

Hazard Model for Western U.S.

$5.0 \leq M \leq 7.0$

$M \geq 6.5$

1.

M4 since 1963
M5 since 1930
M6 since 1850
(WUS except CA)

M4 since 1933
M5 since 1900
M6 since 1850
(For CA)
smoothed spatially

2.

Background Source Zones
(not used for western
CA, OR, and WA)

Faults with "known" segmentation (A):
single-segment/characteristic rupture
use geologic slip rates and/or
paleoseismology for recurrence

Faults with unknown segmentation (B):
a) characteristic, maximum magnitude
b) truncated Gutenberg-Richter, with $M_{min} 6.5$
use geologic slip rates for recurrence

Cascadia Subduction Zone

a) M8.3 earthquakes fill zone every 500 years
b) M9.0 earthquake every 500 years