Roads
Rail (Passenger)
Rail (Freight)
Electricity
Natural Gas
Fuel
Water
Waste Water
Communications
TRANSPORTATION
ROAD
PASSENGER RAIL
FREIGHT RAIL
Rail System

- Altamont
- Amtrak
- BART
- CalTrain
In general BART system performance and restoration will be governed by the
• Transbay Tube
• Berkeley Hills Tunnel
WATER

WATER TRANSMISSION
WATER STORAGE
WATER DISTRIBUTION
Inner circle's area is acre-ft used in a week. Outer circle's area is acre-ft of 1/2 capacity of reservoirs. Lines represent interties; the circle is weekly acre-ft capacity of intertie.

The circles to the left have been scaled to show which districts have storage (reservoir only) and which don't.

- MMWD
- Sonoma CWA
- City of Napa
- Solano CWA
- SFPUC & BAWSCA
- EBMUD
- CCWD
- ACWD
- Zone 7
- SCVWD
- Groundwater Reserves
- Local
- SemiTropic Banking
- Local
- SemiTropic Banking
- BAWSCA
- SCVWD
- ACWD
ENERGY
ELECTRICAL GENERATION
ELECTRICAL TRANSMISSION
ELECTRICAL SUBSTATIONS
FUEL SYSTEM
Fuel Refineries

San Andreas

Hayward

Concord - SGV
Fuel Movement
- Ports
- Rail
- Pipeline

Fuel Nodes
- Refineries
- Terminals
- Concord Station
Big pictures are emerging…

- Fuel is a HUGE issue.
  - Vulnerable system, impacted by multiple events.
  - Isolated system.
  - Many other systems are reliant on electricity and have mitigated with generators, but have limited supply (hours and days).

- Life line road routes are vulnerable.
  - Structurally deficient bridges.
  - SF & OAK airports and ports are disconnected from life line routes.

- Interdependencies are everywhere.
  - i.e. Asphalt to repair roadway, requires refineries and natural gas.