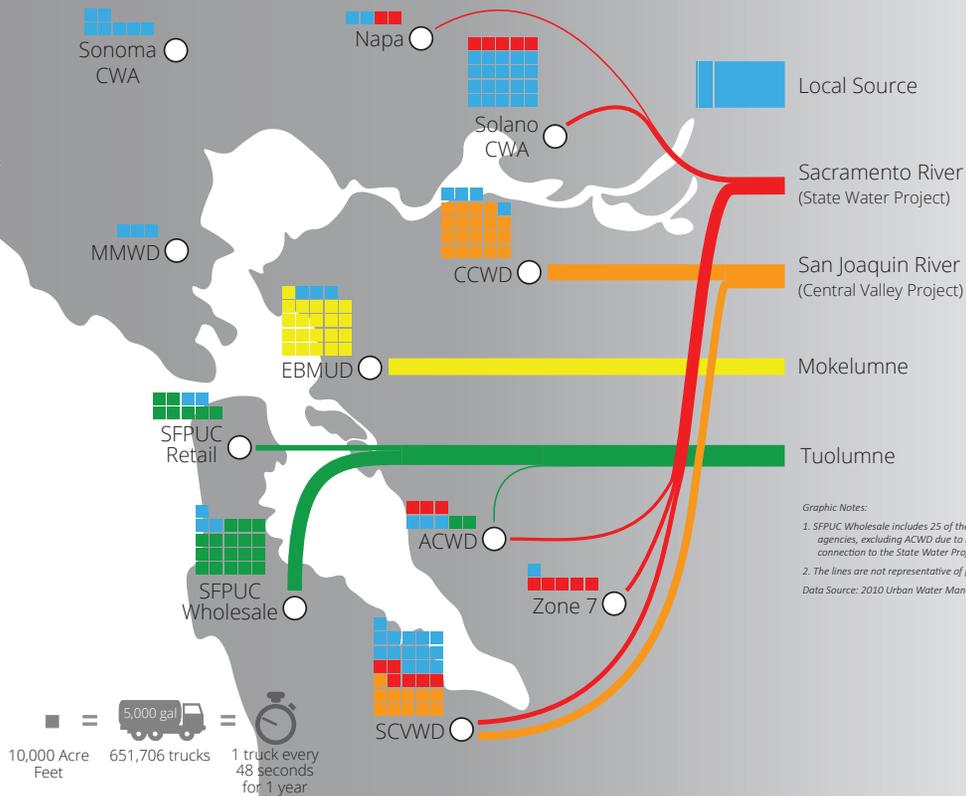
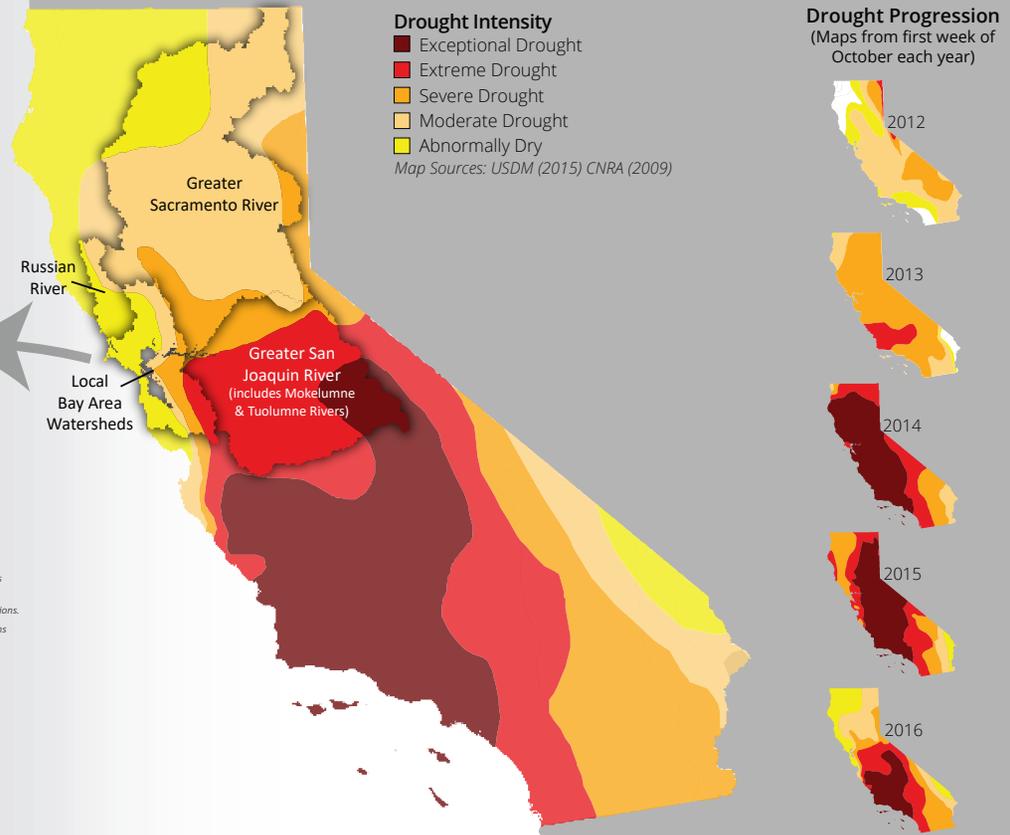


Bay Area Water Supply Sources & the California Drought

Annual Normal Water Supply Portfolio for Eleven Bay Area Water Districts



California Drought: Watersheds That Supply the Bay Area (October 2016)



Different portions of the Bay Area get their water from different sources.

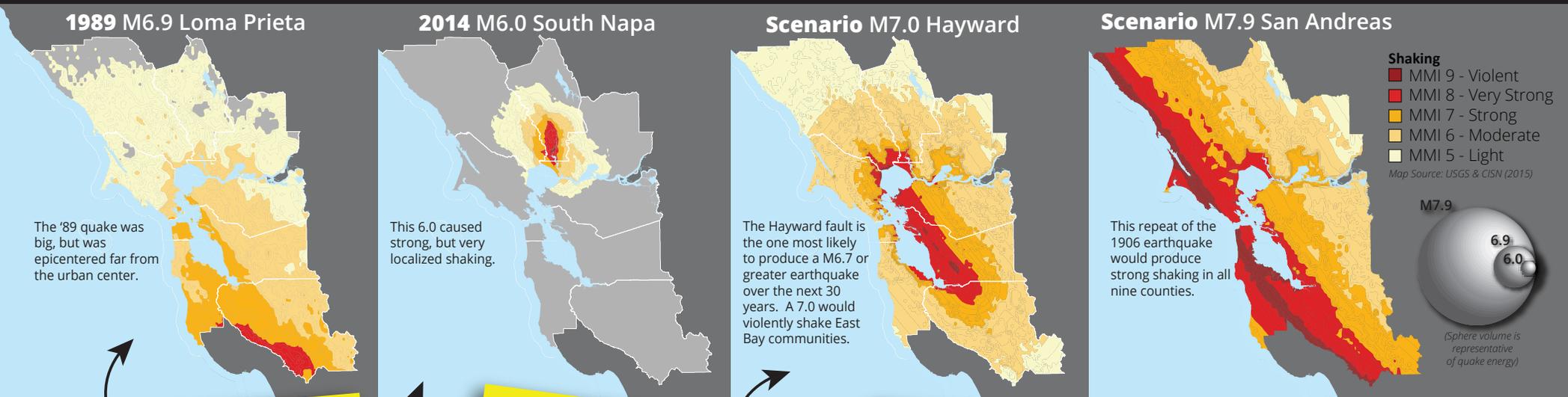
Supplies can vary from local sources to imported Sierra sources. Drought in the Sierra can impact Bay Area water availability.

This map shows current drought in watersheds that feed the Bay Area.

Some considerations

- Do you know where your water comes from?
- Do you think about water in your land use planning?

Bay Area Earthquake Risk and Global Water System Case Studies



The nine-county Bay Area has had bad earthquakes in the past.

But there is the potential for larger and more urban earthquakes.

Water systems can be extensively damaged in earthquakes.

Restoration in past quakes has taken months in areas with similar codes and standards.



Kobe, Japan (1995)

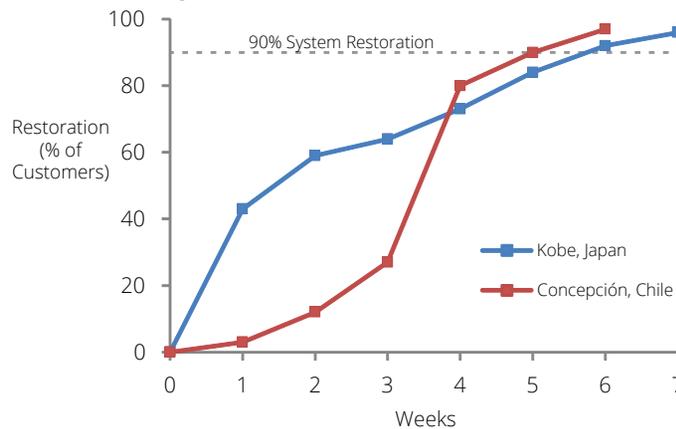
- The 6.9 earthquake caused extensive ground failures resulting in 3,600 major main breaks.
- 40 days after the disaster, 10% of the population was still without water, and complete water restoration required 82 days.
- Researchers tracked water service phone call sentiment -- over 4 weeks emotions changed from inquiry to complaint, anger, and finally desperation. The city goal now is to restore service in 4 weeks.



Concepción, Chile (2010)

- An 8.8 earthquake off the coast of Chile resulted in widespread water outages for 300,000+ residents.
- Water agency repairs were delayed by interruptions in fuel and power, and by civil disturbances.
- The utility partnered with the city to provide temporary water services, and has since developed a robust emergency fuel plan.

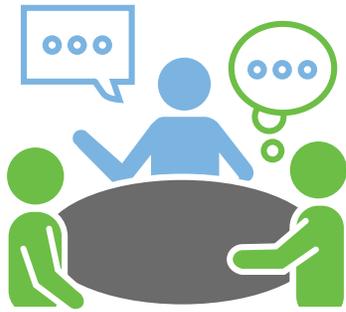
Water System Restoration in Kobe and Concepción



Some considerations

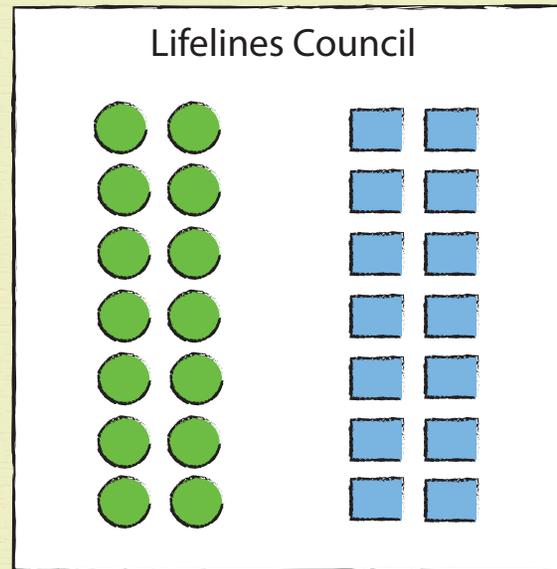
- How long is your city prepared to truck in water while pipes are fixed?
- Are you talking to your utilities?

San Francisco Bay Area Regional Lifelines Council



LIFELINE COUNCIL MISSION

Strengthen collaboration among local governments, public and private infrastructure utilities, and state and federal government. Through dialogue among leaders, establish shared goals and create a broad framework to coordinate strategic action to improve the resilience of the Bay Area's utility infrastructure.



ABAG

Partners

● = City or County

■ = Public and Private Utility

working group

working group

working group

Working Groups do the nuts and bolts work. It will consist of local government and utility staff, subject matter experts, agency staff, and community stakeholders.

ABAG offers its Executive Board and Regional Planning Committee to share Council work and staff to organize.

Federal, state, and regional partners are invited to support and assist in working groups.

Cities, counties and utilities make up the primary seats. The first Council will focus on water, wastewater, flood and energy providers.

A Council to collaboratively address vulnerabilities in the region's infrastructure.

Focus on resilience challenges -- address chronic stresses and acute shocks that impede vitality and recovery.

Regional scale: because we're facing like-problems and our critical services (water, energy) cross jurisdictional boundaries.

Some considerations

- Who would you want represented?
- How can findings and resources best be distributed?