MULTIPLE NATURAL HAZARDS

Due to the location in an earthquake prone region, floodplains, wildfire prone area, and steep topography, Palm Springs is in an area that can experience multiple, simultaneous natural hazards. These can also be called ***compounding hazards*** or ***cascading hazards***. Compounding hazards could include a flood event that is followed by earthquake, which are unrelated events that could compound to increase liquefaction in soils near floodplains. Cascading hazards, on the other hand, occur one after the other. For example, an increase in extreme heat events and drought can dry out juniper woodlands in the San Jacinto Mountains, leading to more fuel for wildfire, which can lead to a faster moving and higher burning wildfire. The burn scar of that wildfire could then experience heavy rainfall, which could lead to a landslide, rockfall, or debris flow. This cascading of hazards is shown on Figure 6-11. All of these hazards are discussed separately above, but when combined, these hazards can cause more devastating consequences for Palm Springs residents, visitors, and businesses.

Compounding Hazards: Events where more than one hazard occurs at the same time and interact to cause more destructive consequences.

Cascading Hazards: Extreme events that link together hazards over days, weeks, or months, resulting in multiplied effects that cause secondary and sometimes tertiary damage, exceeding the damage of the initial hazard event.

Figure 6-11. Example of Cascading Hazards

Increase in extreme heat events and drought can dry out juniper woodlands.

More fuel for fires development in the San Jacinto Mountains.

Wildfires spread faster and burn hotter.

Wildfires burn the vegetation supporting the slopes on the mountainside.

Heavy rainfall or an earthquake cause the unstable slope to form into a landslide, debris flow, or rock fall.