

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](#).

Dry Wash fault and syncline (Class A) No. 2496

Last Review Date: 1999-10-01

Compiled in cooperation with the Utah Geological Survey

citation for this record: Black, B.D., and Hecker, S., compilers, 1999, Fault number 2496, Dry Wash fault and syncline, 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 02:55 PM.

Synopsis	Poorly understood zone of Quaternary faults and folds in southwestern Sevier Valley.
Name comments	Fault ID: Refers to fault number 9-9 in Hecker (1993 #642).
County(s) and State(s)	SEVIER COUNTY, UTAH
Physiographic province(s)	COLORADO PLATEAUS
Reliability of	Good

location	<p>Compiled at 1:50,000 scale.</p> <p><i>Comments:</i> Mapped or discussed by Anderson and Miller (1979 #4494), and Anderson and Barnhard (1992 #612). Fault traces from mapping of Callaghan and Parker (1962 #4567) and Cunningham and others (1983 #4495).</p>
Geologic setting	<p>Normal faults and adjacent foldis in Clear Creek Canyon at the south end of the Pavant Range. Sevier Valley is a long, narrow structural depression formed by faulting, folding, and removal of salt from underlying Jurassic formations. The Dry Wash fault and adjacent folds likely record part of this complex deformational history.</p>
Length (km)	19 km.
Average strike	N44°E
Sense of movement	<p>Normal</p> <p><i>Comments:</i> The southern portion of the Dry Wash fault and parallel faults to the northwest have evidence for significant left-lateral, strike-slip displacement. Numerous northeast- and northwest-striking left- and right-lateral faults form conjugate sets that cut the east-trending folds, indicating north-south compression (Anderson and Barnhard, 1992 #612).</p>
Dip Direction	W
Paleoseismology studies	
Geomorphic expression	<p>The Clear Creek downwarp and parallel subsidiary folds terminate against the Dry Wash fault, suggesting a genetic relationship between folding and faulting. Sevier River Formation sediments, dated as young as 5.6 Ma in this area, are involved in the downwarping. The northern end of the Dry Wash fault is within an area of local late Quaternary deformation at the juncture with the Elsinore fault [2470].</p>
Age of faulted surficial deposits	Quaternary
Historic earthquake	

Most recent prehistoric deformation	middle and late Quaternary (<750 ka) <i>Comments:</i>
Recurrence interval	
Slip-rate category	Less than 0.2 mm/yr
Date and Compiler(s)	1999 Bill D. Black, Utah Geological Survey Suzanne Hecker, U.S. Geological Survey
References	<p>#4494 Anderson, L.W., and Miller, D.G., 1979, Quaternary fault map of Utah: Long Beach, California, Fugro, Inc, 35 p. pamphlet, scale 1:500,000.</p> <p>#612 Anderson, R.E., and Barnhard, T.P., 1992, Neotectonic framework of the central Sevier Valley area, Utah, and its relationship to seismicity, <i>in</i> Gori, P.L., and Hays, W.W., eds., Assessment of regional earthquake hazards and risk along the Wasatch front, Utah: U.S. Geological Survey Professional Paper 1500, p. F1-F47.</p> <p>#4567 Callaghan, E., and Parker, R.L., 1962, Geologic map of the Sevier quadrangle, Utah: U.S. Geological Survey Geologic quadrangle Map GQ-156, scale 1:62,500.</p> <p>#4495 Cunningham, C.G., Steven, T.A., Rowley, P.D., Glassgold, L.B., and Anderson, J.J., 1983, Geologic map of the Tushar Mountains and adjoining areas, Marysvale volcanic field, Utah: U.S. Geological Survey Miscellaneous Investigations Map I-1430, scale 1:50,000.</p> <p>#642 Hecker, S., 1993, Quaternary tectonics of Utah with emphasis on earthquake-hazard characterization: Utah Geological Survey Bulletin 127, 157 p., 6 pls., scale 1:500,000.</p>

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