Jump to Navigation

Quaternary Fault and Fold Database of the United States

As of January 12, 2017, the USGS maintains a limited number of metadata fields that characterize the Quaternary faults and folds of the United States. For the most up-to-date information, please refer to the interactive fault map.

unnamed faults bounding Blue Mountain (Class A) No. 1500

Last Review Date: 1999-03-10

citation for this record: **Sawyer, T.L., and Adams, K., compilers, 1999, Fault number 1500, unnamed faults bounding Blue Mountain, in Quaternary fault and fold database of the United States: U.S. Geological Survey website, https://earthquakes.usgs.gov/hazards/qfaults, accessed 12/14/2020 02:50 PM.**

Synopsis	Little is known about these range-front normal faults that bound the north, west, and southwest sides of Blue Mountain. They juxtapose Quaternary alluvium against bedrock along abrupt piedmont-hillslope transitions. Reconnaissance photogeologic mapping of the faults are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
Name comments	Refers to faults mapped by Slemmons (1966, unpublished Vya 1? X 2? sheet), Dohrenwend and Moring (1991 #281), and Dohrenwend and others (1991 #285) that bound the north, west, and southwest fronts of Blue Mountain.
County(s) and	HUMBOLDT COUNTY, NEVADA

State(s)	HUMBOLDT COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Fault locations based on 1:250,000-scale maps of Dohrenwend and Moring (1991 #281) and Dohrenwend and others (1991 #285); mapping is from analysis of 1:58,000-nominal-scale color-infrared photography transferred directly to 1:100,000-scale topographic quadrangle maps enlarged to scale of the photographs. Fault locations were checked against small scale maps of Slemmons (1966, unpublished Vya 1? X 2? sheet).
Geologic setting	These range-front normal faults bounds the north, west, and southwest sides of Blue Mountain, which lies on the southeast margin of Desert Valley.
Length (km)	8 km.
Average strike	N17°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement is inferred from topography.
Dip Direction	NW; SW
Paleoseismology studies	
Geomorphic expression	The faults are expressed by abrupt piedmont-hillslope transitions (Dohrenwend and Moring, 1991 #281; Dohrenwend and others, 1991 #285). Detailed studies of scarp morphology have not been conducted.
Age of faulted surficial deposits	The faults place Quaternary piedmont-slope deposits against bedrock (Dohrenwend and Moring, 1991 #281; Dohrenwend and others, 1991 #285).
Historic earthquake	
Most recent	undifferentiated Quaternary (<1.6 Ma)

prehistoric deformation	*Comments:* Although timing of most recent event is not well constrained, a Quaternary time is suspected based on reconnaissance photogeologic mapping by Dohrenwend and Moring (1991 #281) and Dohrenwend and others (1991 #285).
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr *Comments:* A low slip rate is inferred from general knowledge of slip rates estimated for other faults in the region.
Date and Compiler(s)	1999 Thomas L. Sawyer, Piedmont Geosciences, Inc. Kenneth Adams, Piedmont Geosciences, Inc.
References	#281 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Vya 1° by 2° quadrangle, Nevada, Oregon, and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2174, 1 sheet, scale 1:250,000. #285 Dohrenwend, J.C., McKittrick, M.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lovelock 1° by 2° quadrangle, Nevada and California: U.S. Geological Survey Miscellaneous Field Studies Map MF-2178, 1 sheet, scale 1:250,000.