The timing and magnitude of peaks in streamflow for different sites reflect spatial differences in rainfall amount, intensity, and timing, as well as differences in basin characteristics including size, slopes, land cover, soil types, and geohydrologic conditions. Because rainfall over the islands is spatially variable, streamflow may rise in some streams and not others during a common period. This is shown for the island of Oahu during October 1999. A stream’s discharge and stage can rise rapidly in response to rainfall, posing a threat to those near the stream channel or those who attempt to cross the stream. During January 2002, three people lost their lives attempting to cross a northwestern Maui stream in a vehicle, and during April 2003, two more people lost their lives in a southeastern Maui stream during a flash flood.