

EARTHQUAKE FACTS

QUICK FACTS

- Over the next 50 years, the Wasatch Front region has a 57% chance of a 6.0 magnitude or greater earthquake, or a 43% chance of a 6.75 magnitude or greater earthquake
- In the event of a 7.0 magnitude earthquake, the Wasatch Front expects
 - 3,000+ deaths, nearly 10,000 injuries, and nearly 85,000 displaced households, putting the earthquake among the deadliest natural disasters in U.S. history
 - Critical utilities (power, natural gas, water, sewer, telecommunications) and transportation to be down for weeks to months
 - \$33.2 billion in economic losses
 - Lasting damage to our economy and way of life

IMPORTANT DEFINITIONS

- **URM:** Unreinforced Masonry Building, a building constructed of brick or block without reinforcing steel ([Source](#)). URMS are one of the primary sources of deaths and injuries in an earthquake.
- **Retrofitting:** Adding structural reinforcement and other seismic upgrades to existing buildings that are vulnerable to collapse (i.e. URMs) during an earthquake ([Source](#)). Some retrofits are designed to reduce the risk of death or injury, while others will also increase the likelihood of functional recovery of the building.
- **Liquefaction:** As a result of Lake Bonneville, much of the Wasatch Front is located on saturated sediment. During a major earthquake, groundshaking will cause the saturated sediment to ‘liquefy’ temporarily, resulting in additional structural damage ([Source](#)).



RELEVANT REPORTS

- A Strategic Plan for Earthquake Safety in Utah by Utah Seismic Safety Commission; [link](#)
- Scenario for a Magnitude 7.0 Earthquake on the Wasatch Fault—Salt Lake City Segment by Earthquake Engineering Research Institute, Utah Chapter; [link](#)
- Earthquake Preparedness & Resilience by BYU & Envision Utah; [link](#)
- Planning for Infrastructure Resilience by Joseph DeAngelis, AICP, Haley Briel, Michael Lauer, AICP; [link](#)
- 2018 Annual Report by Western States Seismic Policy Council; [link](#)