CA Earthquake Early Warning

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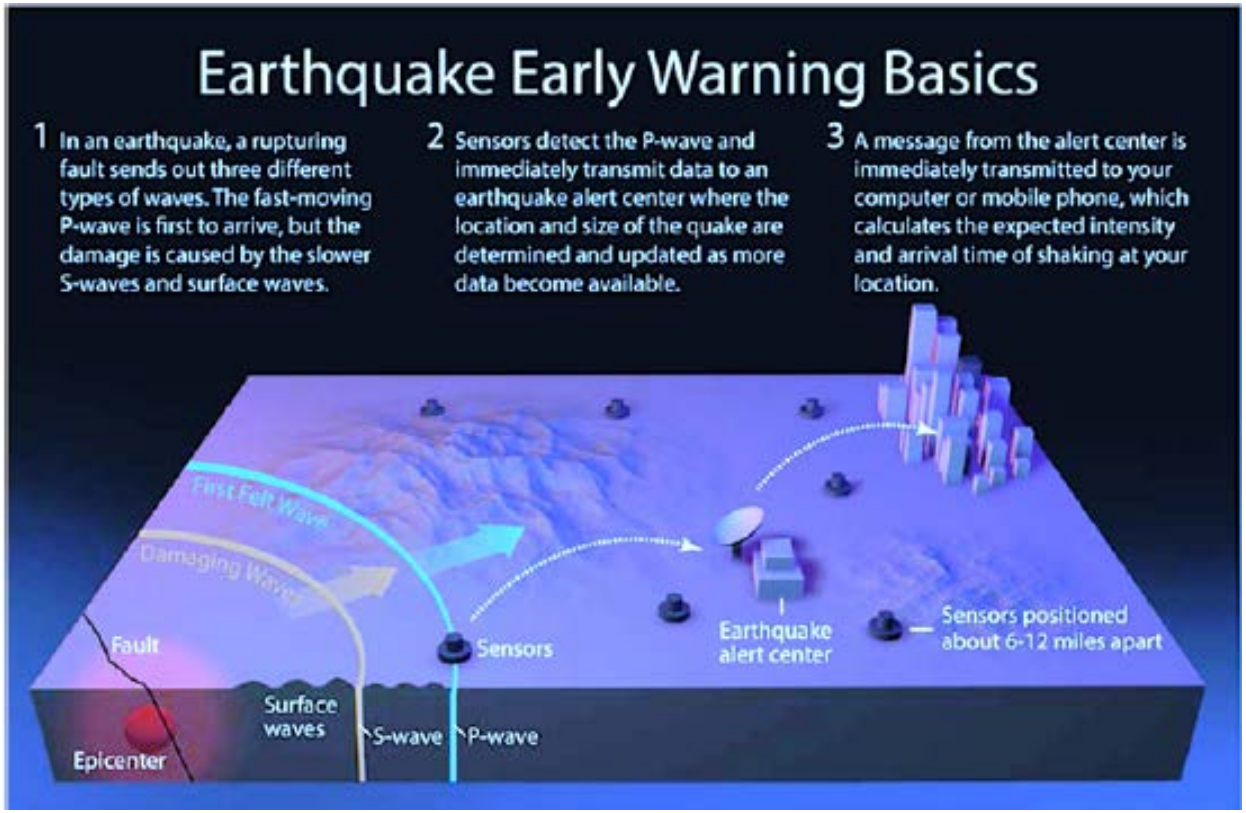
What is EQ Early Warning?

Technology that rapidly detects seismic waves as an earthquake happens, calculates the maximum expected shaking, and sends alerts to surrounding communities before damaging shaking arrives.



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Who Can Benefit?

- **General Public** can drop, cover, and hold on; safely stop vehicles.
- **Medical Services** such as surgeons and dentists can stop delicate procedures.
- **Emergency Services** can open fire station doors, personnel can prepare and prioritize response decisions.
- **Workforce** can move to safe locations; elevators can stop at the nearest floor; place sensitive equipment in safe mode; secure chemicals and hazardous materials; halt production lines to reduce damage.
- Automatically **slow or stop trains**; clear bridge traffic; divert inbound aircraft.
- **Energy sector** and other utilities can prepare for strong shaking and protect the grid.

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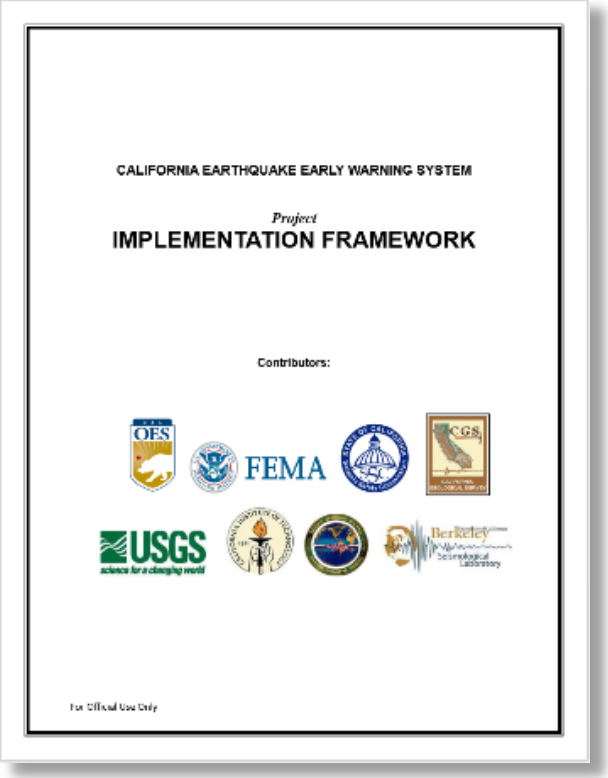
What's Been Done in CA

- ShakeAlert test system/pilots
- State Legislation:
  - Cal OES lead (SB 135)
  - Governance (SB 438)
- Benefits Study completed
- Business Plan
- Startup Investment
  - FY 16-17: $10m
  - FY 18-19: $15m (TBD)


CALIFORNIA EARTHQUAKE EARLY WARNING SYSTEM

Project
IMPLEMENTATION FRAMEWORK

Contributors:

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What is Needed

- Sensor density
- Stable, on-going funding
- Expand pilots
- Advance technology needed for warning creation and distribution
- Enhance existing educational resources

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Local Government

- Public Alerts: education and outreach
- Enhanced Public Alerts
  - Site specific alerts over public announcement system
  - Alert sent over radio to first responders
- Technical Solutions
  - Roll up firehouse doors
  - Place critical emergency services on generators

Public Alert

- Wireless Emergency Alerts
- Cell phone applications (build and test phase)
  - City of LA
  - MyShake, UC Berkeley
  - Quake Alert, Early Warning Labs
- Public Announcements
  - Enhanced alerts in public buildings, gathering places
  - Lower latency

Roll Out Timeline

- Stage 1: October 2018
  - Align with annual Great ShakeOut
  - Education – what EEW is, how it works, etc.
  - Limited public alerting/testing (City of LA, etc.)
  - Highlight other technical users
  - Cal OES Radio Ads statewide

Questions?

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