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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 fault west of White Rock Mountains (Class A) No. 1437

Last Review Date: 1998-06-28

citation for this record: **Sawyer, T.L., compiler, 1998, Fault number 1437, unnamed fault west of White Rock Mountains, 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 02:05 PM.**

Synopsis	This north-northwest-striking zone of down-to-the-west curvilinear normal faults bounds the west side of the White Rock Mountains and crosses upper piedmont slope in Spring Valley. The northern and southern part of the fault are separated by a 5-km-wide gap in the geomorphic expression of the fault zone. Reconnaissance photogeologic mapping of the fault zone is the source of data. Trench investigations and studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Dohrenwend and others (1991 #287). Fault extends from Cottonwood Canyon, northward along west flank of the White Rock Mountains, to northwest of White Rock Peak.
County(s) and	

County(s) and State(s)	LINCOLN COUNTY, NEVADA
Physiographic province(s)	BASIN AND RANGE
Reliability of location	Good Compiled at 1:100,000 scale. *Comments:* Location based on 1:250,000-scale maps of Dohrenwend and others (1991 #287), mapped by photogeologic 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.
Geologic setting	This north-northwest-striking zone of down-to-the-west curvilinear normal faults bounds the west side of the White Rock Mountains and crosses upper piedmont slope in Spring Valley.
Length (km)	28 km.
Average strike	N7°W
Sense of movement	Normal *Comments:* Not studied in detail; sense of movement inferred from topography.
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	Most of the fault is expressed as an abrupt well-defined fault juxtaposing Quaternary alluvium against bedrock and lineaments on Quaternary deposits (Dohrenwend and others, 1991 #287).
Age of faulted surficial deposits	Quaternary (Dohrenwend and others, 1991 #287)
Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) *Comments:* Although timing of the most recent event is not well constrained, Dohrenwend and others (1991 #287) suggests a

	Quaternary time based on a reconnaissance photogeologic study.
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)	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
References	#287 Dohrenwend, J.C., Schell, B.A., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Lund 1° by 2° quadrangle, Nevada and Utah: U.S. Geological Survey Miscellaneous Field Studies Map MF-2180, 1 sheet, scale 1:250,000.