

# 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 in Coppersmith Hills (Class A) No. 1463

Last Review Date: 1998-07-19

*citation for this record:* Sawyer, T.L., compiler, 1998, Fault number 1463, unnamed fault in Coppersmith Hills, 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.

<b>Synopsis</b>	This faults are part of a distributed group of short intra-plateau normal faults in the Coppersmith Hills between Surprise Valley and Duck Flat extends from near north end of Coppersmith Hills southward to Duck Flat and possibly southwest into California. Most of the faults in this area displace only Tertiary basalt and sedimentary rocks (and are thus not included); only the one fault shown here is considered to be Quaternary. Reconnaissance photogeologic mapping of the fault zone and regional geologic mapping are the sources of data. Trench investigations and detailed studies of scarp morphology have not been conducted.
<b>Name comments</b>	This fault is the only one in a distributed group of faults on Tertiary rocks in the Coppersmith Hills that is identified as juxtaposing Quaternary deposits against bedrock (Dohrenwend

	<p>and Moring, 1991 #281; Dohrenwend and others, 1991 #285). The fault is west of the northern part of Duck Flat. Informally named for location of faults in Coppersmith Hills.</p> <p><b>Fault ID:</b> Refers to faults mapped by Bonham (1969 #2999) and Dohrenwend and Moring (1991 #281) in the Coppersmith Hills, between Surprise Valley and Duck Flat. The fault may extend south into the Lovelock sheet, although it was not mapped as such by Dohrenwend and others (1991 #285).</p>
<b>County(s) and State(s)</b>	WASHOE COUNTY, NEVADA
<b>Physiographic province(s)</b>	BASIN AND RANGE
<b>Reliability of location</b>	<p>Good Compiled at 1:100,000 scale.</p> <p><i>Comments:</i> Fault location based on 1:250,000-scale map of Dohrenwend and Moring (1991 #281); mapping 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.</p>
<b>Geologic setting</b>	<p>This fault is one of several short, intra-plateau normal faults in the Coppersmith Hills between Surprise Valley and Duck Flat (Bonham, 1969 #2999; Dohrenwend and Moring, 1991 #281; Dohrenwend and others, 1991 #285). The faults within this zone extend from near north end of Coppersmith Hills to west of Duck Flat. Other than the one shown here, the faults are in Tertiary rocks, and thus are considered to be pre-Quaternary.</p>
<b>Length (km)</b>	5 km.
<b>Average strike</b>	N24°E
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> Not studied in detail; sense of movement is inferred from topography.</p>
<b>Dip Direction</b>	<p>SE</p> <p><i>Comments:</i> Not studied in detail; direction of movement is inferred from topography.</p>

<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	This fault places Quaternary sediment against bedrock according to Dohrenwend and Moring (1991 #281) and is thus indicated as Quaternary.
<b>Age of faulted surficial deposits</b>	Most of the faults in this zone are only known to displace only Tertiary basalt and sedimentary rocks (Bonham, 1969 #2999; Dohrenwend and Moring, 1991 #281).
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Although timing of most recent event is not well constrained, a Quaternary time is suspected based on reconnaissance photogeologic mapping of Dohrenwend and Moring (1991 #281). The nearby faults shown by Dohrenwend and Moring (1991 #281) are considered to be pre-Quaternary and not included.
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	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 and from height of topographic escarpments (about 100 m) on Tertiary basalt.
<b>Date and Compiler(s)</b>	1998 Thomas L. Sawyer, Piedmont Geosciences, Inc.
<b>References</b>	#2999 Bonham, H.F., 1969, Geology and mineral deposits of Washoe and Storey Counties, Nevada: Nevada Bureau of Mines and Geology Bulletin 70, 140 p., 1 pl., scale 1:250,000.  #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.

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