
- Supports data-driven decision-making
- Can be used in real-time disaster response

# Hazus Modeling

## Existing Model

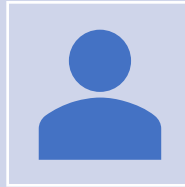
- Completed in 2017
- Based on:
  - 2001 California Geological Survey information
  - 2010 Census Data
  - 2013 SF Data ground shaking and liquefaction maps

## Updated Model

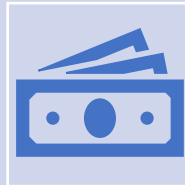
- Completed by a consultant
- Update to include 2020 census data
- Incorporate updated liquefaction and landslide data
- Incorporate infrastructure and building code improvements
- Findings will be outlined in a report for technical and non-technical audiences



# Exercise Funding Scoping



Conducted by a consultant



An initial assessment of planning and project management costs, local jurisdiction costs, and potential funding sources



Will provide findings in a report

# Regional Full-Scale Exercise

- **In the very beginning stages**
- Test interdependencies
- Focus on FEMA's Community Lifelines
- Simulate resource sharing and coordination
- Test assumptions and identify gaps
- Leverage the opportunity to coordinate with state and federal response entities (bridge inspections, building inspections, road reopening, etc.).



Safety and  
Security



Law  
Enforcement/  
Security



Fire Services



Search and  
Rescue



Government  
Services



Community Safety



Food, Hydration,  
Shelter



Food



Hydration



Shelter



Agriculture



Health and  
Medical



Medical Care



Patient Movement



Public Health



Fatality  
Management



Medical  
Supply Chain



Energy  
(Power & Fuel)



Power (Grid)



Fuel



Communications



Infrastructure



Alerts,  
Warnings, and  
Messages



911 and Dispatch



Responder  
Communications



Finance



Transportation



Highway/Roadway



Mass Transit



Railway



Aviation



Maritime



Hazardous  
Materials



Facilities



HAZMAT,  
Pollutants,  
Contaminants



Water  
Systems



Potable  
Water Infrastructure



Wastewater  
Management





Questions?

# Tsunami Warning Response

*Mary Ellen Carroll, SF Department of Emergency Management*

# Adjourn