NEVADA BUREAU OF MINES AND GEOLOGY RENO AREA MAP 4Bi

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MT. ROSE NE QUADRANGLE EARTHQUAKE HAZARDS MAP



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POTENTIAL FOR GROUND SHAKING DURING EARTHQUAKES

POTENTIAL FOR SURFACE RUPTURE Age of youngest fault displacement Gail Cordy Szecsody, 1983

The hazards shown on this map are based upon data currently available. Shaking characteristics are inferred from interpretations of geologic, seismic velocity, soils engineering, and ground-water information. Surface rupture potentials are inferred from generalized geologic and soils (weathering profile) information.

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HAZA

POTENTIAL from I to IV

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by B

These data are intended to be used only as a generalized guide and will be subject to change as more data become available.

Assessment of seismic hazard potential for individual sites must be based upon detailed engineering and seismic studies; such assessments should not be inferred from this map.

Greatest severity of shaking. Depth to ground water less than 3 m (10 ft). Unconsolidated deposits with low rigidity. Possible severe liquefaction locally Moderate severity of shaking. Includes units 11 from I where depth to ground water is greater than 3 m (10 ft); also includes unconsolidated deposits with moderate rigidity where depth to ground water is less than 10 m (33 ft). May be subject to liquefaction Variable severity of shaking. In-cludes undifferentiated sand and V sinter in Steamboat Hills; alluvial fan Moderate severity of shaking. Includes units and older fan deposits; Donner Lake from II where depth to ground water is greater 111 and Tahoe Outwashes and pedithan 10 m (33 ft); also includes unconsolidated ment gravels where they overlie to moderately indurated deposits with bedrock; landslide deposits in bedrock and sandstone of Hunter Creek moderately high rigidity where depth to ground and Donner Lake Outwash; and water is greater than 3 m (10 ft) hydrothermally altered (to depths of 15-30 m [49-98 ft]) volcanics of the Kate Peak Formation Least severity of shaking. Underlain by bedrock IV

BD Holocene (<12,000 years), less than 3000 years at White's Creek Mid- to late Pleistocene (approx-imately 35,000-100,000 years) Early to mid-Pleistocene (approx-0 imately 100,000 years-1.8 m.y.) Indeterminate; predominately bedrock faults of probable pre-Pleistocene and early to mid-Pleistocene age Note: Extensive trenching would be required to determine the age of the most recent movement on each fault; however, this was impractical given the large number of faults in the quadrangle and the time constraints of this study. Therefore, recent fault movements are not precluded in the categories above. Ages shown are based on geomorphic, soil, and geologic evidence (in the absence of trenching data). ____ Fault. Ball on downthrown side; dashed where approximately located; queried where presence ----uncertain; dotted where concealed

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Assisted by Michael R. Nichol

Geology from Bonham and Rogers (1983) Geologic map, Mount Rose NE quadrangle: Nevada Bureau of Mines and Geology Map 4Bg.

Depth to ground water based on geotechnical borings, regional ground-water elevations from Cohen and Loeitz (1964), and unpublished data of the U.S. Geological Survey, Sierra Pacific Power Company, and Nevada Bureau of Mines and Geology.

Scale 1:24,000



Topographic base from U.S. Geological Survey Mt. Rose NE 7½' quadrangle, 1969

Cartography by Larry Jacox

CONTOUR INTERVAL 20 FEET DOTTED LINES ARE 10-FOOT CONTOURS DATUM IS MEAN SEA LEVEL

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