

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](#).

Big Fault Wash fault (Class A) No. 1357

Last Review Date: 1998-08-01

citation for this record: Sawyer, T.L., compiler, 1998, Fault number 1357, Big Fault Wash fault, 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 02:13 PM.

Synopsis	This north-northeast-striking fault bounds the Park Range; fault appears to terminate to north at the Park Range fault [1358]. Reconnaissance photogeologic mapping of these faults and bedrock mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been completed.
Name comments	Refers to faults mapped by Dixon and others (1972 #2937), Schell (1981 #2844), and mapped with greater continuity by Dohrenwend and others (1996 #2846). The fault extends from northernmost Hot Creek Valley, along front of the Park Range, to north end of the range. Fault ID: Refers to fault 67 on Plate A7 in Schell (1981 #2844).
County(s) and State(s)	NYE COUNTY, NEVADA
Physiographic	

Physiographic province(s)	BASIN AND RANGE
Reliability of location	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Location based on 1:250,000-scale maps of Schell (1981 #2844) and digital data of Dohrenwend and others (1996 #2846). Mapping by Schell (1981 #2843; 1981 #2844) based on photogeologic analysis of primarily 1:24,000-scale color aerial photography supplemented with 1:60,000-scale black-and-white aerial photography, transferred by inspection to 1:62,500-scale topographic maps and photographically reduced and directly transferred to 1:250,000-scale topographic maps, and subsequent field verification. Mapping by Dohrenwend and others (1996 #2846) based on 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.</p>
Geologic setting	This north-northeast-striking fault bounds the Park Range; fault appears to terminate to north at the Park Range fault (fault 1358).
Length (km)	27 km.
Average strike	N16°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> Dixon and others (1972 #2937), Schell (1981 #2844), and Dohrenwend and others (1996 #2846) indicated a normal sense of movement.</p>
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	The fault is expressed by abrupt, well-defined scarps juxtaposing Quaternary alluvium against bedrock, and by scarps and lineaments on Quaternary deposits and on Tertiary rocks (Dixon and others, 1972 #2937; Dohrenwend and others, 1996 #2846).
Age of faulted surficial deposits	Quaternary alluvium (Schell, 1981 #2844; Kleinhampl and Ziony, 1985 #2851; Dohrenwend and others, 1996 #2846)

Historic earthquake	
Most recent prehistoric deformation	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent prehistorical event is not well constrained, Dohrenwend and others (1996 #2846) and Schell (1981 #2844) suggested a possible Quaternary time based on reconnaissance photogeologic studies. Dixon and others (1972 #2937) mapped Quaternary to Tertiary alluvium involved in the faulting. Kleinhampl and Ziony (1985 #2851) subsequently mapped the alluvium as Quaternary suggesting a Quaternary time.
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr <i>Comments:</i> 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	#2937 Dixon, G.L., Hedlund, D.C., and Ekren, E.B., 1972, Geologic map of the Pritchards Station quadrangle, Nye County, Nevada: U.S. Geological Survey Miscellaneous Investigations Map I-728, scale 1:48,000. #2846 Dohrenwend, J.C., Schell, B.A., Menges, C.M., Moring, B.C., and McKittrick, M.A., 1996, Reconnaissance photogeologic map of young (Quaternary and late Tertiary) faults in Nevada, <i>in</i> Singer, D.A., ed., Analysis of Nevada's metal-bearing mineral resources: Nevada Bureau of Mines and Geology Open-File Report 96-2, 1 pl., scale 1:1,000,000. #2851 Kleinhampl, F.J., and Ziony, J.I., 1985, Geology of Northern Nye County, Nevada: Nevada Bureau of Mines and Geology Bulletin 99A, 172 p. #2843 Schell, B.A., 1981, Faults and lineaments in the MX Sitting Region, Nevada and Utah, Volume I: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 77 p.

#2844 Schell, B.A., 1981, Faults and lineaments in the MX Siting Region, Nevada and Utah, Volume II: Technical report to U.S. Department of [Defense] the Air Force, Norton Air Force Base, California, under Contract FO4704-80-C-0006, November 6, 1981, 29 p., 11 pls., scale 1:250,000.

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