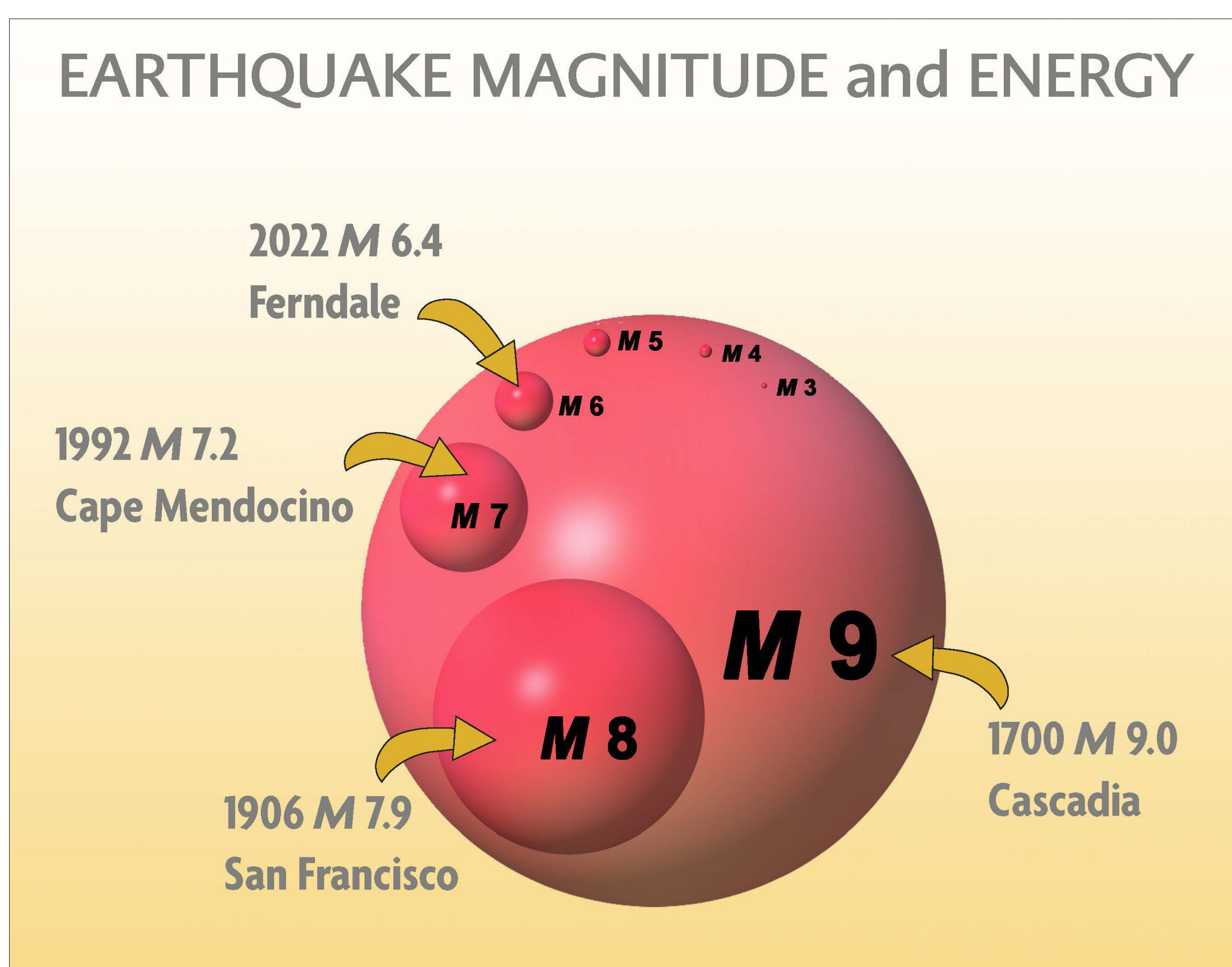


Living on SHAKY GROUND

HOW TO SURVIVE EARTHQUAKES AND TSUNAMIS IN NORTHERN CALIFORNIA

Earthquake Basics

Earthquakes occur when rocks underground break along a zone of weakness. The epicenter is the spot on the ground surface where the fault rupture starts. Most earthquakes in California are between 3 and 20 miles below the surface and the fault is hidden. Only the very largest earthquakes rupture the ground.



MAGNITUDE (M) is the amount of energy released by an earthquake, but the scale is not linear. A **M 7** releases 32 times more energy than a **M 6** and about 1000 times more than a **M 5**. Shaking from larger magnitude earthquakes always last longer and are felt over a larger area.

INTENSITY is a measure of how strongly the ground shakes at a certain location with the largest intensities near the epicenter and decreasing intensities further away. This can be measured using instruments, estimated from damage surveys, and “Did You Feel It?” reports.

Magnitude and Intensity are NOT the Same Thing!

EARTHQUAKES ALMOST ALWAYS OCCUR IN SEQUENCES

Some aftershocks can cause more damage than the larger earthquake.

Mainshock - largest earthquake in the sequence

Foreshock - smaller earthquakes before the mainshock

Aftershock - earthquakes that occur after the mainshock

Aftershocks are frequent in the first hours and days, but for very large earthquakes they can continue for years.

