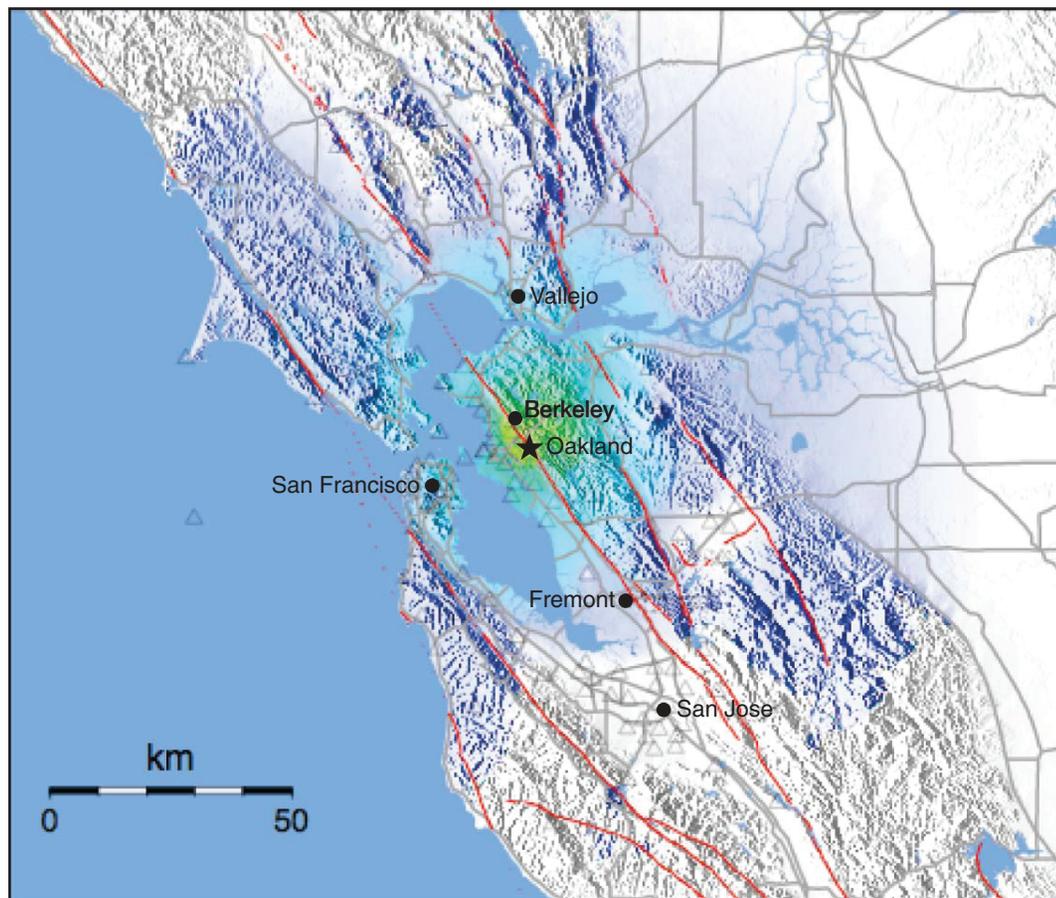


## Mercalli Scale and ShakeMap Reference Sheet

### The Mercalli Scale

Intensity Level	Perceived Shaking	Potential Damage	Magnitude (Richter Scale)
I	Not felt	None	< 3.0
II	<b>Weak:</b> Felt by people at rest or on upper floors.	None	< 3.0
III	<b>Weak:</b> Felt indoors. Hanging objects swing. Vibrations, like passing of light trucks.	None	3.0
IV	<b>Light:</b> Hanging objects swing. Vibrations, like passing of heavy trucks. Windows, dishes, doors rattle.	None	3.7
V	<b>Moderate:</b> Felt outdoors. People sleeping awaken.	<b>Very light:</b> Doors swing, close, open. Shutters, pictures move.	4.3
VI	<b>Strong:</b> Felt by all. People walk unsteadily. Trees and bushes visibly shake.	<b>Light:</b> Windows, dishes, glassware break. Furniture moves or is overturned. Weak plaster and masonry crack.	5.0
VII	<b>Very strong:</b> Difficult to stand. Noticed by people driving.	<b>Moderate:</b> Furniture breaks. Masonry is damaged. Plaster, loose bricks, stones, etc., fall. Waves form on ponds. Small slides and cave-ins occur along sand or gravel banks. Concrete irrigation ditches are damaged.	5.6
VIII	<b>Severe:</b> Steering of cars affected.	<b>Moderate to heavy:</b> Masonry is damaged, sometimes partially collapsing. Chimneys, factory stacks, monuments, towers, elevated tanks twist and fall. Frame houses move on foundations if not bolted down. Tree branches break.	6.3
IX	<b>Violent:</b> General panic.	<b>Heavy:</b> Masonry is heavily damaged, sometimes completely collapsing. Foundations are generally damaged. Reservoirs are seriously damaged. Underground pipes break. Noticeable cracks form in ground.	7.0
X–XII	<b>Extreme:</b> General panic. Lines of sight and level distorted.	<b>Very heavy to total:</b> Most masonry and frame structures are destroyed, along with their foundations. Dams, dikes, embankments are seriously damaged. Large landslides occur. Sand and mud shift horizontally on beaches and flat land. Train tracks bend slightly. Underground pipes are completely out of service. Large rock masses are displaced. Objects are thrown into the air.	7.7 – 9.0



ShakeMap for the 2007 Oakland Earthquake