

# 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 in Bobs Flat (Class A) No. 1152

Last Review Date: 2000-11-29

*citation for this record:* Anderson, R.E., compiler, 2000, Fault number 1152, unnamed faults in Bobs Flat, 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 02:18 PM.

<b>Synopsis</b>	This collection of short (< 7 km) north-striking faults in the Bobs Flat area west of Emigrant Pass along I-80 either bound or occupy the shallow late Tertiary and Quaternary (?) basin beneath Bobs Flat. The central and eastern faults are part of a larger group of about 15 similar faults, most of which cut Tertiary volcanic rock east of Bobs Flat. No detailed study of these faults is reported, and neither the recurrence time nor slip rate are known. The faults apparently have very weak geomorphic expression, and their young displacement history is known no more precisely than Quaternary.
<b>Name comments</b>	Applied to a group of short (< 7 km) north-striking faults in the Bobs Flat area, west of Emigrant Pass along Interstate Highway 80 (I-80).
<b>County(s) and</b>	ELIPEKA COUNTY, NEVADA

<b>State(s)</b>	EUREKA 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> The central and eastern faults are taken from the 1:24,000-scale geologic map of the Emigrant Pass 7.5? quadrangle (Henry and Faulds, 1999 #4358). The western trace was taken from the 1:125,000-scale map of young faults by Wallace (1979 #203). That map was compiled mostly from field and photogeologic study of 1:60,000-scale aerial photos.</p>
<b>Geologic setting</b>	<p>These unnamed faults appear to bound and occupy a shallow basin beneath Bobs Flat. The western fault is inferred, on the basis of its curved trace, to dip east and form the western boundary of the basin. The eastern fault dips about 65? west and displaces fan gravel that may be as old as Pliocene and underlying Miocene tuffaceous sedimentary rock down against volcanic rock (Henry and Faulds, 1999 #4358). It appears to be one of about 15 similar down-to-the-west faults that bound small (&lt; 1 km wide) east-tilted blocks in and east of Bobs Flat (Henry and Faulds, 1999 #4358). Displacements are as much as 500 m.</p>
<b>Length (km)</b>	7 km.
<b>Average strike</b>	N9°E
<b>Sense of movement</b>	<p>Normal</p> <p><i>Comments:</i> Shown as normal faults by Henry and Faulds (1999 #4358).</p>
<b>Dip</b>	<p>65° W</p> <p><i>Comments:</i> The central and eastern faults are shown in cross section (Henry and Faulds, 1999 #4358) with dips of about 65?.</p>
<b>Paleoseismology studies</b>	
<b>Geomorphic expression</b>	<p>Although no detailed description is reported, these unnamed faults have little geomorphic expression, even at the eastern margin of the basin (?) where 40 ft topographic contours show no</p>

	obvious deflection across the fault trace (Henry and Faulds, 1999 #4358). The western fault was mapped by Wallace (1979 #203), but not by Dohrenwend and Moring (1991 #282), possibly indicating weak geomorphic expression.
<b>Age of faulted surficial deposits</b>	Henry and Faulds (1999 #4358) map the central and eastern faults as cutting Quaternary fan deposits
<b>Historic earthquake</b>	
<b>Most recent prehistoric deformation</b>	undifferentiated Quaternary (<1.6 Ma) <i>Comments:</i> Based on broad age range estimated by Henry and Faulds (1999 #4358) for the alluvial fans of Bobs Flat.
<b>Recurrence interval</b>	
<b>Slip-rate category</b>	Less than 0.2 mm/yr <i>Comments:</i> No slip rate is reported for these faults, but the weak geomorphic expression is consistent with a low long-term slip rate.
<b>Date and Compiler(s)</b>	2000 R. Ernest Anderson, U.S. Geological Survey, Emeritus
<b>References</b>	#282 Dohrenwend, J.C., and Moring, B.C., 1991, Reconnaissance photogeologic map of young faults in the Winnemucca 1° by 2° quadrangle, Nevada: U.S. Geological Survey Miscellaneous Field Studies Map MF-2175, 1 sheet, scale 1:250,000.  #4358 Henry, C.D., and Faulds, J.E., 1999, Geologic map of the Emigrant Pass quadrangle, Nevada: U.S. Geological Survey Open-File Report 99-9, 1 sheet, scale 1:24,000.  #203 Wallace, R.E., 1979, Map of young fault scarps related to earthquakes in north-central Nevada: U.S. Geological Survey Open-File Report 79-1554, 2 sheet, scale 1:125,000.

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